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ASIA PROGRAM

Woodrow Wilson International Center for Scholars

China's Economy: Retrospect and Prospect

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ABSTRACT: This Special Report highlights China's remarkable economic achievements over the past quarter century, including its enormous expansion of output, employment, productivity, exports and incomes; unprecedented progress in poverty alleviation and material well-being; and the emergence of China as a major force in global markets. It also recognizes, however, China's domestic problems in governance, banking, finance, law and the creation of institutions. Contributors to this volume do not predict a quick collapse of China's economic prosperity. Nor do they anticipate that China's long boom will extend forever, or that China is on a path to overtake the U.S. economy.

Introduction

Loren Brandt and Thomas G. Rawski

These essays, originally presented at a March 2, 2005, symposium at the Woodrow Wilson International Center for Scholars, represent the initial product of a larger project on "China's Economic Transition: Origins, Mechanisms, and Consequences." This project involves an international group of 45 researchers, who have worked for several years to prepare a comprehensive and analytical overview of China's remarkable economic gains during the long boom of the past three decades.

Three major themes emerge from the present collection of essays: China's spectacular economic gains, China's potential for continuation of rapid economic progress, and formidable obstacles with which China must engage in order to realize its ambitious economic objectives.

China's Achievements

China's long boom is a major episode in global economic history. The broad outlines of China's protracted growth require no detailed elaboration. They include enormous expansion of output, employment, productivity, exports and incomes; unprecedented progress in poverty alleviation and material well-being; and the emergence of China as a major force in global markets.

These essays highlight specific features of China's economic achievements. Lee Branstetter and Nicholas Lardy emphasize China's aggressive liberalization of trade and investment in advance of deadlines built into the agreements surrounding China's accession to the World Trade Organization (WTO). From the perspective of earlier Asian growth spurts in Japan and Korea, China has opened its economic doors to imports and overseas capital to an unprecedented degree, a strategy that seems likely to create future industrial structures that differ widely from what we see in Japan and Korea today.

Scott Rozelle and Jikun Huang show that in addition to overcoming long-standing deficiencies in feeding China's growing population, China's farm sector has achieved levels of market integration sometimes approaching U.S. standards, developed a growing array of labor-intensive export specialties, and achieved major gains in agriculture-related research, including contributions to cutting-edge innovations in biotechnology.

Our own paper on industry emphasizes the growth of China's manufacturing capabilities. The growing penetration of China-made goods into global markets reflects the

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success of Chinese firms in absorbing and gradually mastering an expanding array of technologies and manufacturing processes. This development now extends far beyond the labor-intensive sectors that dominated export gains early in the reform process. While foreign-linked firms play a central role in the transmission belts that carry international manufacturing technologies into Chinese factories, we expect domestic firms to increase their contributions to the process of technical upgrading, partly because of the knowledge they have absorbed from foreign markets and firms, and partly because of the growing importance of domestic research and development spending and the associated flows of manufacturing innovation in an increasingly competitive domestic economy.

Loren Brandt, Chang-tai Hsieh and Xiaodong Zhu highlight the important contribution of the large-scale transfer of labor out of the agricultural sector to China's economic growth, which arises from the significant gap between (higher) output per worker outside farming and (lower) labor productivity in agriculture. They find that the rate of total factor productivity (TFP) growth in the non-agricultural sector largely drives this structural transformation. Moreover, cross-provincial comparisons point to the significant drag of the state sector's size on the rate of TFP growth, and thus on the rate of labor transfer out of the farm sector. At the provincial level, there is also very strong negative association between the size of the state sector at the outset of reform and the rate of labor productivity growth in both agriculture and non-agriculture. From this perspective, "growing out of the state sector" should join "growing out of the plan"—the title of Barry Naughton's influential book—as key metrics for the progress of China's reform.

The roster of achievements extends into areas that are generally regarded as weak spots in China's economy. Donald Clarke, Peter Murrell and Susan Whiting report that China has achieved considerable progress in building a system of commercial law. Surprisingly, survey studies find that Chinese businesses make considerable use of the court system to resolve commercial disputes. Franklin Allen, Jun Qian and Meijun Qian find substantial movement toward modernization of China's financial system. They also highlight the important role of China's "hybrid" financial sector, which draws on informal mechanisms for contract enforcement discussed by Clarke et al. as well. And Yasheng Huang writes of belated, but nevertheless substantial gains toward providing institutional legitimacy and legal protection for the assets and rights of private businesses.

China's Prospects

Following nearly three decades of rapid growth, China's prospects for continued development appear bright. The economy can draw on abundant supplies of labor, human capital, entrepreneurial talent, and savings (including continued inflows of foreign direct investment). Chinese governments at all levels are strongly committed to growth. Thomas Rawski's essay enumerates important factors underpinning growth in Organization for Economic Co-operation and Development (OECD) nations and notes China's favorable endowment in each category.

Essays on globalization and industry describe the past economic benefits arising from China's deepening links to the world economy. These gains will expand with China's growing participation in cross-national manufacturing networks. In addition, relaxation of official constraints on overseas investment by Chinese firms promises to add a new dimension to China's absorption of useful knowledge as domestic firms acquire ownership stakes in overseas producers of natural resources as well as desktop computers, machine tools, cars, auto parts, and other manufactures.

Acceleration of China-based research and development efforts, reflecting the expansion of indigenous R&D operations as well as growing activity by Chinese subsidiaries of multinational firms, will contribute to the future expansion of manufacturing capabilities, technical sophistication and product quality. Rozelle and Huang's summary of Chinese advances in biotechnology illustrates the growing contribution of domestic scientific efforts in one specific area.

The learning process associated with recent growth extends beyond improvements in technology, production, management, and marketing. Chinese reform experience includes a vast accumulation of knowledge about interactions between public administration and economic growth. Despite many shortcomings of public policy (discussed below), regional and local governments in China's coastal region have succeeded in creating administrative structures that are sufficiently strong to attract and retain large inflows of offshore capital, and to encourage domestic investment. Recent infrastructure investments have upgraded domestic systems of transport and communication, effectively reducing the economic distance between China's thriving coastal regions and less ebullient interior districts. If local governments in China's central and western regions can master the art of providing business-friendly regulation, both domestic and international firms may be tempted by the lower labor and land costs available in China's inland provinces, a prospect that may be especially advantageous for producers of garments, shoes, toys, and other labor-intensive goods. Fulfillment of this prospect could equip China's economy with two separate drivers of growth and export expansion: clusters of rising mid-level industries like shipbuilding, machinery, and home appliances based along the coast, and new centers for labor-intensive manufactures in parts of China's central or western regions.

China's Challenges

Realization of China's abundant economic prospects will necessitate further reform across a broad spectrum of institutions. Our authors identify significant weaknesses that span China's financial, fiscal, investment, legal, and regulatory systems. Despite differences in the details, many sectors reflect similar stories. Energetic and imaginative reform efforts have bridged a portion of the large gap between institutional arrangements under the traditional planned economy and what is needed to support a smoothly functioning market system. In each case, our authors find that stopgap measures and unreformed institutions now in place impose large costs that seem likely to escalate in the absence of substantial new efforts to build suitable institutions.

Take the example of banking and finance. Allen, Qian and Qian trace the genuine, but limited accomplishments in broadening the base of China's banking system and financial markets. Despite these efforts, Barry Naughton shows that the dominance of China's state-owned banks has actually increased since the late 1990s, thereby raising renewed concern that China's non-performing loan problem may be worsening. The continued unwillingness of the big state-owned banks to make loans to private entrepreneurs limits the growth of private business and exacerbates China's already serious problem of unemployment.

China's courts and legal system continue to play only a limited role in enforcing business-related laws, in part because the system lacks clear guidelines for assigning jurisdiction. These shortcomings undercut the impact of the growing body of laws issued by people's congresses at various levels and obstruct efforts to build a unified legal system. Progress toward badly needed improvements in governance structures in support of accountability and transparency in China's large corporations and financial institutions seems unlikely without substantial changes in the legal infrastructure.

The fiscal system, although not discussed explicitly in these essays, fits the same mould. Recentralization has created significant imbalances in fiscal resources across China, with numerous provinces, cities and villages lacking financial capacity to undertake growth-promoting investments in human and physical capital. Recent initiatives aimed at eliminating direct taxes on agriculture will sharpen the conflict between financial resources and demands on the public purse, particularly for local governments in rural districts.

Although no single institutional weakness seems likely to halt growth, multiple institutional defects could drag China into the kind of economic lethargy that has afflicted Japan's formerly dynamic economy for over a decade. A common thread in discussions of limits to institutional

change is the constraint posed by competing objectives of incumbent power-holders in both government and Communist Party positions. Leaders often use the power to distribute economic rents (for example by ordering banks to make loans to favored clients or by allowing loyal supporters to extract resources from state enterprises) to buttress their political control. Market-supporting institutional change, with its emphasis on openness, uniform standards, and accountability, threatens both the scale and the accessibility of such rent-sharing opportunities. The resulting tug-of-war between the demands of growth-oriented reform and regime-building seem particularly acute in China's interior regions, where wealth, economic growth, and fiscal resources fall far short of what is available to richer and therefore more flexible coastal jurisdictions.

Rising inequality and unfulfilled expectations may also pose problems for the regime. Despite China's remarkable achievement in elevating literally hundreds of millions from deep poverty during the last twenty-five years, the uneven distribution of benefits from rapid growth has produced significant increases in income inequality, especially during the last decade. Despite the limitations of available data, China seems to have emerged as a leader among large developing nations in terms of unequal distribution of income and wealth.

Contrary to popular perceptions, widening inter-regional or even urban-rural differences are not the primary source of these recent increases in inequality. Instead, it is widening income gaps among populations at every level of Chinese society—within provinces, cities, and villages—that dominate the recent growth of inequality. Individual characteristics like age, education, and social capital strongly influence the capacity of individuals and households to take advantage of new opportunities. Some of the increase in inequality is a natural product of market liberalization, but policy also plays a role. For example, education policies may favor particular social groups and raise tuition and fees to prohibitive levels for others. Widespread corruption, now often linked to transactions involving land, further tilts market outcomes toward select groups within China's populace.

Economists increasingly agree that rising inequality can be detrimental for economic growth, a conclusion that probably fits China's present circumstances. Inequality brings rising pressures for redistribution, which in the Chinese context is likely to encourage increased allocation of resources through the highly inefficient state sector. China's current "Develop the West" campaign illustrates how measures aimed at accelerating development in poor regions can actually act as a drag on growth. In addition, limited income growth among large cohorts of today's population can restrict current investment in physical capital and also obstruct investments in education and health for young people whose capabilities will influence future growth prospects. Finally, rising inequality surely increases the possibility of social and political unrest.

Conclusion

China's prospects for continued rapid growth appear excellent. China's remarkable economic achievements create momentum and inspire confidence. China's capacity to absorb overseas resources and to contribute to cross-national manufacturing networks enhances its economic potential. A further advantage arises from the intense focus on economic growth visible at every level of Chinese public administration.

These advantages cannot guarantee that China's long boom of the past quarter century will extend into the future. China's large and growing dependence on global markets means that external events could damage China's economy by disrupting resource flows, obstructing market access, or slowing the growth of global demand for Chinese products. International conflict within East Asia (over Taiwan, North Korea, or offshore oil deposits) or elsewhere (particularly in the Middle East) could undercut China's economic prospects.

While globalization subjects all participating nations to the risk of destabilizing change, our authors highlight domestic obstacles to China's continued high-speed growth. Their central point is that China's reform progress, while broad and often deep, remains highly uneven. Vital institutions affecting important clusters of activity in banking, legislation, land allocation, dispute resolution, business regulation, exchange of property, corporate governance, capital markets, private business, public finance, investment decisions, and the administrative structures surrounding these

and many other segments of China's economy have experienced only limited reform. In some instances, we see little change from pre-reform patterns, the seasonality of investment spending being a case in point. Elsewhere, for instance, in macroeconomic regulation, ad hoc procedures partially bridge gaps arising from the slow advance of institution building.

Chinese economists and policy-makers are keenly aware of these difficulties. Newspapers, journals and web sites pulse with critiques, analyses of reform progress, and proposals for policy initiatives. We see dynamic administrators pushing reform efforts with fierce determination—for example eliminating nearly 90,000 state-owned enterprises between December 1998 and August 2004.

Economic history, including Chinese experience over the past three decades, is replete with instances in which growth advances despite institutional weaknesses (think of "wildcat banking" in nineteenth century American history). A mix of thoroughgoing and partial reform along with patchwork improvisation often opens the door to continued expansion. But the same historic record provides instances in which long-neglected institutional deficiencies constrict seemingly promising growth prospects. We conclude that, while appreciating China's glittering array of economic opportunities, sober onlookers should recall that Japan's painful slowdown of the past 15 years arises from a litany of institutional rigidities and shortcomings that makes familiar reading to China specialists.

Our thanks to the Woodrow Wilson Center, and to Dr. Gang Lin of the Center's Asia Program, for hosting the symposium last March that gave some of the scholars associated with our China's Economic Transition project an opportunity to share their findings with a Washington audience. We are equally pleased to have worked with the Center's Asia Program in preparing this report to reach a broader audience.

China's Embrace of Globalization

LEE BRANSTETTER AND NICHOLAS LARDY

The Move to Freer Trade Prior to WTO Accession

The Pre-Reform Trade Regime

Up through the 1970s, Chinese trade took place within the context of a planned economy. The State Planning Commission's import plan covered more than 90 percent of all imports. Its export plan was similarly comprehensive, specifying physical quantities of more than 3,000 individual commodities. Prior to 1978, a handful of foreign trade corporations owned and controlled by the Ministry of Foreign Trade were responsible for carrying out the import and export plans. In this context, neither exports nor imports were sensitive to exchange rates or relative prices.[1] Furthermore, the composition of Chinese trade appears to have diverged from Chinese comparative advantage, with capital-intensive goods, including refined petroleum products, playing a large role in Chinese exports into the early 1980s. As a consequence, the volume of Chinese trade, relative to world trade, declined sharply from 1.5 percent in 1953 to 0.6 percent in 1977.

Import tariffs on a number of commodities actually went up in the early years of the reform period. By 1982, the average statutory tariff rate was a relatively high 56 percent. This was reduced to 43 percent in 1985, but that level was maintained throughout the next seven years. Beginning in 1992, however, tariff levels fell in a series of adjustments that brought the average tariff level down by two-thirds, to roughly 15 percent on the eve of World Trade Organization (WTO) accession. In addition to tariffs, the Chinese government increasingly restricted trade by imposing import quotas and import license requirements. By the end of the 1980s China restricted nearly half of all imports through the use of licenses or quotas. However, these restrictions also were dramatically cut in the 1990s. Import commodities subject to quotas or licenses fell to 18 percent of total imports by 1992 and to 8 percent by 2001.

In addition to reducing tariff and non-tariff barriers, the Chinese government liberalized the right to engage in foreign trade. This was reflected in the rapid and substantial expansion in the number of domestic firms granted trading rights, as shown in Table 1. The initial 12 firms directly controlled by the Ministry of Foreign Trade expanded to about 800 firms by 1985. A decade later, the number of trading firms stood at 12,000. By 2001 the government had granted trading rights to 35,000 firms, including a large number of private firms. With such a large number of potential suppliers of trading services, it is likely that the market for such services had become reasonably competitive by the mid 1990s.

Table 1. Growth in Companies Authorized to Conduct Foreign Trade

Year	Number of Companies
1978	12
1985	800
1986	1200
1988	5000
1996	12000
1997	15000
1998	23000
1999	29258
2000	31000
2001	35000

Sources: Nicholas R. Lardy, *Foreign Trade and Economic Reform in China, 1978–1990* (Cambridge University Press, 1992), 39: Zhang Yan, "Access to Trade Rights Expands," *China Daily,* February 23, 2000, 5; Editorial Board of the Almanac of China's Foreign Relations and Trade, *Almanac of China's Foreign Economic Relations and Trade 1987* (Hong Kong: China Resources Advertising Co., Ltd., 1987), 48; *Almanac of China's Foreign Economic Relations and Trade (*various issues); Ministry of Foreign Trade and Economic Cooperation, *Zhongguo duiwai jingji maoyi baipishu 1999* (China's White Paper on Foreign Trade and Economic Cooperation 1999), 192; Chen Yao, "Trade with Northeast Asia Countries Bounces Back," China Daily, June 8, 2001, 4; and World Trade Organization, Draft Report of the Working Party on the Acession of China to the WTO, rev. 7 (Geneva, July 10, 2001), 21 (www.insidetrade.com [July 16, 2001]).

China's openness to imports expanded even faster than the decline in formal barriers might suggest. A major reason was the special privileges the government extended to firms involved in export processing. Initially, this legal framework provided

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various incentives for the processing of raw materials for export and the assembly of imported goods to produce finished goods for export. In 1987, the government expanded these incentives to provide for duty-free import of all raw materials, parts, and components used in the production of goods for export. This represented an extension of the right of joint ventures and wholly-owned foreign companies to import capital goods duty-free, which was established early in the reform period. As an increasingly open FDI regime brought in more foreign investment, this allowed a larger and larger fraction of China's imports to escape the formal trade barriers. Finally, in the late 1990s, the Chinese government began to exempt certain categories of domestic firms and other organizations from import duties.

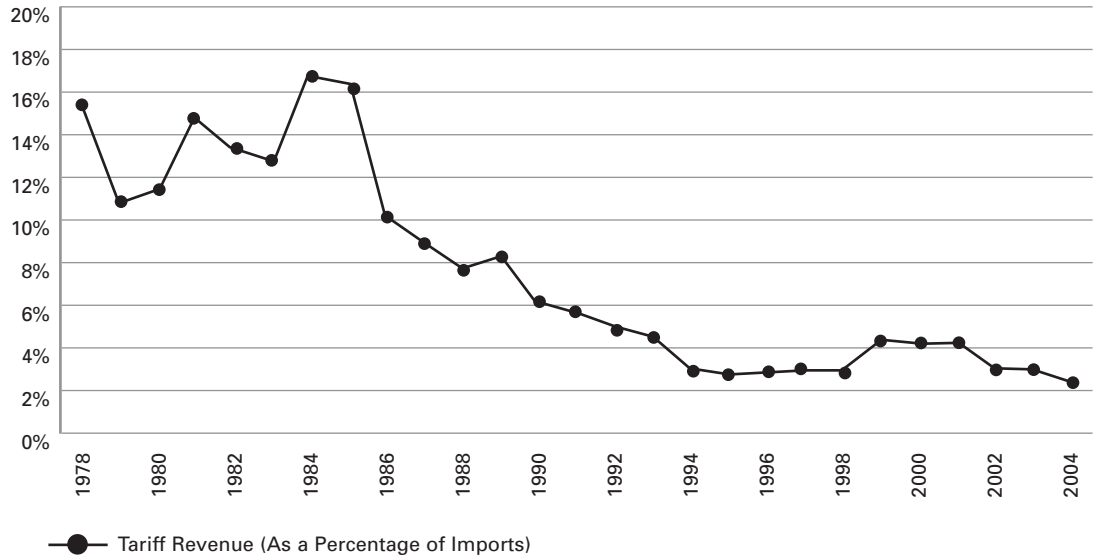
By the first half of 2000, less than 40 percent of imports were subject to any tariff. Thus, actual tariff revenues have been far lower than the average statutory rates would suggest. As shown in Figure 1, tariff revenues as a fraction of the value of imports peaked in the mid 1980s at 17 percent and fell steadily thereafter, reaching a low of less than three percent by 1994. Tariff revenues relative to the value of imports did tick upward briefly starting in 1999, apparently as a result of a crackdown on widespread smuggling. But by 2004 tariff revenues were only slightly more than two percent of the value of imports. This decline to such an extraordinarily low level reflects the combined effect of expanding foreign direct investment, the increasing importance of export processing, and the exemption of selected industries and organizations from import tariffs altogether.

Foreign Exchange Policy

The expansion of foreign trade was also abetted by changes in foreign exchange and tax policy. Prior to reform, the regime maintained an overvalued exchange rate in order to subsidize the import of capital goods that could not be produced domestically. Overvaluation led to excess demand for foreign exchange, necessitating an extensive system of rigid controls. Key elements of this control system included a 100 percent foreign exchange surrender requirement for exporters, tight limitations on the rights of individuals to hold foreign currency, and strict controls on the outflow of foreign capital.

Over the course of the reform period, all of these restrictions were relaxed. The official exchange rate was devalued in stages, from an official exchange rate of RMB 1.5 to the dollar in 1981 to 8.7 in 1994. Following a modest appreciation, the exchange rate was effectively fixed at RMB 8.3 to the dollar in 1995. The International Monetary Fund (IMF) estimates that the Chinese currency lost about 70 percent of its value against the dollar in real terms over this period, substantially enhancing the international competitiveness of China-based export operations. In addition to substantial real devaluation, Chinese exporters were allowed to retain part of their foreign exchange earnings, individuals have been allowed to hold for-

Figure 1. Tariff Revenues as a Fraction of Import Value, 1978–2004



Source: Lardy, *Integrating China in the Global Economy* (Brookings Institution Press, 2002).

eign exchange, and controls on capital outflows have been slightly relaxed.

The Opening to FDI Prior to WTO Accession

Liberalization of Foreign Direct Investment

China's policies with respect to foreign direct investment were dramatically changed in 1979. In that year a new Law on Joint Ventures was passed, providing a basic framework under which foreign firms were allowed to operate. In the same year, four "special economic zones" were established in which foreign firms were offered preferential tax and administrative treatment and given an unusually free hand in their operations.[2]

These "experiments" in attracting foreign direct investment were quite successful. In 1984, 14 additional government units, mostly municipalities on China's Pacific coast, were granted similar exemptions from taxes and administrative procedures in a bid to attract foreign direct investment (FDI). Known variously as "Open Cities" or "Export and Technology Development Zones," these new special zones were granted authority to approve investment projects at the local level for FDI projects under $30 million (a threshold later raised to $50 million). The next major regulatory change in FDI came in 1986, with the implementation of the so-called "22 Regulations." These changes represented a major liberalization which applied throughout China. "Foreign invested enterprises" were made eligible for reduced business income tax rates regardless of location, and were given increased managerial autonomy. Tight controls on the remittance of profit in foreign currencies were lifted. Finally, and most importantly, the 22 Regulations designated two categories of foreign investments as being eligible for additional special benefits—"export oriented" projects (defined as projects exporting 50 percent or more of their production value) and "technologically advanced" projects (defined as projects which upgrade domestic production capacity through the use of 'advanced' technology).

The Rise, Fall, and Rise of FDI since 1989

The next major shift in FDI in China marked not so much a regulatory shift as a change in the composition of foreign investors. FDI in China slowed briefly after the Tiananmen Incident, but the inflows resumed and quickly grew in the 1990s. Whereas FDI in China in the 1980s had been overwhelmingly dominated by Hong Kong and Taiwan-based investors seeking to exploit relatively low cost labor in the Special Economic Zones (SEZs) for export processing, in-flows diversified in the 1990s. Hong King and Taiwan-based investors continued to play a very important role, but Japanese, American, and European firms also increased their FDI into China, much of it focused on the domestic market. Figure 2 illustrates the growth over time in contracted FDI and actual foreign investment. Figure 3 shows variation over time in the number of FDI contracts approved and in the nature of the entity created. Of particular interest is the growth in wholly-owned foreign enterprises relative to equity joint ventures. Figure 4 breaks down growth in actual investment flows by the nationality of the investing country.[3]

As Figure 2 shows, contracted FDI peaked in the early 1990s and declined sharply for the rest of the decade. Since these contracts contained multi-year business plans, there is a lag between the approval of a contract and the actual investment associated with it. However, the sharp divergence in these two time series is greater than that which would be implied by a simple lag between approval and investment. In our view, the divergence hints at some problems that foreign investors in this period, particularly Western firms with little previous experience in China, encountered as they rushed to enter the market. We believe many projects approved during the FDI surge of the early 1990s were either abandoned or radically scaled down in subsequent years.

The FDI boom began when China was in the midst of an unsustainable expansion, brought on in part by rapid credit creation. Demand growth was rapidly outstripping supply, leading to a surge in inflation that peaked in 1994, when consumer prices shot up by one-fourth. Zhu Rongji, then serving as vice premier and governor of the central bank, initiated contractionary monetary and fiscal policies that reduced aggregate demand and moderated price inflation. By 1996, growth and inflation were down to more sustainable levels. Then the Asian crisis hit, leading to yet slower growth in domestic demand, a dramatic slowdown in export growth, and domestic price *deflation*. The scale and number of FDI projects approved in the early 1990s appear to have been motivated in part by an extrapolation of the (unsustainable) expansion of domestic demand observed in

Figure 2. Foreign Direct Investment in China

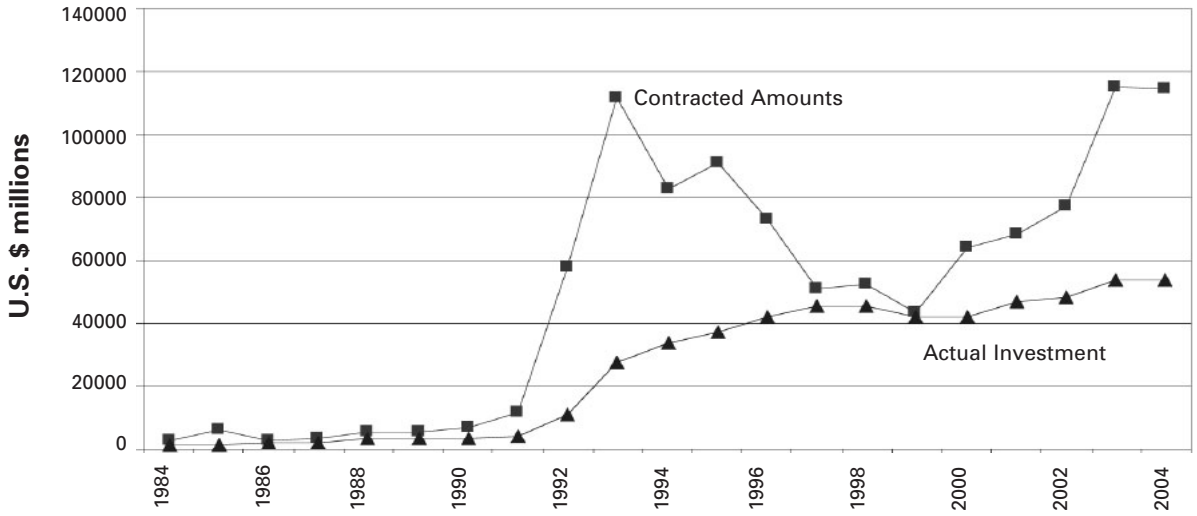


Figure 3. Counts of FDI contracts by Contractual Form

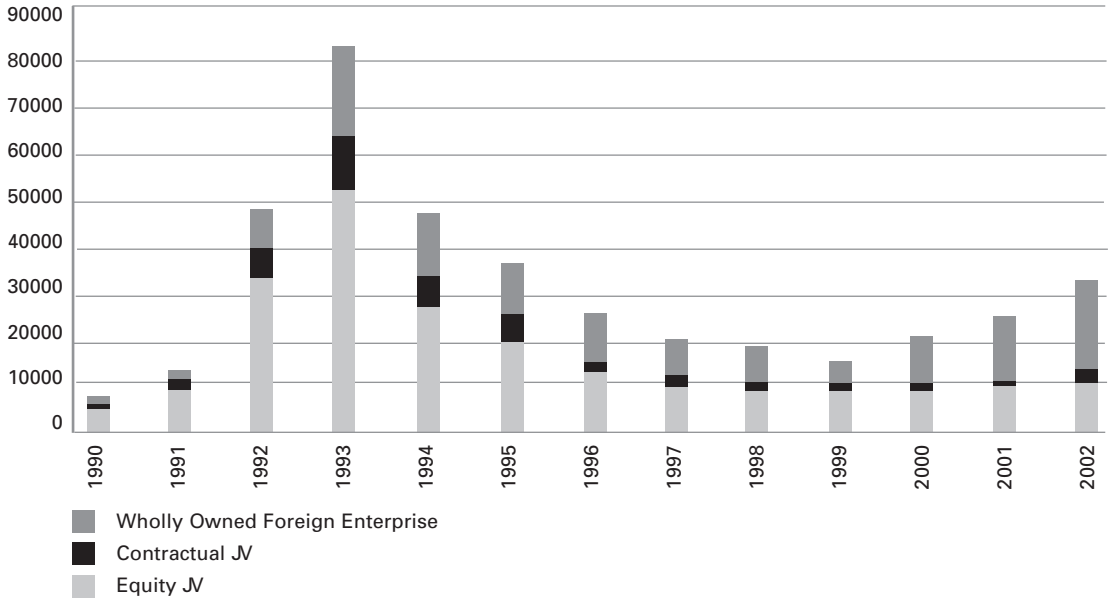
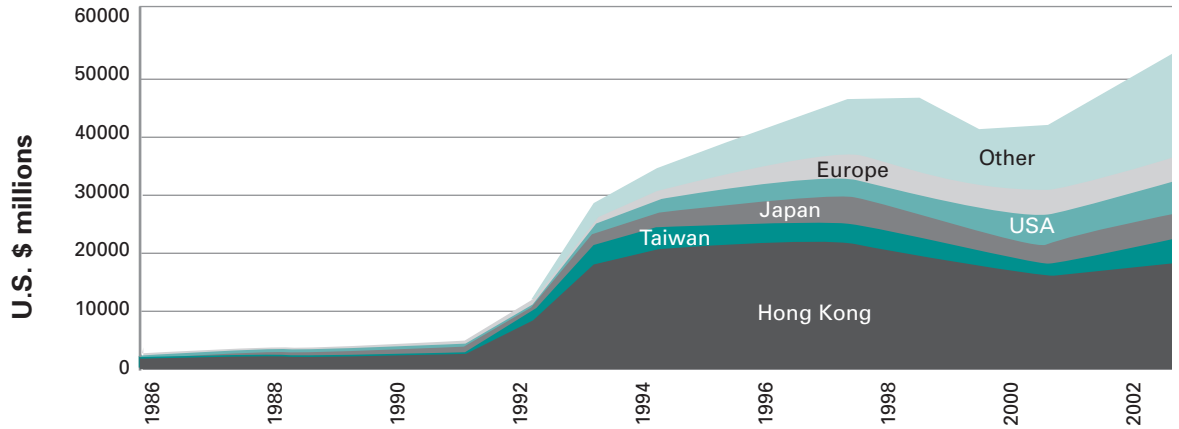


Figure 4. Inward FDI in China by Source Country



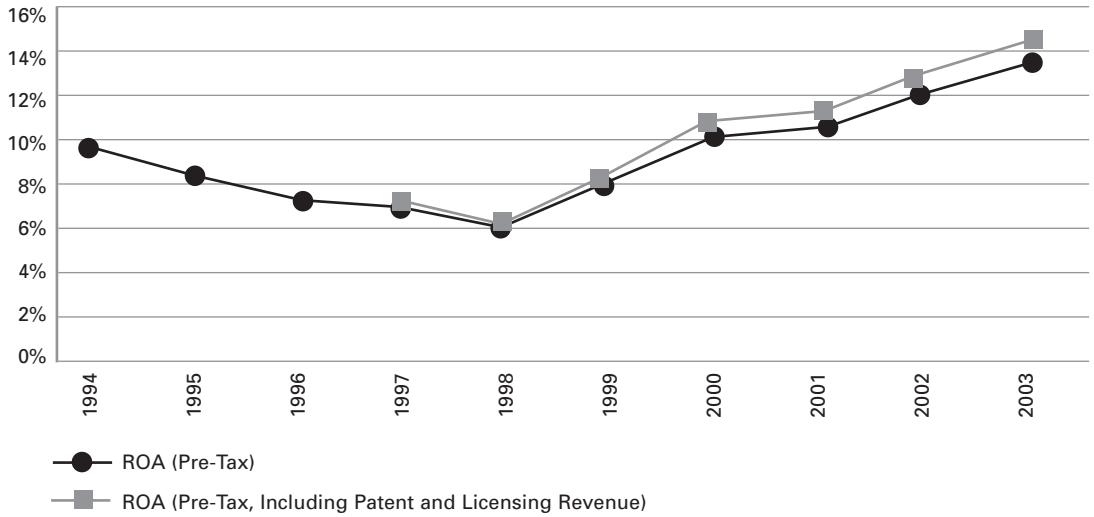
those years. Firms also appear to have been unprepared for the barriers they encountered in attempting to distribute their goods within China.

