INTRODUCTION

The Great Wall.

From Transition to Development

The Chinese economy displays both unmatched dynamism and unrivaled complexity. Since the early 1980s, China has consistently been the most rapidly growing economy on earth, sustaining an average annual growth rate of 10% from 1978 through 2005, according to official statistics. Moreover, as every schoolchild knows, China is the most populous country in the world: its population surpassed 1.3 billion people in 2004, despite a declining birthrate. Rapid growth and huge population have long implied that China would eventually emerge into the front ranks of world economies. In the new millennium, this promise is already becoming a reality. China's gross domestic product (GDP) reached US$2.225 trillion in 2005, valued at the prevailing exchange rate. Thus, China has grown past the two $2 trillion economies of the United Kingdom and France to become the world's fourth-largest economy. Since 2004, China has also been the world's third-largest trading nation, after the United States and Germany. The Chinese economy naturally attracts superlatives.

Yet China is also struggling to emerge from poverty. The World Bank "promoted" China from "lower income" to "lower middle income" status at the end of the 1990s. China's GDP is only about one-fifth the size of U.S. GDP, even though it has four times the population. Its 2005 GDP per capita (measured at exchange rates) is $1,700, comparable to that of the United States around 1850 (valued at today's prices), and compared to $40,000 for the United States today. Moreover, China encompasses diverse regional economies that range from extreme poverty to relative prosperity. In large stretches of rural China peasants still struggle on the margins of subsistence, while in Shanghai, Beijing, and Guangdong a modern information economy is taking root. Coal-fueled boilers, reminiscent of the early stages of the industrial revolution, coexist with domestically designed nuclear power plants and a manned space program. Bureaucratic state-owned enterprises dominate some sectors but compete both with tiny, hardworking household businesses and with multinational corporations whose managers are trained in the latest business school techniques. This diversity drives a dynamic economy but also makes it difficult for us to see China whole.

Ultimately, China's diversity can be traced to two incomplete transitions. First, China is still completing its transition away from bureaucratic socialism and toward a market economy. Second, China is in the middle of the industrialization process, the protracted transformation from a rural to an urban society. China is in the midst of "economic development," the process that transforms every aspect of an economy, society, and culture. These two transitions are both far from complete, and so China today carries with it parts of the traditional, the socialist, the modern, and the market, all mixed up in a jumble of mind-boggling complexity.

THE DISTANCE TRAVELED

In the more than 50 years since the founding of the People's Republic of China (PRC) in 1949, China has undergone an unusual and tumultuous development process, passing through revolution, socialism, and Maoist radicalism, and then gradualist economic reform and rapid economic growth. The PRC government after 1949 at first created stability and economic growth, and rapidly left behind an era of war, civil war, and widespread poverty, but it then inflicted terrible suffering on its own people, particularly during the Great Leap Forward (GLF) famine. Subsequently, the dislocation of the Cultural Revolution turned life upside down for many Chinese. Since the beginning of economic reform in 1978, China has jettisoned most of the ideological baggage of socialism, and has again traversed a tremendous distance. This time the ground has been crossed with a remarkable improvement of living standards, a general easing of social conditions, and relative social stability. The objective of the transition process—a moderately prosperous society with a market-based economy—is now tantalizingly close to being realized.

It is striking just how far China has come in the past 25 years. Few predicted, when China began to tentatively reform its economy in the late 1970s, that a gradual transition process would take hold and continue to move forward without some kind of traumatic rupture with the past. Yet that is exactly what has happened. Economic and political ideologies have changed completely, and many have been discarded. Institutions have been reshaped. The material basis of the economy has been completely rebuilt. Moreover, it is now clear that the Chinese approach of incremental reform and steady economic progress has succeeded in practice. Following an approach that has been called "crossing the river by groping for stepping-stones," China has evolved in the course of a quarter century from one of the world's most isolated socialist states to a powerhouse of the global economy. While there have been undeniable stresses and strains associated with this transformation, perhaps the most remarkable fact is that this enormous distance has been traveled with relatively little large-scale conflict and relatively lower social costs than other transitional economies. Never before have so many people moved out of poverty or near poverty in such a short time.

