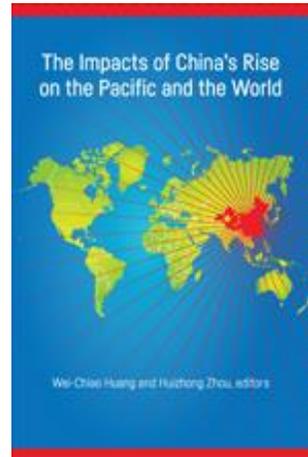


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Understanding the Major Threats to China's Economic Growth

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4

Understanding the Major Threats to China's Economic Growth

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Predictions of gloom and doom for China have a long tradition among economists. In the mid-1990s, Nicholas Lardy of the Peterson Institute for International Economics started highlighting the de facto insolvency of the Chinese banking system with the implication that a bank run leading to financial sector collapse (which would then be likely to send the economy into a tailspin) was a strong possibility in the medium term.¹ The twenty-first century began with the claim by Gordon Chang (2001) that China's imminent accession to the World Trade Organization (WTO) would cause such widespread unemployment within China's already alienated population that China's economic and political systems would collapse.

These two dire predictions have turned out to be wrong. China, in fact, accelerated its annual GDP growth to double-digit rates after 2001. Nicholas Lardy was wrong because while the banks were indeed bankrupt, the Chinese government, which owned them, was not and could hence afford to bail out the banks when necessary. The fiscal strength of the government made it irrational for depositors to contemplate a bank run. Gordon Chang was wrong because the WTO membership quickened the pace of job creation in China by greatly increasing the volume of foreign direct investment inflow. The WTO membership made China more attractive to foreign direct investment because it guaranteed the access of Chinese goods to the U.S. market by eliminating the need for China to get the most-favored-nation (MFN) status annually from the U.S. Congress (McKibbin and Woo 2003).

The literature on China's future growth became pessimistic again in the mid-2000s. One of the most astute analysts in China, Minxin Pei

(2006), argues that China is now in a *trapped transition* that is described as “a transformative phase in which half-finished reforms have transferred power to new, affluent elites” who are using crony capitalism to generate high economic growth that is not sustainable. He believes that meaningful reform to ensure continued high growth is improbable.²

Pei’s pessimism about the inevitable exhaustion of China’s growth momentum has been shared by another leading China scholar, Yasheng Huang (2008). In Huang’s contrarian assessment, China in 1999 was actually less capitalistic than China in 1989. He asserted that the administration of Jiang Zemin and Zhu Rongji, which ended in March 2003, had reversed the march toward capitalism by systematically promoting the growth of large state-owned firms in the urban areas and suppressing the activities of the privately owned small and medium firms in the countryside. Huang has attributed the deterioration in income distribution across classes and across regions to this reoccupation of the commanding heights of the economy by state-controlled companies (often in cahoots with foreign private companies), and the intensification of discrimination against the domestic private firms. Because Huang believes (very reasonably, based on international experience) that the state-controlled firms are intrinsically less innovative than the domestic private firms, he concludes that China will be unable to move on to the next stage of economic development in the near future (at least not before India does so).³

THE ROUGH ROAD TO PROSPERITY

China’s economy has been like a speeding car—in just 30 years, China has gone from one of the world’s poorest countries to the second-largest economy. It is not surprising, then, to hear more glowingly optimistic assessments of China’s future than dismissively pessimistic ones. For example, O’Neill et al. (2005) of Goldman Sachs predict that China’s GDP will surpass that of the United States in 2040 even after assuming that China’s GDP growth rate will slow down steadily from its annual average of 10 percent in the 1979–2005 period to 3.8 percent in the 2030–2040 period.⁴

A good guide on how one should regard the competing optimistic and pessimistic literature is found in the discussions of the Sixth Plenum of the Sixteenth Central Committee of the Communist Party of China (CPC) that concluded on October 11, 2006. The Sixth Plenum passed a resolution to commit the CPC to establish a harmonious society by 2020. The obvious implication from this commitment is that the major social, economic, and political trends within China might not lead to a harmonious society or, at least not fast enough.

Among the disharmonious features mentioned in the fifth paragraph of the “resolutions of the CPC Central Committee on major issues regarding the building of a harmonious socialist society” were the serious imbalance in the social and economic development across (and within each of) China's 31 provinces, worsening population and environmental problems, grossly inadequate social safety nets and medical care system, and serious corruption. The harmonious socialist society proposed by the Sixth Plenum would encompass a democratic society under the rule of law; a society based on equality and justice; an honest and caring society; a stable, vigorous, and orderly society; and a society in which humans live in harmony with nature.

What is the origin of the CPC's decision to change its primary focus from “economic construction” to “social harmony”? And why include a target date of 2020? I believe that this switch in emphasis from “economic construction” to “social harmony” occurs because the Hu-Wen leadership understands that the political legitimacy of CPC rule rests largely on maintaining an economic growth rate that is high enough to keep unemployment low, and also a growth pattern that diffuses the additional income widely enough. Specifically, the Hu-Wen leadership recognizes that without accelerated institutional reforms and new major policy initiatives on a broad front, the 1978–2005 policy framework, which had produced an average annual GDP growth rate of almost 10 percent, is at odds with environmental sustainability and with international concerns about China's persistent trade imbalances. More importantly, unless their new policies could produce significant improvements in social harmony by 2020, social instability would reduce China's economic growth and thus make the leadership of CPC in Chinese politics unsustainable.

Returning to the analogy of China's economy being like a speeding car, the Hu-Wen leadership saw that the car could crash because there

were three high-probability failures that might occur and cause an economic collapse: 1) hardware failure, 2) software failure, and 3) power supply failure.

A hardware failure refers to the breakdown of an economic mechanism, a development that is analogous to the collapse of the chassis of the car. Probable hardware failures include a banking crisis that causes a credit crunch that, in turn, dislocates production economy-wide, and a budget crisis that necessitates reductions in important infrastructure and social expenditure (and possibly generates high inflation and balance of payments difficulties as well).

A software failure refers to a flaw in governance that creates frequent widespread social disorders that disrupt production economy-wide and discourage private investment. This situation is like a car crash that resulted from a fight among the people inside the speeding car. Software failures could come from the present high-growth strategy creating so much inequality and corruption that it generates severe social unrest, which dislocates economic activities, and from the state not being responsive enough to rising social expectations, hence causing social disorder.

A power supply failure refers to the economy being unable to move forward because it hits either a natural limit or an externally imposed limit—a situation that is akin, respectively, to the car running out of gas or to the car smashing into a barrier erected by an outsider. Examples of power supply failures are an environmental collapse, such as climate change or a collapse in China's exports because of a trade war. In a sense, the repair of a power supply failure is more difficult than either the repair of a hardware failure or the repair of a software failure because a large part of the repair has to be undertaken in collaboration with other countries. For example, the lowering of trade barriers requires China to negotiate with other countries, and the reversal of environmental damage could require an advance in scientific understanding—an outcome that is more likely to occur when the entire scientific talent in China and the rest of the world is focused on the task.

A discussion of the many events that could make China's high growth unsustainable is beyond the scope of this chapter. This analysis will focus on one or two of the most likely precipitating events in each class of failures. The following section identifies the weakening of China's fiscal position by nonperforming loans (NPLs) in the state banks

as the likely type of hardware failure that would occur. The next section discusses the outbreak of social disorder as the likely type of software failure. For power supply failures, the two most likely ones are the erection of trade barriers against China's exports (discussed in the next three sections), and an environmental collapse, especially a shortage of water (discussed in the final section).

Hardware Failure

Among doomsayers, one favorite mechanism for the forthcoming collapse of an economy is the inevitable fiscal crisis of the state. It is noteworthy that this fiscal mechanism is used by doomsayers of all stripes. The Marxist economist James O'Connor (1973) predicted that the dynamics of capitalist America would precipitate a fiscal crisis that would destabilize the economy completely. In turn, the capitalist lawyer Gordon Chang (2001) predicted that a fiscal crisis could trigger the event in the unavoidable disintegration of socialist China.

