FORECASTING CHINA’S FUTURE:
EXPERTS AND UNCERTAINTY

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Thesis submitted for the degree of
Doctor of Philosophy
Centre for Asian Studies
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University of Adelaide
October 2013
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ABSTRACT

Will China continue to rise and become dominant in its region or even globally, or will failure to reform lead to gradual decline or sudden collapse? Expert forecasts of China’s future have shown a strong tendency to polarise around this dominance-collapse dichotomy, to the confusion of most observers. Other experts, however, have more successfully explored the middle ground between these two extremes.

This thesis is a critique of these expert forecasts from the beginning of the post-Mao era until the present. It provides a representative sampling and summary record of expert judgements on the major forecasting issues confronting China, both from a national perspective and within four principal domains – political, economic, environmental, and international. It identifies the major proponents of competing forecasts and their principal arguments. Other researchers have considered aspects of this subject, but this study is unique in that it attempts to review these forecasts comprehensively, to examine their methods and perspectives systematically, and to recommend new approaches for expert analysis of China’s future prospects.

The central research question addressed is whether an investigation of the contemporary literature in which experts have attempted to forecast China’s future, supported by an evaluation of the methods employed, can suggest improved analytical approaches and frameworks. The principal findings are that useful (though imperfect) methods are indeed available, that many of them have in fact been employed by China experts (with mixed success), and that there is significant potential for further improvement. A major and conspicuous flaw has been the failure of the majority of experts to recognise, accept, and embrace the consequences of a high degree of uncertainty about most of the major issues confronting China.

The thesis argues that in addition to traditional methods there is a strong case for a new approach that emphasises the identification and analysis of a hierarchy of critical uncertainties within each of the four domains, concentrating on those uncertainties with the highest consequences and impacts nationally and internationally. The thesis uses this framework of critical uncertainties to review the expert debate in each of the domains, resulting in some valuable new perspectives.
DECLARATION

I certify that this work contains no material which has been accepted for the award of any other degree or diploma in my name, in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. In addition I certify that no part of this work will, in the future, be used in a submission in my name, for any other degree or diploma in any university or other tertiary institution without the prior approval of the University of Adelaide and where applicable, any partner institution responsible for the joint-award of this degree.

I give my consent to this copy of my thesis, when deposited in the University Library, being made available for loan and photocopying, subject to the provisions of the Copyright Act 1968, and subject to a 12 months embargo from the date of deposit while the thesis is prepared for publication.

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# ACRONYMS

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<tr>
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<th>Full Form</th>
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<tbody>
<tr>
<td>CASS</td>
<td>Chinese Academy of Social Sciences</td>
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<tr>
<td>CCP</td>
<td>Chinese Communist Party</td>
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<tr>
<td>CCS</td>
<td>Carbon Capture and Storage</td>
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<tr>
<td>CGA</td>
<td>Center for Global Affairs</td>
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<td>CICIR</td>
<td>China Institutes for Contemporary International Relations</td>
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<tr>
<td>CNP</td>
<td>Comprehensive National Power</td>
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<tr>
<td>DRC</td>
<td>Development Research Center</td>
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<tr>
<td>EIA</td>
<td>Energy Information Administration</td>
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<tr>
<td>ERI</td>
<td>Energy Research Institute</td>
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<tr>
<td>GFC</td>
<td>Global Financial Crisis</td>
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<td>GHG</td>
<td>Greenhouse Gas</td>
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<td>IEA</td>
<td>International Energy Agency</td>
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<tr>
<td>IMF</td>
<td>International Monetary Fund</td>
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<tr>
<td>LAM</td>
<td>Linear Ascent Model</td>
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<tr>
<td>LBNL</td>
<td>Lawrence Berkeley National Laboratory</td>
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<td>MER</td>
<td>Market Exchange Rates</td>
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<tr>
<td>NDRC</td>
<td>National Development and Reform Commission</td>
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<td>NIC</td>
<td>National Intelligence Council</td>
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<td>NLTPS</td>
<td>National Long Term Perspective Studies</td>
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<td>NPC</td>
<td>National People’s Congress</td>
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<td>OECD</td>
<td>Organisation for Economic Cooperation and Development</td>
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<tr>
<td>PLA</td>
<td>People’s Liberation Army</td>
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<tr>
<td>PPP</td>
<td>Purchasing Power Parity</td>
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<tr>
<td>SEI</td>
<td>Stockholm Environment Institute</td>
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<td>SIPRI</td>
<td>Stockholm International Peace Research Institute</td>
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SOE  State-Owned Enterprise
UNDP  United Nations Development Programme
WEF  World Economic Forum
WFS  World Futures Society
WFSF  World Futures Studies Federation

**SPELLING OF CHINESE NAMES**

For persons residing on the Chinese mainland, the thesis follows Pinyin spelling and the convention of surnames first and given-names last. In the case of individuals residing outside the mainland, the thesis uses the spelling and the order of surname and given-name preferred by the individual as reflected in their publications and citations.
ACKNOWLEDGEMENTS

I would particularly like to express my sincere gratitude to my principal supervisor Dr Gerry Groot, Senior Lecturer in the Centre for Asian Studies of the University of Adelaide, for his unfailing encouragement, valuable advice, and friendship. He, and my second supervisor Professor Purnendra Jain, provided a stimulating and supportive environment that allowed me to pursue my research independently but with guidance and advice whenever required. I also thank my third supervisor, Dr Czes Tubilewicz, for his advice during the initial years of my candidature.

My thanks also to: Michael Dutton and Malcolm Cook for supporting my participation in the Griffith-Lowy Joint Project on China’s Future; Emeritus Professor Andrew Watson for arranging my research attachment in 2010 to Tsinghua University, Professor Chu Shulong for his supervision during that attachment, and Professor Hu Angang for allowing my participation in his lecture series on China’s economy; Matt Durnin for assistance with my article in China Security journal; Michael Wesley and Sam Roggeveen for accepting my series of posts on China’s high speed rail in Lowy’s Interpreter blog; Professors Yang Guang and Wang Xueyu for inviting me to lecture at Shandong University; Flinders University for agreeing to my participation in the 2012 Sustainable Environment conference in Beijing with CASS; Dr Alex English at Victoria University for including me in the 2012 Low Carbon Cities workshop in Beijing with ERI; Elizabeth Steffey Vinton for inviting me to submit an article in American Foreign Policy Interests journal; and the Australian government and University of Adelaide for my Endeavour Award fellowship and Discover China grant.

I would also like to warmly thank all my fellow postgraduates and staff at the Centre for Asian Studies for their conversation, friendship, and mutual support. Last but certainly not least, I want to record my gratitude to my family, and especially my wife Sue who is also completing a PhD, for their understanding and patience.
1 INTRODUCTION

This thesis is a critique of expert forecasts of China’s future in the post-Mao era. Since the future is inherently uncertain, it also provides a major case study of how experts respond to such uncertainty. Other researchers have considered this subject, but I believe my approach is unique in that it aims, first, to review these forecasts comprehensively, second, to examine the forecasting approaches and methods systematically and, third, to recommend new perspectives and frameworks for future research and analysis of China’s prospects in the twenty-first century.