THE DUAL TRANSITION

Today, as China approaches middle-income status, Chinese institutions are becoming more similar to those in other countries, especially those in other developing countries. In some respects this trend toward convergence is making China easier to understand. Just as China's economic institutions are coming to resemble those in other developing countries, so too the challenges China faces are shifting, and increasingly they resemble those faced by other middle-income developing economies. In the recent past, the sharpest challenges that China faced were those relating to the *transition* from a socialist command economy to a market economy. Today, many of the initial challenges of market transition have been overcome. The market is now the predominant economic institution in China. As a result, the challenges of transition are gradually being replaced by the challenges of *development*: the need to invest in human skills and physical infrastructure, the need to create effective institutions, and the need to protect underprivileged and vulnerable sections of the population. These new challenges are still severe; they are not necessarily easier to handle than the earlier challenges of transition. Indeed, the ultimate success of China will depend on its ability to create stable, efficient institutions, to cope with social pressures, and to upgrade the quality of human skills.

The drive for economic development is especially evident today, but it has in fact been a nearly constant theme in China's modern history. The socialist system was adopted during the 1950s in part because the leaders assumed that it would be the quickest way to make China a rich and strong country. The disasters of the GLF and the Cultural Revolution led to disillusionment with socialism as a development strategy and to the growing conviction that the market could be a superior instrument of development. Thus transition to the market was launched in tandem with a renewed commitment to fostering economic growth. The twin challenges of underdevelopment and transition were interwoven at all stages of the transition process. When China began its market transition process, in 1978–1979, the biggest challenges were the simple availability of key commodities, such as grain and oil, as well as the virtual nonexistence of basic infrastructure. It was not certain, at that time, that China would be able to speed up its economic growth simply because it was not clear that there was enough grain to feed the people, or enough electricity to run the factories, or sufficient export commodities to swap on world markets for vital supplies. None of these fundamental supply uncertainties exists today. China has in fact been able to grow its way out of its early crises and steadily increase the momentum of growth. Almost alone among the transitional economies, China was able to maintain—and indeed accelerate—growth during the transition process.

Growth has changed not only the material basis of the economy, but also the standards by which we judge it. Thirty years ago widespread poverty was simply taken for granted in China; even under socialism, the poor were "always with us." Today the persistence of 100 million people in severe poverty in China is no longer seen as inevitable or acceptable. Moreover, while transition has led to improved living standards for nearly all Chinese, it has also led to increased economic uncertainty and risk for many. Urban Chinese now grapple with unemployment and a health insurance system with gaping holes. Rural Chinese, who never enjoyed real economic or health security while tied to their home villages, have now been thrown into even more precarious economic environments as they migrate in search of opportunity. Growth has been accompanied by deteriorating income distribution and a society that is increasingly perceived as unfair. These problems may, in fact, be more difficult to resolve than those created under socialism. But, in principle at least, growth has now for the first time created the material resources that makes it possible to address problems of poverty and privation.

CHINA'S GROWTH PERFORMANCE

China's growth performance over the past 25 years has been extraordinary. Why China? Why now? A general survey textbook cannot hope to allocate responsibility for China's growth performance to different components. But it is possible to put China's growth into a broad context that makes it much less mysterious and more understandable. China's dramatic growth today is the result of a unique historical confluence of three factors: structural, transitional, and traditional.

First, China displays a number of structural features that are associated with rapid growth because they correspond with rapid growth of inputs into the economy. China invests a high proportion of national income annually, and a healthy share of investment is devoted to crucial physical infrastructure with public-goods properties. China's population is at the stage of social development where growth of the modern labor force is exceptionally rapid. Some of the rapid labor-force growth comes from the "demographic dividend," in which declining birth rates bring down dependency rates. The modern sector of the labor force is growing especially rapidly as the rural-urban transformation reaches a high point, where urban areas can absorb proportionately large flows of labor from the rural economy. Today, large investments in higher human capital are being made that build on the broad base of health and skills created under socialism. Thus China is in the position that the inputs of physical capital, labor, and human capital are all increasing rapidly.