This fixation on a large negative fiscal shock as a totally destructive systemic shock is understandable because fiscal imbalance is the proximate cause in most crises. The reason is that the state budget is often faced with the task of defusing the cumulative tensions unleashed by deeper, more fundamental social processes. To a first approximation, fiscal capacity is a fundamental determinant of system stability because economic sustainability depends on the ability to cover production costs, and political viability depends on the ability to reward one's supporters and to pay off one's enemies.

The reality in many cases is that fiscal sustainability is the prerequisite for both economic sustainability and political viability, and that economic sustainability and political viability are intricately linked and mutually reinforcing. To see the mutual interdependence of the two, one only has to recall the many times that near-bankrupt governments have been driven out of power after raising the prices of a subsidized item like food, petrol, or foreign exchange.⁵ One could indeed go so far as to say that the degree of economic and political resilience of a state can be measured by the state's ability to cover an unexpected, prolonged increase in expenditure or an unanticipated, protracted shortfall in revenue.

An OECD (2006) report has raised grave concerns about China's fiscal management.

China's officially reported spending figures reflect only about three-quarters of total government spending. Extra-budgetary spending, social security outlays and central government bond financing of local projects are not part of the official budget. Notwithstanding recent reforms, the government remains overly exposed to extra-budget and off-budget activities, which make public expenditures difficult to plan and control and which impair their accountability and transparency. Contingent liabilities have been a major source of unplanned spending and pose perhaps the greatest risk to the controllability of future expenditure. (p. 10)

Fiscal sustainability is central to economic management. This can be seen in the two fiscal targets that the original Growth and Stability Pact of the countries in the eurozone specified for its members to meet: 1) the consolidated government budget deficit should not exceed 3 percent of GDP except in case of unusually severe downturn, and 2) the debt-GDP ratio should be brought down to 60 percent or lower.

The very aggressive fiscal-monetary policy mix undertaken by the government to combat the global financial crisis that hit China at the end of the third quarter of 2008 has now created an NPL ratio that the investment house CLSA has put in the range of 15–19 percent, compared to the official estimate of 1.6 percent. A recapitalization of the banking system is inevitable.

The important question is, how many more rounds of bank recapitalization can China afford without generating a fiscal crisis? The simple fact is that fiscal sustainability lies at the heart of whether a banking crisis would actually occur. As long as the state is perceived to be able and willing to bail out the state-owned banks (SOBs), depositors would retain their confidence in the SOBs regardless of the actual state of their balance sheets. The current value of the debt-to-GDP ratio is not a good indicator of the sustainability of the existing fiscal policy regime; a better indicator would involve working out the evolution of the debt-to-GDP ratio over time.

To put the issue formally, the evolution of the debt-to-GDP ratio as given by

$$d(\ln[\text{Debt}/\text{GDP}]) / dt = r + [\text{GDP}/\text{Debt}] \times [f + b] - y$$

where

r = real interest rate on government debt

f = primary fiscal deficit rate [(state expenditure excluding debt service – state revenue) / GDP]

b = NPL creation rate [(change in NPL in SOBs) / GDP]

y = trend growth rate of real GDP

As long as $y > r$, then the debt-to-GDP ratio will have a steady-state value that is nonzero when sum of $(f + b) > 0$. Specifically,

$$(\text{Debt/GDP})_{\text{steady-state}} = (f + b) / (y - r) \text{ when } y > r$$

China appears to belong to this case because its post-1978 annual growth rate has averaged 9.4 percent, its growth rate in the next 10 years is likely to be above 8 percent; and the real interest rate has been about 4 percent. For the generation of likely future scenarios, I will make the conservative assumptions that y is 8 percent, f is 1 percent, and r is 6 percent.⁶ It is difficult to predict b , the rate that banks would generate NPLs, because it depends on the type of banking reform undertaken. If no meaningful reforms are undertaken, then b is likely to remain at the historic value of 6 percent.

So, conditional on the effectiveness of reforming the SOBs, the steady-state ratio is

$$(\text{Debt/GDP})_{\text{steady-state}} = 350 \text{ percent when } b = 6 \text{ percent}$$

$$(\text{Debt/GDP})_{\text{steady-state}} = 200 \text{ percent when } b = 3 \text{ percent}$$

$$(\text{Debt/GDP})_{\text{steady-state}} = 100 \text{ percent when } b = 1 \text{ percent}$$

The noteworthy finding from the above scenarios is that China will produce a level of $(\text{Debt/GDP})_{\text{steady-state}}$ that is high by international experience despite the optimistic assumptions that long-run growth rate is 8 percent, that b will be lowered from 6 percent of GDP to 1 percent. The most optimistic outcome is still two-thirds larger than what the European Union has set to be the “safe” debt-GDP target (60 percent) for its members. The banking system has made China vulnerable to a fiscal crisis, even though there is a theoretical steady-state level for the

debt-to-GDP ratio. Of course, the creation of NPLs cannot be attributed entirely to the SOBs; their chief customers, the embezzlement-ridden and inefficiency-ridden state-owned enterprises (SOEs), deserve an equal share of the blame (see Woo [2001]; Woo et al. [1994]).

The important point from this second fiscal feature is that the present ongoing recapitalization of the SOBs is the last time that the government can afford to recapitalize the SOBs, and possibly the last time that the government can do so without upsetting confidence in the financial markets about the soundness of China's fiscal regime.

How difficult is it to stop losses in the SOBs in order to ensure fiscal sustainability? The solution lies in imposing a hard budget constraint on the SOBs. SOB managers must be convinced that the present recapitalization is indeed the last free supper (which the 1998 recapitalization was announced to be), and that their compensation and promotion will depend only on the profitability of the SOBs relative to the profitability of private banks.

At the same time, the prudential supervision and monitoring of bank operations will have to be strengthened to prevent asset stripping and discourage reckless investments fostered by the asymmetrical reward system under the soft budget constraint.⁷ The operations of SOBs could be further improved by bringing in foreign strategic investors who would be part of the management team, and by removing the influence of the local governments on bank operations.

Another way to harden the budget constraint faced by the SOBs is to privatize some of their branches and use the performance of the new private banks to gauge the performance of the remaining SOBs. The privatization of some branches will also help convince the SOB managers that the government is indeed serious about the present SOB recapitalization.

Software Failure

A successful market economy requires its regulatory institutions to have the prerequisite scientific understanding to determine whether a patent case involves real technological innovation. China's strategy of incremental reform, combined with the fact that institution building is a time-consuming process, means that many of its regulatory institutions are either absent or ineffective. The results have been governance

failures on many fronts, of which the most well-known recent governance failures are the violations against the welfare of consumers and workers.

There have been significant regulatory failures in keeping China's food supply and pharmaceutical products safe. The misuse of chemicals to lower production costs has resulted in the addition of poisonous substitutes into toothpaste (Barboza and Bogdanich 2007; Bogdanich 2007), cough medicine (Bogdanich and Hooker 2007), and animal feed (Barboza 2007a; Barboza and Barrionuevo 2007); the application of lead paint to children's toys (Barboza and Story 2007; *Financial Times* 2007; Lipton and Barboza 2007);⁸ and the overemployment of antifungals and antibacterials in fish farming (Barboza 2007b; Martin 2007a). Most of these abuses received enormous attention because these items were exported to other countries, and their harmful effects were reported widely in the international press.⁹ Clearly, Chinese consumers have been suffering much more from such types of malfeasance, the scope of which has not been realized because of the considerable press censorship in China (Barboza 2007c).