The term “forecasting” is used in this study to refer to a variety of approaches to exploring and analysing possible futures, as distinct from “prediction” which is usually interpreted to mean single-point or specific forecasting of future events. Unlike predictions, forecasts are usually conditional and can include a range of possible outcomes and timeframes. The term “national futures” is not commonly found in the literature. It is used in this study to refer to possible futures for any particular country or countries. Forecasting “methods” are often referred to in the literature as “methodologies”. However, I have adopted the more commonly accepted usage, which is that specific forecasting techniques are “methods” and it is only the critical analysis or study of those methods that warrants the term “methodology”. This study has thus taken a particular interest in the methodology of specific forecasting methods.

1.1 Challenges and Benefits of Forecasting

At the outset, any discussion of forecasting or prediction must first confront the fundamental issue of the credibility and usefulness of such endeavours. A central question arises in both scholarly analysis and popular perceptions: namely, how can a discipline that seeks to anticipate the necessarily uncertain future have any validity, especially when the majority of these forecasts turn out to be wrong, either in degree or in nature? Forecasting the future of any country – and especially a country like China – is widely accepted to be a notoriously difficult, if not quixotic, enterprise. Retrospective study reveals that though many attempt it, few have had conspicuous success. Such forecasting is therefore much-derided, and many researchers
consequently appear to feel more comfortable analysing historical or contemporary developments. They consider it foolhardy to try to peer into the future.

Nevertheless many experts have chosen, perhaps paradoxically, to cast aside their understandable and even commendable caution. In the case of perhaps no other country is this more apparent than for China where there is a prolific and constantly expanding international literature in which determined and well-resourced efforts have been devoted to assessing its future prospects. This is occurring despite the fact that the task is even more difficult in the case of such a large and dynamic nation. Yet the reasons for the growing fascination with China’s future are readily apparent. China is the most populous and fastest growing country in the world. Unless current trends change dramatically, it will soon become the world’s largest economy. Its growth performance is already a critical factor in the health of the global economy. As the world’s largest emitter of greenhouse gases (GHGs) its influence on the world’s environment will be equally critical. Many are also concerned that its influence on the international order may be disruptive and that its pursuit of its international interests may lead to military conflict. China’s development may therefore have a greater impact on the global future than that of any other country except perhaps the United States. As China’s power has grown steadily, an increasing number of experts have therefore taken up the challenge of forecasting its likely direction.

In this thesis I have taken the view that resolving the apparent conundrum about the validity of forecasting requires a more pragmatic and even indulgent approach to this inexact art than is often encountered. Against the weight of popular scepticism, I argue that recognition should be given to the following important considerations that support the acceptance of forecasting as a worthy occupation. First, it should be acknowledged that attempts – no matter how imperfect – to anticipate the future as a guide to actions in the present are in any case a universal and inevitable preoccupation for individuals and organisations. Second, planning, policy-making and decision-making activities that seek to have a positive influence on the direction of future outcomes will in most cases be more effective if based on forecasts than if they proceed without any structured attempt to anticipate the likely future context of those activities. Third, in addition to these persuasive considerations it should be
noted that forecasting and planning activities are usually iterative in nature. Forecasts tend to be updated regularly by new studies that take account of new data, trends, perceptions, and the mistakes of previous forecasts. Inaccurate forecasts may then be rejected or superseded. Fourth, forecasts of national trends increasingly incorporate the possibility of alternative futures. While this reduces forecasting precision, it increases credibility and serves the interests of policy-making by drawing attention to several possible futures that can be either encouraged or avoided. Fifth, the credibility of forecasts can also be increased by giving greater transparency to the assumptions and reasoning on which they are based.

China itself provides compelling evidence for the argument that forecasting is a necessary and legitimate activity. Its future is manifestly too critical a factor – for global prosperity, sustainability, and stability – for estimation of the likely parameters of its future development to be neglected. This thesis therefore takes the position that not only are expert attempts to forecast China’s future going to continue, but they are also likely to play an increasingly important if not crucial role.

Although some scholars have questioned and even ridiculed attempts to forecast trends in the social sciences, many have been more sympathetic. Probably the most comprehensive overview of the theory and validity of forecasting has been provided by the distinguished US philosopher Nicholas Rescher, who concluded: “Foreknowledge regarding the developments of the future – or even only plausible surmise about it – is of immense practical and theoretical importance to us.” Human beings, he noted, have “a vast stake in the future – so much so that the option of abstaining from predictive ventures simply does not exist for us.”

1.2 China Watchers and Forecasting

Many experienced analysts of China’s contemporary development, or “China watchers” as they are often labelled, have wrestled with the tension between the difficulty of attempting to see into China’s future and the perceived necessity to nevertheless make the attempt. They have included some of the most eminent scholars in the field. Their views are instructive. For example, the difficulties facing

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China watchers have been well-expressed by Australian academic Richard Rigby who reflected the views of many others in observing that if there was a single word that should be applied to China it was “complexity”. Consequently, he advised, experts should be “distrustful of any simple descriptors or characterisations”. China was so big and unique that expectations that it would take a similar path to any other countries were “certainly going to be proved wrong”.2 A 1997 expert study on The Chinese Future emphasised that modesty and circumspection were essential because the country was so big, complex, diverse, rapidly-changing, and had such a long history, that it almost defied understanding.3

Similarly, David Shambaugh cautioned that China watchers should “tread carefully before hazarding predictions” because their efforts were “littered with predictive casualties”. In Sinology as in seismology, he concluded, it was “impossible to forecast with any precision”.4 Charles Freeman lamented that predictions about China had accumulated “a remarkable record of unreliability.”5 Zhang Qingmin at Peking University was also concerned about the inherent limitations of forecasts, which he found were “replete with examples of erroneous predictions and glaring failure to anticipate major events”.6

Despite the poor track record of China forecasts, there were nevertheless many China watchers who clearly believed the attempt was worth making. They have frequently and emphatically endorsed both the validity and necessity of forecasting. Shaohua Hu, for example, acknowledged that making predictions in the social sciences was risky because future developments were “determined by numerous, complicated, changing, and interacting factors”. Nonetheless he believed that identifying possible developments was “both possible and necessary; possible because historical events do not come out of the blue, and necessary because one major purpose of

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2 Richard Rigby, ”The Challenge of China,” East Asia Forum Australian National University (7 February 2010).
6 Zhang Qingmin, ”Book Review: Jae Ho Chung, Charting China’s Future,” China Review International 14, no. 2 (Fall 2007), 390-393.
understanding the world is to influence its future”. Maria Hsia Chang conceded that in the case of China attempts by political scientists to anticipate events were “always hazardous and, at best, tentative”. But she believed that China’s significance was too great to give up the attempt. Cheng Li agreed, suggesting that, all thoughtful forecasts would conclude that “the trajectory of this fast-growing economic powerhouse will have profound implications not only for the millions of Chinese people but also for the rest of the world”.