In the context of the domestic demand retrenchment that followed, it is unsurprising that many ventures proved to be spectacularly unprofitable. Most foreign firms targeting the domestic market were required to form a joint venture with a local Chinese firm, usually an SOE. The supply of well-run, effectively managed SOEs was also quite limited. In their eagerness to set up operations, many firms forged alliances with enterprises that turned out to be far less efficient, amenable to Western direction, or politically connected than they thought. The survey and interview evidence presented by Daniel Rosen suggests that many Western investors were unprepared for the cultural clashes, administrative difficulties, and operational inefficiencies created by their "forced marriages" to Chinese SOEs.[4] Figure 3 illustrates a sharp downturn in the number of contracts signed and a striking shift toward wholly owned foreign enterprises, as this option became feasible in an expanding number of industries and situations.

Even as actual FDI levels had begun to fall, reformers in the Chinese government were negotiating terms for WTO accession that dramatically expanded the freedom with which foreign firms could operate in China. Prior to the signing of the agreement, more categories of foreign invested enterprises (FIEs) were allowed to sidestep joint ventures entirely and set up wholly owned foreign enterprises. Interference in supply chain management, product development, and operations was scaled back. The final bilateral agreement with the U.S., signed in November 1999, signaled a dramatic change in the Chinese operating environment. Contracted FDI increased almost immediately, and levels of actual utilization began to follow suit, as can be seen in Figure 2.

A pickup in demand growth also spurred FDI. Chinese export growth rapidly expanded as the regional economy recovered from the effects of the East Asian crisis. While the veracity of the official gross domestic product (GDP) growth rates in the immediate aftermath of the East Asian crisis have been called into question, even the most pessimistic views suggest that Chinese GDP growth was more resilient than that of other large economies in the region, possibly inducing firms that might have invested elsewhere to focus on China.[5] The government reversed the austerity regime it had put in place in the mid 1990s after the Asia crisis, the central bank cut interest rates several times, state banks expanded their lending, and the government used a sizable fiscal stimulus to boost domestic demand. Export growth slowed sharply again in 2001, with the worldwide slowdown generated by the September 11 attacks, but rapidly rebounded in 2002. While difficult to measure with precision, estimates of the profits of foreign enterprises provided in Figure 5 appear to be consistent with this pattern as they declined steadily through 1998, and rebounded sharply thereafter.

Figure 5. Foreign-Invested Enterprise Profitability, 1994–2003



Domestic demand was rapidly expanding again by the end of 2002 as investment spending surged to high levels. The impact of more expansionary monetary and fiscal policy on the Chinese economy had been partially offset from 1998 through mid-2001 by a substantial restructuring of state-owned enterprises in the manufacturing sector. 36 million state workers, one-third of the total, lost their jobs, and hundreds of state factories were shut down. Once this period of retrenchment ended, however, the economy began growing at a pace increasingly reminiscent of the boom of the early 1990s. Even the uncertainty created by the outbreak of severe acute respiratory syndrome (SARS), a previously unknown and fatal respiratory ailment that rapidly spread throughout East Asia, failed to slow growth in 2003. By late 2003, however, the Chinese government was once again taking steps to try to limit overinvestment and excessive growth, primarily through direct administrative measures rather than higher interest rates or a revalued exchange rate. While these measures appeared to have had some success as of late 2004, the scale of expansion in lending and investment suggested that some of the progress made in scaling back non-performing loans in the late 1990s and early 2000s was likely undone in the boom of 2002–2004.[6]

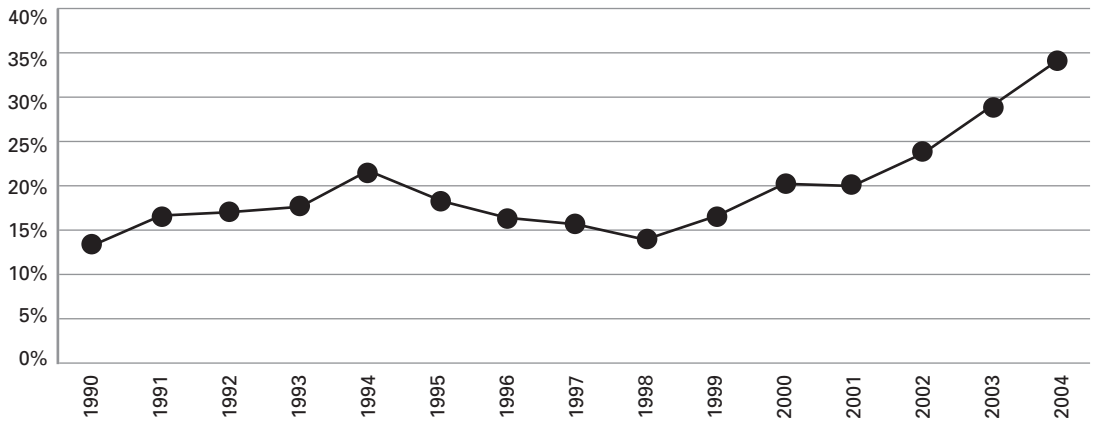
China's WTO Accession Agreement and its Implementation: A Watershed, not a Sea Change

While negotiations over China's WTO entry were ongoing in the late 1990s, a number of studies were conducted estimating the impact of WTO accession on Chinese trade, employment, and growth. Some predicted that China would incur significant restructuring costs in meeting its WTO commitments.[7] Other studies forecast fairly dramatic increases in imports as import tariffs were reduced. There was a tendency for these studies to overestimate the impact of WTO, because many were based on conditions that existed in the mid 1990s, and did not take into account the dramatic acceleration of reform in the years immediately preceding WTO entry.

As we have already stressed, China cut tariffs, broadened trading rights, and liberalized its FDI regime even prior to formal WTO accession. The Chinese government also launched a major effort to restructure state-owned manufacturing industries, engineering a dramatic decline in SOE manufacturing employment and an improvement in profitability. Steps were also taken to eliminate or reduce import price differentials prior to WTO accession. The government substantially cut the prices for wheat and corn in 1999, two years before WTO accession, driving prices toward international levels, and starting the process of moving farmers out of grain and into less land intensive crops. Steps were also taken to hasten the convergence of prices to world levels for petroleum products, transportation services, wholesale electricity, and water and natural gas. Because the structural change and price convergence the WTO-mandated liberalizations would generate were already underway prior to formal accession, the impact of WTO *per se*, has arguably been smaller than some might have predicted.

That being said, the combination of pre-WTO and post-WTO reforms is making China arguably one of the most open large developing economies. This view is supported by several metrics. First,

Figure 6. Chinese Imports as a Percentage of GDP, 1990–2004



China's import tariffs provide only a modest degree of protection for domestically produced goods. China's average bound tariff rate across all goods is 10 percent. For Argentina, Brazil, India, and Indonesia, the figures are 31.9, 31.4, 49.8 and 37.1 percent, respectively. Second, China's ratio of imports to gross domestic product, shown in Figure 6, has increased significantly over the past decade or so and stood at about one-third in 2004. By comparison, the comparable ratio for Japan is 9 percent. Third, China's FDI regime is one of the most open and welcoming of any country in the world, as reflected in China's status as the world's largest recipient of inward foreign direct investment in 2003. Not only are there few restrictions on inward investment in the manufacturing sector, China has made liberalization commitments in all of the service industries covered by the WTO General Agreement on Trade in Services. Only a handful of members come close to meeting this standard. Former U.S. Trade Representative Charlene Barshefsky described China's commitment to liberalize its distribution system as "broader actually than any World Trade Organization member has made."[8] China's commitments to liberalize financial and telecommunications services are particularly strong.

ENDNOTES

1. For more comprehensive examinations of the pre-reform trade regime and early trade and FDI reform, see Nicholas Lardy, *Foreign Trade and Economic Reform in China, 1978-1990* (Cambridge: Cambridge University Press, 1992); Nicholas Lardy, *China in the World Economy* (Washington: Institute for International Economics, 1994).
2. These SEZs included Shenzhen (across the border from Hong Kong), Zhuhai (across the border from Macau), Shantou (on the Guangdong coast facing Taiwan), and Xiamen (directly across the Taiwan Straits from Taiwan).
3. Because of official restrictions on direct Taiwanese investment in the mainland, some Taiwanese FDI gets routed through Hong Kong or through "tax haven" nations such as the Cayman Islands. Such "tax haven" jurisdictions are a prominent component of the "other nations" category shown in Figure 4.
4. Some of the operational inefficiencies were related to the "performance requirements" then in place in FIE contracts. Firms were often asked to meet targets for export of final output or localization of parts procurement than ran counter to what profit maximization would dictate. See Daniel Rosen, *Behind the Open Door: Foreign Enterprises in the Chinese Marketplace* (Washington, DC: Institute for International Economics, 1999); and Joe Studwell, *The China Dream: The Quest for the Last Great Untapped Market on Earth* (New York: Atlantic Monthly Press, 2002).
5. Thomas Rawski suggests that growth in 1998 might have been less than one-half of the officially recorded level. See Tomas Rawski, "What's Happening to Chinese GDP Statistics?" *China Economic Review*, Vol. 12, No. 4 (2001), 347–354.
6. Similarly pronounced cycles of rapid growth followed by substantial slowdown can be seen in the trade statistics and in measures of domestic investment. For one theory-based analysis of the macroeconomic instability of the reform period, see Loren Brandt and Xiaodong Zhu, "Redistribution in a Decentralized Economy: Growth and Inflation in China under Reform," *Journal of Political Economy*, Vol. 108, No. 2 (2000), 422–439.
7. One study predicted that the opening in agriculture alone would eliminate employment for 8 million wheat farmers, 30 percent of the number engaged in wheat production. Substantial reductions in employment and output were also forecast for natural rubber, plastics, and rolled steel. See Yansheng Zhang, Zhongxin Wan and Shuguang Zhang, *Measuring the Cost of Protection in China* (Washington, D.C.: Institute for International Economics, 1998).
8. Charlene Barshefsky, "U.S. Trade Policy in China," Hearings before the Senate Finance Committee on the Status of China's Application to Join the World Trade Organization, April 13, 1999, www.fnsg.com.

Rural Development in China: New Challenges in a New Landscape

SCOTT ROZELLE AND JIKUN HUANG

China's future rural development faces two fundamental and inter-dependent tasks. *First*, rural development requires changes in governance. Rural China needs a new framework for managing fiscal and other governmental matters to suit the modernizing and increasingly market-oriented economy. Leaders must instill a new ethic into local government; officials must become facilitators of economic growth and equity rather than direct actors. Reformers also need to encourage new partnerships with rural citizen organizations such as Farmer Professional Associations that can contribute to the development process and assist vulnerable groups. *Second*, a concentrated effort is still needed to improve the resource base of the rural economy. Despite the great progress of the past 50 years, many parts of the agricultural sector remain underdeveloped. There are 50 million more farmers in China than at the beginning of reform. Farms are fragmented, small and getting smaller. Other resources—water and forests—are just as scarce. Farm prices, at least for certain commodities, will almost certainly fall as the nation implements its World Trade Organization (WTO) commitments. In such an environment the state and its partners have much to do to help farmers increase their resource base. China's most abundant resource, its rural population, lacks adequate human capital. Land, water and forests also require large investments and new institutional arrangements to increase productivity and raise household incomes. Millions of people remain at or under the poverty line; most are poor farmers in remote, mountainous areas of China's western provinces.

Rural Development Priorities

While rural development has many components, we restrict our attention to three broad issues: (a) the nature of China's new economic landscape and measures to enhance it, (b) reforms that are needed to improve rural government and its partnerships with the rural population, and (c) investments that can improve China's resources, including labor, land, capital, water, forests and the environment of the poor.

Enhancing China's New Landscape

China's rural economy stands on the brink of a new era. Reform has engineered a broad transition from plan to market, with most inputs in China's rural economy now under the control of farm households. The government can contribute to further development by redefining key food policy priorities, fostering markets, completing grain marketing reforms, and continuing to integrate China into international markets.

Changing Priorities on Food Security. With such a large population and limited resources, China's leaders have always placed a high priority on food security. Since 1983 China has been a net food exporter. Even if the nation completely liberalized all trade (which is beyond its current trade commitments), by 2020 rice and wheat will still be almost fully produced in China. Although the nation will be a net importer of maize and soybeans, by 2020 the export of vegetables, fruits and livestock and aquatic products will grow faster. Given this strength, future policy should focus on raising rural incomes rather than maintaining grain self sufficiency. The recent policies to promote crop diversification are appropriate—as long as the planting decisions are made by the households themselves. Artificial restrictions on grain imports are no longer needed. Protectionist measures not only create international tensions, but also cause inefficiencies and stifle structural change. Self sufficiency policies also slow down exports of labor-intensive, higher-valued products and reduce rural incomes. Policy attention by China's leaders to keep its border open to imports, however, also need to be matched by efforts to keep the markets of

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other nations open to China's agricultural exports.

China also could redirect attention from national food security toward measures that promote *household food security* among China's poor. In fact, it is arguable that China's main food problem is that the poor are not always able to provide their family members with enough nutrition, health and education. Since the problems are essentially those targeted by China's poverty alleviation program, the current investment policies in poor areas that increase the productivity of the resource base and encourages diversification also will have the secondary effect of improving household food security.

Fostering Domestic Food Markets. Liberalization of domestic markets over the past 20 years has delivered remarkable benefits. The cost of shipping goods across China has fallen dramatically. The cost of shipping maize, rice and soybeans across the northeastern region or down the Yangtze River is about equal to the cost of shipping grain down the Mississippi River in the United States. Markets also have integrated rapidly. Table 1 shows that by 2002, prices between almost all pairs of markets across China–even those as distant from one another as Xian and Guangzhou or Heilongjiang and Shanghai–move consistently together for all major crops. Part of the improvement in domestic market integration is due to the construction of roads and improved communications. The improvements in China's market also are from rising competition; since the mid 1990s, thousands of private traders have entered the commodity markets and arbitrage away price differences between regions.

Table 1. Integration in China's Markets (percent of market pairs that have integrated prices series)

	1991–92	1997–00	2001–2003
Corn	46	93	100
Soybean	56	95	98

Against this background of well-functioning domestic output markets, experimentation with new grain policies is vital. Such reforms should observe principles derived from international experience. While limited payments to farmers may make sense to facilitate structural adjustment, farmers quickly come to view such payments as entitlements that then become difficult to eliminate. It is therefore preferable to channel newly available resources into public goods, especially because China's agricultural policies are among the least distorted in the world. This absence of distortions represents a valuable asset that deserves careful preservation.

Any direct payments to farmers should have clearly specified time limits; payments should be delinked from production decisions, with targeting based on easily observable indicators (e.g., county-level cropping patterns and yields). The entire process should be highly publicized, simple and use easy-to-observe criteria to ensure that funds actually reach their intended recipients.

Deepening Integration Across the Border. Despite concerns about the impact of an increasingly open economy on China's farmers, implementing China's WTO agreement have created many benefits with only minimal negative impact.[1] Workers gain access to employment. Consumers benefit from lower prices. All producers benefit from lower fertilizer prices. Producers of rice, most vegetables and fruits, many livestock and aquatic products and other higher-valued, labor-intensive goods also benefit as WTO entry leads to higher exports. While producers of barley, soybean and other edible oils were hurt by liberalization during the 1990s, most of the fall in the prices of these commodities had already taken place prior to the WTO agreement, so the agreement itself had little impact. Only maize, cotton and wheat farmers are adversely affected. However, because most farmers are highly diversified and are able to change products if prices fall, the overall cost is small. The only groups that need support are *poor* maize, cotton and wheat producers in the central and western parts of the nation. According to Chinese estimates, however, the annual loss due to WTO to these most vulnerable households only averages about RMB50 per household. A policy that compensates such households by RMB50 per year for the first several years after WTO (through direct payments or reduced tuition and school fees) have offset the negative consequences of WTO accession without introducing costly economic distortions.

Taking full advantage of opportunities linked to WTO accession requires complementary policy efforts. Chief among these is to allow farmers to have access to the lowest priced and most productive inputs and technologies from inside or outside China. The WTO agreement challenges China's farmers with competition in output markets from

producers in the rest of the world. To compete, farmers need to have access to the same low-cost inputs and same high-quality technologies. There are many restrictions keeping seeds and other inputs from moving around the country. There also are barriers against the importation of inputs and technologies or investment by foreign technology firms. These should be sharply reduced and eventually eliminated in order to improve the income of farm households. According to international experience the entry of foreign seed and technology firms into the country could lead to both more competition and better transfer of technology.

Restructuring Rural Government and Partnerships

Reform of public administration can contribute to rural development. While there are many measures that are needed, in this brief we limit our comments to discussions on rural fiscal reforms and policies that will promote the expansion of China's emerging farmer association movement.

Rural Fiscal Policy. The conduct of public finance is arguably one of China's biggest problems. The present fiscal system rests on a design that does not fit today's circumstances. The system also generates inadequate revenues and their poor redistribution, and fails to provide enough public goods. There are problems with expenditure and revenue mandates at the sub-national level and with the implementation of government transfers. Insufficient provision of public goods and services for the rural economy reflects the larger problems afflicting inter-government finance in China, a subject that lies outside the scope of this brief overview.

Role of the State and Rural Partnerships. Reform has shifted government activity in China's rural economy toward indirect rather than direct participation. Further progress in this direction seems likely to include a comprehensive rethinking of government's role at each level of administration as well as specific measures to improve the provision of public goods, to overcome market failure, and to provide useful services that the private sector is unlikely to find profitable.

Recent issues surrounding anti-poverty initiatives illustrate government's new role in creating, implementing and coordinating policies that involve conflicting goals. Efforts to encourage poor households to raise goats and sheep in ecologically unsuitable areas resulted in serious environmental damage. Some sub-national governments have taken drastic but effective measures to manage natural resources while still helping the poor, but others need better guidance.

In a modern society in which markets dominate the flow of commodities and private individuals or enterprises control most assets and information, effective development requires close partnership between state agencies and non-government organizations. International experience underlines the potential benefits of developing truly independent Farmer Professional Associations (FPA) as well as other information networks, business support groups, marketing systems and credit cooperatives. Today such institutions are still weak in China. While there are more than 60,000 farmer associations, their membership accounts for only about 2–3 percent of all farmers; the structure of these associations remains ill-defined.

Although the impetus to meet and act as a group must come from the farmers themselves, the government can contribute by creating a supportive environment. The expansion of farm-related organizations and agencies can benefit from laws and regulations that support the creation of FPAs. Above all measures are needed to clarify the legal status of these groups and allow FPAs to enter into contracts. International experience shows that even with a favorable legal and regulatory framework, an independent catalyst is often needed to get FPA started, to spark FPA expansion and to improve performance. China needs rural non-government catalysts that respond first and foremost to the needs of farmers and farmer groups.

Investing in Rural China's Resources

Improving the productivity of resources can directly improve the welfare of rural residents by raising their incomes and making them less vulnerable to risk. Having a better resource base also will provide farmers with the means for making major decisions to move off the farm, migrate to the city or to make productive investments.

Raising Productivity on the Farm. China's research system has increased productivity for major staple crops at more than two percent annually during the reform era, with more than 60 percent of this increase coming from new technology. These R&D efforts have already delivered substantial results: productivity in cotton-growing, for example, has risen by nearly

25 percent along with reduced use of pesticides, which has simultaneously improved farmers' health.

Despite these and other successes, China's system of agricultural research faces great challenges. Research work, almost totally publicly funded, has always focused primarily on the major staple grain crops, which receive over 80 percent of agricultural research funds. Growing fiscal pressures have made sub-national governments (the chief sponsors of agricultural research—a feature that is unique to China) increasingly reluctant to invest in research and extension work. As a result, China still invests less than 0.5 percent of agricultural gross domestic product (GDP) in R&D, a level far below other countries.

Given the small size of China's farms and intensity of post-WTO competition, China needs to stay at the forefront of technological development in order to raise farmer incomes. This means a sharp increase in spending on agricultural technology to at least one percent of agricultural GDP (note that the United States, Canada and Australia, each devotes two to four percent of agricultural portion of GDP to farm-related research). While reserving funds for research designed to benefit farmers in poor areas, to transfer some research tasks to the private sector (a common international practice) can improve results by taking advantage of the ideas, capital and entrepreneurship of individuals and businesses. Such transfers, for example, in developing hybrid maize and horticultural crops, can help to support the emergence of private research and seed firms.

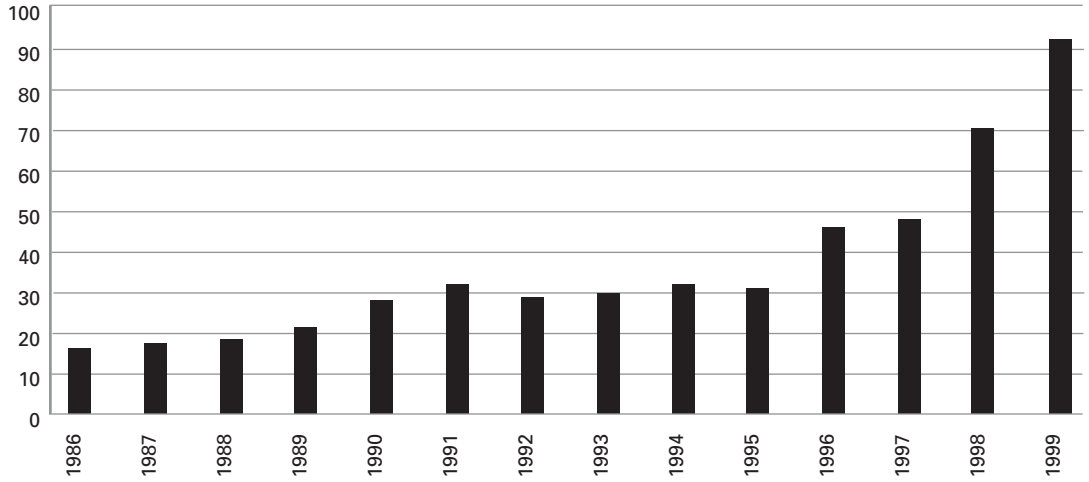
China ranks among the global leaders in agricultural biotechnology. In the late 1990s China invested more in agricultural biotechnology research than all other developing countries combined. Its public spending on agricultural biotechnology was second only to the United States. Figure 1 summarizes China's steeply rising R&D outlays on plant biotechnology. The outlay for 2003 (not shown) topped US$ 300 million.

While such investments have created a great deal of potential, the gains need to be realized. Allowing scientists to commercialize the results of their research, for instance the recently-developed varieties of *indica* rice and wheat, can deliver large increases in both productivity and farmers' health.

Recent research shows that Chinese consumers welcome new technologies; their opinions more closely resemble those of U.S. consumers, who readily accept scientifically-modified food items, than those of (more critical) European consumers. The promotion of new bio-technologies, however, delivers highest returns when products are channeled through an effective bio-safety system that allows commercialization only when they are safe, and keeps unapproved products off the markets. As in the case of cotton, China has benefited greatly from the participation of foreign firms, and farmers have gained high returns from using imported technology.

Preparing Labor for Migration Out of Rural Areas. Development involves more than making the farming sector more productive. Access to off-farm jobs is the conduit through which population shifts from rural to urban occupations and from agriculture to

Figure 1. China Plant Biotech Research Expenditure (million yuan in 1999 prices, 22 institutes)



industry and services. Although China has been late in starting this demographic transition, recent years have witnessed a rapid acceleration of labor flows. The erosion of barriers to labor mobility in both rural and urban areas beginning in the mid 1990s started an unprecedented, and perhaps irreversible, flow of labor to the cities. Despite the macroeconomic conditions of the late 1990s, the surge in off-farm employment accelerated after 1995. By now, almost 80 percent of rural households have at least one member in the off-farm sector.

Table 2 shows how current labor flows differ from those in the past. For the first time rural workers show signs of specialization. Young workers—both men and women—are much less likely to work on the farm than older workers. In 2000, more than 75 percent of men and women between 16 and 25 worked in the off-farm sector, almost double the rate in 1990. Almost all of them live away from home. Unlike their counterparts a decade ago that mostly lived at home while working in local enterprises, most young workers are moving increasingly far from home. Perhaps most important, many of the young people that work in off-farm jobs have never farmed. Firms with migrant workers have much higher efficiency and exporting firms employ a higher proportion of such workers than firms producing for the domestic market. Employment off the farm is the main way that rural residents increase their incomes and that attenuate inequality among regions and sectors. It is one of the most important determinants of poverty alleviation.

Table 2. Percent of Rural Work Force Off Farm by Age Range, 1990 and 2000

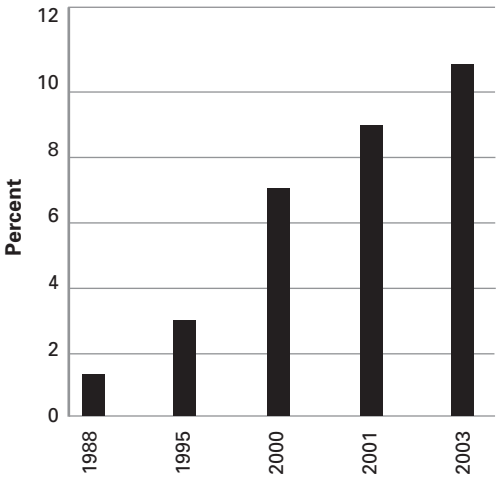
Age Range	1990	2000
16–20	23.7	75.8
21–25	33.6	67.2
26–30	28.8	52.5
31–35	26.9	47.6
36–40	20.5	43.3
41–50	20.8	37.6

Despite these rapid changes, the exodus of workers from farming has just begun and many barriers remain. Because the ability to find a job off the farm is inextricably tied up with human capital, investment in education and health can facilitate off-farm employment. The beneficiaries of human capital investments are those outside the immediate rural community (i.e., the factory owners in industry and consumers of services in urban areas). International experience shows that the central government must take responsibility for investment in rural education and health. In recent decades, however, rural education and health in China have been left mostly on the shoulders of local governments and the poor households. Complementary policies in both the rural and urban sectors can encourage the rise of off-farm employment and contribute to the increase in productivity that occurs when rural residents move to urban areas. Examples include investment in rural health, policies that encourage the expansion of rural industries, the relaxation of employment regulations in urban industries, and easier access to urban housing, education and social services.

Encouraging Land Rental Markets. Secure property rights and well functioning land markets are important catalysts for growth because they make investment worthwhile and facilitate transfers of land to the most efficient users. Government actions over the past decade and the new Rural Land Contracting Law have improved the security of land tenure to the point that poor tenure security now has only minor effects on agricultural investment or production efficiency. Despite the progress, implementation and enforcement in some regions still remain problematic. A large part of the problem exists due to insufficient dissemination of information about salient clauses that affect farmer rights.