Dereliction in duty by government officials is the fundamental reason for such governance failures. The most well-known recent case was the conviction of Zheng Xiaoyu, the former director of China's food and drug safety agency, for accepting bribes to approve production licenses for pharmaceutical companies and food companies. Such dereliction in official oversight has resulted in

tens of thousands of people [being] sickened or killed every year as a result of rampant counterfeiting of drugs, and tainted and substandard food and drugs. For instance, last year 11 people died in China with an injection tainted by a poisonous chemical. Six people died and 80 others fell ill after taking an antibiotic that had been produced . . . with a substandard disinfectant. Small drug makers in China have long been accused of manufacturing phony or substandard drugs and marketing them to the nation's hospitals and pharmaceutical companies. And mass poisonings involving tainted food products are common. (Barboza 2007d)

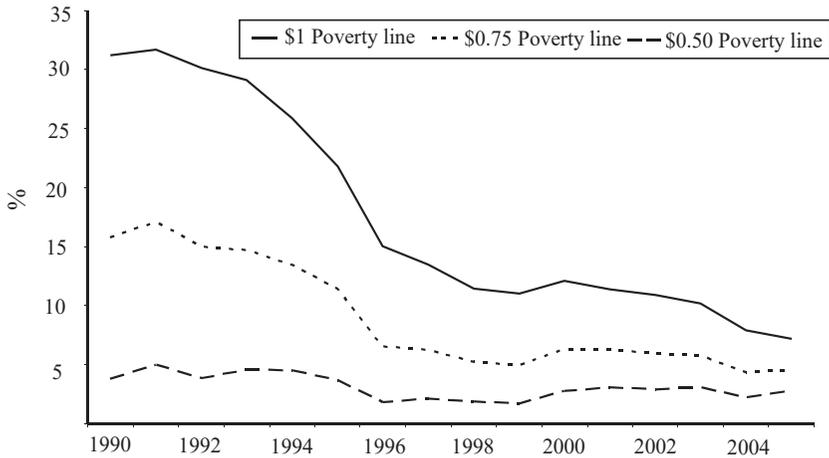
There have also been significant regulatory failures in the treatment of labor, especially in the areas of occupational safety and wage payments. One of the most recent horrifying accounts involved forced labor of kidnapped children in the brick kilns of Shanxi and Henan

provinces (Buckley 2007; *China Daily* 2007). Reuters (2007) reports that “as many as 1,000 children may have been sold into slave labor in central China.” This deplorable affair was exposed partly “because of an open letter posted online by a group of 400 fathers appealing for help in tracking missing sons they believed were sold to kiln boss” (*New York Times* 2007). A parent visiting the brick kilns in her quest to find her son found that the local police were not only unwilling to help but also demanded bribes instead (French 2007). In one case, the brick kiln was owned by the son of the village Party secretary (*New York Times* 2007).

Perhaps, the two most dismaying revelations from the news reports on the brick kiln slavery are that this sad state of affairs had been going on for a decade;¹⁰ and the “forced labor and sexual exploitation have increased as the trend in human trafficking in China has taken a turn for the worst” (Zhouqiong 2007). Yin Jianzhong, the senior official at the Ministry of Public Security who identified the worsening trend in human trafficking in China, recognized a reason for the negative development to be “the loopholes in the legal and labor systems. . . . [Specifically,] the Criminal Law on human trafficking protects women and children only and leaves out grown-up and teen males. It doesn’t have provisions for punishing those trafficking people for forced labor or prostitution” (Zhouqiong 2007). The fact that such legal loopholes exist supports our contention that the main cause behind the administrative failures in China is the “dereliction of duty by government officials.”¹¹

Inadequate institutions of governance are not the only cause of social tensions in China, however. The present economic development strategy, despite its ability to generate high growth, also generates high social tensions because, in the last 10 years, it has had great difficulty further reducing extreme poverty and significantly improving the rural-urban income distribution and the regional income distribution (see Démurger et al. [2002] and Woo et al. [2004]). In the first half of the 1990s, the \$1.00 poverty rate (i.e., the proportion of rural population receiving a daily income of \$1.00 or less) dropped rapidly from 31.3 percent in 1990 to 15.0 percent in 1996. But as Figure 4.1 shows, in the following six years the decline was only 5 percentage points. The \$1.00 poverty rate stayed in the 10–12 percent rate in the 1998–2003 period, even though the GDP growth rate averaged 8.5 percent annually. It was only after the sustained large-scale effort to develop western

Figure 4.1 Proportion of Rural Population under Different Specifications of the Poverty Line



NOTE: The 1990–1997 data are from World Bank (2001, Annex 1 Table 3), and the post-1997 numbers are computed by Ximing Yue (private communication).

China began in 2001 and the post-2002 rise in the GDP growth rate to 10 percent or higher that the \$1.00 poverty rate dropped to 7.9 percent in 2004 and then to 7.2 percent in 2005.

However, the progress in poverty alleviation in the last decade is considerably much less impressive when the poverty line is lowered. The \$0.75 poverty rate stayed unchanged from 1998 (4.6 percent) to 2005 (4.2 percent); and the \$0.50 poverty rate actually increased from 1.9 percent in 1998 to 2.8 percent in 2005. In short, the higher growth rate in the 2003–2005 period did not cause income to trickle down to the poorest 5 percent of the rural population, and hence caused income inequality to worsen.

In the 1985–1987 period, China's Gini coefficient was below 0.3.¹² According to a report in the official *China Daily* in 2005:

China's income gap widened in the first quarter of the year [2005], with 10 percent of the nation's richest people enjoying 45 percent of the country's wealth. . . . China's poorest 10 percent had only 1.4 percent of the nation's wealth. . . . No precise Gini coefficient was provided [by the state statistical agency], but state press reports in

recent weeks said the value was more than 0.48 and approaching 0.5. . . . Most developed European nations tend to have coefficients of between 0.24 and 0.36, while the United States has been above 0.4 for several decades. (*China Daily* 2005)

The Asian Development Bank (2007) recently conducted a study of income inequality in 22 Asian countries over the 1992–2004 period. For 2004, only Nepal had a Gini coefficient (47.30 percent) that was higher than China's (47.25). However, in 2004, China's income ratio of the richest 20 percent to the poorest 20 percent (11.37) was highest in Asia—significantly higher than the next highest income ratio (9.47 for Nepal). China is probably the most unequal country in Asia today.

Table 4.1 presents the income inequality in China within the international context. China's income inequality today is generally lower than in Latin America but generally higher than in Africa. The steady increase in China's income inequality since 1985 raises the possibility that China is heading toward the Latin American degree of income inequality.

The reason that doing more of the same economic policies in today's China will not produce the same salubrious results of quick reduction in poverty and slow increase in inequality as in the early phases of economic reform is because the development problems have changed. In the first phase of economic development, the provision of more jobs (through economic deregulation) was enough to lower poverty significantly. Many of the people who are still poor require more than just job opportunities; they first need an infusion of assistance (e.g., empowering them with human capital through education and health interventions) in order to seize these job opportunities. Effective governance for equitable growth has now become even more challenging, and so the probability of improving social harmony has been diminished.

Furthermore, the present mode of economic development generates immense opportunities for embezzlement of state assets, seizure of farmlands for industrial development, and corruption because of the absence of effective mechanisms to supervise government employees (see Woo [2001]). These features certainly make social harmony hard to sustain.

The data on social unrest are consistent with the hypothesis of rising social disharmony. First, the incidences of public disorder, or *social incidents*, have risen steadily from 8,700 in 1993 to 32,500 in 1999 and

Table 4.1 China's Income Inequality across Time and Space

	Period	Gini coefficients		Income ratio of	
		Initial year	Final year	Top 20%	Bottom 20%
				Initial year	Final year
Nepal	1995–2003	37.65	47.30	6.19	9.47
China	1993–2004	40.74	47.25	7.57	11.37
India	1993–2004	32.89	36.22	4.85	5.52
Indonesia	1993–2002	34.37	34.30	5.20	5.13
Taipei, China	1993–2003	31.32	33.85	5.41	6.05
South Korea	1993–2004	28.68	31.55	4.38	5.47
Japan	1993	24.90		3.37	
Columbia	2003		58.60		25.30
Brazil	2004		56.99		23.00
Côte d'Ivoire	2002		44.60		9.70
Nigeria	2003		43.60		9.80
United States	2000		39.42		8.45
United Kingdom	2002		34.37		5.59

SOURCE: Asian Development Bank (2007) and United Nations (2006).

then to 74,000 in 2004. Second, the average number of persons in a mass incident has also risen greatly, from 8 in 1993 to 50 in 2004.¹³ It should be noted, however, that these numbers might not accurately portray the degree that social unrest has increased because the data include disco brawls and gambling den raids as well as social protests (see East-SouthWestNorth [n.d.]).