Other China watchers concurred that no matter how difficult the exercise, it was still necessary to attempt to forecast its future. Peter Gries noted that forecasting might be difficult and even dangerous, but he thought these problems should be viewed as challenges and “not as excuses to dismiss the enterprise.” Alan Whiting, confronting the question of why one should attempt to forecast when it was evidently so challenging, responded that that the answer was simple: “Difficult and tentative answers to important questions are more useful than easy answers to trivial questions.” An ambitious approach was also favoured by David Shambaugh who regretted a tendency for China studies to focus on “increasingly smaller units of analysis” that failed “to generate broader views or predictions”, resulting in a field of study that seemed “to know more and more about less and less.”

There appears to be widespread agreement that the track record of analysts who have attempted to forecast the future of China is at best mixed and at worst woefully inadequate. Yet while many of these failings will be illustrated in following chapters, it is not the purpose of this thesis to denigrate the forecasting errors of China watchers. If one accepts, as I do, the premise that China’s future is a legitimate field of speculation that is too important to ignore – and the reality that many will in any case make the attempt – then such forecasting stands as a worthy endeavour. The determined efforts of China experts to overcome the difficulties they face and to attempt to provide guidance to those who seek to influence China’s future, and its

8 Maria Hsia Chang, “China’s Future: Regionalism, Federation, or Disintegration,” *Studies in Comparative Communism* 25, no. 3 (September 1992), 211.
interaction with other countries, are to be commended. It is important to recognise, along with the failures, the wisdom many of these analysts accumulated about how best to approach their daunting task, and the real contributions they have made to our understanding of China’s possible future trajectory. Their failures, while regretted, should perhaps be viewed philosophically, while their successes deserve to be celebrated.

1.3 Dominance and Collapse

While the forecasting efforts of China experts appear collectively to be both legitimate and defensible, it is immediately striking, and clearly problematic, that expert attempts to forecast China’s future have yielded a very wide spectrum of expert opinion about where China is heading – ranging all the way from firm expectations that it will come to dominate its region and even perhaps the world, to confident predictions of its imminent collapse. It is especially noteworthy that there has been a significant tendency for expert opinion to polarise toward either one end of this spectrum or the other. Self-confessed pessimists regularly predict China’s decline or demise; others are perhaps less willing to be labelled as optimists but they nevertheless often appear quite sanguine about China’s ability to manage a truly formidable range of problems. Opinion at each of the two extremes – dominance or collapse – is very well represented in the literature, to the extent that the expert debate sometimes has the appearance of a contest between well-defined opposing camps. Observers may well conclude that there is less unanimity on the question of China’s future direction than on most other subjects of major international importance.

The difficulty is that experts on both sides seem able to produce with relative ease a variety of arguments, evidence and even objective statistics to support their positions. The resultant dichotomy is a serious problem. It undermines the ability of China experts to contribute effectively to two of their most important tasks – elevating public understanding of China’s likely future impact, and informing efforts by policy-makers and decision-makers to respond to the many challenges presented by China’s rise. It obfuscates vital issues and creates confusion about appropriate policy
responses. It also runs the significant risk of leading to sub-optimal and even dangerous outcomes for China’s international and domestic relationships.

1.4 Experts and Uncertainty

This dichotomy is to some degree unavoidable. The tendency for many expert judgements to polarise around opposing viewpoints is a natural consequence of the fact that the future is inherently uncertain. This uncertainty is the central problem with which forecasters must grapple. It is also noteworthy, however, that many experts – often including China watchers with impressive credentials and length of experience – have resisted being drawn into these extremes. There is a sizable middle ground in expert opinion. Different experts seem to respond to uncertainty in quite different ways. Some appear to gravitate with relative ease toward strongly-held opinions at the opposing ends of the available spectrum. They seek to back those opinions with confirmatory evidence and sometimes also with allegedly supportive theory or models. They tend to adhere strongly to their sharply-defined opinions, even in the face of emerging contrary evidence. Other experts are drawn toward the middle ground because – instinctively or through experience – they are more impressed by the extent of the uncertainties with which they must contend. They are inclined to be more circumspect, more willing to seek out and consider contrary evidence, and more likely to adjust their judgements accordingly. Their ability to see the possibility of more than one outcome increases their ability to give nuanced and balanced advice to decision-makers.

Both types of experts – the bold and the cautious – may suffer from limitations. Those who rush to judgement, hold strong opinions, give preference to personal biases, and are inflexible in the face of new evidence, are clearly fallible. Those who are more tentative and reserve their judgement may sometimes be unable to develop clear conclusions or offer practical advice. On balance, however, experience suggests that there is likely to be much advantage in a balanced approach that gives objective consideration to the arguments of experts representing several parts of the spectrum, and in regarding over-confident or extremist views with caution.
1.5 Overview

Given the huge impact that China’s future development is likely to have on twenty-first century global outcomes and the voluminous research already devoted to exploring this potential impact, it is perhaps surprising that relatively little attention has been given to examining systematically the effectiveness of this research and the methods employed. In this thesis I have sought to address this deficiency by:

- considering the availability and suitability of viable methods for the exploration of national futures;
- describing and analysing the methods that experts have in fact used in their attempts to forecast China’s future; and
- considering and recommending improved approaches and frameworks for analysing China’s future prospects.

In brief, the central research question I have addressed is whether an investigation of the contemporary literature in which experts have sought to forecast China’s future prospects, supported by an evaluation of the various methods used in this literature and elsewhere, can suggest improved analytical techniques and approaches. (If so, the conclusions reached are likely to also be relevant to the study of national futures in other countries.)

My principal findings are that useful methods are indeed available for the analysis of national futures; that many of the principal methods have in fact been employed by China experts, although with very mixed success given the inescapable uncertainties with which they are confronted; and that there is significant potential for new or improved perspectives. My most significant observation, after an extensive review of these expert forecasts, is that they are marred by one major and conspicuous flaw – namely, the failure of a majority of experts to adequately recognise, accept, and embrace the reality of the overwhelming prevalence of uncertainty regarding most if not all of the central issues under debate. The omnipresence of uncertainty is demonstrated convincingly, first, by the striking diversity of views expressed over time about China’s overall prospects and about specific outcomes; second, by the impossibility of opposing schools of thought being both correct; third, by the apparent ease with which competing arguments can be constructed on most important issues; and, fourth, by the acceptance among a cohort of experienced
China watchers that most of these issues are essentially unresolved and may remain so for a considerable time.