The rights environment, however, has improved enough in recent years to positively affect the rental market for cultivated land. Figure 2 illustrates the considerable expansion of rental markets for farmland at the national level. Zhejiang is a leader in this field, with nearly 30 percent of farmland now transacted in rental markets. Such an expansion is important as it allows those families that have not begun to focus their livelihood strategies on cities to increase access to land resources and improve their income. The payoff for effective measures to implement the new Rural Land Contracting Law and to improve existing mechanisms for land registration will be very large, because progress in these areas will allow migrant households to rent their land out, and enable those who remain in the villages to gain access to additional land in order to raise their incomes from farming. International

Figure 2. Land Rented-In



experience shows that land registration can stimulate rental market activity and also encourage banks to accept land as collateral for loans. Land registration protects farmers by improving transparency in land transactions. Uniform certification across large regions can broaden the market and raise the benefits of land registration.

Experimenting with Rural Finance. The development of rural finance from the currently low levels represents another pressing issue. The effective implementation of many other policies (e.g., to promote migration) and investments (e.g., to encourage the dissemination of new technologies) rely on an effective rural financial system.

Water, Forest and Grasslands Management: Water shortages pose a serious barrier to growth, limit efforts to alleviate poverty, and create a major environmental problem. Past efforts have not resolved water shortages because, for the most part, they are not capable of increasing future supplies and have not lowered water consumption. Even with "south to north transfer projects," there will still not be enough water to support continued consumption at current levels.

These circumstances call for new and more ambitious water policies that can reduce water consumption. *First*, water savings in irrigated agriculture need to focus on reducing the water consumed per unit of crop production. This requires the integration of improvements in irrigation technology, agronomic practices, and farm water management. *Second*, water management agencies need more authority to make and enforce difficult choices. *Third*, a system that endows local residents with rights for *both* surface and ground water can contribute to outcomes that achieve true water savings while avoiding inequitable outcomes. *Fourth*, establishing a system of water rights will facilitate efforts to begin the investments and management shifts that will allow for volumetric pricing and regulation of water. *Finally*, with the institutions and facilities in place to implement a system of water rights and charge for water volumetrically, the nation can begin to raise water prices, promote genuine water saving technologies such as reduced-irrigation cultivation practices for wheat, and reform management institutions in order to achieve more appropriate cropping patterns and sustainable levels of cropping intensity as well as municipal and industrial consumption of water.

China has implemented two programs to improve the environment in the middle and upper reaches of China's main river basins. The National Forest Protection Plan (NFPP) banned logging in many areas. The Slope Land Conversion Program (SLCP) pays farmers in cash and grain for converting millions of hectares of fragile and erosion-prone cultivated land into forests and grassland. These programs are very generous, with average payments per hectare (in purchasing power parity or PPP terms) more than 10 times the amount paid to farmers in the U.S. Conservation Land Retirement Program. Current policies appear effective, but only as long as farmers continue to receive compensation that offsets their lost earnings at least. If payments cease, rural households seem likely to resume cultivation of the slope lands. Along with continuation of initiatives to protect fragile forests and hillsides and to provide farmers with suitable technologies, environmental agencies should work to formulate a comprehensive strategy for developing China's pastoral areas.

Policy Priorities for Rural Development

This review has focused on illustrating the great progress that China's rural economy has made in recent years. Despite the progress, however, large challenges remain. The government needs to play a key role in several policy areas that will influence the future path of China's rural economy. Strong and innovative policy efforts in these arenas can enhance rural development, help restructure government and

create new partners to share the responsibilities for development, and improve the productivity of rural China's resource base. We see the following as key policy issues that deserve top priority for the efforts of policy-makers to guide China's rural economy and for researchers seeking to evaluate the outcome of such efforts: getting the fiscal and financial systems right; continuing market liberalization; opening up China's markets to private-sector investments in seed and agricultural technology; encouraging truly independent Farmer Professional Associations; raising allocations for R&D to at least one percent of agricultural gross domestic product; and promoting education and labor movement to encourage off farm employment.

ENDNOTE

1. China has promoted international trade, reducing average tariff rates, removing licensing requirements for many commodities, reducing the role of state trading and allowing thousands of enterprises to engage in the import and export of most goods. For example, average tariffs fell from more than 50 percent in 1991 to around 20 percent by the end of the 1990s. During this time, the total value of China's agricultural trade expanded by about six percent annually with agricultural exports outgrowing imports.

Chinese Industry After 25 Years of Reform

LOREN BRANDT AND THOMAS G. RAWSKI

Beginning with the start of reform in the late 1970s, China's industry has recorded impressive growth of output, labor productivity, and exports as well as dramatic upgrading of the quality and variety of output. These gains have occurred in spite of difficulties arising from lethargic state enterprises, weak corporate governance, excessive official intervention, corruption, and weak financial institutions.

We see globalization and intensified domestic competition as the driving forces behind this steady accumulation of manufacturing capabilities. The impact of China's growing interaction with global markets is widely understood. China has gradually opened its economy to trade and investment. Unlike Japan and Korea during their rapid growth phases, few sectors of Chinese industry escape the direct impact of international market pressures.

Exports provide the clearest evidence of progress. At the start of reform, most Chinese manufactures could not fulfill customer requirements in middle- or high-income nations. Today, the competitive strength of Chinese manufactures is a topic of worldwide discussion. While foreign investment has contributed to the growing quality and range of China's manufactures, recent industrial development reflects a broad and deep expansion of Chinese production and management capabilities.

Domestic competition is more controversial. Information from provincial input-output tables and other sources leads some authors to describe China's economy as deeply segmented, with local protectionism imposing stringent limits on domestic trade.[1] However, recent surveys show trade barriers in decline.[2] Along with official policy efforts, national advertising and massive improvements in transport and communication have undermined barriers to commerce.

The consequences of increasing market liberalization and competition from both domestic rivals and imports act through multiple channels.[3] These forces typically result in falling prices and increasing concentration as weak firms exit and stronger enterprises expand their market share. Where the returns to investment in product quality and productivity are high, and "economies of scope" permit capable firms to capture market share, we expect higher R&D spending to add to the upward momentum of market concentration. As competition intensifies, market turbulence is likely to produce considerable turnover in industry leadership and in the ranking of firms.

Table 1. The Scale of Beer Producers in China (1994–2000)

		1994	1995	1996	1997	1998	1999	2000
Number of Firms		655	656	589	550	495	474	495
Average Size (1000 tons)		21.6	25.1	30.6	34.3	40.2	44.3	45.1
Above 200,000 tons	Number	3	7	8	13	18	19	20
	Share (%)	**5.4**	**12.1**	**14.5**	**21.4**	**31.3**	**35.2**	**41.8**
100,000 – 200,000 tons	Number	21	23	28	28	26	25	26
	Share (%)	19.9	18.6	21.8	20.9	17.1	17.1	16.7
50,000 – 100,000 tons	Number	36	44	47	57	60	62	60
	Share (%)	16.6	19.1	18.2	20.1	21.2	21.1	18.9
Below 50,000 tons	Number	595	552	206	452	391	368	389
	Share (%)	**58.1**	**50.2**	**45.5**	**37.6**	**30.4**	**26.6**	**22.6**

Source: *Zhongguo qinggongye nianjian* [China Light Industry Yearbook], 1995–2001.

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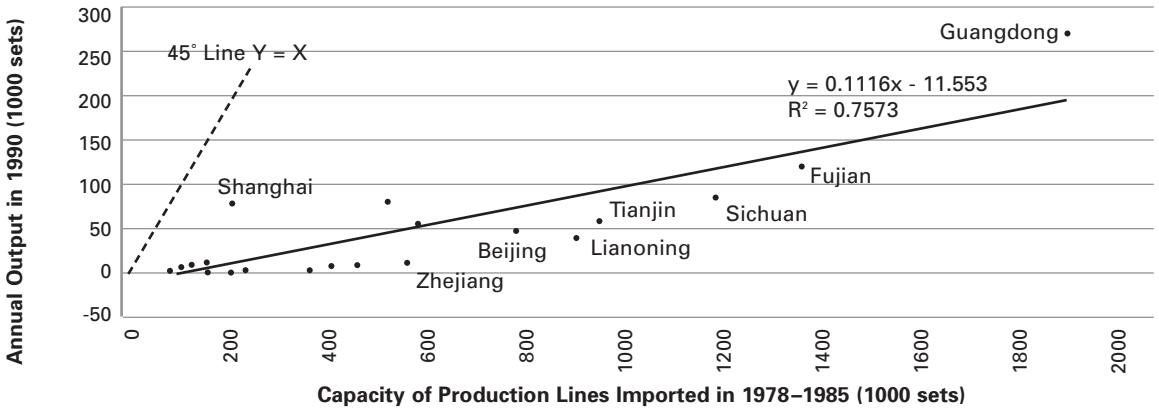
These elements figure prominently in the evolution of individual Chinese industries during the last twenty-five years. In old industries like beer, for example, local breweries have crumbled before the onslaught of large firms (see Table 1), while in new industries like television, there has been a combination of increasing concentration and massive leadership shifts during the past decade, as newly dominant firms eclipsed first Nanjing Panda and now Sichuan's Changhong.

Television manufacture also illustrates how Chinese experience replicates classic market-economy development patterns for new industries.[4] An initial rush to enter this new sector—by 1990 there were over 100 TV manufacturers in China—led to a painful interlude of high costs, excess capacity, and financial distress. Figure 1 shows that 1990 output of color TV sets lagged far behind the capacity of production lines installed during 1978–1985 in every province.

During the ensuing decade, we observe considerable shakeout. The number of manufacturers declines considerably, while several of the sickly start-ups portrayed in Figure 1 metamorphose into global export leaders amidst sweeping industry-wide consolidation. This is evident in Figure 2, which shows output of color TVs in 2000 in provinces with the leading firms in industry, i.e., Guangdong (TCL and Konka) and Sichuan (Changhong), well in excess of earlier capacity.

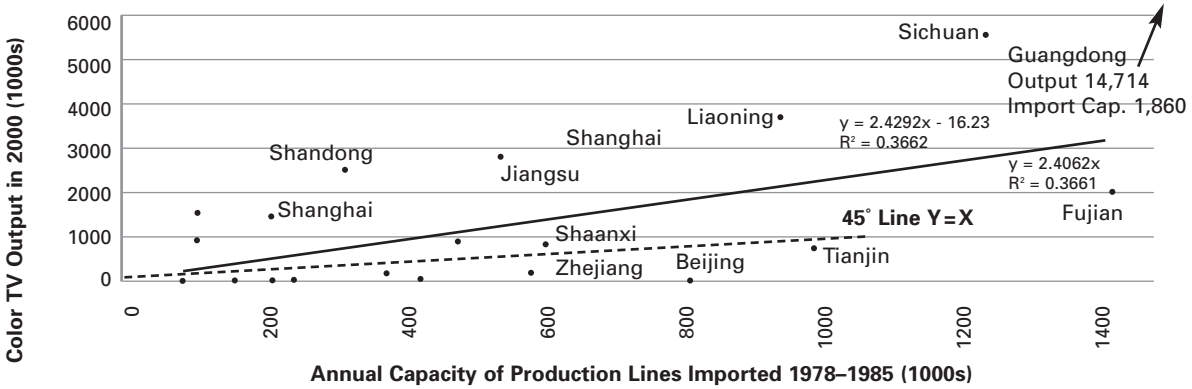
Figure 3 shows a classic "product cycle" pattern —initial imports followed by a steep rise in exports that rocketed Chinese producers into a prominent position among global exporters of televisions. The equally abrupt decline in the ratio of imported components to export sales reflects new domestic

Figure 1. China: Investment and Production of Color Televisions By Province (1), 1978–1990



Source: Authors' file Tvbyprov.042605.

Figure 2. China: Investment and Production of Color Televisions By Province (2), 1978–2000 Omitting Guangdong



capacity to manufacture key components formerly procured from abroad.

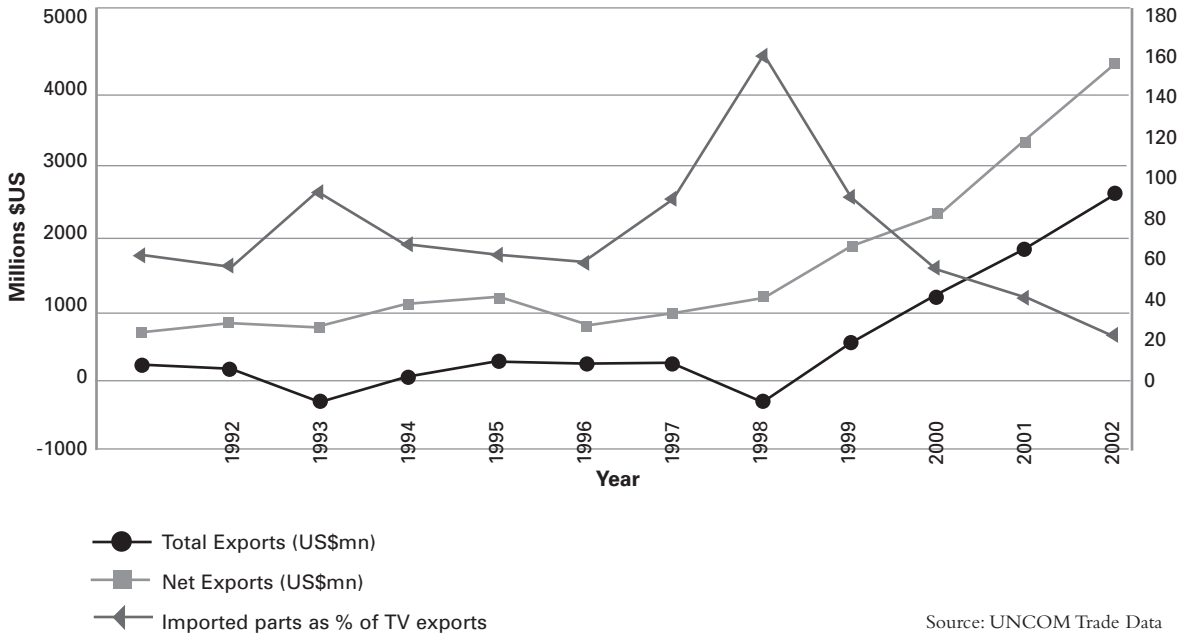
Top firms in some leading sectors already approach world-class performance, while others lag far behind. Auto parts illustrate both outcomes. When the new wave of international carmakers established factories in China during the 1990s, official regulations required local sourcing of 70 percent of all components. With international suppliers to the global auto majors following their big clients into the People's Republic, the top tier of component suppliers quickly evolved into a mix of international and domestic firms. The combination of extensive foreign penetration and explicit, widely publicized standards led to a steep rise in product quality and productivity among first-tier suppliers who sell directly to First Auto Works, Shanghai-GM and other leading auto assemblers. In 2004, local sourcing exceeds 90 percent.

Field research carried out in 2003/2004 documents some of the improvement in product quality and productivity. Domestic firms already match global norms for labor productivity in the assembly of auto seats. In the case of exhaust systems, a considerable gap in labor productivity remains. However, the productivity gap is substantially smaller than the wage differential between China and high-income countries.

Figures 4 and 5 show both the achievements and the shortcomings of quality control in China's auto parts sector. Figure 4, which tabulates defect rates for 100 first-tier component suppliers to a major carmaker's Chinese operations, shows that over half of these component makers had achieved defect rates below 100 parts per million (ppm), the international best practice standard for the global auto industry. This impressive outcome, however, pertains only to the top-tier of suppliers. Moving one rung down the ladder of component makers, Figure 5 shows very high defect rates for components delivered to a typical first tier supplier: here the defect rate is measured as a percentage, rather than 'parts per million'. First tier suppliers, typically mid-size firms, are reluctant to invest in training their own suppliers. They are more willing than the carmakers to tolerate a higher level of product defects in return for a lower price from their own ('second tier') suppliers. The result is a much slower rate of capability building—a pattern seen also in the United States, Japan and Europe, though in the Chinese case the gap between first and second tier suppliers is particularly wide.

Generalized expertise in supply chain management is a key determinant of performance across the general run of manufacturing industries. The development of tightly organized and well-managed supply chains in some segments of the automotive

Figure 3. China's Trade in TVs and Components 1992–2003 (US$ million, left scale) and percent



Source: UNCOM Trade Data

industry stands in stark contrast with the extreme vertical integration observed under China's pre-reform plan system and with continuing weak supply chain management in many domestic industries.

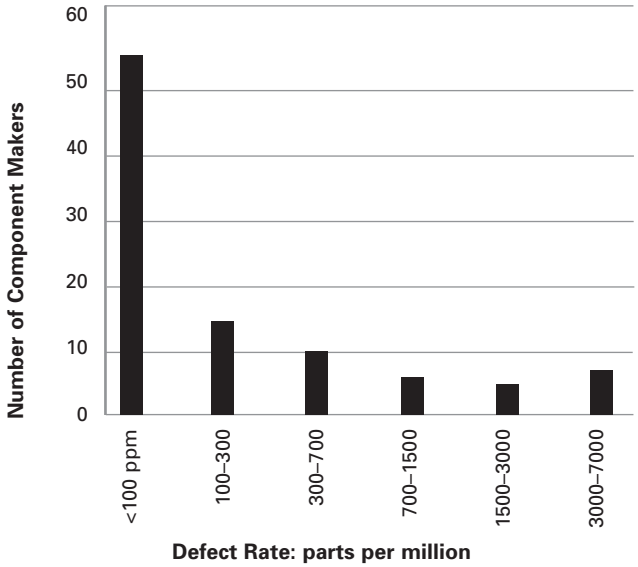
Reform has raised both capabilities and wages. Interconnected upward shifts in capabilities and wages generate a continuing transformation of China's export mix from "unskilled labor-intensive" to "skilled labor-intensive" and capital- and technology-intensive sectors. It is easy to exaggerate the contribution of low-cost labor to Chinese growth. To be sure, the initial wave of incoming foreign investment, much of it from Hong Kong, and to a lesser extent, Taiwan, reflected foreign producers' efforts to replicate low-wage environments previously available in Taiwan and Hong Kong. While makers of garments, toys and many other products continue to employ millions of migrant workers in plants built around labor-intensive processes, foreign investment is now well into a second stage, in which it is no longer low wages alone, but rather China's unique combination of rising capabilities and moderate labor costs that motivates FDI decisions.

In Figure 6, we use information on the R&D content of U.S. manufacturing industries from a unique 1977 survey to calculate the annual "R&D intensity" of China's manufactured exports during the period 1987–2003. The procedure is far from perfect. Some exports fall outside the available R&D categories. Imported components often enhance the technology component of Chinese exports, as Chinese workers install hard disks from Singapore and microchips from Taiwan or Korea in electronic goods destined for overseas markets. Nonetheless, both the summary figures compiled in Figure 6 and more detailed breakdowns (not shown) reveal a distinct shift toward export sectors with increasing degrees of capital- and knowledge intensity as well as a gradual erosion of the large but declining export share of labor-intensive products.

The extreme diversity among China's disparate regions adds a geographic dimension to the process of capability building. Foreign investment, industrial exports, and expansion of manufacturing capability all cluster in China's dynamic coastal areas. As these regions expand their manufacturing capabilities, rising wages and land costs compel earlier cohorts of labor-intensive manufacturers to depart from these leading areas,[5] as occurred previously in Taiwan and Hong Kong. If China's interior provinces can provide a hospitable investment climate to complement massive new investments in airports, roads and telecommunications, firms and industries forced to depart from coastal locations may find new homes in central and western China rather than moving overseas.

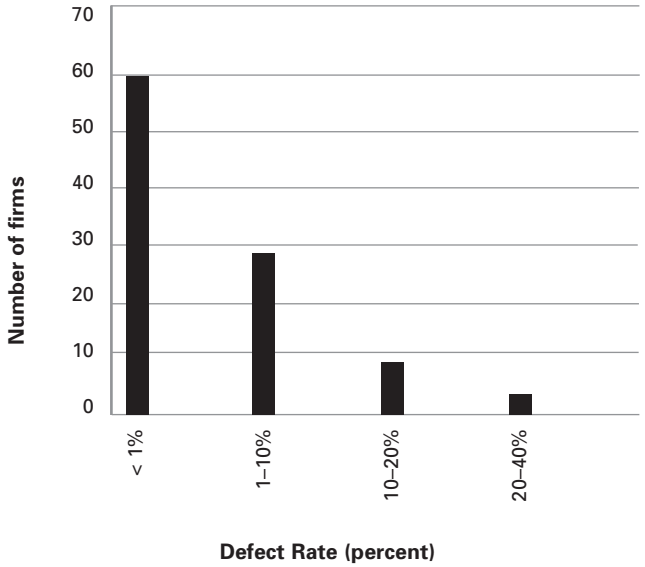
Foreign technology, imported capital goods, and cooperation with multinational enterprises occupy prominent roles in the product innovation and capa-

Figure 4. Defect Rate for 100 Component Suppliers to a Multi-national Car Maker



Source: John sutton, *The Auto-component Supply Chain in China and India - A Benchmark Study* (London: STICERD, 2004), Table 2.1.

Figure 5. Defect Rate for 101 Component Suppliers to a Chinese Maker of Steering Gear



Source: John sutton, *The Auto-component Supply Chain in China and India - A Benchmark Study* (London: STICERD, 2004), Table 2.6.

bility expansion described in this essay. But China has rich entrepreneurial resources. Tim Wright's characterization of pre-World War II China as having "an abundance of small-time entrepreneurs" remains valid today,[6] when we also observe an ample supply of big-time entrepreneurs, many with advanced overseas training and international experience. This talent pool will enable domestic firms to seize opportunities to combine new capabilities, including skills initially monopolized by foreign firms, to achieve economic gain. Recent developments in telecommunications, semiconductors, biotechnology and many other industries underline the implausibility of claims that Chinese firms will not challenge "the continued industrial and technological preeminence of the United States and other advanced industrial democracies."[7]

Looking forward, we anticipate continued expansion and deepening of manufacturing capabilities in the coastal regions that have dominated China's initial achievements, now joined by new streams of upgrading and innovation, already visible in sectors like silk and steel manufacture, arising from the spread of capabilities across sectors and regions, and by fresh impetus originating in domestic R&D operations.[8] Signs of domestic innovative potential include qualification of nearly 100,000 Chinese firms for ISO 9001 certification by the end of 2003 and advances in biotechnology, shipbuilding and other sectors with limited foreign participation. Mutual interaction among these streams of innovation, reinforced by continuing official efforts to promote institutional reform, points to continued rapid development of Chinese manufacturing capabilities, with market-induced upgrading and enlarged international competitiveness spreading to a growing array of industries and geographic regions.

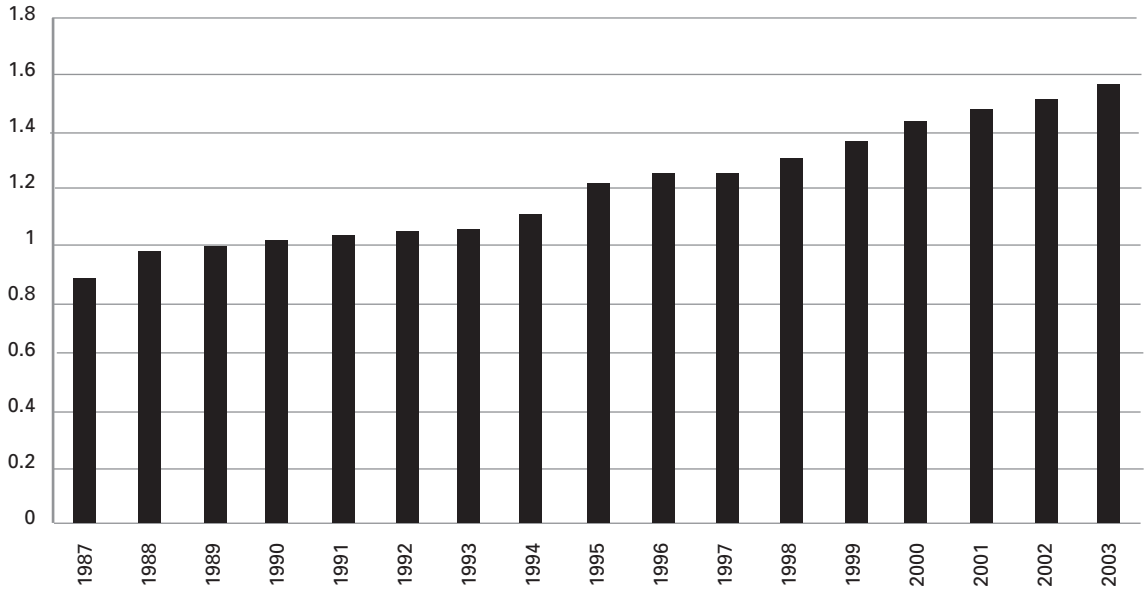
China's manufacturing achieved remarkable gains during the first quarter century of reform. These advances, although costly, uneven, and often foreign-led, are noteworthy both for their large scale and for the strong momentum that overwhelmed seemingly powerful obstacles, including intrusive and capricious regulation, extensive corruption, and weak systems of law, management, finance, and corporate governance.

Our expectation of continuing advance for Chinese manufacturing does not rule out cyclical fluctuations, including substantial and painful downdrafts. However, we see the emergence of the competitive mechanisms driving recent advances in manufacturing capabilities as a permanent structural change that will survive any cyclical fluctuations.

Acknowledgement

This paper draws on joint work with John Sutton. We acknowledge valuable assistance from Peng Liu and Xiaoming Shang of the China Enterprise

Figure 6. R&D Intensity of China's Exports, 1987–2003



Source: Authors' file Table_6_data.TR mod.042605 based on "Annual Line of Business Report 1977" [Baker Library call number 9163120] and UNCOM Trade Data.

Confederation and from Xi Chen and Yifan Zhang as well as financial support from the Smith Richardson Foundation, the National Science Foundation, the William Davidson Institute, the University of Pittsburgh and the Institute for International Business at the University of Toronto.

ENDNOTES

1. For example, see Genevieve Boyreau-Debray and Shang-jin Wei, "Can China Grow Faster? Diagnosis on the Fragmentation of the Domestic Capital Market" (MS, 2003); Sandra Poncet, "Measuring Chinese Domestic and International Integration," *China Economic Review*, Vol. 14, No.1 (2003), 1–21; Alwyn Young, "The Razor's Edge: Distortions and Incremental Reform in the People's Republic of China," *Quarterly Journal of Economics*, Vol. 115, No. 4 (November 2000), 1091–1136.
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6. Tim Wright, "Growth of the Modern Chinese Coal Industry: An Analysis of Supply and Demand," *Modern China*, Vol. 7, No.3 (1981), 325.
7. George J. Gilboy, "The Myth Behind China's Miracle," *Foreign Affairs*, Vol. 83, No. 4 (July/August 2004).
8. See Albert Hu and Gary Jefferson, "Science and Technology in China (MS, 2004); Emily Hannum, Jere Behrman and Meiyan Wang, "Human Capital in China" (MS, 2004); and Jiang Xiaojuan, "China's Economic Development Enters a New Stage: Challenges and Strategy," *Jingji yanjiu* [Economic research], No. 10 (2004), 4–13.

Institutional Environment and Private Sector Development in China

YASHENG HUANG

Private sector development is an under-researched topic in the economic and other social science literature on China. Much of the microeconomic work has focused on the reforms of the state-owned enterprises (SOEs), the rise—and now the fall—of non-traditional firms, such as township and village enterprises (TVEs), and the operations of foreign-invested enterprises (FIEs, in which foreign firms have a substantial equity interest). Purely private—and domestic—firms have not received the same level of attention.

By 2005, it is increasingly difficult to ignore the role of private firms in Chinese economy. By various measures, purely private firms account for between 20 to 30 percent of non-agricultural GDP. Private entrepreneurs and investors are now able to invest in a range of sectors and operate on a scale unprecedented in the history of reforms. They are also increasingly taking over the loss-making and defunct SOEs, injecting profit incentives and managerial dynamism into the sector in a way that twenty-five years of SOE reforms have failed to accomplish. There is also a grudging recognition from the top policy makers that private firms are unquestionably more efficient than SOEs or TVEs. In the past three years, the Chinese policy makers have moved to improve the business and institutional environment for private firms at a speed comparable to the initial liberalization of the private sector in the early 1980s.

This essay presents simple, descriptive findings from a larger book-length project on China's private sector development—tentatively entitled, *Surviving through the C-rack: Private Firms in China during the Reform Era*. This research is based on both statistical/documentary evidence and detailed case studies of firms. While it is still ongoing, my research raises questions about the gradualist perspective on China's economic reforms, which sees economic liberalization as a gradual process in China, beginning with baby steps and, in response to the dynamics on the ground, moving toward deeper and systemic reforms over time.

While this logic serves well to explain foreign direct investment (FDI) liberalization and SOE reforms, the evidence is mixed at best that this view accurately describes the private sector policies—especially financial policies. My own emerging view leans toward the following portrayal of the private sector reforms: Much of the private sector liberalization in fact took place in the early 1980s. This early liberalization of private sector was a byproduct of agricultural reforms, which were not gradual at all. Agricultural reforms in essence were the Chinese version of the "big bang" reforms. Important policy experiments supportive of private business accompanied the agricultural reforms, some as early as 1981. These initiatives involved increasing loans to private firms, interest rate liberalization, permitting private ownership of rural financial institutions, setting up regional stock exchanges to cater to private firms, etc.