Clearly, the number of mass incidents would have been lower if China had better governance. There would have been more preemptive efforts at conflict mediation by the government and less abuse of power if the government's actions had been monitored closely by an independent mechanism and if the government had also been held more accountable for its performance.

One main source of recent social unrest in rural China has been the conversion of farmland to industrial parks without adequate compensation to the farmers. It is interesting, therefore, that the No. 1 Document issued jointly in January 2006 by the CPC Central Committee and the State Council pledged not only to “stabilize and regulate the transfer of land-use rights and accelerate land acquisition reforms” but also to “expand channels to express public opinions in the countryside and improve the mechanism to resolve social conflicts” (Ma 2007b).¹⁴

The Hu-Wen leadership's desire to improve the institutions of governance is also borne out by the following report from the *South China Morning Post* (Xiangwei 2007) about what Premier Wen said when he met a group of Chinese citizens in Japan in April 2007:

During 30 minutes of impromptu remarks, he said the key to pursuing social justice, the mainland's most important task, was to "let people be masters of their houses and make every cadre understand that power is invested in them by the people."

. . . Although he did not deviate from the official line and spoke informally on both occasions, Mr. Wen is known for being careful about what he says, whether in prepared remarks or speaking off the cuff. The fact that he highlighted, in the presence of Hong Kong and overseas journalists, the need for political reform is uncharacteristic and interesting, particularly in the context of the leadership reshuffle looming at the Communist Party's 17th congress later this year.

There have been signs that the leadership under President Hu Jintao is under increasing pressure to undertake drastic political reforms to consolidate the party's grip on power and stamp out widespread corruption.

While there are reasonable grounds for an analyst to doubt either the sincerity of Premier Wen's words or his ability to act on them, the analyst cannot doubt that Premier Wen is at least aware that democracy is one way to solve many of China's problems of governance. The embrace of the Harmonious Society program by the Hu-Wen leadership reveals CPC's acknowledgment that democracy, the rule of law, and a stable income distribution make up an indivisible combination that is necessary to ensure the social stability that will keep the economy on the high-growth path to catch up with the United States (a vision that acts as the bedrock of CPC's legitimacy to rule).

Power Supply Failure

China's emergence as a major trading nation has been accompanied by increasing conflicts with the European Union (EU) and the United States about China's trading practices and its exchange rate policy. The dissatisfaction over trade with China is evident from the following two press reports:

Peter Mandelson, the EU trade commissioner . . . called various aspects of China's trade policy "illogical," "indefensible" and "unacceptable" and accused [China] of doing nothing to rein in rampant counterfeiting. . . . Mr. Mandelson also refused to grant China market economy status . . . [because it has] fulfilled [only] one of five criteria." (Bounds 2007)

After years of inconclusive skirmishing, trade tensions between the United States and China are about to intensify. . . . "We are competing not only with a country with low wages but with very high and heavy subsidies and a rigging of their currency . . ." says Rep. Sander Levin, D-Mich., chairman of the House trade subcommittee. . . . "I hate the term trade war because it is always used when you try to get a fair break . . .," he says: "Sometimes pressure works." (Lynch 2007)

While the trade deficit is many times identified as the cause of the trade tension, the true cause is the ongoing large shift in the international division of labor that has been set in motion by the post-1990 acceleration of globalization and by the continued fast pace of technological innovations. The next two sections argue that the trade tensions reflect, one, the pains of structural adjustment in the United States because of its very inadequate social safety nets, and, two, the dysfunctional nature of China's financial system.

CAUSES OF TRADE PROTECTIONISM AGAINST CHINA

Defects in the U.S. Economy

It is not uncommon to encounter allegations that the bilateral U.S.-China trade deficit represented the export of unemployment from China to the United States, and that it lowered the wage for labor. These allegations are not supported by the facts, however. Table 4.2 shows that the steady rise in the trade deficit from 1.2 percent of GDP in 1996 to 5.9 percent in 2006 was accompanied by a fall in the civilian unemployment rate from 5.4 percent in 1996 to 4.6 percent in 2006, and by a rise in the total compensation (measured in 2005 prices) received by a full-time worker from \$48,175 in 1996 to \$55,703 in 2005.¹⁵

What is fueling the resentment toward imports from China when the median U.S. worker is experiencing neither more unemployment nor lower compensation? The U.S. worker is feeling more insecure in the 2000s than in the 1980s because of faster turnover in employment. Globalization and technological innovations have required the worker to change jobs more often, and she finds that there are considerable costs associated with the job change because of the inadequacies in the U.S. social safety nets.

Table 4.2 documents the more frequent change in jobs by the declining trend in the length of the median job tenure for older male workers. The median job tenure for males in the

- 33–44 age group decreased from 7.0 years in 1987 to 5.1 years in 2006;
- 45–54 age group decreased from 11.8 years in 1987 to 8.1 years in 2006; and
- 55–64 age group decreased from 14.5 years in 1987 to 9.5 years in 2006.

In terms of social safety nets, Burtless (2005) reports that within the G-7 in 2004, only the United Kingdom has a less generous unemployment benefits scheme than the United States. An unemployed person in the United States received initial unemployment benefits that equaled 53 percent of previous income compared to 78 percent in Germany, 76 percent in Canada and France, 61 percent in Japan, 60 percent in Italy, and 46 percent in the United Kingdom. The duration of unemployment benefits was 6 months in the United States compared to 12 months in Germany, 9 months in Canada, 30 months in France, 10 months in Japan, and 6 months in Italy and the United Kingdom.

There are two major factors behind the more frequent changes in jobs. The first factor is globalization, especially the post-1990 integration of the labor force in the former Soviet Union, India, and China (SIC) into the international division of labor. Table 4.3 shows that the number of workers already engaged in the international division of labor in 1990 was 1,083 million, and the combined labor force of SIC was 1,232 million. The international division of labor in 1990 was certainly an unnatural one because half of the world's workforce had been kept out of it by the SIC's autarkic policies.

Table 4.2 Trade Balance, Unemployment Rate, Total Compensation for Labor, and Job Tenure in Selected Year

	1987	1996	2000	2006
Trade deficit as a percent of GDP	3.1	1.2	3.9	5.9
Unemployment rate (%)	6.2	5.4	4.0	4.6
Total compensation for a full-time equivalent employee (2005 \$)	46,041	48,175	52,728	55,703 ^a
Median tenure at job for male workers by age group (years)				
33–44	7.0	6.1	5.3	5.1
45–54	11.8	10.1	9.5	8.1
55–64	14.5	10.5	10.2	9.5

NOTES: Trade deficit and unemployment data are from the White House (2007). Data on compensation in real terms and 1987 data are from Burtless (2007). Data on average job tenure in 1996–2006 are from the Bureau of Labor Statistics: <http://www.bls.gov/news.release/tenure.t01.htm>.

^aFrom 2005.

The economic isolation of the Soviet bloc started crumbling when the new noncommunist Solidarity government of Poland began the marketization and internationalization of the Polish economy on January 1, 1990.¹⁶ For the Chinese elite, the end of the Soviet Union in August 1991 confirmed that there was no third way in the capitalism-versus-socialism debate. In early 1992, Deng Xiaoping entrenched China firmly on the path of convergence to a private market economy.¹⁷ In 1991, India faced a balance of payments crisis, and it responded by going well beyond the administration of the standard corrective macroeconomic medicine of fiscal-monetary tightening and exchange rate devaluation into comprehensive adjustments of microeconomic incentives.

Table 4.3 Distribution of the Global Labor Force (millions)

	Global total	The non-SIC countries			The SIC countries			
		Non-SIC total	Developed economies	Developing economies	SIC total	China	India	Soviet bloc
1990	2,315	1,083	403	680	1,232	687	332	213
2000	2,672	1,289	438	851	1,383	764	405	214

SOURCE: Freeman (2004). Our figure for “Global total” in 2000 is different from that in Freeman.