These insights led me to investigate whether this uncertainty about most key aspects of China’s future could be used as a new starting point, and be harnessed pragmatically as the basis for a new approach for research and analysis. In particular, I was strongly attracted by the likely advantages of an approach that emphasised the identification and structured consideration of a hierarchy of critical uncertainties within at least four principal domains – political, economic, environmental, and international. This is the approach I adopted in Chapters 7 to 10 of the thesis. I defined each of the major uncertainties discussed as “critical” because they were identified within each domain at a strategic or system level and because the way in which they unfolded would have a very high national, and often international, impact.

I believe the findings of Chapters 7 to 10 confirm convincingly, the merits of an analysis of China’s future prospects based on the investigation of specified critical uncertainties. This approach focuses attention directly on those issues that are of greatest consequence, and on the competing views of relevant experts. It exposes likely shortcomings in the arguments of individual experts by contrasting them with equally-plausible counter-arguments. I have highlighted the phenomenon that most of these critical uncertainties remain in the balance, and also that there is significant scope for human actors to influence future developments in both positive and negative directions.

Another important and associated objective of the thesis is to present a representative sampling of the competing expert judgements about the major forecasting questions concerning China’s future. It provides a unique and informative summary record of these key forecasts, identifying their major proponents and their principal arguments. This endeavour is motivated by the hope that further analysis over time of such competing expert judgements will continue to expose the most important underlying uncertainties, confirm the potential for alternative outcomes, and highlight the importance of policies and actions that will promote the most desirable outcomes.

The following preview describes how the thesis has been structured:
Chapter 1, *Introduction*, considers the fundamental tension between the inherent difficulty of forecasting and the potentially vital benefits that it nonetheless is capable of providing. It introduces the views of China watchers on this issue. It outlines the central research question and principal findings of the thesis, highlighting the problematic issue created by the diversity and polarisation of expert opinion. It foreshadows the utility of a new and alternative approach based on the analysis of critical uncertainties. It also comments on the research methodology used in the thesis and on its sources.

Chapter 2, *How to Forecast National Futures*, briefly surveys a large body of relevant literature – from the fields of Futures Studies, Forecasting, and other sources – in an attempt to identify some of the principal concepts and the most useful methods for forecasting national futures. It was based on a previous literature review of these sources and focuses on the methods or approaches that appear to be not only among the most potentially relevant but that in practice have also been the most widely used, especially by experts outside China. The chapter also includes and explains the concept of critical uncertainties as a promising new method for forecasting national futures, and foreshadows the use of this approach at domain level in Chapters 7 to 10.

Chapter 3, *Expert Opinion in Post-Mao China*, charts the development of expert judgements about China’s national outlook from the beginning of the post-Mao period in the late-1970s until the mid-1990s. It describes the earliest forecasts during this period noting the increasing optimism of analysts during the 1980s, their very negative assessments following the 1989 Tiananmen crisis, and the new expectations that emerged in the 1990s as a consequence of growing appreciation of the reality of China’s rise.

Chapter 4, *Pessimists and Optimists*, portrays the marked polarisation of opinion that emerged among experts between, on the one hand, those who were strongly sceptical about China’s prospects and argued the case for pessimism and, on the other, the mostly more-cautious optimists who believed it likely that major challenges would be overcome and that China would continue to prosper and expand its influence. It notes that this bifurcation of opinion became a notable feature of the expert debate
during the 2000s and continues to be important, subsuming a parallel and more-radical dialogue between some who saw the prospect of China’s collapse and those who thought it was likely to become dominant.

Chapter 5, *Acknowledging Uncertainty*, examines the middle ground between the pessimists and the optimists occupied by a significant number of experts who avoided those extremes and were more impressed by, and accepting of, the uncertainty surrounding China’s future. It highlights a somewhat different approach taken by those experts who focused more-narrowly on the question of “What could go wrong?” to upset China’s rise. It considers the limited contributions made by expert groups. It also comments on the major concerns raised by the evident unreliability of expert opinion.

Chapter 6, *Scenarios for China’s Future*, describes the use made by China experts of the scenario construction method and evaluates its effectiveness. It emphasises the usefulness of scenarios for highlighting the possibility of alternative outcomes, but notes some limitations. In particular, it comments on the difficulties raised when experts declined to assign probabilities to their scenarios and the greater success enjoyed by those who took up this challenge.

Chapters 7 to 10, *Political Uncertainties, Economic Uncertainties, Environmental Uncertainties* and *International Uncertainties*, mark a shift in attention from expert views about China’s overall national future toward consideration of expert judgements about critical uncertainties within the four major domains – political, economic, environmental and international. The argument made here is that a focus on such critical uncertainties offers not only a useful template to examine the ongoing debate among China watchers, but also a valuable research framework for comparing and assessing competing judgements. Each of the chapters concludes with a *Futures* section that comments on the important new perspectives arising from this investigation of critical uncertainties, and on the effectiveness and limitations of the other specific forecasting methods and techniques used.

Chapter 7, *Political Uncertainties*, observes that the expert debate has focused rather more on the future institutional form of China’s political system than on the likely effectiveness of political governance. It describes a wide spectrum of expert views
ranging from predictions of short-term or long-term democratic transition to expectations that the authoritarian system will survive and scepticism about the prospects for political liberalisation within that system. It notes that many experts questioned the use by their colleagues of predictive theories to forecast China’s political future.

Chapter 8, *Economic Uncertainties*, documents the considerable divergence, over a long period, in quantitative forecasts of China’s economic growth rate as well as the persistent underestimation of that growth. It describes similar disagreement among experts about when, or even if, China’s GDP will overtake the United States. It also examines the unresolved and highly consequential expert debate about China’s prospects for transitioning to a more sustainable long-term economic model.

Chapter 9, *Environmental Uncertainties*, considers contrasting and evolving expert assessments about China’s ability to manage its still-growing environmental challenges. It considers the vital issue of whether China’s future energy consumption and carbon emissions will be contained by an impressive array of counter-measures, or whether these measures will be overwhelmed by continued economic growth. It includes analysis of a series of major statistical modelling projects that attempted to project the likely future growth of carbon emissions under different scenario assumptions. It notes a surprising degree of cautious optimism about China’s success in developing elements of a low carbon economy and about the possible prospects for constraining its future emissions, but tempered by substantial residual uncertainty and concern about future trends.

Chapter 10, *International Uncertainties*, describes the continuing discussion among experts about whether China’s international relations are likely to be predominantly cooperative or competitive. It discusses the predictive claims of international relations theories, and objections to those claims by both Chinese and Western scholars. It notes the important influence of actors and perceptions. Growing concerns about China’s alleged assertiveness are also examined, along with evidence that it still places much emphasis on encouraging peaceful and cooperative relationships.
Chapter 11, *Embracing Uncertainty*, summarises the merits and shortcomings of the methods used by forecasters of China’s future. It commends experts for the degree of success they have achieved with these imperfect instruments, and notes that many show considerable awareness of the pitfalls they face. In addition to the traditional forecasting endeavours, this concluding chapter strongly commends a new emphasis on a more systematic, collective and institutional approach to identifying and analysing critical uncertainties in China’s future. It discusses both negative and positive potential outcomes in each of the four domains, and urges that giving greater attention and support to the achievability of positive outcomes would be a considerably more beneficial approach than continued fixation on the negative outcomes envisioned in the dominance-collapse dichotomy.