Second, China is reaping the economic benefits from a successful transition from socialism to a market economy. There is substantial literature on the transition from socialism, and still significant disagreement about the lessons of that experience. The competing virtues of "big bang" versus "gradualist" approaches to transition will probably be discussed for years. Still, there are two simple points that derive from China's experience about which nearly everyone should be able to agree. First, the market is the superior way to organize economic transactions. At virtually every point in China's transition, growth acceleration has been associated with the opening of markets and with increasing competition. Most recently, China's round of market-opening measures to prepare for accession to the World Trade Organization (WTO) at the end of 2001 led directly to a further acceleration of growth (from 2002 through at least 2005). Whatever else can be said, China's experience shows that markets work and should be at the heart of any country's development effort. Second, China's experience provides no support for "market fundamentalism." That is, China's experience provides no support for the argument that, since the market is a superior mechanism, the full panoply of market institutions should be set in place as quickly as possible in as many realms as possible. On the contrary, China's experience shows that steady expansion of human and institutional capabilities, consistent and predictable incentives and property rights, and some government coordination to make up for market failures are as important as the steady expansion of markets. At a given moment, the development of market institutions may not necessarily be any more important or urgent than the development of other types of institutions and capabilities.

Successful transition has positioned China to reap some of the benefits of socialism past (relatively broad-based education and health, for example), while avoiding the trough of recession that wiped out those benefits for many other transitional economies. These transitional factors interact with structural factors: the investment rate is high largely because the domestic saving rate is high; and the domestic saving rate is high largely because Chinese households and firms have experienced general macroeconomic stability and growth in the wake of a successful economic reform.

Third, and finally, China is reaping the growth benefits from the revival of some of its traditional economic relationships. The highly commercialized and entrepreneurial society that grew up along with the dense traditional agricultural economy has now sprung back to life in many parts of China. This rebirth gives China the ability to capitalize on features that are associated with growth in many economies: a long history of state operation, rich institutions and a history of trust, and familiarity with commercial procedures. The old, densely populated civilizations of Asia—China and India—are reclaiming the global economic position they held for many centuries (cf. Bockstette, Chanda, and Putterman 2002). China's economic rise has been assisted by the re-emergence of traditional commercial ties with Chinese in Hong Kong, Taiwan, and Southeast Asia. These links facilitated China's opening to the global economy. Globalization, in turn, is enabling the resource-poor and labor-abundant economies of China and India to take advantage of their long-standing advantages. Resources can be accessed globally at far less than their domestic cost; a broad range of labor-intensive manufacturing and service industries provide opportunities for labor-abundant economies; and the backlog of advanced technologies that was always theoretically available is now being enthusiastically exploited by both China and India. Contemporary developments have allowed China to take advantage of its commercial and institutional legacies.

BECOMING A "NORMAL" COUNTRY

In the past China's economy had many peculiar features. The institutions of China's economy under socialism were utterly distinctive. China was an outlier among developing countries because of its socialist institutions. But China was also an outlier among socialist countries because it had adapted socialist institutions to the problems of a poor, predominantly rural economy. Because China was big and relatively isolated, it developed its own vocabulary and terms of reference for many economic issues. Moreover, China's uniqueness was not merely a matter of institutions: actual economic outcomes were also distinctive. China under the planned economy was *sui generis*: a "model" for some and a nightmare for others, there was no doubt that China followed its own distinctive path.