A decade after the start of the deep integration of the SIC economies into the world economic system, the number of workers involved in the international economic system in 2000 had increased to 2,672 million (with 1,363 million workers from SIC); see Table 4.3. The Heckscher-Ohlin model would predict that this doubling of the world labor, achieved by bringing in cheaper labor from SIC, would lower the relative price of the labor-intensive good and hence reduce the real wage in the industrialized country.¹⁸ Furthermore, the fact that U.S. capital could now move abroad to build production facilities in the SIC economies to service the U.S. market as well as third markets also gave globalization another channel to lower the U.S. wage.

However, the U.S. real wage has not fallen (Table 4.2). The reason is that the remarkably high U.S. productivity growth since the late 1980s (perhaps enabled in large part by the information and communications technology [ICT] revolution) prevented the real wage from declining. Furthermore, as the import competition is focused on the good that uses low-skilled labor intensively, the wage gap between low-skilled labor and high-skilled labor in the United States has widened. In short, the economic impact of globalization in the United States is therefore manifested in a diminished labor share of GDP, rather than in a lower real wage, and in an increased dispersion in U.S. wages.

While the Heckscher-Ohlin model does provide a coherent mechanism for globalization to have the above two wage outcomes, the inconvenient truth is that China might not be the most influential factor in these developments even though China accounted for 764 million of the combined SIC labor force of 1,383 million in 2000. China is unlikely to be the most important culprit because there are three other independent developments that have had important consequences for U.S. wages.

First, many technological innovations have substituted capital for labor and have transformed many of what have been traditionally non-tradable services into tradable services, allowing jobs to be outsourced to foreign service providers. For example, the ICT revolution has allowed offshore call centers to handle questions from U.S. customers, offshore accountants to process U.S.-based transactions, and offshore medical technicians to read the X-rays of U.S. patients. The empirical literature suggests that technological innovations are likely to have had a bigger influence on U.S. wages than import competition from China.¹⁹

Second, institutional changes have attenuated labor share of income. Union membership has declined, reducing the bargaining power of labor. There has also been an upward shift in the compensation norms for high-level executives. Third, there has been increased immigration into the United States (before 2001), especially a disproportionate inward immigration of low-skilled labor.²⁰

In short, much of the popular outcry in the United States and the European Union against China's trade surpluses is misplaced. A widening of the U.S. trade deficit creates additional stress on U.S. labor because U.S. imports are more labor-intensive than its exports. However, even if China's trade balance were zero, the pains of structural adjustment and income redistribution caused by technological innovations, institutional changes, globalization, and immigration would still be there; and the amount of worker anxiety they generated collectively would be much larger than the additional worker anxiety generated by the widening trade deficit.

If the United States strengthens its social safety nets to lower the cost of changing jobs, it could help reduce trade tensions between the United States and China. Specifically, the U.S. Congress should quicken the reduction in fiscal imbalance and expand trade adjustment programs, especially those that upgrade the skill of the younger workers. The Trade Adjustment Assistance (TAA) program still functions inadequately after its overhaul in 2002. Brainard (2007) reports that

participation has remained surprisingly low, thanks in part to confusing Department of Labor interpretations and practices that ultimately deny benefits to roughly three-quarters of workers who are certified as eligible for them. TAA has helped fewer than 75,000 new workers per year, while denying more than 40 percent of all employers' petitions. And remarkably, the Department of Labor has interpreted the TAA statute as excluding the growing number of services workers displaced by trade. . . . Between 2001 and 2004, an average of only 64 percent of participants found jobs while they participated in TAA. And earnings on the new job were more than 20 percent below those prior to displacement.

The TAA program clearly needs further improvement. Brainard's (2007) proposal for the establishment of wage insurance is an excellent way to bring the U.S. social safety net more in line with the type of structural adjustments driven by globalization and technological changes.

DEFECTS IN THE CHINESE ECONOMY

China's chronic and growing overall trade surplus reveals a deep-seated serious problem in China's economy, its dysfunctional financial system. This problem is revealed by the aggregate-level accounting identity that the overall current account balance (of which, in China, the overall trade account is the biggest part) is determined by the fiscal position of the government, and the savings-investment decisions of the state-controlled enterprise (SCE) sector and the private sector, which together make up the nongovernment sector.²¹ Specifically,

$$CA = (T - G) + (S_{SCE} - I_{SCE}) + (S_{private} - I_{private}),$$

where CA = current account in the balance of payments.

$$CA = (X - M) + R$$

X = export of goods and nonfactor services

M = import of goods and nonfactor services

R = net factor earnings from abroad (i.e., export of factor services)

T = state revenue

G = state expenditure (including state investment)

S_{SCE} = saving of the SCEs

I_{SCE} = investment of the SCEs

$S_{private}$ = saving of the private sector

$I_{private}$ = investment of the private sector

The Chinese fiscal position ($T - G$) has for the last decade been a small deficit, so it is not the cause of the swelling current account surpluses in the 2000s. The current account surplus exists because the sum of savings by SCEs and the private sector exceeds the sum of their investment expenditures.

Why has China's financial system failed to translate the savings into investments? Such an outcome was not always the case. Before 1994, the voracious absorption of bank loans by SCEs to invest recklessly usually kept the current account negative and the creation of NPLs high.

When the government implemented stricter controls on the SOBs from 1994 onward (e.g., removing top bank officials whenever their bank lent more than its credit quota or allowed the NPL ratio to increase too rapidly), the SOBs slowed down the growth of loans to SCEs. This cut-back created an excess of savings because the SOB-dominated financial sector did not then rechannel the released savings (which were also increasing) to finance the investment of the private sector. This failure in financial intermediation by the SOBs is quite understandable. First, the legal status of private enterprises was, until recently, lower than that of the state enterprises; and, second, there was no reliable way to assess the balance sheets of the private enterprises, which were naturally eager to escape taxation. The upshot was that the residual excess savings leaked abroad in the form of the current account surplus. Inadequate financial intermediation has made developing China a capital-exporting country.

This perverse current account outcome is not new. Taiwan had exactly this problem up to the mid-1980s, when all Taiwanese banks were state owned and operated according to the civil service regulation that required loan officers to repay any bad loans that they had approved. The result was a massive failure in financial intermediation that caused Taiwan's current account surplus to be 21 percent of GDP in 1986. The reason China has not been producing the gargantuan current account surpluses seen in Taiwan in the mid-1980s is because of the large amount of SCE investments.

Why is the nongovernment sector's savings rate rising? The combined savings of the SOE and non-SOE sectors rose from 20 percent in 1978 to 30 percent in 1987, and then went above 45 percent since 2004. In discussions about the increasing savings rate, a common view is that the rise reflects the uncertainty about the future that many SOE workers feel in the face of widespread privatization of loss-making SOEs. This explanation is incomplete because there also has been a rise in the rural savings rate, even though rural residents have little to fear about the loss of jobs in the state-enterprise sector because none of them are employed there.²²

We see two general changes that have caused both urban and rural savings rates to rise significantly. The first is increased worries about the future. The steady decline in state subsidies to medical care, housing, loss-making enterprises, and education, along with mismanage-

ment of pension funds by the state, have led people to save more to insure against future bad luck (e.g., sickness, job loss), buy their own homes, build up nest eggs for retirement, and invest in their children.

The second change is the secular improvement in the official Chinese attitude toward market capitalism. Given the high rate of return to capital, this increasingly business-friendly attitude of the Communist Party of China has encouraged both rural and urban residents to save for investment—that is, greater optimism about the future has spawned investment-motivated saving.²³

In our explanations of the existence of the current account surpluses and the growth of the surplus, there is a common element in both—China's financial system. The fact is that savings behavior is not independent of the sophistication of the financial system. An advanced financial system will have a variety of financial institutions that would enable pooling of risks by providing medical insurance, pension insurance, and unemployment insurance, and transform savings into education loans, housing loans, and other types of investment loans to the private sector. *Ceteris paribus*, the more sophisticated a financial system, the lower the savings rate. China generates the current account surplus because of inadequate financial intermediation, and the surplus grows over time because the dysfunctional financial system fails to pool risks to reduce uncertainty-induced savings and fails to provide loans to reduce investment-motivated saving.

