
**CONCLUSIONS: FAULT LINES IN CHINA'S ECONOMIC
TERRAIN**

As indicated in Chapter One, the focus of this research has been on the potential adversities or fault lines facing China's economy and affecting its prospects for sustaining high growth through the coming decade. Thus, we have deliberately concentrated on what might go seriously awry in the economy and, in the process, slow or even reverse China's double-digit growth rates in the 1980s and high single-digit growth in the 1990s and the early part of the 21st century.

We have not devoted equivalent attention to the other side of this coin—the policies and resource reallocations China might devise to prevent, mitigate, or remedy the adversities that otherwise would hinder or reverse its economic growth.

This asymmetry is deliberate. Its intent is to provide a countervailing perspective to what has been a generally prevailing consensus—with a few notable exceptions—among policymakers, businessmen, and scholars both within and outside China: namely, that China's economy will be able to sustain high rates of economic growth for the indefinite future. This consensus is, for example, reflected in analyses and forecasts by the World Bank, the OECD, the Institute for International Economics, and in the hearings and final report of the U.S.-China Security Review Commission.¹

¹See reference reports, memoranda, and other papers published by these organizations.

In considering what might go seriously wrong in the Chinese economy, we have focused on eight domains, described in Chapters Two–Nine. For each of them, we have tried to arrive at a bottom line in terms of their respective effects on China's annual growth rate, should each of these adversities occur. To arrive at each bottom line, we have used either the aggregate growth model employed in other RAND work on the Chinese and other Asian economies,² or specific calculations tailored to and described in each of the eight separate chapters.

FINDINGS AND BOTTOM LINES

Our principal findings together with our estimates about the corresponding bottom lines can be summarized as follows.

Unemployment, Poverty, and Social Unrest

Open and disguised unemployment in China totals about 170 million, or about 23 percent of the total labor force in 1999. Moreover, the level of unemployment has been rising due especially to the population increase in the 1980s, as well as to the privatization of SOEs in the 1990s along with the downsizing of these often inefficient, loss-incurring enterprises. Recent and prospective increases in unemployment have not been principally the result of China's efforts to comply with its WTO commitments, although these commitments may engender further unemployment. The aggregate statistics have been accompanied by rising urban unemployment resulting *from* rural poverty, and resulting *in* income inequality between rural and urban areas, rural-to-urban migration, and social unrest.

The *bottom line* in this domain is our estimate of lower total factor productivity, lower savings, and reduced capital formation, causing reductions between 0.3 and 0.8 percent in China's annual growth rate over the next decade.

²See Wolf et al., 2000.

Economic Effects of Corruption

Both the concept and the measurement of corruption are complex as well as more than slightly obscure. Corruption in China as elsewhere includes the circumvention of established rules and laws. But some rules and laws in China as elsewhere may be perverse with respect to economic growth so their evasion may help rather than hinder growth.

In our effort to calibrate corruption in China and to link a possible adverse change in corrupt practices to their impact on China's expected economic performance, we have drawn on two established indices of corruption. These indices are based on polls, questionnaires, and surveys and include such categories as legal structure and security of property rights, regulation of business, and "perceptions" of corruption. In turn, the quintiles of the corruption indices are associated with differing quintile positions in annual economic growth rates of various countries included in the relevant indices. We infer that, were corrupt practices in China to increase—thereby lowering the quintile position of China in terms of its associated economic growth—our crude *bottom-line* estimate of the impact on China's expected growth rate would be a reduction of about 0.5 percent.

A recent estimate by Angang Hu has placed the economic cost of corruption in China in a range between 13.2 and 16.8 percent of GDP in the mid- to late 1990s.³ However, this estimate seems to us to be too high for technical reasons discussed in Chapter Three. Moreover, the aggregate estimate of 13.2 refers to the *level* of economic cost imposed on the system, rather than the effect of a change in this level on China's growth.

HIV/AIDS and Epidemic Disease

Estimates by the United Nations and other sources have placed the prevalence of HIV/AIDS in China in a range between 600,000 and 1.3 million, with an approximate annual rate of increase between 20 and 30 percent. For the several health scenarios analyzed in this study, estimated HIV carriers in the second decade of this century could

³Angang Hu, 2002, *op. cit.*

range between 11 million and 80 million in China. By 2015, China's HIV population would exceed the entire HIV population of sub-Saharan Africa today!

One way of translating these prevalence estimates into economic burdens is to consider the costs of treatment. At a minimum level, based on India's experience, annual treatment costs are \$600 per person.