For example, if we use standard economic indicators to examine China's economy on the eve of reform, in 1978, we observe many paradoxical features. Overall, China was still quite poor, with a per capita GDP estimated by the World Bank to be the equivalent of $674 in constant-price (year 2000) purchasing-power-parity (PPP) U.S.-dollar equivalents. This figure means that China's income level was fairly typical of a low-income developing country at that time. However, according to prices of that time, 44% of China's GDP was produced in industry, which was *much* more than other low-income countries. Moreover, China's energy consumption per dollar of GDP was several times that of other low-income economies. So China appeared to be "overindustrialized." But in the same year, only 18% of China's population lived in cities, which is considerably less than the average low-income country. Thus China appeared to be "underurbanized." At the same time, literacy and life expectancy were quite high for a country at that income level, so China appeared to have an exceptional human development record. China did not appear to fit any normal pattern. Undoubtedly, difficult valuation problems make any simple comparison difficult, and both the estimate of China's GDP in 1978 and the valuation of its currency are problematic. An upward adjustment to the GDP data would make the energy consumption and life expectancy more normal, but would make the urbanization rate even more abnormal. Moreover, in order to begin opening up its economy, China would soon begin *devaluing* its currency after 1978. In fact, there is no simple way to reconcile these facts about China in 1978: China was simply different, uniquely shaped by its own history and economic system.

By 2003, China's GDP per capita had reached $4,726, again in constant-price (year 2000) PPP U.S.-dollar equivalents, according to the World Bank. This figure is now fairly typical of a lower-middle-income country. Moreover, today most of the other indicators have fallen into line with typical patterns. For example, at current prices, 40.5% of GDP is produced by industry (including mining and utilities). This proportion is still high, but after all, industry has grown rapidly—much more rapidly than GDP for 25 years—and China has become the "workshop of the world." Energy consumption per dollar of PPP GDP is still above what it should be, but it is now similar to developing-country averages and clearly within the normal range. Cities have grown rapidly, and the urbanization rate, reaching 41%, has about "caught up" with the expected level for a developing country of China's income level. Life expectancy and literacy, while still respectable, are no longer very much higher than what one would expect from a country at China's income level. China in 1978 was an extreme outlier in numerous respects; it is today, in nearly every respect, much closer to "normal" patterns.

This convergence to “normal” institutions and patterns of development in most respects makes China easier to understand. Certain features stand out more clearly, as China becomes more open and easier to analyze. Chinese economic growth is rapid and unusually persistant; investment rates are very high; the contribution of manufacturing to GDP and to growth is very high; and the increase in China’s participation in the world economy is dramatic. More broadly, the rapid upgrading of Chinese capabilities in a wide range of fields is extremely impressive.

Of course, China’s size, diversity, and rapid growth—as well as the complex legacy of its past—continue to pose challenges to our ability to understand its unique institutions, economic strategies, and current challenges. The Chinese economy is difficult to pigeonhole because it is simultaneously an intensely competitive market economy and an economy subject to particularly severe distortions. Government regulations, state ownership, corruption, incomplete markets, and imperfect institutions seriously distort economic incentives. Yet at the same time, entry of new competitors and fierce competition among individuals, companies, and regions constantly erode the blockades and barriers erected by the privileged few. Communist Party political power means that economic institutions and policy-making processes are largely closed to outsiders and that there is no free press to probe inconsistencies. China is unusually nontransparent. Economic data are sometimes worthless and must always be used with caution. This volume predominantly uses official data, but throughout considers data reliability and discards some implausible data (see Chapter 6 for discussion of GDP data). Despite dramatic improvements in openness, China’s economy retains distinctive institutions and sometimes reports contradictory or implausible information, which make it difficult to analyze.

CHINA TO THE FUTURE

The challenges facing China are still severe. Popular accounts repeatedly tend to either overestimate or underestimate China, and sometimes individual accounts veer from overestimation to underestimation in the space of a single paragraph. It is important not to lose sight of the formidable challenges, the constant sense of predicament, and the endless range of difficulties facing China. Because China has been emerging so recently from extreme poverty, it still possesses inadequate human and physical capital: education and technology levels are low, and much of the transportation and industrial infrastructure remains to be built. Institutions that support a high-productivity economy are either nonexistent or else created very recently and established on shaky foundations. Of course many challenges are ultimately traceable to the single great overwhelming fact of China: the enormous pressure of human numbers on an intrinsically limited supporting environment. It is only because China also has enormous reserves of human ingenuity and resourcefulness that it can have any hope of surmounting the difficulties facing it.