During the 1990s, the ideological environment facing private firms improved. For example, small-scale SOEs and many TVEs were privatized. Licensing restrictions were eased for private firms over time. Amidst this improvement, the general financing treatment did not improve substantially for private firms. While there is a widespread impression that the TVE/SOE privatization in the 1990s implies a liberal environment for private firms, the fact is that in the late 1990s the share of fixed asset investment by the explicitly private sector businesses was smaller than their share during much of the 1980s. In contrast, the investment share by the collective sector was much larger throughout the 1990s than it was in the early 1980s.[1]

This is still being investigated but there are two possible and tentative explanations for this lag in the financial treatment in the 1990s. One is that the leadership in the 1990s implemented policies that had a substantial urban bias. Private sector activity, much of which was located in the rural areas, was starved of financing because the state mobilized resources to invest heavily in the cities—airports, skyscrapers and highways connecting cities. (This hypothesis is com-

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patible with the fact that private real estate firms in the urban areas prospered.) The other hypothesis is that the leadership in the 1990s pursued an industrial policy agenda that privileged established, bigger firms, which tended to be SOEs and/or foreign joint ventures allied with the state (such as automotive firms). Private firms, which populated labor-intensive industries, remained credit constrained.

To be sure, private entrepreneurs adopted a range of ad hoc coping mechanisms to overcome their financing constraints, some quite successfully. One reason is the substantial heterogeneity in the financial policies. Some regions, for whatever reasons, continued the financial liberalization policies from the 1980s; others did not (or they never liberalized in the first place). The second coping mechanism, well documented by Kellee Tsai, is resorting to informal finance.[3] The third mechanism, as I have documented elsewhere, is FDI, especially labor-intensive FDI, which brought equipment financing to credit-constrained private entrepreneurs in the labor-intensive industries.[4]

My research on private sector development builds on and extends these previous lines of inquiry. I do want to emphasize two points. One is that those regions where one observes financial innovations were selected in the 1980s by the pro-reform leaders as sites of experimentation (Wenzhou being an example). Thus, a portion of the regional heterogeneity we observe in the 1990s in fact originated from the deliberate policy choices in the 1980s (and some as early as in 1981). Second, while informal finance and labor-intensive FDI made up for some of the shortcomings of a generally inefficient financial system, these substitute mechanisms are not "functionally equivalent" to an efficient financial system. Their geographic coverage is narrow; FDI only reached certain areas of the country, but not other regions where indigenous entrepreneurship is most needed. Informal finance might be sufficient to finance entry of businesses or small-scale, mom-and-pop operations, but it is not sufficient to finance large-scale, technologically sophisticated, modern operations. This brief paper summarizes my ongoing research on these issues.

The Lagging Financing Environment for Private Firms

There is a wealth of data illustrating the extreme financial constraints facing the domestic private firms. A number of international surveys show that, although China has one of the biggest banking systems in the world, its private firms are more financially constrained than private firms in other countries.

Let me just cite one study. Geeta Batra, Daniel Kaufmann, et al. show that, based on survey evidence over 10,000 firms in 81 countries around 2000, China's financing constraints—as measured by the subjective perception by the entrepreneurs—are quite similar to those prevailing in transitional economies such as Croatia, Czech Republic, Romania, and Slovak Republic or in poor countries

Chart 1. Bank Financing of Private Firms in Their Startup Years, 1980–2001

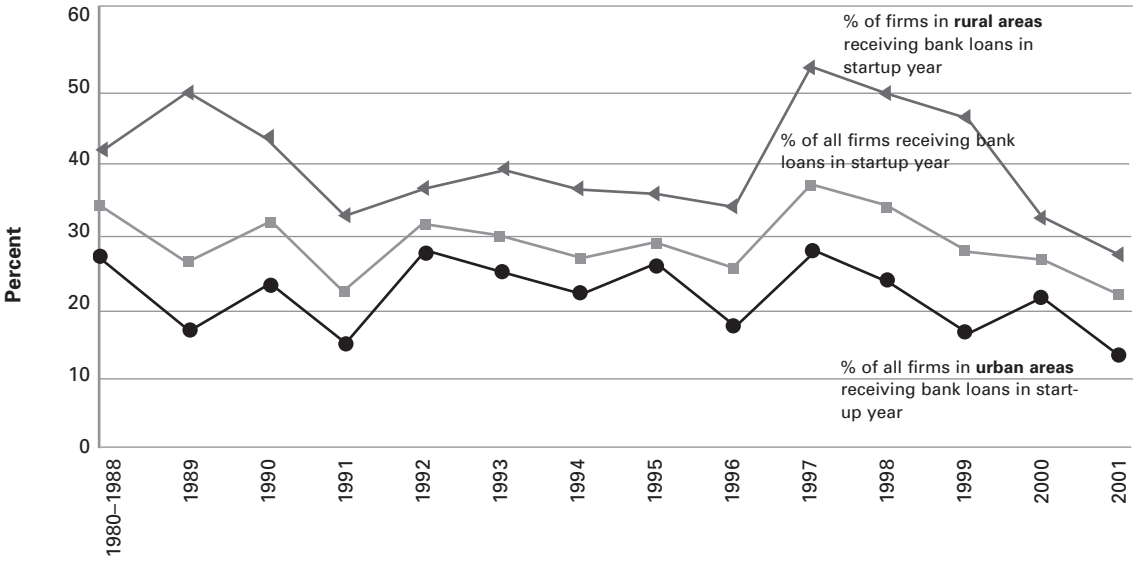
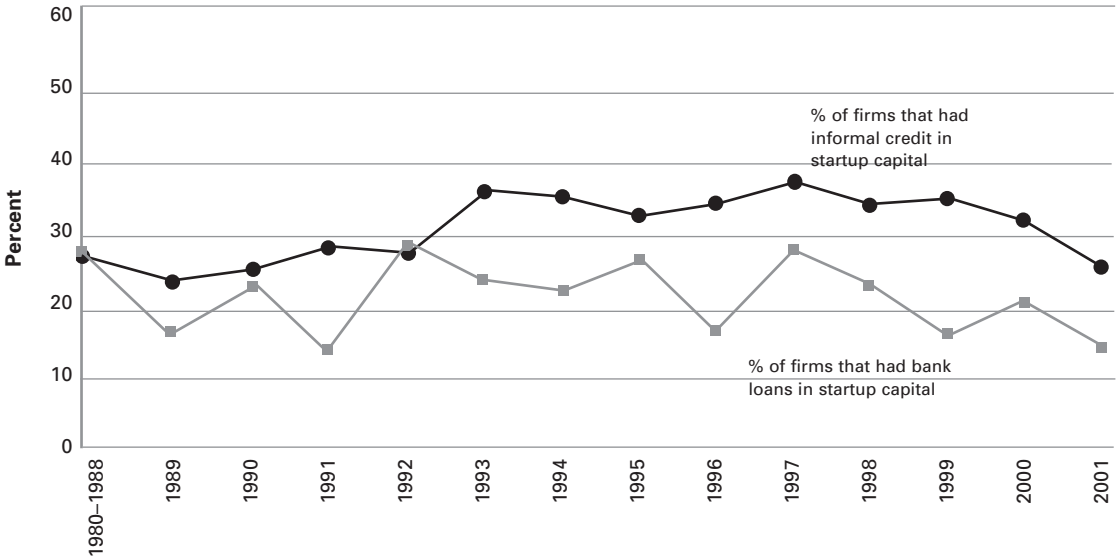


Chart 2. Formal and Informal Financing in the Startup Capital, 1980–2001



such as Ghana and Ethiopia. Indian entrepreneurs fared far better in this study than their Chinese counterparts. The same study also shows that Chinese firms relied more substantially on retained earnings and informal finance than firms in India.

The surveys organized by the Chinese government itself point to exactly the same problem. Let me cite one large-scale survey conducted in 2002 by the All-China Federation of Industry and Commerce, which covered 3258 private firms in all provinces in China. All of the surveyed firms were selected from the registration lists maintained by the local bureaus of industry and commerce. Thus, these firms were explicitly registered as private firms at the time of the survey, which included some enterprises converted from SOEs or collective firms.

The main questions of the survey cover (1) firm size, status of development, organization, and operation; (2) management system and decision-making style; (3) socialeconomic background of enterprise owners; (4) social mobility and network of owners; (5) source and composition of employees and employee-employer relations; (6) self-assessment by entrepreneurs on a range of issues related to government-business relations, business environment, financing, and (7) income, expenditures and assets of entrepreneurs.

Prior to the 2002 survey, four other nationwide private sector surveys showed that private entrepreneurs consistently ranked financing as their top constraint. Each of these surveys shows that financial liberalization in the 1990s was tentative at best; each reflects the presence of policy reversals. Charts 1 and 2 present trends showing the financial treatment of private firms in the 1990s relative to the average financial treatment of private firms in the 1980s.

Both charts show no substantial increase during the 1990s in the percentage of private firms receiving bank loans in their initial year of operation. Chart 1 shows that the percentage of private firms receiving a bank loan during their startup year was persistently lower in the 1990s (except for 1997–99, after which this ratio declined again) than in the 1980s. Chart 2 shows that at the end of the 1980s informal and formal financing already played similar roles, as measured by the percentage of private firms receiving loans from formal and informal channels. During the course of the 1990s, informal financing substantially overtook the formal financing. Unless one assumes, unrealistically, that there is a natural preference for informal over formal financing, this development suggests that private entrepreneurs turned to informal financing because they could not get formal financing.

These data are entirely consistent with the data on the lending side. As a share of total lending, in fact, private sector lending in the 1990s was smaller than in the 1980s. This is in large part because of the crowding-out effect of TVEs. In the mid-1980s, TVEs and private firms received about the same shares of bank lending. (Bank documents in the 1980s repeatedly called for equal treatment of TVEs and private firms.) Beginning in the early 1990s, TVEs, while far less efficient, substantially overtook private firms in bank lending, only to fail on a massive scale toward

the end of 1990s and to accumulate huge non-performing loans on their books in the process.

The Effect of Financial Discrimination

The rapid growth of what is loosely referred to as the "non-state" sector of the Chinese economy in the 1980s and 1990s has led many to argue that a good institutional environment is neither necessary nor sufficient for private sector development. I disagree with both the blanket characterization of the institutional environments in the 1980s and 1990s as well as with the normative implications of this statement.

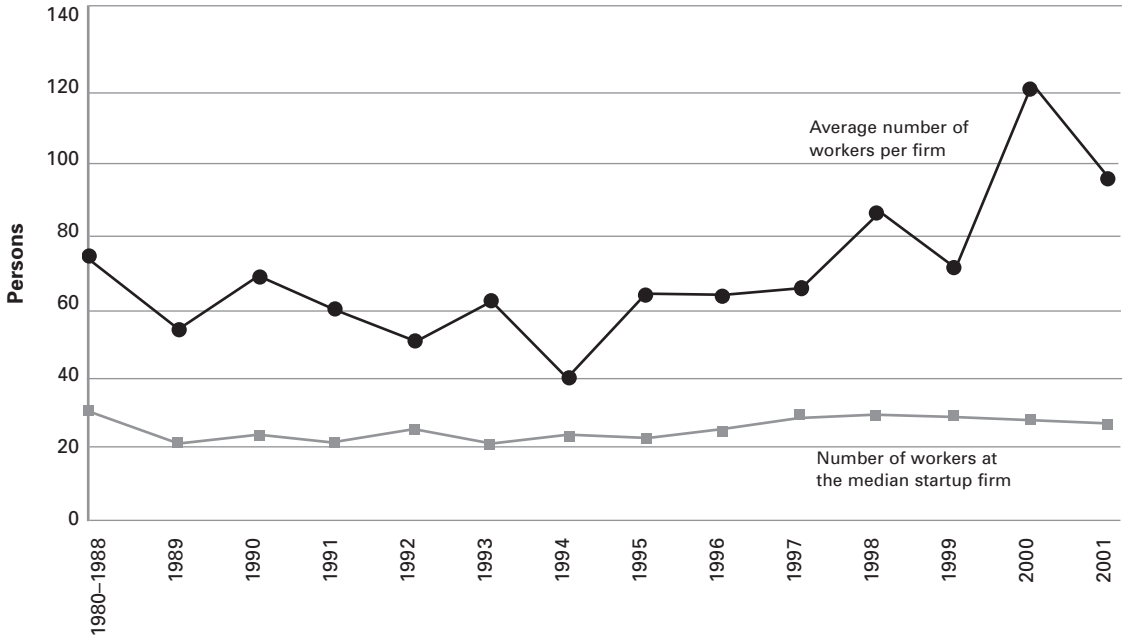
For one thing, China's institutional environment pertaining to private firms in the 1980s represents a quantum improvement over what was prevailing in the 1970s. Relative to the size and scale of private firms, this improvement was sufficient to induce massive entry of private businesses. Although not ideal, the level of security was good enough to motivate many private entrepreneurs to ramp up scale quickly. In the 1990s, at least in the financial area, the quality of institutional environment did not noticeably improve until very late in the decade. One can even argue that there were policy reversals, whose effect was cushioned partially by the coping mechanisms described above.

The constraining effect of a poor institutional environment shows up in the size of private firms, not necessarily in the size of private sector as a whole. The reason is simple and intuitive. A poor institutional environment is defined as one that protects property rights poorly and one that financially discriminates against efficient but politically weak firms (such as private firms in China in the 1980s and 1990s). Under such an environment, entry can be still massive. It is difficult for predatory governments to squeeze small and numerous firms that can rely on inheritance, savings, and informal finance to enter into small-scale businesses. The total size of the private sector can grow as long as the entry of small firms is relatively unimpeded. Under these circumstances, the combination of dynamism among small private firms and the poor efficiency of SOEs can lead to a quick rise of the private/state sector ratio.

The rise of this ratio is used by many to illustrate the improvement of the institutional environment for private firms but it is important to keep in mind that this ratio can rise without any institutional improvement as long as the entry of small firms continues (and as long as SOEs, which appear in the denominator, continue to be inefficient). A far better indicator of the changes in institutional environment is the size of individual firms, not the size of the entire private sector.

Here the evidence is sobering. Based on detailed official private sector nationwide surveys conducted in 1991, 1993, 1995, 1997, and 2002 with sample sizes ranging from 1,400 to 14,000 firms, I have found evidence that the individual size of private firms at the time of registration remained fairly flat during much of the 1990s and that the average size of private firms

Chart 3. Employment Size of Private Firms in Their Initial Year of Operation, 1980–2001



in the 1980s was surprisingly large. This is especially true using the most common measure of firm size in the economic literature—employment per firm.

Chart 3 is based on the private sector survey conducted in 2002. There is a question in the survey about how many employees were hired in the first year of the business. We use this question to show the evolution of firm size over time. A tentative reading of Chart 3 is that the firm size changed over time in a highly uneven fashion. Of those firms polled in 2002, the average number of employees during the initial year of operation for firms established during the period 1980–1988 already reached 72.5 persons. From that level, the size of start-up firms declined, although not linearly, until 1998, when the average employment for new firms was 92 persons. Thus between 1988 and 1998, the average size of newly established private firms was actually smaller than what was prevailing earlier in the 1980s.

More tellingly, the median size of new private firms did not change at all. It was 30 during the 1980–1988 period, declined during the 1990s, and only recovered to 30 in 1997. The size of newly established private firms has become considerably larger since 1998, in part because of privatization. Since 1998, some of the small and medium SOEs were privatized. These SOEs, although small by the SOE standard, are still quite large by the standard of private firms. The 2002 survey shows that privatized firms are much larger than privately-founded firms. One major improvement in the 1990s over the 1980s is the privatization policy but it should be pointed out that this policy was adopted very late in the decade and that there were in fact some privatization activities in the 1980s as indicated by the 2002 survey.[6]

There are complications with this interpretation. One is the survival bias, i.e., the firms that started out quite large in the 1980s had a better chance to survive and therefore to appear in the 2002 survey. This is a serious sample bias that needs to be tackled more rigorously but it is not the only reason for this result. One indicator is that those firms that started out in the distant past (i.e., before 1985) in fact had fewer employees than those firms that started out in the mid to the late 1980s.

The other objection has to do with the confounding influences of privatization. The idea here is that the data may pick up the effect of those firms originally registered as "red-hat" firms in the 1980s. Another objection is that the graph may pick up some industry effect: if industry composition differed between the 1980s and 1990s, then this difference could have affected employment size.

These two objections are not borne out by the data. Here I use data for private manufacturing firms that were explicitly registered as private firms at the time of start-up. The average employment was 41 persons for those firms registered before 1985, 71 for those registered between 1985 and 1989, 59 for those registered between 1990 and 1995, and 74 for those registered during 1996–2001. It was only in the late 1990s that the average size of start-up firms surpassed the levels attained during the mid to late 1980s.

Partial and Imperfect Substitute Mechanisms

Given the lags in the financial treatment of the private firms in the 1990s, many private entrepreneurs were unable to alleviate their financing constraints and the individual size of private firms remained constant. The failure to ramp up scale during a period of rapid economic growth ought to be extremely puzzling.

However, some private firms were able to overcome their financing constraints, not just by resorting to expensive informal financing channels. Here foreign direct investment played a critical role. Much of the FDI originating from Hong Kong, Taiwan and Macao essentially was equivalent to venture capital in that it funded operations run by credit-constrained entrepreneurs. This is a topic I dealt with in great detail in *Selling China*.

Most China scholars view Hong Kong as a source of capital and a window onto the world market for China. In fact, the most important function of Hong Kong is that it is a substitute mechanism for China's poorly functioning financial system. Consider the case of Lenovo. Many Western analysts herald its acquisition of IBM's PC business as a harbinger of the rising world-class domestic Chinese companies. Using the success of firms like Lenovo as evidence, a *McKinsey Quarterly* article has gone so far as to claim that China has the "best of all possible models."

These business analysts are unusually perceptive except in one detail: Lenovo is a foreign company. All of the manufacturing, service and R&D operations of Lenovo in China are legally organized as subsidiaries of its Hong Kong firm and as such they are subject to laws and regulations pertaining to

FDI, rather than those far more restrictive laws pertaining to domestic private businesses. (Under Chinese law, as in Britain before 1997, investments from Hong Kong are treated as FDI.) In 2003, seven of Lenovo's Hong Kong subsidiaries were among China's 500 largest foreign operations.

There is a good reason for this arrangement. As I showed in my book, *Selling China*, one of the substantial distortions in China is that laws and regulations have treated foreign firms better than domestic *private* firms (although worse than inefficient state firms). This has several effects, one of which is that Chinese entrepreneurs are motivated to set up branches in Hong Kong and use them to make investments in China. This is one of the few ways for them to ease the massive regulatory restrictions on their activities.

At the time of its founding, Lenovo was denied a license in PC manufacturing because it was not a traditional state firm. It ventured into PC manufacturing only under the legal cover of a Hong Kong firm, QDI, which Lenovo acquired. While many herald Lenovo as a rag-to-rich story, with a start-up capital of only $24,000, the reality is more complicated. Its subsequent rounds of financing, including an IPO in Hong Kong, were all quite substantial and they all came from Hong Kong. (Hong Kong's IPO raised about US$10 million.) China's massive financial system had little to do with Lenovo's success.

Almost all other dynamic entrepreneurial firms in China have benefited from connections to Hong Kong. TCL, Galanz, and Kelon, the three most successful home appliance firms in China, all have substantial legal and financial ties to Hong Kong. In 2002, *Forbes* compiled a list of the most dynamic small firms in the world. There were thirteen from India but only four from China and each of these four firms, although run by Chinese entrepreneurs and deriving all of their revenues in China, is actually headquartered in Hong Kong.

The example of Kelon shows the importance of formal finance. Kelon, one of China's top refrigerator makers, went IPO in Hong Kong in 1996 and then in 1997 issued additional shares, which raised about US$90 million. Its Hong Kong affiliate also borrowed $70 million from Bank of America in 1997. These financing schemes were critical to Kelon as the firm invested heavily in distribution networks and acquisition of compressor facilities.[7] No informal financing scheme could have raised this kind of capital.

But doesn't the success of Lenovo and others prove that entrepreneurial firms can thrive without an efficient market-based legal and financial environment? Not at all. Yes, China lacks good institutions, but it has *access* to good institutions in Hong Kong. Good institutions are vital for economic growth everywhere in the world and nothing from China's experience suggests otherwise.

In this connection, it is important to recognize how special China is: China has Hong Kong but many other poor countries do not. McKinsey's recommendation of China as "the best of all possible models" is equivalent to urging other countries to have their own Hong Kong. This advice is extremely limited in its utility.

There is another policy implication. Amidst massive institutional inefficiencies, Chinese policymakers have done two things vitally right and important. One is that they have allowed FDI to come in; the other, which is under-appreciated, is that they have allowed Chinese citizens to travel abroad since the early 1980s. This mobility of people is probably the single most important reason that some of the entrepreneurs could at least escape from the clutches of a very bad system. Thus, China's success has less to do with creating efficient institutions but with allowing an escape valve from inefficient institutions.

But this escape valve is not sufficient. What about would-be entrepreneurs located in China's vast rural and interior regions that are distant from Hong Kong both geographically and culturally? Because they cannot access Hong Kong's efficient capital and institutions, FDI can never be a full substitute for good legal and financial institutions. One can even go further: China's need for successful entrepreneurs is even greater in the interior regions than in the coastal provinces because the interior is so short of other conditions for growth.

The concentration of FDI in urban areas demonstrates a further cost of restricting the potential of indigenous entrepreneurs. Many of the most dynamic, risk-taking and talented entrepreneurs in China reside in the countryside. These rural entrepreneurs created China's true miracle growth in the 1980s, first by dramatically improving the agricultural yield and then by starting many small-scale businesses in food processing and construction materials. In fact, my research shows that many of the biggest private firms in the 1980s were located in the interior regions but that these firms atrophied

in the 1990s due to the failure of China's financial institutions to support them. FDI and Hong Kong can do very little—and they did very little—to help entrepreneurs in those regions.

Conclusion

China's poor institutional environment has not hurt China's growth to the extent it could have only because of a set of unique factors, such as the role of Hong Kong in providing finance to China's aspiring entrepreneurs. Institutions matter tremendously. The good news is that in the last two years, Chinese leaders have begun to address the country's institutional gaps, including a Constitutional amendment in 2004 that strengthened private property rights protection. But they could do far more, including immediately granting peasants ownership of the land they till, re-privatizing what were substantially private financial institutions in the 1980s—rural credit cooperatives—and opening China's financial sector to entry by both domestic and foreign private institutions.

Endnotes

1. As with all statements based on the Chinese data, there are complications. If one assigns the investments by all the listed firms to the private sector, then the private share would be larger (although only by 5.6 percent or so in 1998). Such attribution would be extremely questionable on substantive grounds. The vast majority of the investment activities under "Other" category—in addition to SOEs, collective firms, and individual businesses in the Chinese statistical reporting—took place in the foreign sector.
2. Loren Brandt and Hongbin Li show that the banking policies are closely correlated with a set of attributes of bank managers and that banking policies differed among bank branches depending on these attributes. See Loren Brandt and Hongbin Li, *Bank discrimination in transition economies: Ideology, information or incentives?* (MS, Department of Economics, University of Toronto, Toronto, 2002).
3. Kellee S. Tsai, *Back Alley Banking: Private entrepreneurs in China* (Ithaca: Cornell University Press, 2002).
4. Yasheng Huang, *Selling China: Foreign Direct Investment During the Reform Era* (New York: Cambridge University Press, 2003).
5. Geeta Batra and Daniel Kaufmann, et. al., *Investment climate around the world: Voices of firms from the World Business Environment Survey* (Washington, DC: World Bank, 2003).
6. If nothing else, in this research project I hope to gain a deeper understanding of the 1980s rather than simply assuming that the business environment improved linearly and across-the-board in the 1990s.
7. For more details, see Yasheng Huang and David Lane, *Kelon: China's Corporate Dragon* (Boston: Harvard Business School, 2002).

Will China's Financial System Stimulate or Impede the Growth of Its Economy?

FRANKLIN ALLEN, JUN QIAN, AND MEIJUN QIAN

What is the role of China's financial system in supporting the growth of its economy, and how will it develop in the future? Almost every functioning financial system includes financial markets and intermediaries (e.g., a banking sector), but how these two sectors contribute to the entire financial system and economy differs significantly across countries. Although there is no consensus regarding the prospects of China's future economic growth, a prevailing view on China's financial system speculates that it is one of the weak links in the economy, and it will hamper future economic growth.

Based on our analysis, including the comparison between China's financial system and that of other countries, we draw three main conclusions about China's financial system and its future development. First, the continuing effort of reforming the banking system, in particular, reducing the amount of nonperforming loans (NPLs) of the major banks to normal levels, is probably the most important task for China's financial system in the near future. Second, financial market development needs to be promoted. Regulation should be improved, domestic financial intermediaries that act as institutional investors should be encouraged, new products and services should be developed, and more financial professionals such as accountants and lawyers should be trained. The large holdings of shares held by various government entities in listed companies should be reduced by announcing and carrying out a plan to sell them off slowly over time.

Third, in a companion paper, we find that the most successful part of the financial system, in terms of supporting the growth of the overall economy, is not the banking sector or stock markets, but rather other mechanisms including internal finance, nonbank financial intermediaries and coalitions of various forms among firms, investors, and local governments.[1] Many of these channels rely on alternative governance mechanisms, such as trust, reputation and relationships and on competition. These methods of financing have supported the growth of a "Hybrid Sector" of firms with various types of ownership structures.[2] The growth of the Hybrid Sector has been much higher than that of the State Sector (state-owned firms including all firms where the government has ultimate control) and the Listed Sector" (publicly listed and traded firms), and contributes most of the growth of the economy. Going forward, we believe these alternative channels and mechanisms should be encouraged. They can coexist with the banks and markets and can continue to fuel the growth of the Hybrid Sector. The rest of the article expands on these themes.

History and Current Status of China's Financial System

Prior to 1978, China's financial system consisted of a single bank — the government owned and controlled People's Bank of China (PBOC), which served as both the central bank and a commercial bank, controlling about 93 percent of the total financial assets of the country and handling almost all financial transactions. The first main structural change occurred in 1978, when the single bank was split into four state-owned banks: the PBOC was formerly established as China's central bank, the Bank of China (BOC) was given the mandate to specialize in transactions related to foreign trade and investment, the People's Construction Bank of China (PCBC) was set up to handle transactions related to fixed investment (in manufacturing), and the Agriculture Bank of China (ABC) was set up to deal with all banking business in rural areas. The financial sector was further diversified in 1984. The fourth state-owned commercial bank, the Industrial and Commercial Bank of China (ICBC) was formed to take over all commercial transactions of the PBOC. This period also witnessed the entry of non-state owned banks, including foreign financial institutions (branches and offices), into the financial system.

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China's domestic stock exchanges, the Shanghai Stock Exchange (SHSE) and the Shenzhen Stock Exchange (SZSE), were established in 1990. These have been growing very fast since then. However, the corporate bond market is virtually non-existent.

Financial sector reform has focused on state-owned banks since 1997, especially the problem of NPLs. Finally, China's entry into the World Trade Organization (WTO) in 2001 marked the beginning of a new era, in which increasing foreign competition and the continuing growth of the non-state financial institutions are the defining characteristics.

In Table 1 we compare China's financial system to those in other countries using the standard classification system introduced to the law and finance literature by Rafael La Porta, Florencio Lopez-de-Silanes, Andrei Shleifer and Robert Vishny (hereafter LLSV, 1997, 1998), with some measures taken from Asli Demirgüç-Kunt and Ross Levine.[3] The LLSV (1997, 1998) sample includes 49 developed and developing countries with four legal origins, but excludes China. It can be seen that China's banking system is important in terms of size, with its ratio of total bank credit to gross domestic product or GDP (1.11) higher than even the German-origin countries (with a weighted average of 0.99). However, when we consider bank credit issued (or loans made) to the Hybrid Sector only, China's ratio dropped sharply to 0.24, suggesting that most of the bank credit is issued to companies in the State and Listed Sectors. Moreover, China's banking system is not efficient: Its overhead cost to total assets (0.12) is much higher than the average of French-origin countries (0.05), the next highest group of countries.

In contrast to the banking sector, China's stock markets are smaller than most of the other countries, both in terms of market capitalization and the total value traded as a fraction of GDP. Notice that "total value traded" is a better measure than "market capitalization" to measure the actual size of the market, because the latter includes non-tradable shares, while the former measures the fraction of total market capitalization traded in the markets, or the "floating supply" of shares in the markets.

In summary, China's financial system primarily consists of a large but inefficient banking sector while stock markets are still quite small relative to GDP.

Banking System: The Problem of NPLs and Reforms

China's banking sector is dominated by four large and inefficient state-owned banks. The most glaring problem for China's banking sector is the amount of NPLs within the four largest state-owned banks. A large fraction of these bad loans resulted from poor lending decisions made for state-owned enterprises (SOEs), many of which were due to political or other non-economic reasons, and these loans accumulated over the years without ever being resolved. The additional problem is that data availability on NPLs is limited. This lack of disclosure of NPLs fuels speculation that the problem must be severe. Many commentators believe that

Table 1. A Comparison of Financial Systems: Bank-based vs. Market-based Measures (Value-weighted approach)

Measures	English Origin*	French Origin*	German Origin*	Scandinavian Origin*	Sample average	China
Bank credit/GDP	0.62	0.55	0.99	0.49	0.73	1.11 (0.24)[a]
Overhead Cost/Bank Total Assets	0.04	0.05	0.02	0.03	0.03	0.12
Total value traded/GDP	0.31	0.07	0.37	0.08	0.27	0.11
Market Cap/GDP	0.58	0.18	0.55	0.25	0.47	0.32

Notes: All the measures for countries other than China are from Asli Demirgüç-Kunt and Ross Levine, *Financial Structure and Economic Growth: Cross-Country Comparisons of Banks, Markets, and Development* (Cambridge, Massachusetts: MIT Press, 2002). Measures on China are authors' own calculations using definitions from the same book.
*: The numerical results for countries of each legal origin group are calculated based on a value (GDP of each country)-weighted approach.
a: Numbers in bracket indicate bank credit issued to only the Hybrid Sector (instead of total bank credit).
Source: *Almanac of China's Finance and Banking* (Editorial Bureau of Almanac of China's Finance and Banking, 2000); *China Statistical Yearbook* (China Statistics Press, 2000).

the true amount of NPLs is much higher than the officially announced figures suggest.