### 1.6 Research Methodology and Sources

In this thesis I have not adopted a specific research methodology. My approach is essentially heuristic and pragmatic. However, the generic methodology that probably comes closest to describing the approach I have employed has been variously described as “synthesis”, “meta-analysis”, or “meta-synthesis”. My analysis is predominately qualitative, rather than quantitative, although quantitative issues are considered in selected areas.

Qualitative research synthesis is defined by Claire Major and Maggi Savin-Baden as a linear process that involves:

- identifying studies relating to a research question;
- collating qualitative studies across a wide range of literature;
- examining the theories and methods used in the studies;
- comparing, analysing, synthesizing and interpreting the findings;
- preparing an interpretative narrative about the synthesis of findings; and
- providing a series of recommendations.

They emphasise that, although linear, this is also an iterative process; and note that it offers “a way to make meaning from existing qualitative studies viewed in aggregate”.  

This description matches the process adopted in the thesis, although a true synthesis of expert judgements is not attempted due to the inevitable uncertainty.

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of future developments. My aim is usually only to compare competing views, but in doing so to hold them up for scrutiny. Denis Walsh and Soo Downe describe research meta-synthesis as bringing together related qualitative studies to enable “the nuances, taken-for-granted assumptions, and textured milieu of varying accounts to be exposed, described and explained in ways that bring fresh insights”.\textsuperscript{14} This description matches closely the process and purpose of this thesis. Another purpose is to evaluate the methods employed in expert analysis – an approach that bears resemblance to what has been described as “meta-method”. Deborah Fingeld defines meta-method as the study of “the rigor and epistemological soundness of methods used to conduct qualitative studies”.\textsuperscript{15}

Among the advantages of qualitative research synthesis listed by Major and Savin-Baden are that it offers a way to help deal with the information explosion, provides connections between existing studies, suggests ways to advance theory, identifies gaps, enables dialogue and debate, and makes research more accessible for decision-makers; all of which are important objectives of this thesis. They note that such synthesis has been criticised for a number of reasons, including “lack of precision, propensity for subjectivity and inherent biases”. It is fraught with challenges because “primary studies draw on different methodological traditions, produce complicated findings and exist en masse”.\textsuperscript{16} Mindful of these possible pitfalls, the thesis does not underestimate the ambitious scope of its objective and the complexity of its subject matter. Approaching the project from the perspective of the forecasting methods employed – rather than a more subjective means of evaluation – perhaps reduces these issues to more manageable proportions. Even so, this study should be seen as a pioneering endeavour that aims primarily to provide a useful foundation for further research synthesis and methodological improvements.

The qualitative synthesis approach used in this thesis necessarily requires extensive quotation from individual experts. This is unavoidable if the aim of accurately presenting the principal arguments employed by these experts is to be achieved. This

\textsuperscript{14} Denis Walsh and Soo Downe, “Meta-synthesis method for qualitative research: a literature review,” \textit{Journal of Advanced Nursing} 50, no. 2 (2005), 204-211.
\textsuperscript{15} Deborah L. Fingeld, “Metasynthesis: The State of the Art - So Far,” \textit{Qualitative Health Research} 13, no. 7 (September 2003), 895-897.
\textsuperscript{16} Major and Savin-Baden, \textit{An Introduction to Qualitative Research Synthesis: Managing the information explosion in social science research}, 3-22.
may run the risk of appearing to rely excessively on such quotation, or of appearing in some respects to resemble a traditional literature review. An attempt has therefore been made to ensure that such quotation is as succinct as possible. In addition, as made clear in the stated research objectives, the thesis aims to achieve a great deal more than a literature review. It goes beyond presentation and comparison of views to a deeper analysis of the way in which experts respond to uncertainty. It evaluates the effectiveness of their forecasting methods, and develops the case for a new approach to forecasting national futures through the study of critical uncertainties. I am mindful that in summarising the detailed arguments of China experts there may be a risk of over-simplification or even distortion. I have therefore taken particular care to adhere closely to the specific arguments presented. To the extent that this may nonetheless have been insufficient in some instances, I can only accept responsibility for such shortcomings and plead the mitigating circumstance of the risks inherent in any major synthesis exercise.

With regard to its principal sources, the thesis is based on extensive research of English-language, publicly-available, written materials in which experts have made a deliberate attempt to forecast important aspects of China’s future, especially its overall national future or its future prospects in one of the four domains. This is a very large field of literature and in the case of this thesis has included over 1000 principal sources. Nevertheless, given the volume and diversity of such information, and with more material emerging almost daily, it is inevitable that some important sources will have been overlooked.

There is an unintended prominence of Western and especially US sources in this literature, because this happens to be where most forecasting efforts about China have originated. The views of experts in China, including English-language translations and items published overseas, have, however, been sought out and used where available. These sources are not as numerous as might be expected or desired, partly because the preoccupation of many Chinese authors has typically been with planning for China’s future rather than predicting it. Many of these authors have no

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17 There is also a lesser bias toward Australian sources, simply because they were more likely to come to my attention than other foreign sources. They perhaps have the merit of helping partially to offset US-centric views.
doubt also felt constrained in various ways by concern about official sensitivities. There are numerous important exceptions, however. Many senior Chinese researchers appear able to publish material about important and sensitive issues affecting China’s future, especially in the economic, environmental and international fields and often in close collaboration with overseas counterparts and international organisations. Émigré Chinese who were born and/or educated in China, as well as other scholars of Chinese ethnicity, also have contributed greatly to the literature about China’s future, most of them with backgrounds that give them valuable linguistic and cross-cultural advantages. These sources have also been used extensively.

Finally, with regard to Chinese sources, it is worth noting Richard Rigby’s perceptive observation that there is in contemporary China a vast world of debate “as much within the organs of state and party as outside”. He notes that some of this debate is visible, some largely hidden, but it is here that “the vital question of what sort of China we are going to be dealing with in 10, 20 or 30 years from now is being worked out”.  

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18 Rigby, "The Challenge of China."
Before examining the approaches actually used by experts to forecast China’s future, in this chapter I investigate the availability and applicability of relevant generic forecasting methods that have been developed elsewhere, especially in the Futures Studies and Forecasting disciplines. This exercise seeks to uncover useful methods that may have been neglected by China experts. The chapter comments briefly on the history of forecasting, reviews some important concepts, and outlines the development of specific methods within various disciplines. The main purpose of the chapter is to present eight inter-related key methods that I consider to be the most relevant and promising for efforts to forecast China’s possible trajectory. Most of these methods have also been used widely by China experts.