During most of the 1990s, it was perhaps more common to underestimate China. The shock of the 1989 Tiananmen student demonstrations and their brutal suppression caused many observers to downgrade their forecasts for China's future. Since the beginning of the twenty-first century, though, it has perhaps been more common to overestimate China. Overestimation often involves seeing China as an economic competitor, and perhaps as a potential strategic rival, to the United States. China's economic success has paradoxically convinced many that China is some kind of economic superpower, instead of a struggling developing country. This view reflects a major misunderstanding both of the nature of the economic links between China and the United States and of the magnitude of the challenges facing China. Placing China in a developmental context should make it clear not only that China faces formidable challenges, but also that Chinese policy-makers generally recognize the same problems and challenges that outside observers see. However, they do not always have the institutional or other capacity to deal quickly with challenges. Over the past 25 years, though, the Chinese government has been able to achieve a necessary minimum of essential policy changes. It is certainly *not* the case that the Chinese have done everything right. Quite the contrary: there have been as many failures as successes in China's economic and transition policy over the past two decades. But crucially, for the past 25 years the most important obstacles have been removed, and the absolutely essential changes that were necessary to allow the process of development as a whole to go forward have been achieved. Of course, there is no guarantee that this statement will continue to be true in the future, but these accomplishments show that the Chinese political system has a striking ability to target a few critical issues and mobilize talent and resources to address these issues when it is absolutely necessary to do so. This provides the system with a degree of resilience that is one of its key strengths.

We know from the experience of other successful developing countries that as a country reaches medium developed level, that country's contributions to world welfare begin to increase. New resources of human ingenuity are brought to bear. For example, as Japan made the transition from developing to developed economy, a steady stream of new techniques of manufacturing, new products, and new and traditional cultural influences began to flow out of

Japan. Today, American residents use and appreciate Japanese products and ideas that range from the sublime to the trivial on a daily basis. The same change is just beginning to become true for China as well. As China develops, its contributions to world welfare will increase in ways that are impossible for us to foresee. Over the next century, scientific and medical discoveries, new products and services, and a revitalized cultural contribution will come out of China. China will be taking up more space in an increasingly crowded world, but its contributions to world society will also increase rapidly. In the pages that follow, we aim to provide a comprehensive picture of the Chinese economy, building from the ground up. We will try to explain China's remarkable rise and peer into the future as effectively as possible.

USING THIS TEXTBOOK

The chapters of this book are organized in a bottom-up fashion. The first half of the book covers endowments, legacies, economic systems, and general issues of economic structure, labor, and living standards. The second half covers specific sectors, beginning with agriculture and progressing through industry and technology, foreign trade and investment, and macroeconomics. The final chapter covers the environment and sustainability. The book is designed to be a platform, covering much of the essential information about the Chinese economy and thereby serving as a starting point for further in-depth study of any specific topic.

The chapters in the book make frequent cross-references but are intended to stand alone as well. Thus classes should be able to assemble the chapters in different sequences, to accord with preferred approaches to the material. If the chapters are covered in order, the result is a strong China focus, with the opening chapters on China's geography and history first. This "program" is appropriate to a course specifically on China's economy or as part of a course on East Asian economies. An alternative "program" to cover the material would be to begin with Chapters 3 and 4 (the socialist economy and transition economy), then skip to Chapters 12 and 13 (township and village enterprises, and ownership and corporate governance in industry). This program gives a stronger emphasis on market transition and would be appropriate to a comparative class on economic systems. Those wishing to emphasize China's opening and integration into the world economy may wish to start with Chapters 16 and 17 (international trade and foreign investment). Of course, many other programs or approaches to the material are possible. The book presents many charts and graphs. The raw data for these graphics is available on the

Web site, http://irps.ucsd.edu/Chinese_economy, along with supplementary materials and updated data.