Table 2, based on the Asian Banker database on banks, compares the announced NPLs and profitability of the entire banking system (not just state-owned banks) in China and other major Asian economies. NPLs, either as a fraction of total new loans made by all banks or as a fraction of GDP in a given year, are the highest in China from 2000–2002 (Panel A). The comparison includes the period during which Asian countries recovered from the 1997 financial crisis, and the period during which the Japanese banking system was disturbed by a prolonged bad loan problem. In addition, the profitability of China's banking system, measured by the return to equity or assets, is also among the lowest in the same group of countries (Panel B).

In recent years, the Chinese government has taken active measures to solve this problem. First, four state-owned asset management companies were formed with the goal of assuming these NPLs and liquidating them. Second, state-owned banks have improved their loan structure by increasing loans made to individual lenders while being more active in risk management and monitoring of loans made to SOEs. Third, there has been a boom in the entry and growth of non-state financial intermediaries within the banking system, and this trend is expected to continue with more foreign banks entering the domestic credit markets in the near future as a result of China's entrance into the WTO. All the above facts taken together can explain why NPLs have been falling during the period of 2000–2002 (Panel A of Table 2). However, due to the lack of transparency on the disclosure of bank statements, the improvement shown here could be significantly overstated, and thus should be viewed cautiously.

As stated above, we believe that the continuing effort of reforming and improving the banking system is one of the most important tasks for China in the near future. In fact, China's central bank has injected foreign currency reserves into 2 of the big 4 state-owned banks to improve their balance sheets, so that these banks can go public. Given that

Table 2. A Comparison of Non-performing Loans and Profitability of Banking Systems

	1997	1998	1999	2000	2001	2002
Panel A *Non-performing Loans (% of total loans made and % of GDP)*						
China	n/a	2.0 (2.2)	9.5 (10.6)	18.9 (24.9)	16.9 (22.7)	12.6 (15.2)
Hong Kong	1.3 (3)	4.3 (10.2)	6.3 (13.9)	5.2 (12.6)	4.9 (12.9)	3.7 (9.6)
India	n/a	7.8 (1.6)	7.0 (1.6)	6.6 (1.6)	4.6 (1.7)	2.2 (0.8)
Indonesia	0.3 (0.2)	11.8 (4.6)	8.1 (2.0)	13.6 (3.2)	9.9 (2.2)	4.5 (0.9)
Japan	2.7 (5.4)	5.1 (10.8)	5.3 (10.9)	5.8 (11.5)	9.2 (15.3)	7.4 (12.8)
South Korea	2.9 (5.1)	4.8 (6.3)	12.9 (12.9)	8.0 (8.6)	3.4 (3.4)	2.5 (2.6)
Taiwan	2.4 (3.2)	3.0 (3.9)	4.0 (5.7)	5.2 (7.6)	6.2 (9.4)	4.1 (5.2)
Panel B *Banking System Profitability (% return on equity and % return on assets)*						
China	6.6 (0.21)	4.0 (0.2)	3.2 (0.18)	3.9 (0.21)	3.5 (0.21)	4.16 (0.21)
Hong Kong	18.7 (1.8)	11.0 (1.0)	18.2 (1.6)	18.8 (1.6)	15.7 (1.4)	15.6 (1.4)
India	17.0 (0.9)	9.7 (0.5)	14.2 (0.7)	10.9 (0.5)	19.2 (0.9)	19.6 (1)
Indonesia	-3.8 (-0.3)	n/a	n/a	15.9 (0.3)	9.7 (0.6)	21.1 (1.4)
Japan	-18.6 (-0.6)	-19.2 (-0.7)	2.7 (0.1)	-0.7 (0)	-10.4 (-0.5)	-14.5 (-0.6)
South Korea	-12.5 (-0.6)	-80.4 (-3.0)	-34.0 (-1.5)	-7.0 (-0.3)	15.8 (0.7)	13.1 (0.6)
Taiwan	11.2 (0.9)	9.5 (0.8)	6.9 (0.6)	5.1 (0.4)	4.0 (0.3)	-5.2 (-0.4)

Notes: NPL is measured as % of total loans made, and as % of GDP (numbers in brackets). Both the loan and NPL are the aggregate of all banks in a country. The profitability is measure as the return on average Equity (ROAE), and the return on average Assets (ROAA). The latter is presented in the brackets.
Source: The Asian Banker data center 2003, http://www.theasianbanker.com.

China's total foreign exchange reserve at the end of 2004 was US$610 billion while the total amount of NPLs as of the end of 2002 was 15 percent of GDP (Panel A of Table 2), or US$188 billion (using the US$1 = 8.28 RMB exchange rate), the foreign reserve itself should be more than enough to remove the NPLs off the books of all the banks in China.

Whether the government will do exactly this remains to be seen, but it is clear that the ultimate source of solving the problems of NPLs lies in overall economic growth. As long as the economy maintains its strong growth momentum so that the government's potential for raising taxes also increases, the government can always assume the remainder of the NPLs without significantly affecting the economy. This is the positive perspective. The negative perspective is that NPLs may be much bigger than the official statistics suggest. If the growth of the economy significantly slows down in the near future, while the accumulation of NPLs continues, the banking sector problems could lead to a financial crisis. This could spill over into other sectors of the economy and cause a slowdown in growth or a recession. In this view the NPL problem poses a serious problem to China's continued prosperity.

Financial Markets and Listed Firms: Growth and Irregularities

China's domestic stock exchanges, the SHSE and SZSE, have been growing very fast since their establishment in 1990. At the end of 2002, the combined total market capitalization, including non-tradable shares, of these two exchanges ranked 11th among the largest stock exchanges in the world (Table 3). The Hong Kong Stock Exchange (HKSE hereafter) ranked 10th. If we rank the combined size of all stock exchanges in a country, China would rank fifth, behind only the United States, Japan, the United Kingdom, and France.

As fast as the growth of China's stock markets has been, they are not efficient in that prices, and investors' behavior do not reflect fundamental values of listed firms. In Table 3, "Concentration" measures the fraction of total market capitalization of an exchange that is coming from the combined capital-

Table 3. A Comparison of the Largest Stock Markets in the World (2002)

Rank	Stock Market	Total Market Cap (US$ billion)	Concentration (%)	Turnover Velocity (%)
1.	NYSE	9,015	61.3	94.8
2.	Tokyo	2,095	60.6	67.9
3.	Nasdaq	1,994	63.1	159.8*
4.	London	1,800	84.5	97.3
5.	Euronext	1,538	72.3	153.6
6.	Deutsche Börse	686	72.0	125.1
7.	Toronto	570	67.8	67.9
8.	Swiss	547	81.2	138.6
9.	Italian	477	66.1	120.7
10.	China (Hong Kong)	463	83.0	39.7
11.	**China (Domestic)**	463	29.4	224.2

Notes:
1. All figures (except those relating to China's domestic exchanges) are from http//:www.fibv.com, the web site of the international organization of stock exchanges. The Chinese data is from http://www.csrc.gov.cn, the web site for the China Security Regulation Committee (CSRC).
2. All figures relate to the period of 01/01/2002 to 12/31/2002.
3. **Concentration** measures the fraction of total market capitalization of an exchange that is coming from the combined capitalization of the largest firms ranked in the top 5 percent (by capitalization).
4. **Turnover velocity** is the total turnover for the year expressed as a percentage of the total market capitalization.
5. (*) The published number for Nasdaq includes double counting. The number shown is half the published number to make it comparable to the figures for the other exchanges.

ization of the largest firms ranked in the top 5 percent (by capitalization). The dominance of large-cap stocks in China is the lowest among major stock exchanges in the world, with its concentration ratio of 29.4 percent less than half of that of Tokyo, which has the second-lowest concentration. Stocks are traded extremely frequently in China, as shown by the highest "Turnover Velocity," defined as the total turnover for the year expressed as a percentage of total market capitalization, among the largest exchanges.

The inefficiencies in the Chinese stock markets can be partly attributed to poor and ineffective regulation. The current process of listing companies fosters both a problem of adverse selection among firms seeking an initial public offering (IPO), and a moral hazard problem among listed firms. First, the going public process, including obtaining listing quota/permission and disclosing information, is inefficient due to bureaucracy, fraudulent disclosure, and lack of independent auditing. As a result, certain non-state-owned firms from the Hybrid Sector with solid growth potential find it costly to gain access to the stock market, while the same process of going public is relatively easier for some large and inefficient companies from the State Sector.[4] Second, once listed, managers in firms with severe agency problems do not have an incentive to manage assets to grow, but rather to rely on the external capital market to raise funds (mainly through mergers and acquisitions, and seasoned offerings of securities) to pursue private benefits. If China is to develop a vibrant high-tech sector with fast growing companies, it would be helpful if such firms could have easy access to the public markets.

Another way to improve the efficiency of China's stock markets is to encourage the further development of domestic financial intermediaries that can act as institutional investors. Insurance companies, pension funds, mutual funds, and hedge funds, which are currently relatively small compared to those in Europe, Japan, and the U.S., can provide a level of stability and professionalism that is lacking in China's markets.

In terms of the role of financial markets in helping firms raise funds, both the scale and relative importance (compared with other channels of financing) of China's external markets are not significant. For example, for the ratio of External Capital (i.e., funding external to the firm) and gross national product (GNP), the LLSV (1997) sample average is 40 percent, compared to China's 16 percent (using only the floating supply or value traded part of the stock market, rather than the total market capitalization); for the ratio of total debt (including bank loans and bonds) over GNP, the LLSV sample average is 59 percent, compared to China's 35 percent. When we relate and compare the aggregate financing channels with the growth of the economy during different growth periods, we find that the development of China's markets as sources of funding external to the firm relative to its overall economic growth is not dramatically different from other emerging countries. One of the common patterns emerging from these comparisons is that the development of external markets trails that of the growth of the overall economy. This is not surprising given that the development of these markets requires a minimum efficiency for a country's institutions including the legal system, accounting standards, and the development of associated professionals. By contrast, during the early stages of economic growth, alternative institutions and mechanisms alone can support the growth of firms and the overall economy, as is the case for China based on our evidence.

Firms in the Listed Sector in China issue both tradable and nontradable shares. The nontradable shares are either held by the state/government or by other legal entities, (i.e., other listed or non-listed firms or organizations), and constitute a majority of all shares. The standard corporate governance mechanisms are limited and weak in the Listed Sector. Listed firms have a two-tier board structure: the Board of Directors and the Board of Supervisors. Rather than being elected by shareholders, a significant fraction of both boards are officials chosen from government branches, or executives from the parent companies, and the nomination process is usually kept secret. The external governance mechanisms are also weak. First, the existing ownership structure, characterized by the large amount of nontradable shares including cross-holdings of shares among listed companies and institutions, makes it difficult to carry out value-increasing mergers and acquisitions (M&As).[5] Second, institutional investors do not have a strong influence on management or on the stock market, as they are a very recent addition to the set of financial institutions in China. Third, ineffective bankruptcy implementation makes the threat and penalty for bad firm performance non-credible. Fourth, the government plays the dual roles of regulator and blockholder for many

listed firms, including banks and financial services companies, which can lead to conflicting goals in dealing with listed firms and weakens the effectiveness of both of its roles. Finally, based on a large sample of listed firms, we find that on average Chinese firms have concentrated ownership (among the state and founder's families), tend to under-pay dividends to their shareholders, and have lower Tobin's Q, compared to firms in countries studied by LLSV.

One of the major problems Chinese stock markets face is caused by the large amount of shares in listed companies owned by the government and government entities. This overhang creates great uncertainty about the quantity of shares that will be tradable going forward. Investors fear that if prices go up then the government will sell their holdings and this will prevent further price rises or even depress them. This uncertainty has caused share prices to stagnate despite the very high levels of growth in the economy. In order to remove this uncertainty the government should announce a plan for selling these shares slowly over time. Each year a small amount would be sold so that the market could easily absorb the shares. Such a plan might take several decades to complete. Once announced the plan should be carried out without any deviation irrespective of the prevailing circumstances.

In summary, the overall evidence on the comparison of China and other countries' external markets is consistent with LLSV (1997, 1998) predictions: With an underdeveloped legal system and weak investor (both shareholder and creditor) protection, the fact that China has small external markets comes as no surprise. Figure 1 compares China's legal system and external financial markets to those of LLSV countries. The horizontal axis measures overall investor protection in each country, while the vertical axis measures the (relative) size and efficiency of that country's markets for funds external to the firm. Countries with English common-law systems (French civil-law systems) lie in the top-right region (bottom-left region) of the graph, while China is placed close to the bottom-left corner of the graph.

Finally, going forward, in addition to improving the regulatory environment surrounding listed firms and the stock market, China should develop finan-

Figure 1. Comparison of Legal and Financial Systems

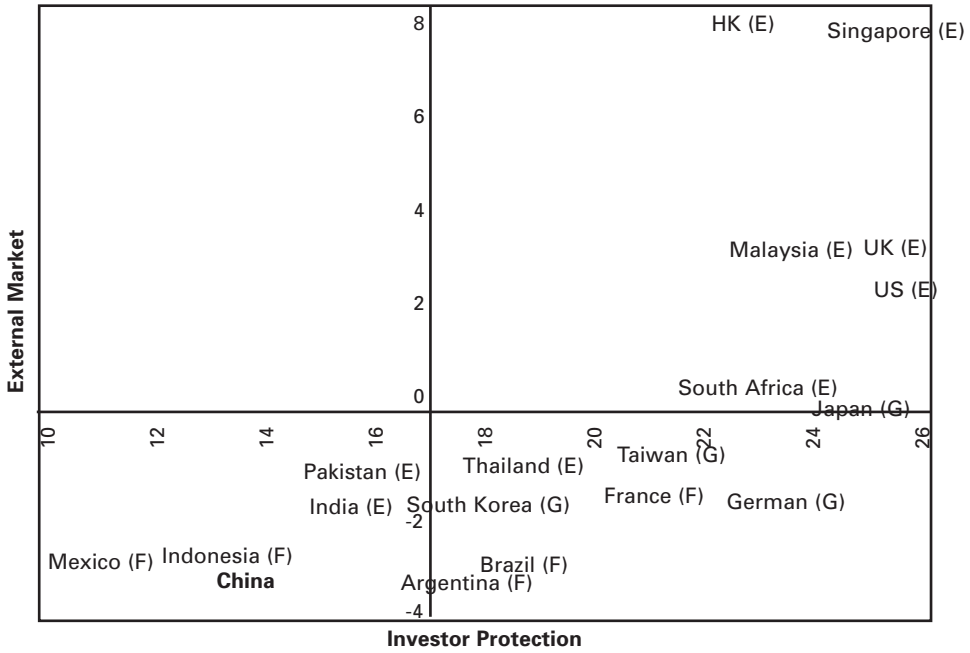

Figure 1 compares China's legal system and external financial markets (i.e., those for raising funds from outside the firm) to those of LLSV countries (LLSV, 1997, 1998). Following LLSV (1997, 1998), the score on the horizontal axis measures overall investor protection in a country. It is the sum of (overall) creditor rights, shareholder rights, rule of law, and government corruption. The vertical axis measures the (relative) size and efficiency of that country's external markets. The score of a country measures the distance of the country's overall external markets score (external cap/GNP, domestic firms/Pop, IPOs/Pop, Debt/GNP, and Log GNP) to the mean of all countries, with a positive (negative) figure indicating that this country's overall score is higher (lower) than the mean.

cial markets that are diversified and more balanced. This includes the further development of the bond market (including both government and corporate bond markets), the venture capital market so as to support the growth of high tech firms, and the real estate market. Moreover, more financial products such as derivative securities should be introduced to the market so that investors can form more balanced portfolios in addition to stocks.

Alternative Forms of Financing

The weaknesses of the banking sector and limited size of the stock markets raise the question of how China's phenomenal growth over the last two decades has been financed. Our view is that alternative channels of finance allow firms in the Hybrid Sector to raise funds and to grow from start-ups to successful industry leaders. We also examine the alternative governance mechanisms employed by investors and firms that can substitute for China's weak formal corporate governance mechanisms.

A Comparison of the Hybrid Sector vs. the State and Listed Sectors

In terms of the growth of *industrial output* produced in the three sectors from 1996 to 2002, the Hybrid Sector grew at an annual rate of 14.3 percent, while the State and Listed Sectors combined grew at only 5.4 percent annually during the same period. In addition, the growth rate for investment in fixed assets of the Hybrid Sector is comparable to that of State and Listed Sectors combined, which implies that the Hybrid Sector is actually more productive than the State and Listed Sectors. Finally, there has been a fundamental change among the State, Listed, and Hybrid Sectors in terms of their contribution to the entire economy: the State Sector contributed 76 percent of China's total industrial output in 1980, but in 1996 it only contributed 28.5 percent; in 1980 individually/privately owned firms, a type of Hybrid Sector firms, were negligible, but in 1996 they contributed 15.5 percent of total industrial output.

The Hybrid Sector is a much more important source for employment opportunities than the other two sectors. Over the period from 1995 to 2002, the Hybrid Sector employed an average of over 70 percent of all non-agricultural workers, while the Township Village Enterprises (TVEs, a type of Hybrid Sector firm) are by far the most important employer for workers from the rural areas. Moreover, the number of employees working in the Hybrid Sector has been growing at 1.5 percent over this seven-year period, while the labor force in the State and Listed Sectors has been shrinking. These patterns are particularly important for China, given its vast population and potential problem of unemployment.

Discussion on How Alternative Financing Channels Work

There are two important aspects to alternative financing channels in the Hybrid Sector. The first is the way in which investment is financed. The second is corporate governance. We consider each in turn.

Once a firm is established and doing well, internal finance can provide the funds necessary for growth. We found earlier that about 60 percent of the funds raised by the Hybrid Sector are generated internally. Of course, internal finance is fine once a firm is established but this raises the issue of how firms in the Hybrid Sector acquire their "seed" capital, perhaps the most crucial financing during a firm's life cycle. We have presented evidence on the importance of alternative and informal channels, including funds from family and friends. There is also evidence that financing through illegal channels, such as smuggling, bribery, and other underground or unofficial businesses also play an important role in the accumulation of seed capital. Though a controversial issue for the government, our view, based on similar episodes in the history of other developing countries, is that as long as the purpose of money making is to invest in a legitimate company, it may be more productive for the government to provide incentives for investment rather than to expend costs discovering and punishing these activities.

Perhaps the most important mechanism for corporate governance within the non-standard financial sector that supports the growth of the Hybrid Sector is trust, reputation and relationships.[6] According to the World Values Survey conducted in the early 1990s, China has one of the highest levels of social trust among a group of 40 developed and developing countries. Without a dominant religion, one can argue that an important force in shaping China's social values and institutions is the set of beliefs first developed and formalized by *Kong Zi* (Confucius). This set of beliefs clearly defines family and social orders, which are very different from the western beliefs on how legal codes should be formulated.

The second important mechanism is *competition* in product and input markets, which has worked well in both developed and developing countries.[7] What we see from the success and life cycles of hybrid sector firms, such as those in Wenzhou of Zhejiang province, is only those firms that have the strongest comparative advantage in an industry (of the area) that survived and thrived. Based on survey evidence, we also find that entrepreneurs utilize various methods to remove entry barriers during their startup period, which, in turn, leads to more competition in the industries.

Summary and Concluding Remarks

We began this article by asking whether China's financial system will stimulate or hamper its economic growth. Our answer to this question, based on examining the history and current status of the financial system and comparing them to those of other countries, is in three parts. First, the large but inefficient banking sector has been the dominant force in the financial system, and has played a central role in funding the growth of all types of firms. However, it is currently plagued by the problem of NPLs, which, if not corrected properly, may cause major economic difficulties. Second, the stock market has been growing very fast since 1990, but has played a limited role in supporting the growth of the economy. However, the role of the financial markets is likely to change in the near future and they will play an increasingly important role in the economy. Third, while the banking sector and financial markets have done enough *not* to slow down the growth of the economy, the alternative financing channels have had great success in supporting the growth of the Hybrid Sector, which contributes most of the economic growth as compared to the State and Listed Sectors. The non-standard financial sector relies on alternative financing channels including internal finance, and on alternative governance mechanisms, such as those based on trust, reputation and relationships, and competition to support the growth of the Hybrid Sector. Going forward, we believe that these alternative financing channels and governance mechanisms should be encouraged rather than replaced. They should be allowed to coexist with the banks and markets and continue to fuel the growth of the Hybrid Sector.

We conclude by pointing out the most significant challenge for improving China's financial system: Economic stability is crucial for the continuing development of the Chinese economy, and the stability of the financial system relates to economic stability in three dimensions. The continuing effort to reduce and eventually bring down NPLs to normal levels is important in avoiding a banking crisis, while the effort to improve the regulatory environment surrounding the financial markets (including governance and accounting standards) can certainly help prevent a stock market crash/crisis. The entrance of China to the WTO introduces cheap foreign capital and technology, but free capital inflow and foreign competition and speculation also bring the risk of a twin crisis (foreign exchange and banking/stock market crisis), which severely damaged emerging economies in Asia in 1997. In order to prevent such a crisis, policies toward improving the financial system must be made along with supportive fiscal and trade policies.

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Endnotes

1. Franklin Allen, Jun Qian and Meijun Qian, "Law, finance, and economic growth in China," *Journal of Financial Economics* 77 (2005), 57–116.
2. The Hybrid Sector includes 1) privately owned companies (but *not* publicly listed and traded) where controlling owners can be Chinese citizens, investors (or companies) from Taiwan or Hong Kong, or foreign investors or companies; and 2) collectively—and jointly—owned companies, where joint ownership among local government, communities, and institutions is forged.
3. See Rafael La Porta, Florencio Lopez-de-Silanes, Andrei Shleifer and Robert Vishny, "Legal determinants of external finance," *Journal of Finance* 52 (1997), 1131–1150; and "Law and finance," *Journal of Political Economy* 106 (1998), 1113–55. See also Asli Demirgüç-Kunt and Ross Levine, *Financial Structure and Economic Growth: Cross-Country Comparisons of Banks, Markets, and Development* (Cambridge, Massachusetts: MIT Press, 2002).

4. While few privately owned firms from the Hybrid Sector do become listed and publicly traded, we find that more than 80 percent of listed companies from their sample (more than 1,100 companies) are converted from SOEs. See Franklin Allen, Jun Qian and Meijun Qian, "Law, finance, and economic growth in China," *Journal of Financial Economics* 77 (2005), 57–116.
5. According to the *China Mergers and Acquisitions Yearbook* (Posts & Telecom Press, Beijing, China, 2004), there were 925 M&A's involving listed firms in 2003 totaling US$9.35 billion, which is about 1.8 percent of the total market capitalization. In many deals, a Hybrid Sector firm (non-listed) acquires a listed firm that is converted from an SOE, but the large amount of non-tradable shares held by the state remain intact after the transaction.
6. See Avner Greif, "Reputation and Coalitions in Medieval Trade: Evidence on the Maghribi Traders," *Journal of Economic History* 49 (1989), 857–882; and "Contract Enforceability and Economic Institutions in Early Trade: The Maghribi Traders' Coalition," *American Economic Review* 83 (1993), 525–548.
7. For example, see John McMillan, "China's Nonconformist Reform," *Economic Transition in Eastern Europe and Russia: Realities of Reform*, ed. Edward Lazear (Stanford: Hoover Institution Press, 1995), 419–433; John McMillan, "Markets in Transition," in *Advances in Economics and Econometrics* Vol. 2, ed. David Kreps and Kenneth Wallis (Cambridge: Cambridge University Press, 1997), 210–239; Franklin Allen and Douglas Gale, *Comparing Financial Systems* (Cambridge: MIT Press, 2000), and "Corporate governance and competition," in *Corporate Governance: Theoretical and Empirical Perspectives*, eds., Xavier Vives (London: Cambridge University Press, 2000), 23–94.

Law, Institutions, and Property Rights in China

DONALD CLARKE, PETER MURRELL, AND SUSAN WHITING

The most outstanding feature of post-Mao China is unquestionably its economic growth. This growth poses a challenge for any theory that posits a formal legal system guaranteeing secure rights of property and contract as a precondition for significant growth, because at least on the surface China does not appear to have such a legal system. However, the Chinese experience may show support for a theory that development induces law.

This essay examines the relationship between law, institutions, and property rights in China. It shows on the one hand that Chinese legal institutions are unquestionably weak, such that it is hard to imagine them playing a major role in inducing economic growth. At the same time, however, it finds that economic actors use legal institutions such as courts to a perhaps surprising degree. It also finds that legal institutions, while generally weak, are stronger than they were in pre-reform China.

It concludes that while the Chinese experience casts considerable doubt on the thesis that a formal legal system guaranteeing rights of property and contract is necessary for substantial growth, the Chinese legal system does appear to have some role to play in the country's economic life and is not simply ignored by economic actors.

The Rights Hypothesis

Economic growth requires that economic agents believe that the politico-socio-economic equilibrium is such that they can expect a reasonable return from their investments in property and that they can reasonably expect that agreements made with other economic agents will be fulfilled. Therefore, in understanding the determinants of a country's growth performance, a central question is which mechanisms fostered the appropriate expectations among property owners and those making agreements.

The emphasis in the recent economics literature, echoed in the pronouncements of the World Bank and similar organizations, is on formal institutions or the rule of law as crucial in fostering the appropriate expectations among property owners and among those undertaking transactions.[1]

The emphasis on the rule of law follows an important school of thought in institutional economics dating back to Max Weber (which we shall here call the Rights Hypothesis). This holds that economic growth requires a legal order offering stable and predictable rights of property and contract. A typical formulation can be found in the work of Douglass C. North, who asserts that "impersonal exchange with third-party enforcement . . . [via an effective judicial system] has been the crucial underpinning of successful modern economies involved in the complex contracting necessary for modern economic growth"[2] and that "the inability of societies to develop effective, lowcost enforcement of contracts is the most important source of both historical stagnation and contemporary underdevelopment in the Third World."[3]

The Chinese Legal System

Economic reform in China was marked from the beginning by a recognition that law had a new and important role to play.[4] Yet this role was not at first the role contemplated by those who would stress the importance of formal institutions in the process of economic development, which is essentially a claim about how healthy private economic activity is fostered. Early Chinese reform policy did not contemplate a major role for the private sector in economic life—it was essentially about running the state sector better—and therefore was not concerned with what might encourage entrepreneurship. The role for the legal system in the early reform era was one of bringing order and stability to political and social life after the chaos of the Cultural Revolution. In particular, a key ambition of those promoting legal reform was to bring regularity to operations of gov-

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ernment and the policy-making process as a cure for excessive devolution of power from the center and the resultant policy inconsistencies and outright contradictions.[5] While predictability was praised as a virtue in law, such discourse was largely confined to the realm of substantive criminal law and not linked to economic growth.

In the economic realm, law was intended to be a mechanism for regulating the operation of state-owned enterprises that would replace the particularistic bargaining regime of the past—a regime associated with soft budget constraints and wastefulness—with a regime of strict, impersonal, and universalistic rules that would impose discipline on enterprise managers and force them to operate more efficiently. A prime example of this type of mechanism is the Bankruptcy Law, passed in 1986. According to contemporary commentary, "the threat of bankruptcy urges all enterprises and people on and will turn muddleheaded people into shrewd ones and lazy people into diligent ones."[6] The important point to note is that prior to the Bankruptcy Law, the state already had the power to close down loss-making enterprises in the same way that General Motors has the power to shut down an inefficient factory. Thus, the Bankruptcy Law and other similar enactments were as much efforts by the state to effect policy in a new way as they were new policies in and of themselves.

Only more recently have policymakers begun to think about the legal system as a guarantor of expectations of non-governmental actors, and thus as a promoter of entrepreneurship and investment. Yet China's current system has a number of problems that make the achievement of this goal difficult. Prominent among these is the bewildering array of bodies that have the right or the practical power to make rules of varying degrees of binding effect, coupled with the absence of an effective system for resolving conflicts.

The Constitution and relevant statutes assign status levels to different types of rules, and make clear that rules of lower status must yield before rules of higher status. The problem is that there is no effective system either for enforcing jurisdictional and subject-matter limitations on any particular body's lawmaking power or for resolving the conflicts that must invariably arise. Various bodies such as the National People's Congress (NPC), its Standing Committee, and the State Council may review and invalidate legislation passed by lower-level bodies. To date, however, the NPC Standing Committee is not known to have overturned a single administrative or local regulation.[7]

To be sure, conflicting rules and over-ambitious claims of jurisdiction do not come self-labeled and unambiguous, and it is difficult to expect any institution to find such problems in the abstract. Yet the institution that would appear ideally suited to look at such claims in concrete situations, the court system, is equally unsuited for the task. Although higher-level rules are in theory superior to conflicting lower-level ones, courts are prohibited from invalidating legislation. This prohibition, operating together with the principle of local control over court personnel and finances, means that in practice courts must generally uphold the conflicting *lower*-level rule, at least when it issues from the level of government that controls the court in question. This principle works against unity within the legal system.