If, for example, the prospectively infected population in China is between 5 and 10 million, the costs of treatment would be \$3–6 billion a year at a minimum, and rising. Based on the “intermediate,” rather than “pessimistic” scenario described in Chapter Four, China's population would experience annual deaths from HIV/AIDS between 1.7 and 2.7 million in the second decade of the 21st century, cumulating by 2025 to over 20 million casualties, associated with health-based reductions in productivity and annual reductions in GDP growth between 1.8 and 2.2 percent in the period 2002–2015.

Water Resources and Pollution

Although China's aggregate water supplies are adequate, China is beset by a perennial maldistribution of natural water supplies. The North China plain, with over a third of China's total population and at least an equivalent share of its GDP, has only 7.5 percent of the naturally available water resources. Subsurface aquifers in North China are near exhaustion, and pollution discharges from industrial and other uses further aggravate the shortage of water available for consumers and industry. By contrast, South China normally has an abundance of natural water supplies, sometimes leading to floods. The dilemma this poses for China's policymakers is whether and to what extent to push for capital-intensive water-transfer projects from south to north or, instead, to emphasize recycling as well as conservation of restricted water supplies in the north, or to pursue some combination of these alternatives.

This key allocation issue is further complicated by political considerations relating to the relative influence of provinces in the north and south regions. Our analysis in Chapter Five examines several different scenarios involving different combinations of water-transfer projects and recycling/conservation efforts which, in general, are more

efficient from the standpoint of reducing the short- to medium-term stringencies in water resource availability in the north. If, for various reasons, nonoptimal policy decisions and resource allocations are pursued, a plausible “pessimistic” scenario could result in reducing China's annual GDP growth between 1.5 and 1.9 percent.

Energy Consumption and Prices

The risk posed for China's continued high growth rate by availability of oil and natural gas supplies arises from the possibility of major increases in world energy prices, rather than from the fact that China has shifted from being a net exporter of oil in the early 1990s to a current and future situation in which nearly half of its oil and nearly a fifth of its natural gas consumption are derived from imports.

To analyze the fault line that might arise in the energy sector, we posit a scenario in which there is a drastic contraction in global oil supply, for whatever reason or combination of reasons, by about 25 percent and lasting for a decade (2005–2015). Factoring into this scenario a range of plausible demand elasticities, together with a small allowance for increased energy efficiency, we conservatively infer that global oil prices might rise as much as threefold. The resulting effect on China's annual growth rate resulting from a “moderately severe” scenario during the period 2005–2015 would be an average diminution between 1.2 and 1.4 percent.

China's Fragile Financial System and State-Owned Enterprises

One of the salient indicators of systemic fragility of China's state-dominated financial institutions is the extraordinarily high ratio of nonperforming loans on the balance sheets of the four major state banks. These NPLs have risen and continue to rise as the result of accumulated “policy lending” from the state banks to loss-incurring SOEs. Estimates of total NPLs cover an enormous range, between 9 and 60 percent of China's GDP. The correct figure is more likely to be at the upper end of this range.

Under circumstances that are discussed in Chapter Seven, China could experience a “run” of withdrawals from the state banks, large-

scale capital flight, a significant reduction in savings rates, and a decline of capital formation. The resulting financial crisis and credit squeeze could plausibly reduce total factor productivity by 0.3 percent, with accompanying reductions in the rates of capital formation and of employment growth that would collectively lower annual GDP growth by 0.5 to 1.0 percent.

Possible Shrinkage of Foreign Direct Investment

Between 1985 and 2001, the annual compound rate of growth in foreign direct investment in China was over 18 percent, rising from an annual rate of about \$2 billion to over \$40 billion in 2001 (in constant 1995 dollars). Two different mechanisms discussed in Chapter Eight are generally believed to account for the special importance and leveraging effects of foreign direct investment in contributing to China's high growth rates during the 1985–2001 period.

Yet there are not implausible circumstances under which this pattern of secularly rising FDI might severely contract. These adverse circumstances include both possible *internal* developments (such as tensions accompanying the leadership succession, internal financial crisis, inconvertibility of the RMB, repercussions from a possible HIV/AIDS epidemic, and slow implementation of China's WTO pledges), as well as possible *external* developments (such as improvements in the economic infrastructure and investment climate in other competing countries and regions in Eastern Europe, Russia, India, and elsewhere). To a greater extent than has occurred in the past, future FDI in China is likely to depend critically on the *comparative* risk-adjusted, after-tax return on investment in China compared with that in other countries.