What is to be done in China? The obvious short-run policy package has two components. First, accelerate import liberalization (e.g., seriously implement the commitments made in negotiations for WTO membership, such as IPR protection) and expand beyond WTO specifications.

The second component of the short-run policy package is to have an expansionary fiscal policy (e.g., rural infrastructure investments) to soak up the excess savings, with an emphasis on import-intensive investments (e.g., buying airplanes and sending students abroad). It is important that time limits be put on the expanded public works and SCE investments because, in the long run, the increased public investments could follow an increasingly rent-seeking path that is wasteful (e.g., building a second big bridge to a lowly populated island to benefit a politically connected construction company, as in Japan), and the increased SCE investments could convert themselves into nonperforming loans at the SOBs.

Clearly, the optimum solution to the problem of excess saving is not for the government to absorb it by increasing its budget deficit but to establish an improved mechanism for coordinating private savings and private investments. The establishment of a modern financial system will not only achieve the objective of intermediating all of domestic saving into domestic investment; it will also enhance welfare and lower the savings rate by pooling risks through vehicles like medical insurance and pension insurance. In a nutshell, China's main challenge today is to develop smoothly functioning financial, planning, and regulatory systems that can employ the remaining rural surplus labor (as indicated by an average wage of about \$120 per month for 480 million rural and migrant workers) and surplus capital, which now shows up as China's sustained current account surplus and rising foreign exchange reserves.

The important conclusion from this section is that U.S.-China trade tension would be lowered much more if both countries undertake corrective policies rather than if China acted alone, and that a wider range of policy instruments should be employed (e.g., wage insurance program in U.S. and financial market development in China) rather than relying just on exchange rate adjustment alone.

THE ENVIRONMENTAL COLLAPSE IN CHINA

The present mode of economic development has given China the dirtiest air in the world, is polluting more and more of the water resources, and is possibly changing the climate pattern within China.²⁴ The reality is that CPC's new objective of living in harmony with nature is not a choice because the Maoist adage of "man conquering nature" is just as unrealistic as creating prosperity through central planning. China's fast growth in the last two decades has done substantial damage to the environment. Economy (2004, pp. 18–19) summarizes the economic toll as follows:

China has become home to six of the ten most polluted cities in the world. Acid rain now affects about one-third of China's territory, including approximately one-third of its farmland. More than 75 percent of the water in rivers flowing through China's urban areas is [unsuitable for human contact] . . . deforestation and grassland

degradation continue largely unabated. . . . The [annual] economic cost of environmental degradation and pollution . . . are the equivalent of 8–12 percent of China’s annual gross domestic product.

Water shortage appears to pose the most immediate environmental threat to China’s continued high growth. Presently, China uses 67–75 percent of the 800–900 billion cubic meters of water available annually, and present trends in water consumption project the usage rate to be 78–100 percent in 2030 (Lee 2006). The present water situation is actually already fairly critical because of the uneven distribution of water and the lower than normal rainfall in the past 15 years. Right now, “[about] 400 of China’s 660 cities face water shortages, with 110 of them severely short” (Noi 2004).²⁵

The extended period of semidrought in northern China combined with the economic and population growth have caused an increased amount of water to be pumped from the aquifers, leading the water table to drop three to six meters a year (Becker 2003; Ma 2003). And a study using measurements from satellites (the Global Positioning System) has established that the part of China north of the thirty-sixth parallel latitude has been “sinking at the rate of 2 millimeters a year” (Becker 2003).²⁶ Specifically, “Shanghai, Tianjin, and Taiyuan are the worst hit in China, with each sinking more than two meters (6.6 feet) since the early 1990s” (Agence France-Press 2004).

The overall water situation in northern China is reflected in the fate of the Yellow River, “which started drying up every few years from 1972, did so for increasing periods of time over longer distances in the 1990s until 1997, when it dried up for almost the entire year over a stretch of several hundred kilometres” Noi (2004).

The utilization rate of Yellow River’s water is 60 percent, far exceeding the internationally recommended utilization limit of 40 percent. All the mentioned factors have contributed to lowering the “amount of Yellow River water feeding into the Bohai Sea” from an annual 49.6 billion cubic meters in the 1960s to 14.2 billion cubic meters in the 1990s to the present 4.65 billion cubic meters (Lee 2006).

Water shortage and the increasing pollution of current water supplies are not the only serious environmental threats to the economy of northern China.²⁷ The desert is expanding (possibly at an accelerating pace), and human activities appear to be the chief culprit. The State Forestry Administration reported that 28 percent of the country’s land mass

was affected by desertification in 1999, and 37 percent was affected by soil erosion. The report identified about 65 percent of the desert as having been created by “overcultivation, overgrazing, deforestation, and poor irrigation practices” (*South China Morning Post* 2002). The rate of desertification is 3,900 square miles a year, an annual loss of a land area twice the size of Delaware.²⁸ One direct upshot is a great increase in the frequency of major sandstorms, which plays “havoc with aviation in northern China for weeks, cripples high-tech manufacturing and worsens respiratory problems as far downstream as Japan, the Korean peninsula and even the western United States” (French 2004).²⁹ In the assessment of Chen Lai, vice minister of water resources, “It will take nearly half a century for China to control the eroded land and rehabilitate their damaged ecosystems in accordance with China’s present erosion-control capabilities” (*South China Morning Post* 2002).

While northern China has been getting drier and experiencing desertification, nature, as if in compensation (or in mockery), has been blasting southern China with heavier rains, causing heavy floods that have brought considerable deaths and property damage almost every summer since 1998.³⁰ The sad possibility is that the northern droughts and southern floods may not be independent events but a combination caused by pollution that originates in China. I will have more to say about this possibility later.

Clearly, without water, growth cannot endure. And in response, the government began implementation in 2002 of Mao Zedong’s 1952 proposal that three canals—each over 1,000 miles long—be built to bring water from the south to the north: 1) an eastern coastal canal from Jiangsu to Shandong and Tianjin, 2) a central canal from Hubei to Beijing and Tianjin, and 3) a western route from Tibet to the northwestern provinces (Phan 2002). Construction of the eastern canal (which would be built on a part of the existing Grand Canal) started in 2002, and the central canal in 2003. Work on the western canal was scheduled to begin in 2010 upon completion of the first stage of the central canal.

The scale of this water transfer project is simply unprecedented anywhere: “Together, the three channels would pump about 48 billion liters of water a year—enough to fill New York’s taps for a quarter century. Only a tenth as much water flows through the next-largest water diversion project, in California” (Phan 2002).

This massive construction project will not only be technically challenging but also extremely sensitive politically and fraught with environmental risks. The central canal will have to tunnel through the foot of the huge dyke that contains the elevated Yellow River, and the western canal will have to transport water through regions susceptible to freezing. The number of people displaced by the Three Gorges Dam was 1.1 million, and this water transfer scheme is a bigger project. The enlargement of the Danjiangkou Dam (in Hubei) alone to enable it to be the source of the central canal will already displace 330,000 people (Cheung 2003).³¹ Moving people involuntarily is certainly potentially explosive politically. The project could also be politically explosive on the international front as well. One plan for the western canal calls for “damming the Brahmaputra river and diverting 200 billion cubic metres of water annually to feed the ageing Yellow River,” a scenario that is reportedly “giving sleepless nights to the Indian government . . . [which is concerned that this Great Western Water Diversion Project] could have immense impact on lower riparian states like India and Bangladesh” (Bagchi 2006).

The potential environmental damages caused by this project are the most serious for the central and western canals. In the case of the central canal,

environmental experts [in Wuhan where the Hanjiang River flows into the Yangtze] are worried about . . . [whether the annual extraction of 8 billion cubic meters of water could affect] the river’s ability to flush out the massive pollution flows released by the thousands of factories and industries along the tributaries. . . . The reduced flows could increase the frequency of toxic red algae blooms on the Yangtze near the confluence with the Hanjiang River. There have already been three blooms . . . [by May of that year, 2003]. (Cheung 2003)

The western canal has generated a lively controversy. Some scientists are contending that it “would cause more ecological damage than good” (Oster 2006b) because it “could cause dramatic climate changes . . . [and] the changed flow and water temperature would lead to a rapid decline in fish and other aquatic species” (Simons 2006).