2.1 A Brief History of Forecasting

Speculation about the future has been a universal and ancient preoccupation of the human species that can be traced to the earliest written records. Amongst the first forms of writing in China were symbols or characters drawn on animal bones that were used in divining the future. One of the earliest of the Chinese literary classics was also associated with divination. In Western literature the future was the subject of many early works of fiction and philosophy, including some that explored possible future forms of society and government through concepts of utopia and dystopia. Utopian authors included Plato (The Republic, circa 360 BC), Thomas More, (Utopia, 1516), Sir Francis Bacon (New Atlantis, 1626), Louis-Sebastian Mercier (L’Ann 2440, 1770) and Edward Bellamy (Looking Backward, 1888). After World War I, writers were often attracted to dystopian themes, including Aldous Huxley (Brave New World, 1932), H.G. Wells (The Shape of Things to Come, 1936) and George Orwell (1984, 1949). Wells explicitly advocated a science of the future.19

For the most part, however, formal study of the future did not begin until later in the twentieth century. After the onset of the Cold War RAND Corporation employees

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such as Herman Kahn, working with the US military, developed new investigative techniques including war gaming and the Delphi expert survey. Kahn’s books – including *The Year 2000* (1967), *Things to Come* (1972) and *The Next 200 Years* (1978) – contributed to an upsurge of international interest in forecasting. Contemplation of the future was also reflected in works such as Harrison Brown’s *The Challenge to Man’s Future* (1954) and Rachel Carson’s *Silent Spring* (1962).

The development of a Futures Studies discipline began in Europe. Gaston Berger established the Centre International de Prospective in 1957. *The Image of the Future* (1961) by Frederick L. Polak and Bertrand de Jouvenel’s *The Art of Conjecture* (1964) laid some of the foundations. Other futurist writers of this period included Daniel Bell, Marshall McLuhan, Alvin Toffler and John Naisbitt. A sensational report by the Club of Rome, *Limits to Growth* (1972), also raised the profile of this subject. The 1960s saw the beginnings of Futures Studies in the United States and elsewhere. Early key figures included Harold D. Lasswell, Theodore J. Gordon, Jim Dator and Wendell Bell. Two major futures organisations were established soon after: the World Futures Society (WFS) founded in the US in 1966 and the World Futures Studies Federation (WFSF) in Paris in 1973. These rival organisations reflect the reality that Futures Studies is not a unified field of study. It is a fragmented and immature discipline but is nevertheless a large, influential and geographically-dispersed movement.\(^{20}\)

The closely-related discipline of Forecasting is sometimes regarded as having a narrower focus, concentrating on shorter-term, quantitative projections of trends. The broader scope and relevance of Forecasting is apparent, however, from two of the discipline’s key textbooks: Spyros Makridakis’s *Forecasting: Methods and Applications* and J. Scott Armstrong’s *Principles of Forecasting*, which provided comprehensive coverage of forecasting principles and methods.\(^{21}\) As will be seen below, several other disciplines have also made important contributions to the

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development of methods for the study of the future including political science, economics and international relations.

The field of Futures Studies and Forecasting has not been without its critics. Writing at the turn of this century, Nicholas Rescher believed that predictive failures had extinguished the overblown hopes and expectations of “optimistic would-be-futurists”. He thought an increasing awareness of uncertainty, chance and chaos made the future look less predictable and undermined the attractiveness of the future as an object of study.22

2.2 Futures Concepts and Methods

Before turning to futures forecasting methods, it may be useful to set the scene by noting briefly some of the key concepts developed by futurists. They believed their discipline offered concepts and tools that could not only provide a glimpse of future outcomes but also play an important part in stimulating action towards the achievement of beneficial goals. Futures concepts were considered systematically by Wendell Bell in his two volume study Foundations of Futures Studies.23 Bell emphasised that the purpose of futures studies was to explore not just one future but to identify “possible, probable and preferable futures”.24 Eleanora Masini also noted that the field was based not only on estimating “possibles” and “probables” but also on the pursuit of “desirables”.25 Lasswell considered there was “no single predictable future” and that futurists should aim “to explore the plurality of future(s) states, which may be contingent on our actions or accessible to our choice”.26

Richard Slaughter in his The Knowledge Base of Futures Studies suggested futures concepts should include recognition that the survival of the species is dependent on human decisions, that there is normally considerable freedom of choice in those

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22 Rescher, Predicting the Future: An Introduction to the Theory of Forecasting, 28-33.
decisions, and that forward thinking could assist a transition to a more viable future. He claimed that “regardless of the manifest imperfection of current methodologies” Futures Studies had become essential to human civilisation.27 A more modest view of the potential benefits, and demonstrable limitations, of Future Studies and Forecasting was offered by Spyros Makridakis and Nassim Taleb who pointed to extensive empirical evidence that accurate prediction of the future was not possible, and insisted that we live in a complex world where uncertainty is dominant.28

A substantial theoretical analysis of predictive methodology was provided by Nicholas Rescher who devised a logically-structured framework of predictive methods, in two broad categories. In the first category were informal methods – based on judgement or intuition, and in the second category were formal methods – based on inference or rule-specified modes of reasoning and modelling. The most important informal/judgemental method, he believed, was based on seeking predictive opinions from expert informants, whether as individuals or in groups. He divided formal methods further into rudimentary (elementary) or scientific (sophisticated) varieties. Formal/rudimentary methods included linear and geometric trend projections as well as projections based on analogy or comparison – for example comparison with other historical trends or with apparently similar cases. Formal/scientific methods included the use of indicators and of modelling techniques.

Many futures methods, most of which can be placed within one or another of Rescher’s categories, have been identified. A valuable early compilation was John Tydeman’s Futures Methodologies Handbook29, followed by Michel Godet’s insightful From Anticipation to Action30 and Wendell Bell’s Foundations of Futures Studies31. But probably the most comprehensive catalogue of methods in the Futures

Studies literature was provided by Jerome Glenn and Theodore Gordon in their *Futures Research Methodology – v2.0*. They described twenty-five separate methods in terms of their origins, application, strengths and weaknesses, and future development.\(^{32}\)

Glenn believed the value of futures methods derived less from their forecasting accuracy than from their capacity to enhance “anticipatory consciousness” and to create “a shared, multi-faceted, and compelling image of the future”. Most futurists, he suggested, would accept that: “You cannot know the future, but a range of possible futures can be known.” Glenn noted that most of the methods proposed in futures studies tended to be qualitative rather than quantitative; the most prominent quantitative methods being those related to trend extrapolation and modelling. Normative methods addressed the question: “What future do we want?” while exploratory forecasting examined “what is possible regardless of what is desirable”. Methods could also be categorised as *predictive* (deterministic) or *open*. Predictive methods envisaged a single future, while open methods envisaged alternative futures.\(^{33}\) Another useful overview of Futures Studies methods was provided by Edward Cornish in his book *Futuring*.\(^{34}\)