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Suggestions for Further Reading

For further reading related to specific economic topics, see the suggestions for further reading following each individual chapter. Among overviews in English, Lin, Cai, and Li (1996) is useful, and is especially good on the socialist era. Wu Jinglian (2005) is the best and most comprehensive account of Chinese economic reform currently available. Stepping outside the strictly economic sphere, Johnson (2004) manages to capture a realistic feel of life in contemporary China through three detailed and moving accounts. For a lively account of China's rise from a business perspective, see McGregor (2005). Naughton and Yang (2004) discuss the range of outside estimates of China's progress and future as of the mid-1990s.

A wide variety of academic journals now carry articles on the Chinese economy. Several high-quality Chinese journals carry economics articles, and today most economics journals have at least a few scholarly articles with significant China content. Of the Chinese journals, a (very) short list includes *The China Quarterly* (London: Cambridge University Press); *China Journal* (Canberra: Australian National University); and *China: An International Journal* (Singapore University Press), accessible at http://muse.jhu.edu/journals/china/index.html. Of the economics journals, the most consistently interesting China-related articles come in the *Journal of Comparative Economics*. A more specialized journal focusing entirely on China, the *China Economic Review*, carries many essential articles.

Sources for Data and Figures

The majority of the data in this text are drawn from official Chinese sources. There are many problems with official Chinese data, but to date nobody has produced an alternative set of data with a convincing claim to superiority. The strategy followed in this book has been to use the official data, but also to point out some of the most important deficiencies in those data. I have tried to use the most accessible data sources possible: in practice, this means relying on the *Statistical Yearbook of China* (*SYC*) whenever possible. The *SYC* is published annually (typically in November) by the National Bureau of Statistics (NBS). It is widely available and has the distinct advantage of having English headings for all tables. There is a great deal of continuity in the coverage of the *SYC* from year to year, which means that certain types of data can be readily updated from the *SYC*, and other types of data are consistently omitted. The *Statistical Abstract of China* (*SAC*), also published annually by the NBS (typically in June) has slightly different coverage, which can be useful, and no English headings. Many key statistics are released in February in the "Annual Economic Report," which is available at the NBS Web site, e.g., at http://www.stats.gov.cn/tjgb/ndtjgb/qgndtjgb/t20050228_402231854.htm.

Official Chinese GDP data for the years since 1993 were revised in late 2005. The economic census carried out on December 31, 2004, revealed a larger count of small-scale service businesses than had been anticipated, and the 2004 census was then used to adjust GDP data retrospectively through 1993. The newly revised data, from NBS (2006), have been used throughout this text, combined with GDP deflators from earlier statistical sources, such as *SYC*.

Some chapters use data drawn primarily from other sources. The NBS has overall responsibility for data collection and analysis, but data within specific sectors are often collected by specific ministries. Cooperation between those ministries and the NBS sometimes leaves something to be desired, and ministries may define their data coverage in ways that are influenced by the administrative authority. For example, data on township and village enterprises come primarily from the Ministry of Agriculture; data on urban labor come primarily from the Ministry of Labor and Social Security; and data on science and technology come primarily from the Ministry of Science and Technology. Each of these organizations has a Web site, and each cooperates with the NBS to publish statistics. But coordination is not seamless (cf. OECD, 2005, chap. 5). The discussion of the quality and coverage of Chinese data is extensive. Good places to start reading about the issues are Rawski (2001), Xu (2004), and Young (2003).

For comparative international data, I have followed the same principle of using the most accessible data sources when possible, which in practice means having first recourse to the World Bank, *World Development Indicators* (*WDI*), accessed online at http://devdata.worldbank.org/dataonline/. In cases where *WDI* data are inadequate, I have indicated an alternative source and the reason for using it.

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