Many opponents of the water transfer project have argued that water conservation could go a long way toward addressing this problem because currently a tremendous amount of the water is wasted—only

50 percent of China's industrial water is recycled compared to 80 percent in the industrialized countries Noi (2004), and China consumes 3,860 cubic meters of water to produce \$10,000 of GDP compared to the world average of 965 cubic meters (*Straits Times* 2004). The most important reason for this inefficient use of water lies in the fact that "China's farmers, factories and householders enjoy some of the cheapest water in the world" (Holland 2006), even though China's per capita endowment of water is a quarter of the world average (*Straits Times* 2004).

There is, however, the unhappy possibility that neither the price mechanism nor the three canals can solve China's water problem and make its growth sustainable unless the present mode of economic development is drastically amended. There is now persuasive evidence that China's voluminous emission of black carbon (particles of incompletely combusted carbon) has contributed significantly to a shift in the climate pattern that produces northern droughts and southern floods of increasing intensity (Menon et al. 2002; Streets 2005). The biggest source of what has been called the "Asian brown cloud" in the popular media is burning of coal and bio-fuels in China. If the pollution-induced climate change analysis is valid, it means that

- China's massive reforestation program will not succeed in reducing sandstorms in the north because trees cannot survive if the amount of rainfall is declining over time;
- the number of south-north canals will have to be increased over time to meet the demand for water in northern China; and
- China needs to significantly reduce its emission of black carbon (presuming no new large emissions from neighboring countries like India).

The general point is that effective policy making on the environmental front is a very difficult task because much of the science about the problem is not known. For example, China must no longer separate its water and energy strategies. A systems approach in policy making is necessary because the interaction among the outcomes from the different sectoral policies can generate serious unintended environmental damage. If part of the shift in China's climate is integral to global climate change, then a sustainable development policy would require

a complete rethinking about the location of population centers and types of enhanced international cooperation on global environmental management.

The uncomfortable reality for China is that unless ecological balance is restored within the medium term, environmental limits could choke off further economic growth. And the uncomfortable reality for the rest of the world is that the negative consequences of large-scale environmental damage within a geographically large country are seldom confined within that country's borders. The continued march of China's desertification first brought more frequent sandstorms to Beijing and has sent yellow dust clouds not only across the sea to neighboring Japan and Korea but also across the ocean to the United States. China's environmental management is a concern not only for China's welfare but for global welfare as well.

In discussing the environmental aspects of the water transfer plan, it is important to note that there is now an open controversy in China involving a key government infrastructure project, and that this controversy is not limited to members of the technocracy. The very public nature of the controversy and the involvement of more than just scientists, engineers, and economists in it reveal how very far social attitudes have progressed. The important point is that this change in social expectations will require any government in China to live in harmony with nature. However, any government will have great difficulties in doing so even if it wants to, because a green growth policy involves a systems approach, and scientific understanding of many ecological subsystems and the nature of their interactions is still rather incomplete.

Proper management of the environment has now become critical for China if it is to continue its industrialization process. The unexpurgated version of a 2007 World Bank reported that "about 750,000 people die prematurely in China each year, mainly from air pollution in large cities" (McGregor 2007), and a 2007 OECD study estimates that "China's air pollution will cause 20 million people a year to fall ill with respiratory diseases" (Anderlini 2007). Pan Yue, the deputy head of the State Environmental Protection Agency, summed up the present situation in China very well when he said, "If we continue on this path of traditional industrial civilization, there is no chance that we will have sustainable development. China's population, resources, and environment have already reached the limits of their capacity to cope. Sustain-

able development and new sources of energy are the only road that we can take" (Kynge 2004).

CONCLUSION

In appraising whether the attainment of the October 2006 vision of a Harmonious Society would be sufficient to sustain high economic growth in China, the greatest inadequacy I see is the absence of a parallel objective to build a harmonious world. A harmonious society cannot endure in China unless there is also a harmonious world, and vice versa. China's pursuit of such a society requires it to actively help provide two global public goods that make a harmonious world possible: the strengthening of the multilateral free trade system and the protection of the global environmental commons.

China has benefited immensely from the GATT-WTO free-trade regime, and yet up to this point it has played a passive role in pushing the Doha Round negotiations forward to completion. By default, Brazil and India have assumed the leadership of the developing economies camp in the trade negotiations. According to Susan Schwab, the U.S. Trade Representative, at the G4 (United States, European Union, Brazil, and India) meeting in Potsdam in June 2007, Brazil and India retreated from their earlier offers to reduce their manufacturing tariffs in return for cuts in agricultural subsidies by the developed economies because of "their fear of growing Chinese imports" (Beattie, Callan, and Pilling 2007; Luce and Callan 2007). The Brazilian-Indian action caused the Potsdam talks to fail and hurt the many developing economies that were agricultural exporters.

China should now seek a leadership role in the Doha Round negotiations that is commensurate with its participation in international trade. Failure of the Doha Round could set in motion the unraveling of multilateral free trade because the present international atmosphere is right for protectionism. The United States, which has traditionally been a leader in expanding the multilateral free trade system, is now beset by self-doubt for three major reasons.

First, the United States was willing to endure the pains of structural adjustments in the 1960–1990 period to accommodate the grow-

ing imports from Japan, South Korea, Taiwan, and ASEAN because they were frontline allies in the Cold War. When the Cold War ended, it was natural for the United States to reconsider the economic cost of structural adjustment because the security and ideological benefits from it went down.

Second, the amount of required structural adjustment in the United States to accommodate the rise of the SIC bloc is far greater than the earlier adjustment to the rise of its Cold War allies. As noted, the entry of the former SIC economies has doubled the labor force participating in the international division of labor.

Third, the strongest lobby for free trade in the United States has been the economics profession, and the free trade doctrine has come under strong internal criticism in the last few years. Paul Samuelson has made many fundamental contributions to the development of the standard trade models that convinced mainstream economists that free trade is the best policy, and it was therefore an intellectual earthquake when he argued in 2004 that under free trade, where outsourcing accelerates the transfer of knowledge to the developing country, there could be a decline in the welfare of the developed country (see Bernstein [2004] and Samuelson [2004]).

While the veracity of the Samuelson hypothesis is uncertain, the hypothesis clearly reflects the widespread pains of structural adjustment that they witness around them—a phenomenon captured by the decreasing length of median job tenure. In April 2007, the United States bypassed multilateralism in free trade by agreeing to form a Free Trade Area with South Korea. With the United States weakening in its resolve to protect the multilateral free trade system, China should now become more active in the Doha Round negotiations to further deregulate world trade. Such a role will be very much in China's interest because Brazil is now bypassing multilateral trade liberalization by entering into Free Trade Area negotiations with the European Union. The fact is that a growing number of nations like Brazil "are increasingly wary of a multilateral deal because it would mandate tariff cuts, exposing them more deeply to low-cost competition from China. Instead, they are seeking bilateral deals with rich countries that are tailored to the two parties' needs" (Miller 2007). It is time for China to show that it is a responsible stakeholder by joining in the stewardship of the multilateral free trade system.

The global environment is the second area where China can help to build a harmonious world system. Specifically, China should be mobilizing international consensus to form an international research consortium to develop ways to burn coal cleanly because China is now building a power station a week and is hence able to facilitate extensive experimentation on prototype plants to burn coal cleanly. If successful, this global cooperation on clean energy research will unleash sustainable development in China as well as the rest of the world.

We realize, of course, that while the need to maintain high growth could motivate China to become more active in supplying global public goods, it might not be allowed to do so because of the usual reluctance of the existing dominant powers to share the commanding heights of the world political leadership. The sad experience of Japan being denied permanent membership in the Security Council of the United Nations is a case in point. Harmonious international relations are the omitted item in China's perception of a Harmonious Society in 2006, and it could turn out to be a very soft spot in the Chinese growth engine.