Moreover, despite the stunning increase in the sheer volume of legislation, much less has changed in the institutional structure for implementing NPC legislation. This is not to say that such legislation cannot be implemented (although that is sometimes true); it is to say that the legal system as a mechanism for implementing legislation has changed relatively little.

Courts, for example, are recognizably the same institution they were at the outset of reform. Both at the outset of the reform era and now, court personnel are appointed locally, such appointments being as a practical matter within the jurisdiction of the local Party organization department. Then as now they are subject to local financial control. The general level of legal training of judges remains low, although it is significantly higher than before in large cities.

Courts remain not a source of overarching authority, but simply one bureaucracy among many. When the Supreme People's Court issues an instruction to lower courts on matters such as enforcement of judgments where the cooperation of banks is needed, the instruction must be co-signed by the People's Bank of China in its capacity as regulator of the banking system if it is to have any hope of being effective. Courts have their own particular sphere of competence and jurisdiction, but it cannot be assumed that any particular law contemplates court involvement in case of violation, or that court involvement would be effective even if contemplated.

Indeed, Chinese legislation is often remarkable for its lack of institutional anchoring. Like the policy documents it has come largely to replace, it is often

evidently intended more for edification than for litigation, and continues, a quarter of a century into the reform era, to contain broad statements of policy and legally unenforceable norms. The July, 2004 draft of the revised Company Law, for example, provides more duties for directors and officers than the current Company Law, enacted more than a decade earlier, but little more by way of remedies for shareholders and others injured by a breach of those duties. So little consideration is given to institutional context that the entire section on fines and other state-imposed sanctions on companies for breaches of the law neglects (in both the original version and the draft revised version) to specify which state organ has the authority to impose such sanctions.

In short, reform-era China has seen a great many policy initiatives that are clearly different in content from the pre-reform era, and many of those policy initiatives have been embodied in legislation. Moreover, it seems clear that many of those policy initiatives, from decontrol of pricing in large sectors of the economy to the lowering of barriers to market entry, have contributed mightily to economic growth. But this is not the same thing as saying that the legal system as such has promoted this growth. That claim must be supported by an analysis of the institutions of the legal system, and more particularly by a showing that the policy changes expressed in legislation were made meaningful through institutions that did not exist (at least in any important way) before the reform era.

Making Sense of the Conundrum

The experience of China clearly poses a challenge for the Rights Hypothesis, with its emphasis on the importance of a well-functioning legal system. There are, however, several possible solutions to the conundrum.

One is the unfalsifiable proposition that China would have grown even faster with secure property rights. However interesting this conjecture, not much more can be said about it.

There are, however, other more tractable hypotheses. First, it could be that although courts and other formal legal institutions do not effectively enforce rights, rights are enforced somewhere else in the system through some other mechanism. There are many mechanisms for the vindication of claims arising out of contractual relationships that do not involve the court system—for example, social or business networks. It is also possible that while certain types of rights are not well protected, other types of rights are, and it is the latter that are important for economic growth.[8]

Consistent with this view is one line of reasoning that has been particularly influential in economics: China's reform has been characterized by a series of arrangements that have been second-best substitutes for the more formal institutions envisaged by the Rights Hypothesis.[9] Thus the dual-track pricing system meant that administrative methods of contact enforcement would be effective for a while in large spheres of the economy, giving enterprises and entrepreneurs time to develop newer methods of contract-enforcement that were consistent with market-based exchange. Stronger managerial incentives in state-owned enterprises can also be interpreted as an institutional substitute, providing an impetus toward greater efficiency at a time when private ownership with effective corporate governance was not politically palatable. Similarly, effectively decentralizing property-rights to local governments and allowing anonymous bank accounts can be viewed as mechanisms for an overly powerful central government to bind itself, when formal legal institutions cannot possibly play that role.

Second, it could be that the Rights Hypothesis is simply wrong: the system does not provide rights but significant growth occurs, and therefore there is not an important connection between the two. Both China and the Soviet Union managed considerable growth through planning.[10] McMillan and Woodruff document a thriving private sector in Vietnam, although virtually none of the enterprise managers they interviewed believed that courts were of any value in dispute resolution.[11]

It could also be that growth does not strictly speaking require that the legal system provide enforceable *rights* that is, the actual ability, in certain special circumstances, to choose to invoke the coercive power of the state in support of one's personal interests. All that is needed is that the system operate in a predictable manner. Therefore, the Rights Hypothesis could be wrong in focusing so strongly on the particular institution of rights provided by the formal legal system.

Another approach to understanding the relationship between China's data on growth and the Rights Hypothesis is to disaggregate the general notion of

"rights" into property rights and contract rights, and to hypothesize that the institutions that matter are not so much those that enable private contracting between citizens as those that protect investors against unpredictable or excessive expropriation by government. We could call the former "contracting institutions" and the latter "property rights institutions" as a convenient shorthand. The key is that there is a difference between institutions that protect expectations vis-à-vis private parties and those that protect expectations vis-à-vis government.

The basis for distinguishing these institutions is the fact that they differ in the availability of substitutes and in the amount of economic activity that depends on institutions for which there is no good substitute. There are many substitutes for formal legal institutions in the realm of contract: informal and social sanctions, trusted middlemen, networks such as guilds, reputation (in a repeated-game context), and self-enforcement mechanisms such as hostage-taking. These mechanisms can all, it would seem, go far.

Effective property rights institutions as defined here, however, have few if any substitutes. How can one protect one's self informally from government seizures? Moreover, the absence of effective property rights institutions (whether formal or informal substitutes) makes difficult or impossible a much larger class of activity than the absence of effective formal contract institutions: any economically rational investment whose payoff is significantly deferred into the future.

This intuition finds empirical support in a recent paper by Acemoglu and Johnson, who unbundle "institutions" into institutions that support contract rights and institutions that support property rights, and find proxies for each.[12] Their ultimate finding is that while contracting institutions do affect some things such as the form of financial intermediation (debt contracts, because easier to enforce, are used more often that equity contracts where contracting institutions are poor), it is property rights institutions that matter for investment and long-run economic growth.

The relevance of this work for the Rights Hypothesis as applied to China is that it suggests that the various shortcomings of China's legal institutions insofar as they protect contract rights may not matter very much, provided that the political structure in a sufficient number of places provides a reasonable degree of certainty to investors, both public and private.

This kind of predictability does indeed appear to exist, at least in some places. Public investors include various departments of the central government as well as local government. Such investors do not generally fear expropriation. First, local governments in practice have fairly robust rights to their assets against the central government. Although such rights have no basis in China's legal and constitutional system—China is unitary state, and local governments could no more maintain ownership against the central state than the Chevrolet division could maintain ownership against General Motors—they are generally respected in practice. Second, the individual officials who make investment decisions on behalf of state agencies are not in general personally harmed by a decision of a superior agency to appropriate the benefits of the investment. Consequently, even if they expect some degree of appropriation, they still have an incentive to make the investment if its success would result in personal benefits (for example, promotion). Third, as Whiting has shown, local governments can and do encourage or discourage growth through the presence or absence of investment-protective policies.[13]

The Role of Legal Institutions: Dispute Resolution Among Business Firms

A case study may demonstrate the complexity of the history of legal institutions in post-Mao China. It is not a simple story of one-directional development, but neither is it one of stagnation. Contract law and court enforcement have been of significance among businesses. This is surprising given the customary notion of law as unimportant in this realm, whether in traditional or modern China, and whether in the Mao era or the post-Mao era.

Data drawn from a World Bank survey of 1500 Chinese firms show that in the year 2000, 31.1 percent of firms had at least one "major dispute" with clients, while 21.9 percent of firms had at least one major dispute with suppliers.[14] Once enterprises encounter disputes, what mechanisms do they rely upon to resolve these disputes? This section examines the dispute resolution mechanisms employed by Chinese firms and finds that the courts play a moderately important role in the strategies firms employ. The importance of the courts likely reflects a number of factors, including the relative absence

of alternative mechanisms. The following paragraphs address mediation, arbitration, litigation, and the ability of to enforce judgments.

Negotiation and mediation

Negotiation directly between the contracting parties is the norm for resolving contract disputes in China. In a study of firms in Shanghai and Nanjing conducted by Whiting, 92.8 percent of firms typically relied on direct negotiation to resolve disputes. In the World Bank survey, 87.1 percent of firms used negotiation in the final resolution of disputes with at least one client, while 93.2 percent used negotiation in the final resolution of disputes with at least one supplier. The Shanghai and Nanjing study differentiates direct negotiation and negotiation employing a third party. In the latter case, only 11.8 percent of firms typically turned to a third party.

Self-enforcement, in which two parties bargain to attain a long-term cooperative solution based on the anticipated value of future contracts, is an important mechanism in contractual relations with Chinese firms. In the study of businesses in Shanghai and Nanjing, 90.6 percent of firms reported that in the event of a serious dispute, their *guanxi* (here, the long-term reciprocal relations grounded in social ties) with a supplier or contractor would be broken.

Furthermore, reputation also functions within business circles to help police contractual relations. In Shanghai and Nanjing, 74.2 percent of firms said that other businesses would know about it if a dispute arose between the firm and one of its suppliers. Economic (as opposed to strictly social) networks are important sources of information for both the search for contractual partners and information on their business practices. This is particularly true in the absence of institutions such as credit evaluation services.

Arbitration

The Arbitration Law went into effect only in 1995 (before that year, similar functions were handled by the Industrial and Commercial Bureau). The arbitration commission in Nanjing, the capital of one of the wealthiest coastal provinces, was not even established until 1998. In the first five years following passage of the law, all domestic arbitration commissions accepted only 17,000 cases, involving RMB 25.7 billion.[15] This compares with 1,329,020 strictly economic contract disputes involving RMB 413 billion handled by courts in 1998 alone.

In Whiting's Nanjing/Shanghai survey, some respondents had arbitration clauses in their contracts, but many fewer used them. These clauses apparently still allowed parties to choose to seek relief in court. In the Shanghai part of the sample, most respondents (domestic firms) had little awareness or understanding of the potential role for arbitration and perceived it as less authoritative than the courts despite the fact that they could apply for enforcement of arbitral decisions by the courts in the same way that they could for court decisions. Comments such as "where is there an arbitration commission" were common.

Litigation

Between 1983 and 2001, economic disputes, broadly defined, accepted by courts of first instance (as opposed to courts hearing appeals) increased at an average annual rate of 18.8 percent, peaking in 1999.[16] Put in wider domestic context, civil disputes increased at less than half that rate on average—8.3 percent per year—while criminal cases grew at only 4.7 percent per year over the same period. While it is difficult to specify a meaningful metric for evaluating the pace of growth, the courts appear to play a significant role during the reform period.

Contract dispute litigation in particular, which accounts for the lion's share (more than 90 percent) of all economic dispute cases accepted by the courts, increased at an average annual rate of 20.1 percent between 1983 and 2001. Data on the average value of disputes is available only through 1998. From 1983 to 1998, the total value of disputes grew 40.9 percent per year on average, while the average value of disputes grew at 11.9 percent per year on average. In 1998, the average value of a contract dispute heard in the courts nationwide was 310,167 RMB. The average value of arbitrated cases was much larger, but the number of disputes heard by arbitration commissions was minuscule in comparison.[17] In China, as elsewhere, litigation of contract disputes is rarely the first resort.[18] Nevertheless, in a World Bank survey of 1500 firms in the year 2000, 38.8 percent of firms used litigation in the final resolution of disputes with at least one client, while 29.8 percent used litigation in the final resolution of disputes with at least one supplier.

Conclusion

Courts play an interesting role in the Chinese political economy in transition; they are seen as authoritative (despite problems with enforcement) but not necessarily fair. According to one private business owner interviewed in Nanjing, "Going to court is not because it's fair but rather because it's authoritative." Strikingly, an intermediate court judge echoed this sentiment: "You need an authoritative person to handle [the dispute], and the resolution of the most authoritative person is the easiest to accept. It's not necessarily the fairest solution, but fairness isn't the standard. The key is whether it solves the problem." Somewhat surprisingly, the rating by business people of the legal system as a whole is solidly average: 56.3 percent of respondents in Shanghai and Nanjing rated the legal system as average, while 25.3 percent found it to be low or very low, and 18.3 percent found it to be high or very high. The contrast with their assessment of trustworthiness in contracting is noteworthy, since it is more negative—42.9 percent of respondents found it to be average, while 53 percent found it to be low or very low, and only 4.1 percent found it to be high or very high. Thus, there does appear to be a need for a neutral, third-party arbiter, yet such services appear to be undersupplied by informal and formal non-state institutions. The formal legal system clearly plays an important role, albeit an imperfect one.

Endnotes

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Growth and Structural Transformation in China

LOREN BRANDT, CHANGTAI HSIEH, AND XIAODONG ZHU

A Puzzle

Between 1978–2000, China experienced a real rate of growth in gross national product (GNP) of 7.1% per capita. On a per worker basis, GNP increased at a slightly lower real rate of 5.1%.[1] This puts China's experience more or less on par with that for South Korea and Taiwan at a similar stage in their economic development. Most analyses of the Chinese economy since reform have focused on the role of the non-agricultural sector (mainly manufacturing and services) in explaining this growth.[2] However, GNP per worker in the non-agricultural sector has grown at an annual rate that is actually significantly less than that in the aggregate, 3.3% versus 5.1%. This observation prompted Alwyn Young to comment: "To the degree that the reforms have improved efficiency, these gains may principally lie in agriculture."[3]

GNP per worker in the primary sector (largely agriculture) has increased more rapidly than that in the non-agricultural (4.5 versus 3.3 percent), but the growth is still less than that observed overall in the economy (5.1 percent). This suggests an alternative source of growth in the Chinese economy over this period: the reallocation of labor from agriculture to the non-agricultural sector, or the process of structural transformation.

Growth from this source arises because labor productivity is much lower in the agricultural sector than it is in the non-agricultural sector. In the late 1970s and early 1980s, for example, the difference in average labor productivity may have been on the order of 4:1–5:1. Thus, the reallocation of labor from the low productive to the high productive sector contributes to an increase in output per worker in the aggregate. Since the late 1970s, the percentage of the labor force with their major source of employment in the primary sector has fallen from over seventy percent to well less than fifty percent, while the number of individuals working in the non-primary sector has nearly tripled from 120 million to almost 360 million.

The Role of Structural Transformation

The contribution of each of these three sources to the growth in GNP per worker in the economy can be quantified through a simple accounting decomposition. In this accounting, the contributions of the primary and non-primary sector are measured by the growth of labor productivity in each sector, weighted by their respective shares of GNP. The contribution of the reallocation of labor, or structural transformation, is equal to the growth in non-agricul-

Table 1. Simple Growth Accounting

Period	Growth GNP per worker	Growth Contributions		
		Agriculture	Non-agriculture	Reallocation
1978–2000	5.1	1.3	2.4	1.4
1994–2000	6.2	1.4	3.7	1.1
1984–1994	4.2	0.5	2.0	1.6
1978–1984	5.6	1.4	2.2	2.0

Source: These estimates are based on nominal GNP and employment data reported by China's National Bureau of Statistics (*Chinese Statistical Yearbook*, various years). We convert these data to real terms using an alternative set of deflators also used by Alwyn Young in "Gold into Base Metal: Productivity Growth in the People's Republic of China during Reform," *Journal of Political Economy*, Vol. 111, No. 6 (December 2003), 1220–1261.

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ture's share of total employment weighted by the gap in labor productivity between the two sectors measured as a percentage of aggregate labor productivity. For example, if the gap in productivity is equal to 200 percent, an increase in the share of employment in non-agriculture by 10 percent implies an increase in output per worker of 20 percent.

In Table 1, we report the results of these calculations for the period between 1978–2000, and several sub-periods. What do we learn? Over the entire period, growth in labor productivity in the non-agricultural sector was the source of slightly more than 45 percent of the overall growth (2.4/5.1) we observe in output per worker. Labor productivity growth in agriculture accounted for a quarter of the growth, while the reallocation of labor from the less productive agricultural sector to the more productive non-agricultural sector contributed thirty percent. Performing the same decomposition over several sub-periods, we learn that the role of the reallocation was larger the first 15 years of reform than the last 10 years (40 percent versus 25 percent).

The important quantitative role of structural transformation raises a question fundamental to any interpretation of the growth process in China during reform: what determines the pace of structural transformation, and the rate at which labor leaves the farm to work in the non-agricultural sector? With slightly less than half of the labor force still primarily working in the agricultural sector, this also has obvious implications for China's future growth dynamics.

From a theoretical perspective, three separate factors could explain how rapidly labor leaves agriculture for non-farm employment. In the traditional structural transformation story, low productivity in agriculture and high farm prices inhibit growth in the non-agricultural sector. Thus, a fall in the price of agricultural goods relative to non-agricultural goods arising from more rapid total factor productivity (TFP) growth in agriculture relative to non-agriculture could encourage out-migration from the villages. Second, an increase in the rate of total factor productivity growth in manufacturing and services relative to agriculture with no offsetting effects on relative prices, i.e., the price of agricultural goods relative to non-agricultural goods, which increases the demand for labor in the non-agricultural sector. Finally, a decline in barriers or market distortions that reduce the productivity gap between the two sectors will hasten the rate of structural transformation. These barriers can arise from such factors as restrictions on migration from the countryside to the cities;[4] the limited capacity of villagers to obtain the human capital required to work in the non-agricultural sector; or the local red tape and capital market imperfections that restrict the ability of rural households to start and expand their own businesses.

How can we determine which of these three were important in China? There are two things we know. First, over the last 25 years, the price of manufactured goods relative to agricultural goods has been relatively constant. Second, the ratio of average labor productivity in non-agriculture relative to agriculture has also been relatively constant. In a fuller version of this analysis, we show that long-term stability in the ratios of non-farm to farm product prices and output per worker enables us to pinpoint changes in the ratio of non-farm to farm TFP as a key determinant of the rate of China's structural transformation.[5] In other words, the driving force behind the reallocation of labor from agriculture to non-agriculture has been the more rapid growth of total factor productivity, which measures output per combined unit of all inputs (including not just labor, but also land, capital, energy and materials) in China's non-farm sector.[6]

This also suggests that TFP growth in non-agriculture has both a direct and an indirect effect on growth in China, and thus, a larger overall role in China's development process. The direct effect comes in the form of an increase in output per worker in the non-agriculture sector; the indirect effect occurs through the effect of more rapid growth in total factor productivity in the non-agricultural sector on labor absorption from the agricultural sector, or the rate of structural transformation in the economy.

China's Other Transformation

Any analysis of productivity growth in China's non-agricultural sector must factor in China's other important transformation, namely, that involving the state sector. At the outset of reform, the non-agricultural sector, especially in the cities, was predominantly state-owned. For example, in 1978, 80 percent of total urban employment was in the state sector. In industry, 76 percent of the gross value of industrial output (GVIO) was produced by state-owned enterprises.[7] It is generally acknowledged that over much of the reform period, total factor productivity growth in the state-sector lagged considerably that in the non-state

sector, perhaps by as much as a 2:1 ratio.[8] Moreover, despite market liberalizing reforms that allowed entry of new firms into most sectors and freed up input markets through the dual-track system, the state sector continued to absorb enormous amounts of resources.[9] Overall, for example, the state sector was the beneficiary of nearly two-thirds of fixed investment in the economy up through the early-to-mid 1990s, much of which was financed through the banking system, which continues to direct its lending primarily toward state-sector clients. Even as late as 2003, half of fixed investment was in the state sector.

Until the massive layoffs beginning in the last half of the 1990s, this investment helped to support employment growth and a wage premium in the state sector in spite of the sector's lower TFP growth and declining share of both output and value-added in the economy. We observe the drag of the state sector in the growth process in the highly cyclical behavior of the economy up through mid 1990s. Periods of higher growth are associated with more rapid growth in output and employment in the non-agricultural, non-state sector.[10] Central to this expansion is the "leakage" of credit from the state financial system to the non-state sector. Periods of declining growth rates, on the other hand, are associated with financial repression, and tight administrative control over the flow of financial resources to the non-state sector.

The state sector's important role and its long-lasting negative influence on total factor productivity growth in non-agriculture and on the process of structural transformation are also visible in the sizeable differences we observe in growth rates across China's provinces. On average, GNP per worker in non-agriculture increased 3.3 percent in real terms per annum, but this conceals enormous heterogeneity. In Guangdong, Fujian, Zhejiang, and Jiangsu, for example, output per worker in non-agriculture increased almost two times the national average. At the other end of the continuum are provinces such as Gansu, Guizhou, and Jiangxi, which experienced growth in non-agricultural GNP per worker of only 0.6, 1.7 and 2.4 percent, respectively.

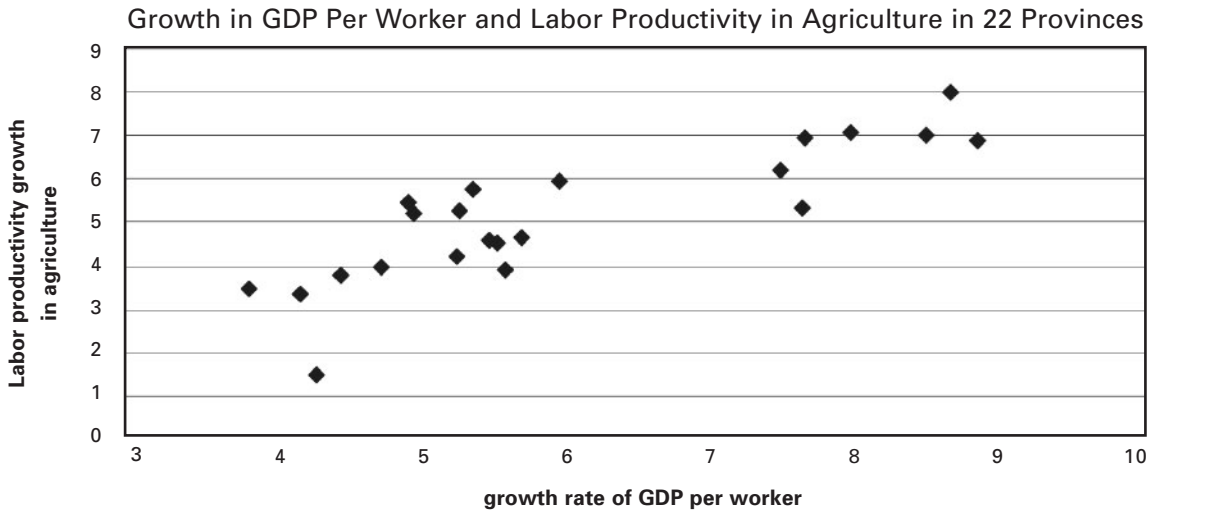
Significantly, we observe very strong positive correlations between growth in GNP per worker in the aggregate and GNP per worker in non-agriculture, GNP per worker in agriculture, and the pace of structural transformation, as captured by the rate of increase in the non-agriculture employment. These relationships are graphed in Figure 1. Moreover, each of these growth rates is negatively correlated with the initial size of the state sector, as reflected in the share of the state-sector in non-agricultural employment early in the reform period (see Figure 2). In other words, provinces that entered the reform period with the largest share of their economies occupied by the state sector tended to experience the lowest rates of labor productivity growth (in both agriculture and non-agriculture) and the lowest rates of labor force reallocation during the ensuing twenty-five years. Finally, Figure 3, which plots provincial data showing the state sector's share in non-agricultural employment for 1978 and for 2000, demonstrates the persistence and resilience of the state sector in China's provincial economies.

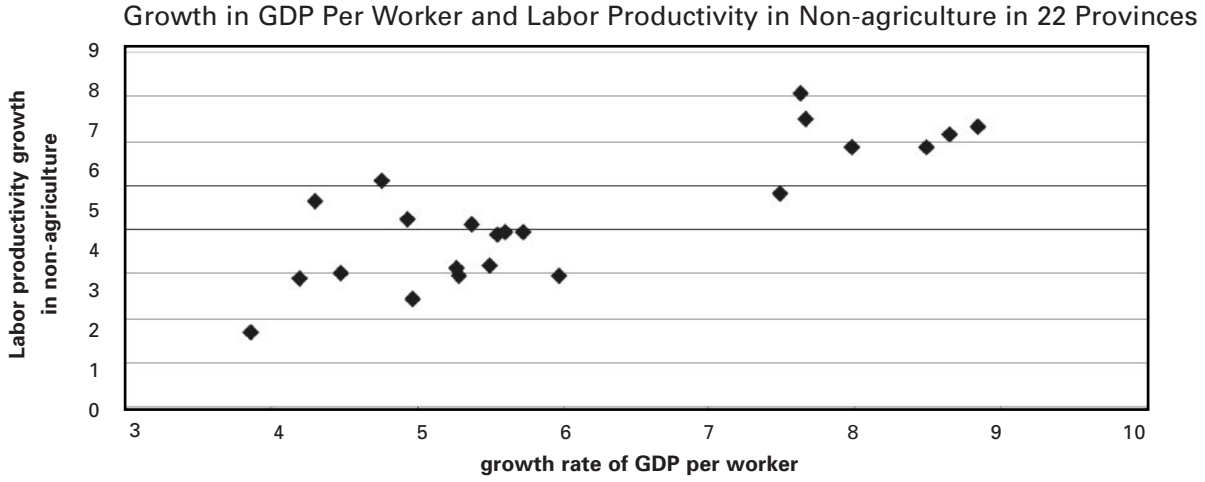
This persistence is suggestive of strong entrenched state sector interests at the provincial level that mattered significantly for credit allocation, for policy toward the non-state sector, as well as for agriculture (through the need to feed the urban population, etc.). Figure 4, displays the clearly positive relationship between the average share of investment going to the state sector between 1982 and 2000 and the state sector's initial share of employment.

China may have succeeded in "growing out of the plan" by the end of 1980s, but has found it much harder to grow out of the state sector.[11] The legacy of the state sector has lingered much longer through access to credit for the non-state sector and the lags with which much needed economic and institutional reforms have been carried out. More generally, the size of the state sector mattered for the entire trajectory of economic and institutional reform at the provincial level.