Collectively these sources, and those already referred to in the discipline of Forecasting, provided a rich source of potential futures methods for the purposes of this thesis. By contrast, however, there are few sources available that suggest specific methods for the study of national futures. Despite the huge literature devoted to forecasting various aspects of the futures of particular countries, surprisingly little attention has been devoted to identifying an explicit framework of suitable methods for researching national futures from a whole-of-country perspective. One exception was the work on African Futures conducted by Jerome Glenn for the United Nations Development Programme (UNDP).\(^{35}\) To support this project the UNDP in the early 1990s developed a method for *National Long Term Perspective Studies* (NLTPS), which was used to identify issues and trends in each participating nation within nine

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33 Ibid., Chapter 1.
domains. On the other hand, there is an extension literature regarding methods for the study of international futures, much of which is of potential interest or relevance for national futures methods. An approach of special interest was described by Barry Hughes and Evan Hillebrand in *Exploring and Shaping International Futures*. The authors explored alternative international futures through extrapolation of trends and “causal analysis”. They also developed an interactive computer simulation model that simulated long-term population, economic, food, energy, environmental, and socio-political developments.

### 2.3 Methods for Forecasting China’s Future

In previous sections of this chapter I have discussed the principal sources in the futurist literature that describe potential futures methods. From this extensive menu, this section identifies the principal generic methods or approaches that appear most promising for the analysis of national futures. A second criterion was to ensure the inclusion of the most important methods that have actually been used by China experts. Happily, the forecasting methods actually used by these experts were found to correlate quite closely with the previously selected principal methods.

On this basis I identified a set of eight methods, shown in *Figure 1*, that I concluded were potentially the most useful for forecasting China’s future.

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*China: Reform and the Role of the Plan in the 1990s*, (World Bank, 1992). The NLTPS required identification of “critical trends and dynamics in the society, key variables and factors, [and] analyses of actors and their roles”. Although this was a promising beginning, the NLTPS approach did not appear to have been applied more widely or to have developed any greater methodological sophistication.

*Barry B. Hughes and Evan E. Hillebrand, Exploring and Shaping International Futures* (Boulder, CO: Paradigm, 2006). The model has reportedly been used widely, including by the US National Intelligence Committee and the United Nations Environment Programme. It supports analysis at regional level, but does not appear to have been applied at individual country level.
This Figure is for illustrative purposes only and does not claim to accurately depict complex interactions between the different methods. The key features of these eight methods, and their inter-relationships, are described below. Not all of the methods have equal weighting, but they are all important and widely used. It may be appropriate to re-emphasise that this chapter does not aim to present an exhaustive range of available futures methods, but only those principal methods that were deemed to be the most potentially useful, and/or were most widely used by China analysts. This is not to deny that other specific methods may also be appropriate in some instances.

### 2.3.1 Trend Analysis

The most fundamental method for forecasting national futures is the analysis and projection of national trends. Indeed trend analysis is almost synonymous with forecasting. It is difficult to imagine any form of forecasting that does not involve in some way the analysis of trends, either qualitatively, quantitatively, or both.
Nicholas Rescher referred to the trend analysis process as “pattern fitting”. He asserted that rational prediction was only possible by discerning the patterns emerging from the available information in the past and present, and by fitting predictions to those patterns. He also emphasised an important precondition for successful trend analysis, namely that relevant information should be available and that it should be timely, accurate and reliable. This data assembly phase – whether formal or informal – is therefore an essential underpinning for trend analysis.  

Rescher described trend projection as the “most simple and naïve version” of trend analysis. The problem with this approach, as he aptly pointed out, is that “the stability or persistence of prevailing trends will invariably depend on the stability or persistence of the causal conditions that engender them”, something that occurs only relatively rarely in the forecasting of national futures. Trend analysis could also be based on what Rescher called circumstantial analogy. In the case of forecasting national futures, such analogies usually took two principal forms; first, it might be argued that a particular country could be expected to follow the same course followed previously by other comparable countries, and, second, it might be argued that future developments in a particular country would be strongly influenced, or even determined, by that country’s inherited historical or cultural patterns. (Both forms of analogy are familiar in the case of China.) However, Rescher emphasised the potential weakness of such predictive analogies, since “the extent to which history repeats itself is always limited”. He warned that in fact: “No predictive methodology – however carefully contrived it may be – can ever immunize forecasting against the prospect of failure.”

Specific trend analysis techniques identified by Glenn and Gordon included:

- Environmental Scanning, where analysts “scan the horizon” for key trends, and try to identify new developments that may challenge past assumptions;
- Historical Extrapolation of past trends into the future, including considering potential disruptors or enhancers of historical trends;

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38 Many forecasting efforts, including in the case of China, are significantly undermined from the beginning by insufficient, inaccurate, inconsistent or misinterpreted empirical data. Given China’s huge size and complexity, it presents an especially difficult challenge for accurate data collection and statistical analysis.

39 Rescher, Predicting the Future: An Introduction to the Theory of Forecasting, 86, 97-99 and 101-104.
- **Trend Impact Analysis**, to take into account that extrapolations may be impacted by unforeseen events;
- **Cross-Impact Analysis**, to identify the impacts of overlapping trends on each other;
- **Trend Mapping Techniques**, such as Glenn’s Futures Wheel and other mind-mapping techniques; and
- **Systems Analysis**, or the analysis and modelling of interacting variables and trends within systems – including national systems – that are characterised by rapid change, multiple interests and high complexity.\(^{40}\)

Trend extrapolation methods are widely used in the discipline of Forecasting because they are deemed to be “reliable, objective, inexpensive, quick and easily automated”. Armstrong advocated using these methods when “little is known about the situation, the situation is stable, and expert forecasts may be biased”.\(^{41}\)

### 2.3.2 Expert Opinion

While there is a persuasive case that trend analysis is a fundamental method for forecasting national futures, it seems equally persuasive that the exercise of expert opinion or judgement is a second essential method because experts are the chief instruments of trend analysis. Especially in the case of China, the literature reveals that huge reliance has been placed on the expert opinion of individual experts and of expert teams. Both trend analysis and expert opinion influence all other methods for forecasting national futures.

Experts rely primarily on the analysis of trends, but they are also deemed to acquire expertise from years of research and observation that is believed to empower them to offer special insights and astute judgements about those trends. Their views are therefore widely sought. Paradoxically, however, their judgements are also notoriously diverse and unreliable, and therefore frequently regarded with considerable scepticism. Philip Tetlock’s landmark study of *Expert Political Judgement* provides thorough research and valuable insights concerning the reliability of expert opinion. At first glance his analysis offers little comfort. He tracked the accuracy of hundreds of experts across a disparate range of topics and found few signs that the possession of expertise translated into greater ability to make forecasts that were any more accurate than random probability, or than would

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\(^{40}\) Glenn and Gordon, *Futures Research Methodology v2.0 (CD-ROM)*.

result from the efforts of dilettantes or even dart-throwing chimps. Nor did the professional background or status of individual experts offer any guide to the accuracy of their forecasts.  