Besides the adept management of international relations, the competent management of economic issues is also fundamental to maintaining China's path to high growth. The most important realization on this front is that in today's China, doing more of the same economic policies will not produce the same salubrious results on every front because the development problems have changed. For example, in the first phase of economic development, the provision of more jobs (through economic deregulation) was enough to lower poverty significantly. Many of the people who are still poor require more than just job opportunities; they need an infusion of assistance (e.g., empower them with human capital through education and health interventions) in order to take advantage of these job opportunities.

On the fiscal management front, my analysis suggests that the management of state assets and the regulation of the financial sector should be reformed to eliminate the phenomenon of repeated recapitalization of the SOBs. The privatization of some units of the SOBs, and the emergence of large domestic private banks will help strengthen the budget constraints perceived by the managers of SOBs.

The fact is, however, that the probability of a software failure and the probability of a power supply failure are both higher than the probability of a hardware failure. This means that development policy mak-

ing in China has become more challenging. There must now not only be more adroit but also fuller accommodation of domestic social demands in order to keep China's growth rate high. The reality is that popular satisfaction with the status quo depends inversely on the level of expectations, and the expectations of the Chinese people toward their government have risen dramatically along with income and, more importantly, along with their growing knowledge of the outside world. A Chinese government that consistently fails to produce results in line with the rise in social expectations runs the increasing risk of being challenged by another faction within the CPC, culminating in an open split with each side seeking the support of nonparty groups.

Complicating matters is that there has not only been rising expectations but also diversification of expectations. In this new situation, the greater use of democratic procedures, the establishment of an independent judiciary, and the restoration of a free press might be inevitable if CPC is to successfully accommodate the rising social expectations and mediate the emerging differences in social expectations. What will happen will depend on whether the CPC is sufficiently confident that it will be politically skillful enough to lead the democratic transition and emerge afterward as the most important political force. History tells us that the French and British monarchies reacted very differently to the popular requests for reform, and the outcomes were very different in each case.

Notes

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1. Lardy (1998) wrote that "China's major banks are even weaker than most official data suggest. . . . On a realistic accounting, these banks' capital adequacy is negative, and they are insolvent (p. 95). . . . The failure of China's largest financial institutions would disrupt the flow of credit and disrupt the payments system, leading to a collapse of economic activity. The failure of major banks also could have long-term implications for the household savings rate. . . . A lower savings rate would mean a lower rate of investment and slower growth, in turn depressing the rate of new job creation, leading to sustained higher levels of unemployment" (pp. 143–144).

2. According to Pei (2006), "In a 'trapped transition,' the ruling elites have little interest in real reforms. They may pledge reforms, but most such pledges are lip service or tactical adjustments aimed at maintaining the status quo."
3. As Huang (2006) sees that India does not discriminate against its indigenous capitalists in favor of foreign capitalists, he predicts that "[u]nless China embarks on bold institutional reforms, India may very well outperform it in the next 20 years."
4. For a review of the debate on how to interpret China's high growth in the 1978–2000 and why China, unlike the economies of the former Soviet bloc, did not experience a recession when it made the switch from a centrally planned economy to a market economy, see Sachs and Woo (2000) and Woo (2001).
5. For example, President Soeharto of Indonesia was pushed out of office in May 1998, one month after raising fuel prices.
6. f has been above 1.5 percent for the past seven years; r was 4 percent in the past only because the interest rate was regulated. I think that the implementation of financial deregulation that is necessary for normal healthy development of the financial sector will render r to be at least 6 percent because 1) according to Solow (1991), the stylized fact for the real interest rate in the United States is that it is 5–6 percent; and 2) both the marginal rate of return to capital and the black market loan rate have been more than 20 percent.
7. The asymmetry is from the absence of financial punishment when a loss occurs.
8. Lipton and Barboza (2007) also report the recall of a ghoulish fake eyeball that was filled with kerosene, and of an infant wrist rattle that was a choking hazard.
9. For example, radial tires were manufactured without the gum strips that prevented the tires from separating; see Martin (2007).
10. This point was made by the popular tabloid *Southern Metropolis Daily*; see Buckley (2007).
11. This point was made by the Shanxi governor, Yu Youjun, who said, "For a long time, relevant government departments did little to regulate rural workshops, small coal mines and small factories, and they are basically out of control and are not being supervised. . . . The dereliction of duty by civil servants and the corruption of individuals have made it possible for illegal labour to exist, particularly the abductions of migrant workers, and forced labour of children and mentally disabled people" (Ma 2007a).
12. The Gini coefficient has a value between 0 and 1, and the higher the value, the greater the degree of income inequality.
13. The 1993 number is from Keidel (2006, p. 1), and the 2004 number is from Pei (2005), who wrote that, in 2004, there were 74,000 "mass incidents" involving 3.7 million people compared to 10,000 such incidents involving 730,000 people in 1994. Possibly, because of the widespread attention in the Western media on the marked rise in mass incidents, the post-2004 definition of mass incidents appeared to have been changed, making post-2004 data not comparable with the 1994–2004 data; see discussion in EastSouthWestNorth (n.d.).
14. The No. 1 Document designation shows that this is the most important task in the new year.

15. This positive wage trend for the average worker is also seen in that for the average blue-collar worker; see Woo (2008).
16. The economic transition and political disintegration of the Soviet bloc became irreversible when Yeltsin replaced Gorbachev as the unambiguous leader of Russia in August 1991 and implemented market-oriented reforms in January 1992.
17. Today, under the heading of a socialist market economy with Chinese characteristics, the Chinese constitution gives private property the same legal status as public property, and the Chinese Communist Party accepts capitalists as members.
18. More accurately, the wage of the formerly isolated SIC worker would rise while the wage for the worker in the industrialized country would fall.
19. There is a large empirical literature on the relative impact of technological changes and globalization on the U.S. wage rate; see for example, Sachs and Shatz (1994) and Feenstra and Hanson (1996).
20. Ottaviano and Peri (2005) offer a good discussion of this topic.
21. The SCE category covers companies, which are classified as SOBs, and joint-venture and joint-stock companies, which are controlled by third parties (e.g., legal persons).
22. Economist Intelligence Unit (2004, p. 23) reported that “farmers’ propensity to save seems to have increased.”
23. Liu and Woo (1994) and Woo and Liu (1995) contain formal modeling and econometric support for the investment-motivated saving hypothesis.
24. Air pollution is a serious problem. Of the 20 cities in the world identified by the World Bank as having the dirtiest air, 16 of them are in China. It is shocking that lead and mercury poisoning are more common than expected. See *Financial Times* (2004) and Oster (2006a).
25. The shortage is reported to be most acute in Taiyuan in Shanxi and Tianjin (Becker 2003).
26. Some 60 percent of the land in Tianjin municipality is plagued by subsistence (Becker 2003).
27. Examples of serious water pollution are Agence France-Presse (2006); Ma (2001); *Straits Times* (2003); Yardley (2004, 2006).
28. This is average of the 3,800 square miles reported in Howard (2004) and the 4,014 square miles reported in the *South China Morning Post* (2002).
29. The number of major sandstorms in China was 5 in the 1950–1959 period, 8 in 1960–1969, 13 in 1970–1979, 14 in 1980–1989, 23 in 1990–1999, 14 in 2000, 26 in 2001, 16 in 2002, and 11 in 2003, according to Pumin (2005).
30. The National Development and Reform Commission (2007) reported: “The regional distribution of precipitation shows that the decrease in annual precipitation was significant in most of northern China, eastern part of the northwest, and northeastern China, averaging 20–40 mm/10a, with decrease in northern China being most severe; while precipitation significantly increased in southern China and southwestern China, averaging 20–60 mm/10a. . . . The frequency and intensity of extreme climate/weather events throughout China have experienced obvious changes during the last 50 years. Drought in northern and northeastern China,

and flood in the middle and lower reaches of the Yangtze River and southeastern China have become more severe.”

31. A lower estimate of 300,000 is given in Eckholm (2002).

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