Much is often made of the "natural" advantages that the coastal provinces have experienced during economic reform. These are certainly there. But also significant is that for historical reasons—largely related to China's pre-1978 development strategy—the state sector never obtained the same prominence in these provinces prior to 1978 as it did in others. Interestingly, Guangdong, Fujian, Shandong, and Zhejiang ranked 11th, 14th, 17th and 23rd in terms of per capita GDP in 1978. Jiangsu ranked a much more respectable 6th. By 2000, these five provinces were ranked 4th-8th, behind only the three provincial-level municipalities of Shanghai, Beijing, and Tianjin in GDP per capita. Whereas the weak pre-reform development of the state sector seems to have accelerated reform-era progress in China's coastal regions, the

Figure 1. Growth Rates in Chinese Provinces, 1978–2003 (percent per annum)





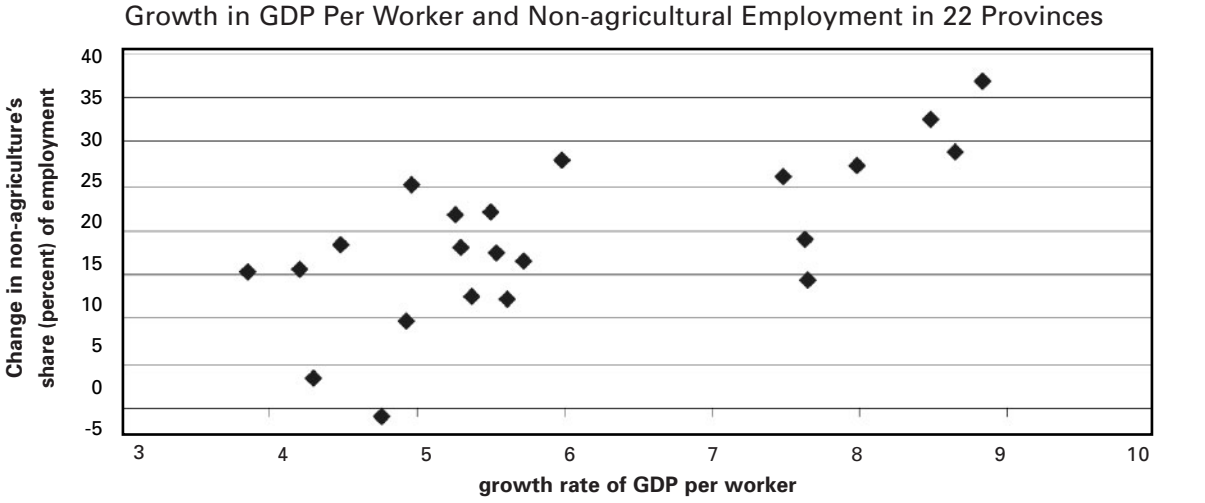
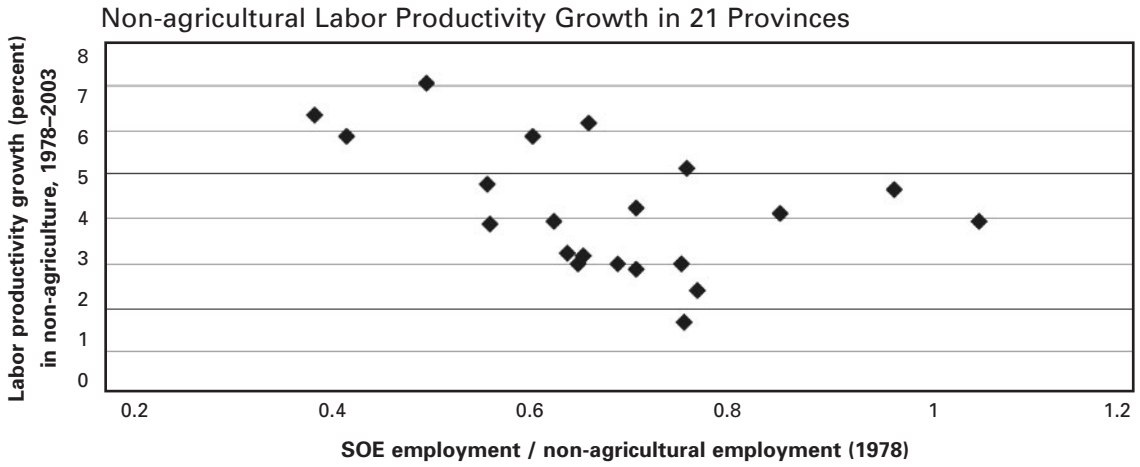
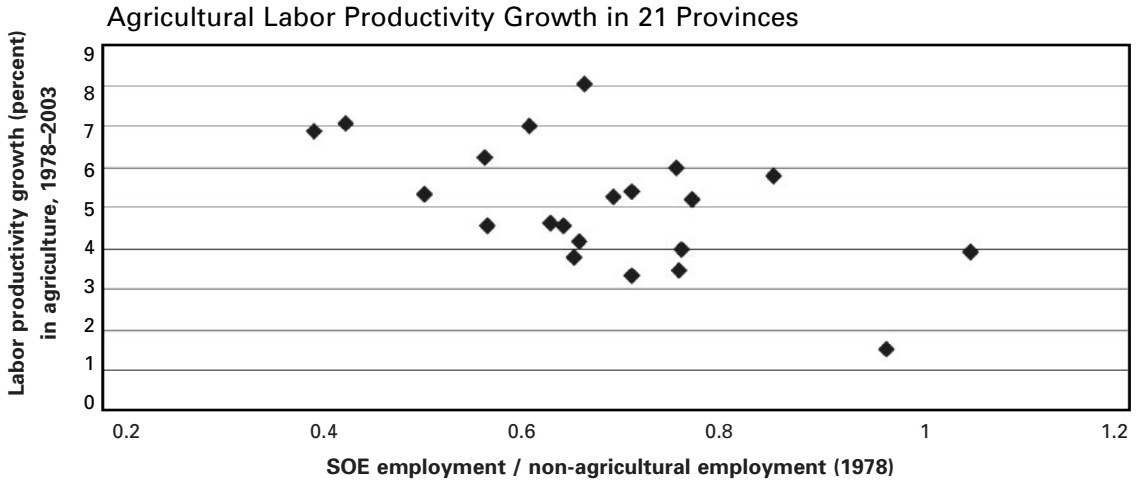
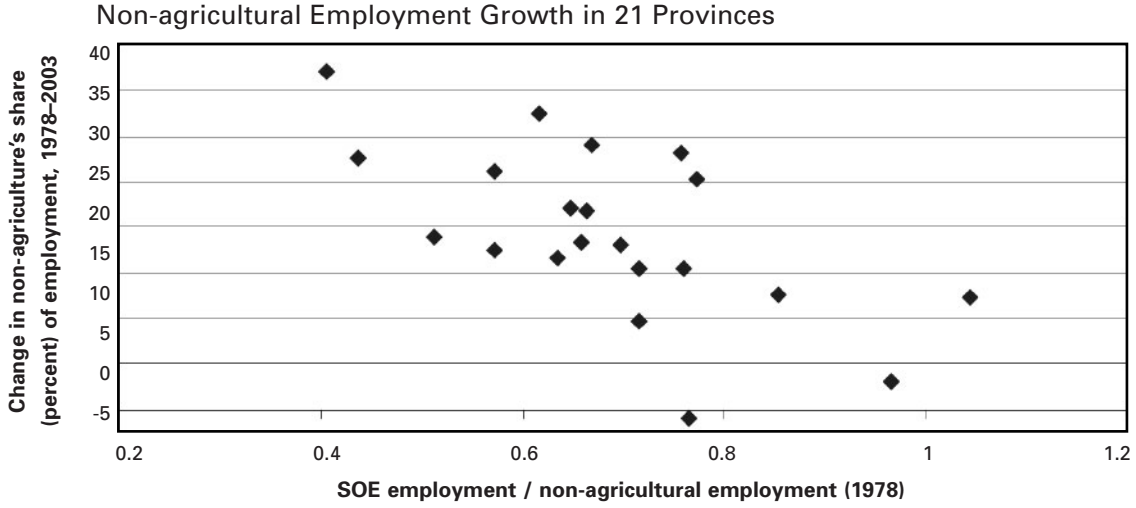


Figure 2. State-Owned Enterprise (including State Farms) Employment vs. Growth in Chinese Provinces, 1978–2003







huge levels of investment related to the development of the Third Front in the 1960s and 1970s strengthened the state sector in interior provinces, which influenced in turn resource allocation, policy and growth since 1978. Related, several scholars argue that the level of FDI in a province is negatively correlated with the size of the state sector, and link this to local protectionist policies in support of state firms.[12]

Looking Forward

With a sizeable gap in labor productivity between agriculture and non-agriculture, and roughly 40–45 percent of the working-age population still primarily working in agriculture, there remain significant future gains from structural transformation. Total factor productivity growth in the non-agricultural sector will continue to play a major role in determining the speed of this process, and in the overall rate of growth in the Chinese economy through its indirect and direct effects.

In this regard, the allocation of credit and investment will be critical determinants of the size of non-agriculture's future contribution to growth. More than forty percent of Chinese GNP currently goes to capital formation, which continues to be highly

Figure 3. Persistence in the State Sector (including State Farms) in 21 Provinces

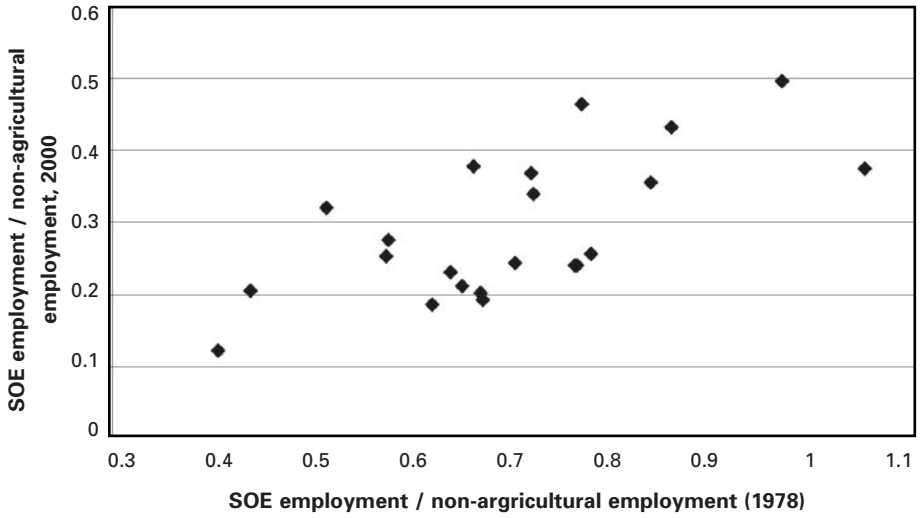
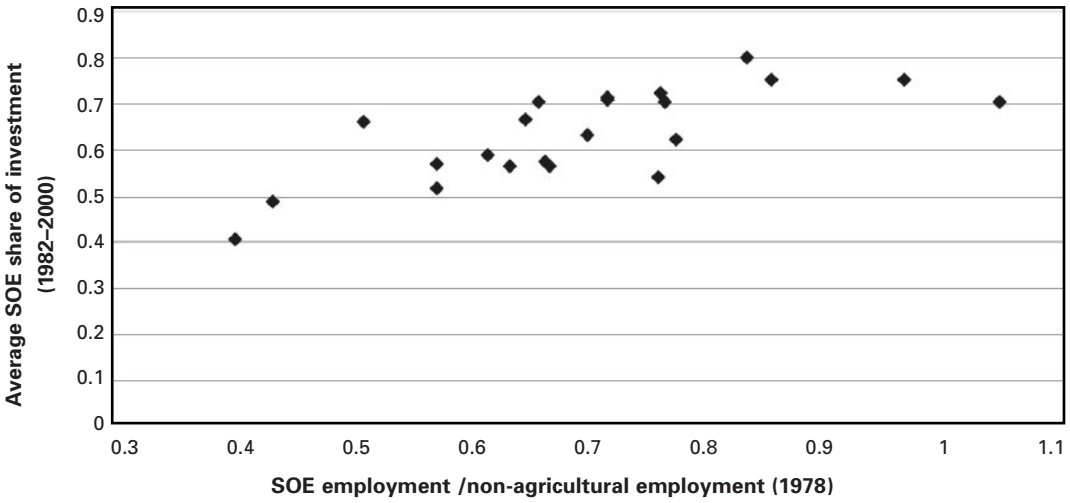


Figure 4. State Sector Shares of Investment and of Initial Employment in 21 Provinces



skewed towards the state sector (more than one-half in 2003). Continued inefficiency in the allocation of this investment, as well as the allocation of working capital and fixed investment loans, will only slow the growth of non-agricultural total factor productivity, and thus the rate at which labor leaves the farm. The major culprit here is the significant level of investment financed by the intermediation of funds through the highly inefficient state-dominated financial system. By all indications, China's two significant transformations will continue to be linked in the near-to-distant future.

ENDNOTES

1. The difference in the rate of growth GNP per capita and GNP per worker reflects the fact that workers per capita, or the total number of individuals working divided by the total population, increased over this period because of changes in the demographic composition of the population. This is most easily seen by recognizing that: GNP per capita = GNP/total population = (GNP/total workers) divided by (total workers/total population).
2. We will use the term primary (non-primary) and agricultural sector interchangeably. In point of fact, however, the primary sector also includes fishery and forestry.
3. Alwyn Young, "Gold into Base Metal: Productivity Growth in the People's Republic of China during Reform," *Journal of Political Economy*, Vol. 111, No. 6 (December 2003), 1220–1261.
4. These same restrictions may also affect TFP growth in the non-agricultural sector because they limit "agglomeration" effects. See Chun-chung Au and Vernon Henderson and xxxx, "How Migration Restrictions Limit Agglomeration and Productivity in China", *Journal of Development Economics*, forthcoming.
5. We show this more formally in a longer version of this paper which is available from the authors on request.
6. This does not imply that productivity growth in agriculture played no role in structural transformation. Absent productivity growth in agriculture, the relative price of agricultural goods may have increased, thereby dampening the effect of non-agricultural productivity growth in reallocation.
7. Township and village enterprises contributed 8 percent, and urban collective enterprises 16 percent.
8. Gary H. Jefferson, Thomas G. Rawski, Li Wang, and Yuxin Zheng, "Ownership, Productivity Change, and Financial Performance in Chinese Industry," *Journal of Comparative Economics* Vol. 28, No.4 (2000), 786–813.
9. Lawrence Lau, Yingyi Qian and Gérard Roland, "Reform without Losers: An Interpretation of China's Dual Track Approach to Transition," *Journal of Political Economy*, No. 108 (February 2000), 120–143.
10. Loren Brandt and Xiaodong Zhu, "Redistribution in a Decentralizing Economy: Growth and Inflation in Reform China," *Journal of Political Economy*, Vol. 108, No. 2 (April 2000), 422–439.
11. Barry Naughton, *Growing Out of the Plan: Chinese Economic Reform 1978–1993* (Cambridge University Press, 1995).
12. See Lee Branstetter and Robert Feenstra, "Trade and Foreign Direct Investment in China: A Political Economy Approach", *Journal of International Economics*, Vol. 58, No. 2 (December 2002), 335–358; Mary Amiti and Beata Smarzynska Javorcki, "Trade Costs and Location of Foreign Firms in China," IMF Working Paper, March 2005.

China's Growth Prospects

THOMAS G. RAWSKI

Following 25 years of extraordinary growth that raised every indicator of material welfare, lifted several hundred million from absolute poverty, and rocketed China from near autarchy into unprecedented global prominence, there is no shortage of predictions about China's growth prospects. Forecasts run the gamut from unbridled optimism to announcements of impending disaster.[1] Such variation is not surprising. The first quarter-century of Asian booms, beginning with Japan from 1955, Taiwan from 1960, Korea from 1965, and China from 1978, includes many commonalities, among them rapid growth of output, savings, investment, education, productivity, incomes, exports, and global trade share. This is the "East Asian Model"—the core phenomenon underlying the World Bank's "East Asian Miracle" study.[2] Subsequent experience in Japan, Taiwan, and Korea shows Asia's high performance economies diverging sharply after the first quarter-century of accelerated growth.

This essay seeks to illuminate the likely trend of China's economic performance over the coming decades. It ignores short-term instability as well as the possibility that growth itself, or dissatisfaction with unemployment, inequality and other concomitants of economic change could incite disruptive political upheaval.

Examination of Chinese data and economic structures in the context of cross-national studies of long-term performance reveals a strong case for continued rapid growth. Table 1 summarizes factors that loom large in the explanation of growth among OECD economies. Comparison with current Chinese realities is uniformly favorable. Indeed, we might reasonably expect China's economy to outperform projections based on extrapolation from multi-country studies.

- The systems, knowledge, and policies undergirding high growth in coastal areas now reside inside China's economy. Tens of thousands of managers and administrators know exactly how the coastal regions prospered. Successful implementation of this new knowledge in China's interior regions could enlarge future growth momentum.
- Benefits from China's rich legacy of entrepreneurship will expand with the continued erosion of barriers to private business. The explosion of rural enterprise after 1978 despite decades of anti-market, anti-profit education and propaganda confirms historian Tim Wright's characterization

Table 1. Implications of Endogenous Growth Perspective for Chinese Economic Prospects

Drivers of OECD Growth (Declining order of impact)	**Chinese Situation**
Average years of education	Rapid increase - high literacy, secondary & tertiary education growing
Trade exposure	Enormous increase - steep rise in trade ratio; #1 destination for FDI
Inflation variability (negative)	Inflation variability low despite episodes of moderate inflation
Physical capital	Enormous growth; capital formation approaches 40 percent of GDP
R&D spending	Level rising steeply; GDP share now above 1 percent; Multinational firms bolster China-based R&D activity
Tax burden (negative)	Burden for households low (urban) but high (rural); enterprise burden -moderate (formal rates); moderate to low (actual payment); expect rising tax burdens due to urbanization and welfare demands.
Inflation level (negative)	Low since 1995

Source: OECD growth drivers from Peter J. Nicholson, "The Growth Story: Canada's Long-run Economic Performance and Prospects," *International Productivity Monitor,* No.7 (fall 2003), 3-23.

Thomas G. Rawski is professor of economics and history at the University of Pittsburgh. ***The author has benefited from extensive discussions with Loren Brandt, Gary Jefferson and Dwight Perkins as well as information and assistance from Hepeng Jia, Victor Shih, Shaoqin Zhao and Yifan Zhang, none of whom are responsible for what follows.***

of China as a nation with an abundance of "small-time entrepreneurs."[3] Inflows of entrepreneurial talent from overseas Chinese and returned students will continue to reinforce the large and growing domestic stock of business acumen.

- China benefits from competent public administration sharply focused on economic performance. Several important but perhaps underemphasized features of public administration deserve attention.
  - Despite various forms of corruption, malfeasance, and cover-up of official wrongdoing, the chief objective of official activity is getting the job done. This contributes to China's status as a favored client of international agencies.
  - Chinese officials focus on economic performance.[4] National leaders have repeatedly jettisoned elements of ideology and tradition that interfere with economic objectives. With their career prospects dependent on quantitative scores that emphasize indicators of economic performance, local officials promote economic growth to a degree rarely matched in other low-income nations.
  - The experience of multiple economic downturns has taught Chinese leaders at all levels to respond aggressively to negative surprises. When difficulties arise (as in the 1998 economic downturn), leaders examine the situation, act forcefully to cope, and adjust policy if the initial response fails.

We conclude that there is ample reason to expect Chinese growth to continue.

What factors might disrupt China's enviable record of sustained growth? We ignore short-term fluctuations, which are certain to arise and impossible to predict, and focus on longer-term trends. The list of weaknesses that may impose substantial costs on China's economy is formidable: it includes inequality, unemployment, pollution, resource scarcity, corruption, risk-laden banks, and an inadequate social safety net, as well as problems in public health, rule of law, and corporate governance. These defects are not new. None has stalled China's remarkable growth spurt. Economies with strong growth momentum can surge ahead while dragging considerable excess baggage. China's steep economic advance may continue unless some obstacle cuts to the heart of the growth process rather than merely imposing costs.

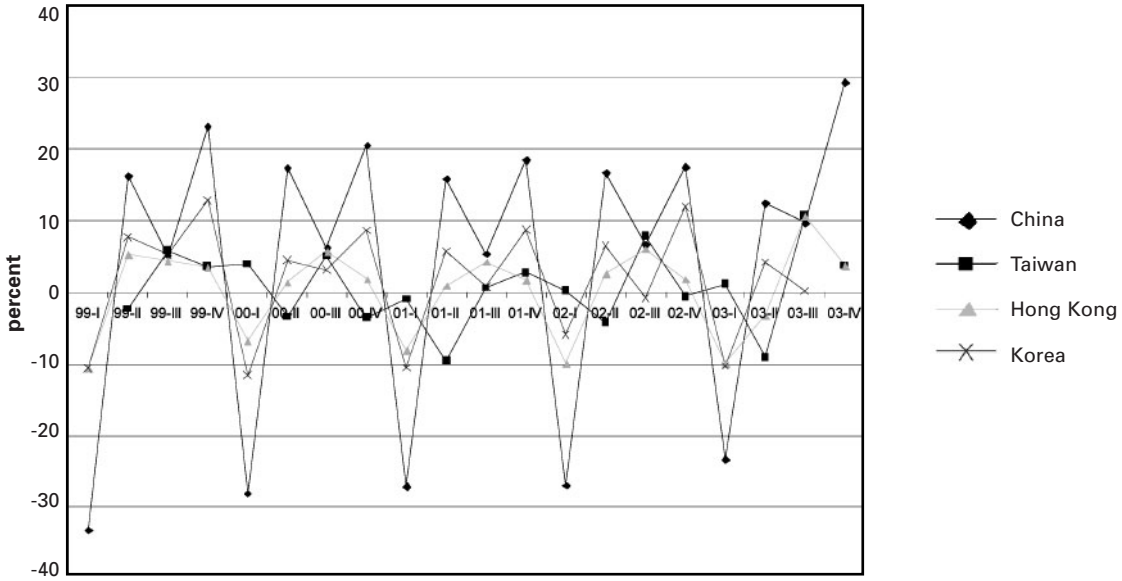
China's economic growth of the past 50 years, both before and during the current reform era, rests on a foundation of high saving leading to massive, but often ill-conceived investments. This pattern is not sustainable. The share of national product channeled to directly productive investment is likely to decline. If this happens, overall growth rates will move downward if long-standing patterns of low investment returns continue. We see the entire complex of issues contributing to low returns, which includes extensive official involvement in investment decisions, weak and pliable financial intermediaries, and differential access to capital markets favoring state enterprises, as the leading threat to the continuation of China's rapid economic gains.

East Asia's dynamic economies all depend on high levels of domestic saving. The public sector served as the main source of saving during China's plan era. As reform unfolded, household savings, largely channeled through the banking system, emerged as the leading source of investment finance. Governments, burdened by the legacy of unfunded pension obligations and unrepayable bank loans as well as costly new responsibilities for environment, infrastructure, and social welfare, will continue to consume rather than generate savings. The ratio of saving to income for Chinese households, already very high, is unlikely to rise and may well decrease in response to the growing proportion of elderly citizens, rising education and health care costs, and greater availability of consumer credit. Any reduction in the extraordinarily high growth of incoming foreign investment would reinforce the anticipated slowdown in the growth of funds available for domestic investment.

Regardless of trends in the supply of savings, we can expect a decline in the share of saving channeled into factories, equipment, business facilities, and other directly productive assets. Similar declines have occurred elsewhere in East Asia because of increased investment shares for housing, urban infrastructure, environmental remediation and other public goods.[5] In addition, China's desire to assume a major role in the global economy, along with its growing need to import natural resources, ensure that growing amounts of domestic savings will support overseas rather than domestic investment.[6]

Growth depends both on the GDP shares of savings and of directly productive investment, and on returns to investment projects. Like other socialist economies, China achieved poor investment returns under the aegis of central planning. R apid growth occurred because large investments overcame the

Figure 1. Nominal GDP: Quarterly Fluctuations in Four East Asian Economies



Source: Author's file Comp. GDP&FKF.seasonal.040104.

drag of low returns. The persistence of the same pattern during the reform period has stimulated complaints that China relies on "extensive" growth achieved by adding more resources to the production process rather than "intensive" growth based on higher productivity.

Despite vigorous reform efforts and the hugely beneficial impact of direct foreign investment, the overall investment picture reveals a surprising persistence of Soviet-style outcomes. This is strikingly evident in Table 2, which shows little change from Soviet-style seasonality in investment spending, with huge fourth-quarter spurts giving way to protracted slowdowns in the first half of the new year.[7] Figure 1 shows the aggregate consequences of wild swings in investment spending: seasonal fluctuations in China's GDP dwarf comparable variations in neighboring economies. Despite a quarter-century of reform, these seasonal patterns confirm the ongoing dependence of investment spending on the annual cycle of investment plans, credit quotas, and budgetary appropriations inherited from the pre-reform decades.

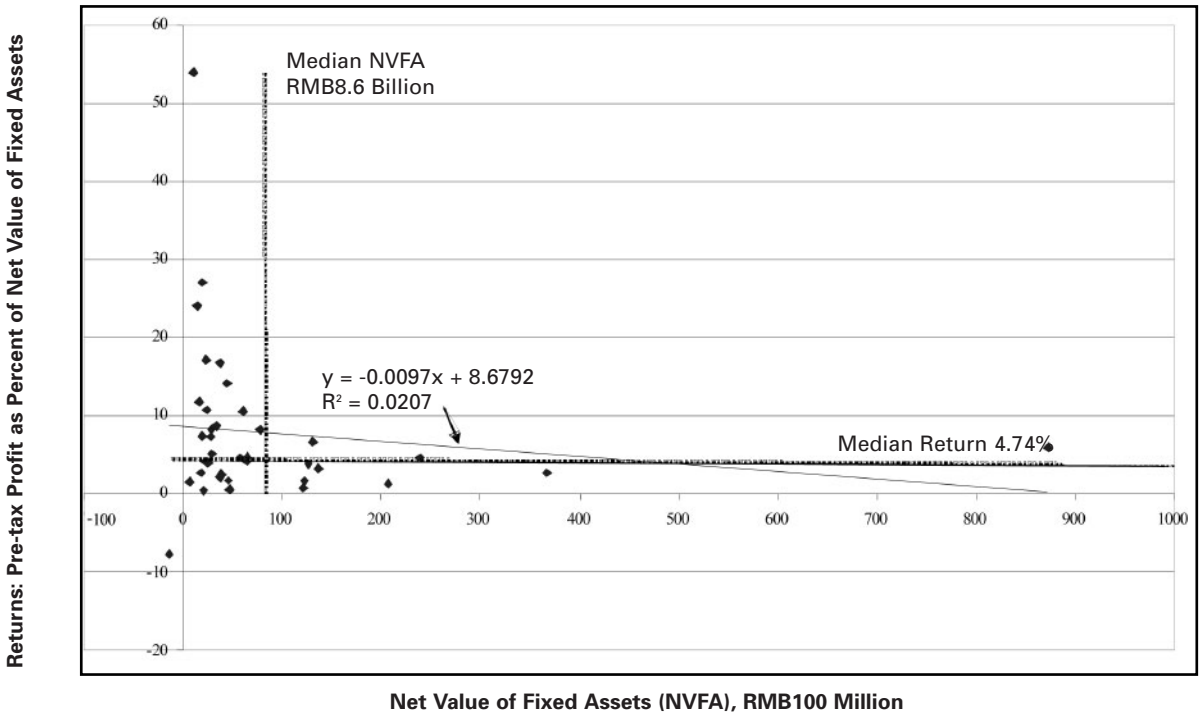
Officially managed investments typically generate low returns. China's recent GDP growth is only two to three percentage points above India's, even though the share of investment in China's GDP tops comparable Indian figures by 15 percentage points. Zhang Hanya, Secretary-General of the China Investment Association, confirms the implication of low investment returns in China, noting a 50 percent failure rate for investment projects during 1958–2001. For the 8th Five-Year Plan period (1991–95), Zhang puts the failure rate for medium and large-scale projects at 42 percent.[8] Recent complaints of excessive investment and ineffectual decision-making echo criticisms articulated before reform began, often using the same language.[9]

Table 2. Competed Investment in Fixed Assets Monthly Share of Annual Total (percent)

	1975	1990	2000	2002	2003
Jan/Feb	6.4	3.4	3.9	4.3	4.5
Mar	5.1	4.9	5.3	5.6	6.0
Apr	6.0	5.2	5.7	6.5	6.5
May	7.2	6.2	6.7	7.5	7.8
June	9.1	8.6	9.5	9.8	10.5
July	7.4	7.5	7.6	8.2	8.6
Aug	7.3	7.2	7.5	8.3	8.5
Sept	8.9	8.7	9.4	9.9	9.7
Oct	8.0	8.7	9.1	9.4	9.3
Nov	9.8	9.5	10.3	9.9	9.7
Dec	24.8	30.1	25.0	20.7	18.8
Q1 & Q2	33.8	28.3	31.1	33.7	35.3
Q4	42.6	48.3	44.4	39.9	37.8

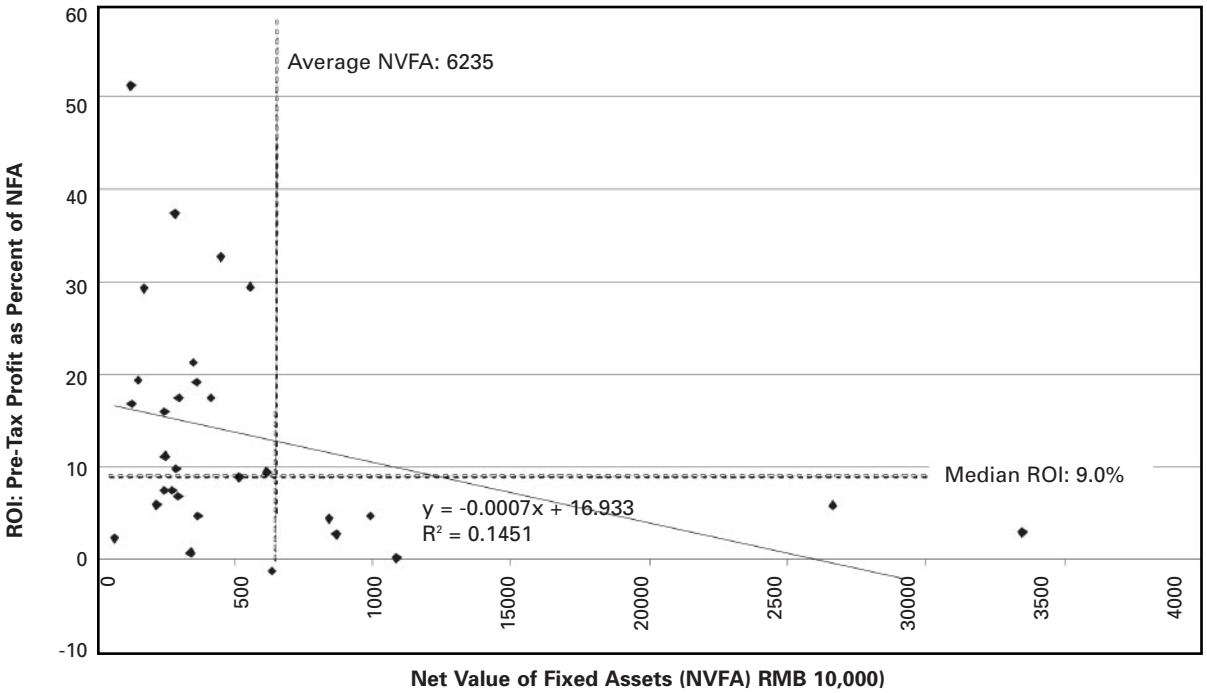
Source: *China Statistical Yearbook on Investment in Fixed Assets 1950–1995,* 77. *China Monthly Economic Indicators,* No. 1 *(2001),* 36; No.2 (2003), 32; No. 12 (2003), 32, and http://www.stats.gov.cn/was40/detail, accessed on March 25, 2004.