Based on several rough assumptions and crude calculations, a sustained reduction of \$10 billion a year in FDI may be associated with a reduction of China's annual GDP growth between 0.8 and 1.6 percent.

Taiwan and Other Potential Conflicts

The current and recent status of relations between China and Taiwan is characterized in Chapter Nine as "movement without progress."

Yet this status quo entails major benefits for the PRC and Taiwan, as well as for the United States, especially when compared with some of the possible alternatives to it and the paths that might be associated with movement toward them.

There are also significant risks and tensions associated with the status quo, and it is not implausible that these might erupt into possible conflict between the PRC and Taiwan. In Chapter Nine, we consider one scenario involving escalation from provocation by Taiwan as viewed from Beijing, a blockade imposed in response, tangible though limited coercive force to effectuate the blockade, and the resulting effects on China's reallocation of resources to military spending, with ensuing reductions in the rate of growth of the civil capital stock and in the growth of total factor productivity.

The *bottom line* of these adverse security developments would be a conservative estimate of a decline in China's annual rate of economic growth between 1.0 and 1.3 percent.

SUMMARY

Table 10.1 summarizes our rough estimates of the plausible impacts on China's annual growth that could ensue from each of the adversities or fault lines that we have considered separately from one another. As noted earlier, five of these are already present and, in these instances, what we are positing is the possibility of their becoming worse and the economic effects this would entail.

As is evident in Table 10.1, and in the preceding subsections of this chapter, sustaining China's high growth from the past into the period 2003–2010 faces major obstacles, challenges, and what we have called "adversities." These include the several categories of adversities—sectoral, institutional, financial, and security—that we have analyzed in the successive chapters of this study.

The probability that none of these individual adversities will occur is low, while the probability that *all* will ensue is still lower. Were all of the setbacks to occur, the effect, according to our estimates, would be growth reductions of 7.4–10.7 percent; thus, improbably registering negative numbers for China's economic performance. While the probability that all of these adversities will occur is low, the proba-

bility that several will occur is higher than their simple joint, multiplicative probabilities would normally imply. The reason for this multiplication is that their individual probabilities are not independent of one another. Several of the separate adversities may tend to cluster because of these interdependencies. For example, an internal financial crisis would have serious negative consequences for the relative attractiveness of foreign investment in China and would be conducive to shrinkage of FDI. Similarly, tension or conflict in the Taiwan Strait or in other parts of the Asia-Pacific region would very likely seriously diminish FDI in China, as well as increase the likelihood of a financial crisis. Another clustering might arise in connection with the interdependence among unemployment, poverty, and the incidence of epidemic disease, including HIV/AIDS.

Table 10.2 suggests some of the key interdependencies among the several fault lines we have discussed.

Table 10.1
Impacts on China's Growth Arising from Separate Fault Lines, 2005–2015
(Preliminary)

Type of Setback	Separate Effects Diminishing China's Economic Performance (percentage/year)
Unemployment, poverty, social unrest	0.3–0.8
Economic effects of corruption	0.5
HIV/AIDS and epidemic disease	1.8–2.2
Water resources and pollution	1.5–1.9
Energy consumption and prices	1.2–1.4
Fragility of the financial system and state-owned enterprises	0.5–1.0
Possible shrinkage of foreign direct investment	0.6–1.6
Taiwan and other potential conflicts	1.0–1.3

Table 10.2
Interdependencies Among Fault Lines

Consequence	Cause							
	Unemployment, poverty, and social unrest	Economic effects of corruption	HIV/AIDS and epidemic disease	Water resources and pollution	Energy consumption and prices	Fragility of the financial system and state-owned enterprises	Possible shrinkage of foreign direct investment	Taiwan and other potential conflicts
Unemployment, poverty, and social unrest	✓	✓	✓	✓	✓	✓		
Economic effects of corruption	✓					✓	✓	
HIV/AIDS and epidemic disease	✓		✓	✓				
Water resources and pollution	✓		✓	✓				
Energy consumption and prices	✓							
Fragility of the financial system and state-owned enterprises	✓	✓	✓				✓	✓
Possible shrinkage of foreign direct investment	✓	✓	✓			✓		✓
Taiwan and other potential conflicts								

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NOTE: ✓ indicates where a fault line (cause/column heading) is likely to affect the occurrence and/or severity of another (consequence/row heading).