Figure 2. Scale vs. Returns at Large Chinese Steel Plants in 2000 (RMB 100 million and percent)



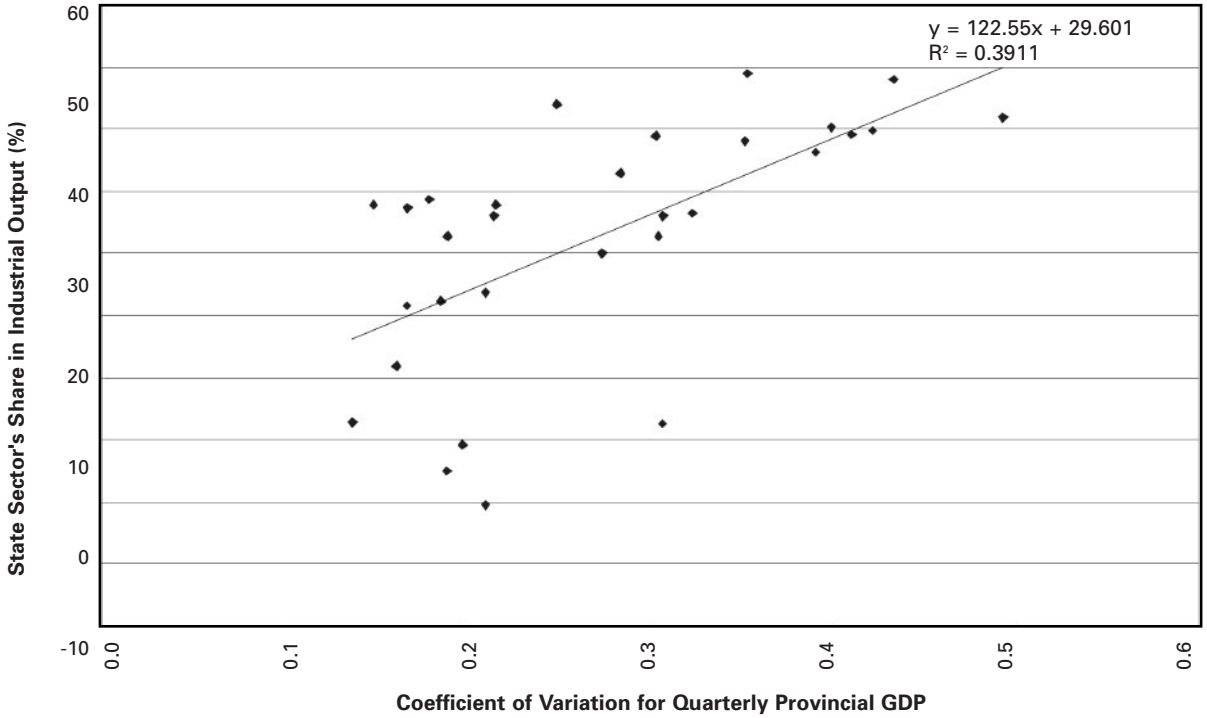
Source: Author's file steeltop37.Trmod.062103.

Figure 3. Henan Large/Medium Cement Plants: Scale and Returns in 2000 (RMB 10,000 and percent)



Source: Author's file Cement/HenanPlants00.061303.

Figure 4. Quarterly GDP Fluctuation vs. State Sector's Share in Industrial Output for 30 Chinese Province-level Units during 2000



Source: Author's file China_GDP_Q.040704

Comparisons of firm size and profitability in the national steel industry (Figure 2) and in the cement industry of Henan province (Figure 3) illustrate the typical negative association between investment scale and financial returns. In both cases, the data display a clear pattern in which larger firms earn lower profits. The association between state ownership of industry, official management of investment spending, and dizzying seasonal gyrations leaps out from Figure 4, which uses provincial data for 2000 to illuminate the strong positive association between high levels of state ownership and large seasonal fluctuations in regional output.

These observations cannot surprise Chinese economists and government leaders. As former Premier Zhu Rongji explained in his annual government work report for 2002, "We need to formulate and implement plans for the reform of the investment and fund-raising systems as quickly as possible."

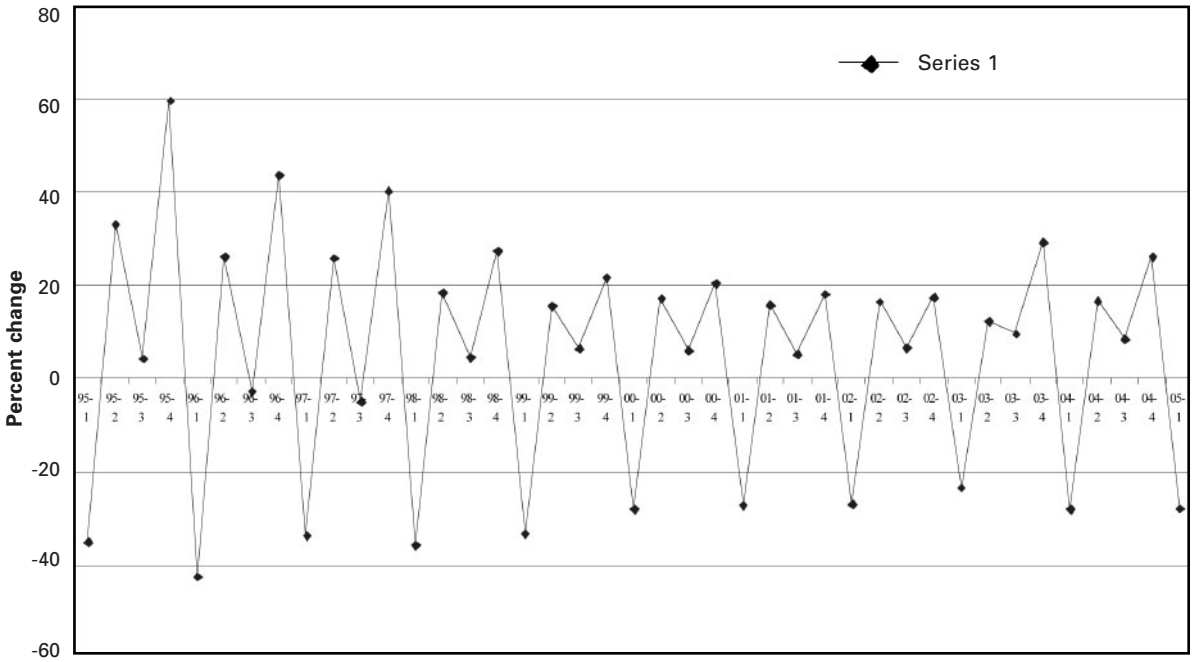
There is no easy blueprint for investment reform. Two options are available. Table 1 and Figure 2 confirm that past reform efforts focused on improving investment performance in the state sector have yet to deliver substantial benefits. Recognizing this unwelcome reality, current reform initiatives emphasize sweeping reduction in the size of public-sector industry, development of new systems for managing state assets, dilution of remaining public ownership of banks as well as non-financial firms, gradual expansion of private sector access to funds available through the banking system and the stock exchanges, and continuing strengthening of corporate governance in the state sector (where most of the bad investment occurs).

We see the outcome of these new reform efforts as a key determinant of China's growth trend over the coming decades. Continued high growth depends on the capacity of current reform initiatives to erode long-standing obstacles to raising the returns on domestic investment spending.

Although the difficulty of reforming investment system is apparent, recent developments include beneficial and potentially important changes, such as:

- Continued efforts to reform the financial system, now bolstered by modest but expanding outposts of foreign capital and ownership.
- New systems for managing state assets, including accelerated privatization of state firms outside the 196 large companies directly controlled by the central government, which eliminated nearly 90,000 state enterprises between 1998 and August 2004.[10]

Figure 5. Quarterly Growth of Nominal Chinese GDP 1995–1 to 2005–1
(Percent change from previous quarter))



Source: China Quarterly Gross Domestic Product Estimates 1992–2001 (Beijing, 2003) and subsequent official announcements.

- Growing prominence of private business, which is gradually gaining access to sectors (railroads, aviation) and funding sources previously reserved for state enterprises.
- New cooperative efforts to plan regional infrastructure investments,[11] suggesting that local governments have begun to curtail their long-standing addiction to promoting what Chinese observers castigate as "blind" and "duplicative" projects.

Interactions among these reform efforts can magnify beneficial outcomes. Further downsizing of the state sector has the potential to reduce the currently endemic conflict between efforts to fully commercialize bank lending and the responsibility of local governments to maintain employment in foundering state enterprises. Better alignment of interests between local bank branches and local governments could quickly reduce the flow of soft lending and thus ease the task of bank reform.

We conclude that China dynamic economy retains a strong potential for continuing the recent trend of rapid economic growth. Among numerous potential obstacles to continued economic advance, only the difficulties surrounding the process of formulating and implementing investment projects appear capable of disrupting the core mechanism of Chinese growth. Japan's recent descent from high growth into near-stagnation, which analysts now attribute to "the unholy alliance between zombies [meaning "companies that are competitively dead, but, sustained by their banks, continue to walk the Earth and give healthier firms nightmares"] and banks has proved to be one of the most durable, distorting and debilitating compacts in modern economic history."[12]

A similarly "unholy alliance" between shambolic banks and loan-gobbling zombie borrowers could tip China's dynamic economy into a Japanese-style quicksand of declining growth. Chinese economists understand the danger and recognize that rapid and thorough reform of institutions surrounding China's investment system offers the surest defense. Although institutional change is notoriously difficult to track, we can offer a simple metric for following the course of Chinese investment reform.

Seasonal indicators offer the best guide to reform outcomes. Reform success will dampen quarterly fluctuations in national investment spending and GDP. This has already occurred in provinces that lead China's move toward a market system, with beneficial consequences at the national level. Figure 5, which plots percentage changes in quarterly nominal GDP at the national level from 1995–1 to 2005–1, shows considerable reduction in both the fourth-quarter

peaks and the first-quarter troughs in GDP growth during the past decade. Despite some backsliding in the past two years, recent results show smaller fluctuations than during 1995–98 (for fourth-quarter peaks) or 1995–99 (for first-quarter troughs).

China's economy has achieved truly remarkable gains during the past quarter-century. Even so, the range of future outcomes remains wide. While continued growth seems likely, the survival of Soviet-style investment patterns opens the door to less attractive possibilities. Obscure statistical indicators, especially measures describing the seasonality of output and investment, may offer the best guide to expectations about the future of China's giant economy.

ENDNOTES

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2. The World Bank, *The East Asian Miracle: Economic Growth and Public Policy* (Oxford and New York: Oxford University Press, 1993).
3. Tim Wright, "Growth of the Modern Chinese Coal Industry: An Analysis of Supply and Demand," *Modern China*, Vol. 7, No.3 (1981), 325.
4. The response of local officials to the recent abolition of agricultural tax illustrates the centrality of economic indicators within the bureaucracy. In Weinan, Shaanxi province, local leaders previously "had to spend 80 per cent of our efforts on imposing agricultural tax, which was the most important job for us." Under the new system, "it will be a great pressure on us that we will be examined in terms of rural economic development and increases in farmers' income." See Ma Lie, "Township Governments Face Role Shift," *China Daily*, April 1, 2005, 5.
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6. You Wan and Qi Jianguo forecast long-term import dependence for 36 of 45 key mineral products (*ibid*. 13). Overseas investment by Chinese firms amounted to US$3.6 billion in 2004, with further increases expected. See *http://www.cbc.ca/cp/business/050207/b020718.html*
7. Professor Li Jingwen recalls a plan—era slogan: "10-20-30-40" —meaning 10 percent of investment spending in the first quarter of each year, 20 percent in the second quarter, and so on. Recent data follow the same pattern, which is unknown in market economies.
8. Gao Mu et al., "Zhang Hanya: touzi tizhigaige hexin jiushi fangquan," *Jingji cankaobao* [Economic reference news], July 27, 2004, available at *jjckb.xinhuanet.com/www/Article/200472794126-1.shtml*, accessed on October 8, 2004.
9. For example, enterprises were given the right of decision-making in the late 1970s. "However, three decades later, enterprises, state-owned, state-held, or private, still have to follow government instructions and obtain the government's approval in their choice of investments." By the time proposed initiatives "undergo the tedious process before they reach final authorities . . . the best chance to market products has disappeared. . . which causes huge amounts of waste." See Zhou Tianyong, "De-regulation of Investment Vital," *China Daily*, August 9, 2004, 6.
10. Wang Zhongming, "Situation and Structure: Three Levels of Strategic Adjustment to the State Sector," *Guoyou zichan guanli* [Management of state assets], No. 1 (2005), 35.
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12. "Dead Firms Walking," *Economist*, September 25, 2004, 81, referring to work such as Takeo Hoshi and Anil K. Kashyap, "Japan's Financial Crisis and Stagnation," *Journal of Economic Perspectives*, Vol. 18, No.1 (2004), 3–26.

China's Political System and China's Future Growth

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Since virtually the beginning of China's economic reform, analysts have been puzzled by the co-existence of China's authoritarian political system and its dynamic economy. How did it happen that sustained economic reforms and vigorous growth were compatible with only modest alterations in the political system? Today, although China's bureaucracy has become much more professional and capable, and institutions have become more open and responsive to public opinion, China's political system is still fundamentally authoritarian and hierarchical. Yet despite China's closed political system, economic growth has remained robust. Will China's continued economic growth be possible in the context of this authoritarian system, or will economic restructuring begin to force more fundamental political changes?

The large questions about the relation between economic and political change, and the ultimate compatibility of economic and political systems are beyond the scope of this short essay. Instead, I emphasize some of the specific short-run economic challenges that China faces today. I argue that China has reached a kind of turning point in the relationship between economic and political change. When we look back over the past twenty-five years of economic reform, we can identify a number of factors that made China's authoritarian system compatible with economic reform—indeed might even have made an authoritarian system more effective in carrying out reform than a democratic system. However, most of these factors have now disappeared, and China instead faces a number of immediate and troublesome challenges that are not very tractable to top-down policy solutions. Three of today's most urgent economic challenges—broadening and diversifying the financial system, restructuring fiscal resources, and improving corporate governance—all require both better institutions of local economic governance, and a further loosening of central political controls in order to achieve such institutionalization.

Looking backwards

During its first fifteen years, Chinese reform consisted primarily of the decentralization of authority and resources almost wholly within the context of the existing hierarchical structure. The existing rules on the exercise of power and property didn't change much, but space was opened up for market-oriented and entrepreneurial activity. Incentives were made stronger and more market-oriented throughout the system, but Communist Party leaders maintained some control over the overall incentive system. Most embedded interest groups were protected, and overall, the 1980s reform was a "reform without losers." Under this reform model, continued authoritarian political control at least did not stifle reform, and might even have contributed to economic growth by providing continuity and stability for investors, and preventing some kinds of egregious rent-seeking and corruption.

By the early 1990s, this model of reform had run out of steam, having achieved about all that it could. A shift in reform policy-making, during 1993-94, began to restructure the rules and institutions that governed economic activity. This new policy regime achieved important successes, especially in the fiscal, financial, and corporate governance spheres. However, in nearly all cases, these achievements were dependent upon a recentralization of political power. During the 1990s, the authority of the Communist Party hierarchy was used to restore credibility and decisiveness to aspects of economic policy that had lost those attributes. Measured recentralization was carried out, and its objectives generally achieved. The authority of the political system was used to impose new rules on powerful interest groups—for example, in the fiscal reforms of 1994, and the banking sector reforms of 1998-1999. An even broader social impact was seen as previously protected groups were forced to bear the costs of economic restructuring, with state enterprise workers the group most obviously affected. The new

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openness to competition forced on China by the December 2001 accession to the World Trade Organization marked the logical culmination to this sequence of top-down commitments.

The recentralization and dynamic use of political authority so evident during the 1990s also planted the seeds of its own failure. By drawing power toward the political center—and in particular, by strengthening the Communist Party's ability to intervene directly in economic management—economic reforms after the mid-1990s achieved successes but also created new obstacles for further reform. Few really independent agencies were created; the assignment of secure property rights to those who controlled public resources did not proceed very far; and the attempt to restructure the management of public assets did not achieve breakthrough success. Progress today requires a deeper process of institutionalization that leads to reversal of at least some aspects of the 1990s recentralizing package.

Financial Broadening

The most widely recognized shortcoming of the contemporary Chinese system is the feeble condition of its financial institutions. In the simplest possible terms, the Chinese government wants financial institutions to stand on their own two feet. It therefore seeks to give them the financial resources they need to escape the legacy of the past, but must then credibly commit to neither intervene excessively in their future decision-making, nor to bail them out if they fail. Although important steps in this direction have been taken, the fundamental independence of these institutions from political control has not yet been achieved. More broadly, China's financial system is not very diversified: we can characterize China's financial system as "deep but narrow."

Financial deepening implies that a larger volume of savings (relative to income) has been transformed into investment through the intermediation of financial institutions. China achieved a rapid increase in the "depth" of its banking system, as measured, for example by the ratio of M2 to gross domestic product. At year-end 2003, household saving deposits were 89 percent of GDP; M2 was a remarkable 189 percent of GDP. Financial broadening, on the other hand, means that the variety and number of both financial market participants and financial market instruments have increased. Here, China's progress has been much more modest. Financial broadening implies that there is greater choice for savers and for investors and this allows the financial system to more efficiently match up different uses with various source of funds. China's financial system is still dominated by banks, and in particular by state-owned banks.

Indeed, the dominance of banks is actually becoming more unbalanced. Table 1 shows the transfer of funds through the formal financial sector during the past four years. Not only is the share of total funds transferred through the banking system extraordinarily large, that share has actually increased annually over the past four years, from 73 percent to 85 percent. Growth of the stock market has stalled since 2001, while bank lending has boomed with a new influx of funds into the banking system. These are the symptoms and causes of the thus-far failed diversification of the Chinese financial sector.

To be sure, important efforts have been made to diversify the ownership structure of the banking system itself. Most recently, both the Bank of China and the Construction Bank have been authorized to begin a process of Initial Public Offerings (IPOs). These two—the best of the so-called "Big Four" state-owned commercial banks—succeeded in low-

Table 1. Sources of Funds Raised in Domestic Financial Market

	Bank Lending	Treasury Bonds	Corporate Bonds	Stocks
2000	72.8%	14.4%	0.5%	12.3%
2001	75.9%	15.7%	0.9%	7.6%
2002	80.2%	14.4%	1.4%	4.0%
2003	85.2%	10.0%	1.0%	3.9%

Source: PBC, 2002 *China Monetary Policy Report,* 30; 2003 Report, 13.

ering their NPL ratios and improving their internal auditing and supervision procedures. As a result, they "qualified" for an injection of capital from the government. The newly-created Huijin Corporation invested $45 billion from the state's foreign exchange reserves and thereby became the owner of these two banks. Subsequently, the Huijin holding company reorganized itself, and sought additional strategic partners, on the way to finding strategic international investors, and then listing on domestic and foreign stock exchanges. The restructuring of Bank of China and Construction Bank are certainly positive developments that contribute to the diversification of the financial sector. This process has also been repeatedly delayed as weak accounting controls and recurrent scandals have continued to shake the banks. Listing has been delayed, and is now scheduled for some time in 2005, but only provisionally, and on condition of improvement of controls.

Despite some movement, then, the financial sector remains deeply troubled. Overall, the state-owned banks possess a very large burden of non-performing loans (NPLs), even after many successive rounds of loan write-offs and capital injection. The risks posed by the high share of NPLs are substantial, primarily because overall the banking sector is so large in relation to the Chinese economy. Because China's banking sector is so "deep," the burden of funding needed to fix the problem is large indeed. Since 2002, Chinese banks have classified their loans according a new system, which approximates international standards. While the numbers are big, the trends look good, at first glance—overall, NPLs declined from 25 percent to 21 percent as a share of GDP between 2002 and 2003. They further declined in 2004, with the Bank of China and Construction Bank turning in especially impressive performances (down to 5.1 percent and 3.7 percent respectively). However, upon closer inspection, the danger is that the rapid growth of total lending not only produces an illusion of progress, it also creates a misleading indicator. A larger proportion of total lending today consists of recent transactions (since loan growth accelerated after 2002). It takes some time for lending to go sour; a larger share of new lending inevitably correlates with a low NPL ratio. Moreover, the abrupt shift in macroeconomic policy and the administration restrictions placed on investment projects during 2004 will have a significant impact on NPLs. Inevitably, those events will increase the total volume of NPLs, even as they cause the growth in total lending to decelerate. NPL ratios will tend to rise again, creating further problems for Chinese policy-makers and regulators. At the core of the problem is the lack of diversification in the banking and financial systems. This lack of diversification is related to the slow progress in providing a regulatory framework and secure property rights for financial transactions.

Restructuring Fiscal Resources

China faces substantial long run fiscal challenges. The two most significant future obligations are the funding required to recapitalize the financial system, and funding necessary to pay for implicit pension liabilities. However, the total magnitude of future obligations is not the greatest challenge that China faces. Indeed, following the first round of fiscal restructuring, China's fiscal resources have rebounded nicely since the low point in 1995, when they were only 11 percent of GDP following the fiscal reforms of the previous year. Fiscal revenues as a share of GDP have increased by almost a percentage point per year since that time, breaching 20 percent in 2004. Moreover, the economy is growing rapidly. The combination of a healthy revenue base and rapid growth means that overall fiscal adequacy can be achieved with modest effort.

Instead, the main challenge is to further institutionalize the fiscal system. The fiscal reforms of 1994 made some progress in distributing authority over revenues and tax rates to different levels of government, and different functional systems. Those achievements were important in putting China's budget on a stable and sound basis. However, they took place more than a decade ago, and progress has been much less dramatic in recent years. The clearest example is funding local government activities. The budgetary reforms of 1994, while increasing central control, clarified the division of resources between central and provincial governments. But the 1994 reforms were not designed in way to provide adequate funds for the base-level rural governments at the bottom of the budget hierarchy, especially in poor areas. Particularly in rural areas, the supply of funds to carry out state-mandated programs such as education, local infrastructure, and poverty alleviation have never been adequate.

In recent years, the Chinese budget has devoted a sharply increasing share of budgetary resources to

transfers to targeted regions and rural areas in general. First, the Western region development program, which began in 2000; and subsequently the Northeast revitalization program, by late 2003, have accounted for a rapidly increasing share of total expenditures. Moreover, as the Hu Jintao-Wen Jiabao leadership has made increasing efforts to assist farmers—left behind by China's booming urban-based economy—legitimate taxes on farmers are being sharply cut back. Twenty-two of China's thirty-one provinces are eliminating the agricultural tax in 2005. To account for the increased expenditures, and decreased local revenue capacity, the fiscal system has become substantially more redistributive. The central government transfers large amounts of funds to the localities. However, the current system is quite incomplete. Central to local transfer are rarely rule-driven, but rather correspond to the short-term needs of central policy-makers. Thus, of total Central-local Transfers in 2002, 41 percent were rebated taxes, 55 percent were discretionary, ad hoc payments from center, and only 4 percent were rule-driven, systemic transfers. Many of these discretionary payments are earmarked for good purposes, but that, in a sense, is precisely the problem. These good purposes—including local level education, social security, and government employee wages in poor areas—need to have a stable source in regular revenues. Much of the funding in the Western Development Program, for example, goes to plug holes in ordinary administrative and educational funding in poor Western provinces. This creates undesirable incentive effects for localities (it is better to be poor and get national government support), and leaves the funding difficulties of moderately advanced regions completely unaddressed. Recent reductions in the agricultural tax have lightened burdens on farmers, but have left the unsolved the question of how to put rural local finance on a healthy footing.

The other large future liability is related to pension costs. Today, the national social security system is scarcely reflected in budgetary figures at all. The lack of funding of the pension system matters because implicit pension liabilities are quite large, due to two extraordinary factors. First, China's draconian birth control policies have created a compressed demographic transition, and will result in accelerated population aging after about 2015. Thus, the share of aged in China population will increase very rapidly, and well before China reaches the upper income levels usually associated with an aging population. Second, China's urban pension system has actually become *more* generous over the past decade, because early retirement has become a primary tool to reduce the work force at down-sizing state-owned enterprises. In 2001, the average age of retirement was fifty-one! China's fiscal system requires substantial further restructuring. Long-term needs for local government financing, restructuring financial assets, and funding pensions press on the current system. In each of these cases, development of deep and diversified capital markets would permit more efficient, lower cost financing of these obligations. The payback to such reforms would be exceptionally large. A clear legal and regulatory framework is necessary to move away from the current system, which relies too much on discretionary power.

Strengthening Corporate Governance and Privatization

China is now privatizing. For decades, China pursued the transition to a market economy without carrying out significant privatization. But since about 1999, the momentum of privatization has accelerated dramatically. According to official figures, from 1998 through the end of 2003, the number of state-owned and state-controlled enterprises in all sectors declined from 238,000 to 150,000, through a combination of privatization, bankruptcy and merger. The privatization wave is a positive development for the Chinese economy, and appropriate to the stage of market transition China has now reached. However, privatization thus far has been hampered by the lack of clear guiding principles or a legitimate, publicly recognized rationale. The privatization process, in other words, has gone forward without any clear institutional framework. The result has been a process that is still too slow, non-transparent, and guided by insider interests rather than publicly-enunciated principles.

The main government body today shaping the privatization process is the State Asset Supervision and Administration Commission (SASAC). SASAC was authorized at the 10th National People's Congress in March 2003, with the mission to "fully realize [the government's role as] investor and owner [*tixian chuziren daowei*]." Its mandate from the 16th Party Congress (November 2002) was to establish a

"new state asset management system in which authority, duty, and responsibilities are united, and in which management of assets, personnel, and affairs is unified."[1] SASAC sees its primary mission as the protection of the public interest in the administration of government assets. SASAC's mission has been seriously compromised by two main factors. First, it has been unable to articulate a rationale for privatization, and therefore indirectly contributes to a prolonged and complicated privatization process that in the end creates more opportunities for asset-stripping, insider privatization, and other value-destroying activities. Second, in its attempt to exercise unified control the remaining government assets, it runs directly into the traditional control over managerial appointments that is exercised by the Communist Party. This prevents SASAC from uniting the different features of the owner's rights and responsibilities in a single body.

Among all the areas where SASAC struggles to define its role, the most difficult and sensitive is in relationship with the Communist Party in sharing authority over personnel decisions. When it was established, SASAC was assigned the power to appoint and remove the managerial staff in its supervised state enterprises. But in fact SASAC has never achieved unambiguous control of the personnel appointment process.

Moreover, even when SASAC exercises appointment power, it is unclear whether it is acting as an agent of the Communist Party, or has some kind of autonomous decision-making authority. This is not surprising, since the control over personnel is the most fundamental instrument of power exerted by the Communist Party. But this control of personnel reflects a fundamental shortcoming in the reform of governance in the public sector, or in the privatization process. Reformed corporate governance means that the owners, as owners, select the managers of firms. They select managers that will carry out owners' interests.

By contrast, the Communist Party tries to manage career paths in a way that encourages commitment to the broader goals of the Chinese government, and the Party itself. The Party promotes careers that span individual companies or bureaucracies precisely for this reason. We see many examples of these cross-company career paths in China today. During 2004, top executives at the big three state-run airlines in China were changed. All three chiefs were retired at the same time, and new heads appointed, sometimes from different airlines. In the telecom sector, top managers among the three top firms, China Telecom, Unicom, and Netcom, were shuffled among firms. Clearly, all these managers answer to the same principal, and that principal, ultimately, is the Communist Party. These are not simply isolated personnel choices adopted to cope with immediate challenges: This inter-weaving of professionals from various sectors into a single national career path is deeply embedded in the Party's strategy for the current period. The most recent formal Party meeting (the Fourth Plenum in September 2004) stressed the need to improve the Party's governance capability. While this indicates a willingness to make Party personnel decisions somewhat more open, more competitive and more professional, it is coupled with a determination to continue Party control over the personnel process.

Conclusion

All the above issue areas share a common feature. Progress in each area requires further institutionalization of the rights and responsibilities which have already partially devolved to local actors. In each area, past progress has relied on a relatively informal and non-institutionalized mode of policy-making that is increasingly out of step with China's more sophisticated economy. Complex corporations and financial institutions increasingly demand clearer lines of accountability, disclosure, and reward. China's policy-makers are challenged to provide those rules and regulations and thus far have responded only partially and not yet adequately. What obstructs progress? In part, of course, progress is slowed by the reluctance of individuals and interest groups who have achieved substantial wealth and power within the existing system. In part, it is the absence of a clear legitimating principle for wealth and power independent of Communist Party rule that makes it hard to articulate a set of principles supporting a regulatory framework. This is particularly obvious in the privatization process: although the Communist Party long ago lost its zeal for public ownership, it has been reluctant to acknowledge any competing rationales underneath an ownership system.

If the political system is unwilling to impose limits on its own discretionary power, then it is difficult to see how China can create robust economic institutions that it needs. In the financial area, there is a

significant and widely recognized danger of disruption to China's long-term growth process. The good news is that strong economic arguments in favor of limiting discretionary power and establishing more secure property rights may indeed persuade Chinese leaders to accept checks on the power of the Communist Party. Repeatedly over the last twenty-five years, the needs of economic development have been given priority when it was absolutely necessary to do so. As Deng Xiaoping famously said, "Development is the only hard truth." Moreover, if progress is made, it will be mutually reinforcing, and move China rapidly toward a more efficient, middle income developed market economy. What is at stake is the creation of a virtuous circle at a level of sophistication much higher than China's economy today: broader, more diversified and more transparent financial markets; stronger, more diverse, international competitive corporations; resolution of fiscal obligations. These changes are required to vault China to the top ranks of world economies.

ENDNOTE

1. "Li Rongrong tan guoziwei jigou shezhi yu zhineng" (Li Rongrong discusses the creation of the State Asset Commission structure and capabilities), Xinhuawang (New China net) (transcript of press conference), May 22, 2003, http://finance.sina.com.cn/g/20030522/1413343503.shtml; see also the Implementing Regulations at PRC State Council, "Qiye guoyou zichan jiandu guanli zhanxing tiaolie" (Temporary regulations on the supervision and management of state-owned enterprise assets), State Council Order 378, May 13, 2003, http://www.sasac.gov.cn/zcpg/zcpg_0003.htm.

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