Tetlock did make a very notable finding, however, which was that how experts thought – “their style of reasoning” – did have an influence on accuracy. Using Isaiah Berlin’s characterisation of *hedgehogs* and *foxes*, Tetlock applied these categories to experts and found that “the intellectually aggressive hedgehogs knew one big thing and sought … to expand the power of that big thing to ‘cover’ new cases; the more eclectic foxes knew many little things and were content to improvise *ad hoc* solutions to keep pace with a rapidly changing world”. In short, the predictive abilities of the cautious foxes consistently edged out the opinionated and defensive hedgehogs; moreover, Tetlock found that the foxes “enjoy their most decisive victories in long-term exercises inside their domains of expertise”. He observed that “the foxes’ self-critical, point-counterpoint style of thinking prevented them from building up the sorts of excessive enthusiasm for their predictions that hedgehogs, especially well-informed ones, displayed for theirs”. Foxes were more sensitive to the influence of contradictory forces and “hedged their bets by rarely ruling out anything as ‘impossible’”. This suggests that analysis of China’s future is likely to be more fruitful if experts emulate the cautious, empirically-based approach of the foxes. But Tetlock conceded there could be some benefits in the “close-minded” approach of the hedgehogs, and found some costs in the “open-minded” approach of the foxes.  

Substantial efforts have been made to develop techniques to increase the reliability of expert opinion, including attempts to pool expertise through panels, debates, conferences and more structured exercises such as *Delphis*. As noted earlier, the Delphi survey originated within the RAND Corporation. It explored the use of expert panels to address forecasting issues, on the assumption (as expressed by Gordon) that “experts, particularly when they agree, are more likely than non-experts to be correct about questions in their field”. The technique is designed to remove impediments to expert consensus that arise when experts met face to face. Anonymity is achieved by

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43 Ibid., 2, 20-21 and 72-92.
consulting experts through individual written surveys. Consensus is encouraged by feeding individual views back to the group and then seeking further rounds of individual responses. The primary strength of Delphis, according to Gordon, is their ability “to explore, coolly and objectively, issues that require judgement”. They can assist to crystallise reasons for “dis-sensus”, even when they fail to reach consensus. However, they are typically lengthy and time-consuming affairs, and they can fail if they do not include sufficient expertise.  

Despite the reliance of Forecasting on statistical analysis, J. Scott Armstrong offered some perceptive advice concerning means by which over-reliance on statistical extrapolation could be reduced by enlisting the assistance of expert judgement. He recognised that expert opinion was “subject to biases and shortcomings”, but maintained there were “solutions to reduce their detrimental effects”. These solutions included decomposition of forecasts, concentrating on only the most important causal forces, combining forecasts from different experts, selecting experts who have no stake in the outcome, using experts with disparate knowledge, requiring experts to justify their forecasts, and providing them with feedback to use in evaluation of their forecasts.  

He found that Delphi groups were “substantially more accurate than individual experts and traditional groups”. In this study I encountered only one instance (described in Chapter 5) where the Delphi technique was employed to forecast China’s future, although in this case it appeared to have been used quite effectively.

### 2.3.3 Scenario Construction

The chief advantage of the scenario construction method is probably that it acknowledges and embraces the possibility of alternative future outcomes. Its central aim is to identify and elaborate those alternative futures. From a determinist viewpoint there can, retrospectively, be logically only one future; but given the fact that human actions and unforeseen events will in practice play a major role in deciding future outcomes, and that in the present the shape of the future is as yet unknown, a method that emphasises the exploration of several possible futures has

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44 Glenn and Gordon, *Futures Research Methodology v2.0 (CD-ROM)*, Chapter 3.
46 Ibid., 125.
considerable appeal. Scenario construction also has appeal because it gives due recognition to the pervasive presence of uncertainty. It can make a useful contribution to forecasting, if competently applied, by enhancing recognition that some widespread assumptions about likely future outcomes may be exaggerated and that other (perhaps more desirable) outcomes are possible or plausible. Scenario construction is therefore potentially very valuable for policy and decision-making. This helps to explain why scenario construction is one of the most popular and widely-used futures methods, including in the literature about China’s future.

Jerome Glenn described Herman Kahn as the “father of scenario construction” because he introduced the term “scenario” into military studies conducted by RAND in the 1950s. Glenn noted that scenarios have in practice taken two different forms: the first described the condition of important variables at some particular time in the future, while the second described the evolution over time from present conditions to one of several futures. One scenario usually involved “a continuation of the present forces at play”, while the other scenarios “may include an optimistic or pessimistic scenario”. Other scenarios could be framed around key variables. Glenn considered that the value of scenario building, “in conjunction with the careful analysis of driving forces”, was that it fostered “systematic study of potential future possibilities”. 47

A well-known approach to scenario construction and planning was offered by Peter Schwartz in his The Art of the Long View. Schwartz also suggested using “driving forces” as the building blocks for scenarios, advocating the following sequence of steps: identify the focal issue or decision; identify the key forces and trends in the environment; rank the driving forces and trends by importance and uncertainty; select the scenario logics; fill out the scenarios; assess the implications; and select the leading indicators and signposts for monitoring purposes. 48 Bernstein, Lebow, Stein and Weber believed the scenario approach could provide “better tools” to assist forecasting in the social sciences. Their specific method concentrated on the

47 Glenn and Gordon, Futures Research Methodology v2.0 (CD-ROM), Chapter 13.
identification of driving forces, predetermined elements, critical uncertainties and wild cards to develop scenario plot lines.  

Scenario construction can be difficult to apply successfully, however, and has attracted considerable criticism. In retrospect many scenarios can appear hopelessly naïve. Armstrong cautioned against using forecasting scenarios because “you are likely to be both wrong and convincing”. Tetlock thought scenario exercises led by consultants often encouraged decision-makers “to let down their guards and imagine a broader range of possibilities than they normally would”, which could lead them “to assign too much likelihood to too many scenarios”. This ran the risk that “trendy open-mindedness” might lead to “old-fashioned confusion”.

2.3.4 Predictive Theory

In the literature on futures methods relatively limited attention has been given to critiquing the validity of predictive theory for forecasting national futures. Nicholas Rescher was an important exception. He referred to predictive theory as “law-based prediction”, and saw it as the first of two approaches to scientific prediction (the other being “model-based prediction”). Rescher described law-based prediction – or “inference from formal laws” about the functioning of a system – as a means by which it would be possible to “grind the cranks of the inferential machinery that is provided by the laws at issue to obtain on this basis various results about the system’s future state”. Instances of supposedly-predictive theories are readily available in the literature about China’s future prospects including, for example, the notion that China’s political governance will be increasingly problematic if it does not move toward democracy, or that its economy will be increasingly untenable if it does not fully embrace free markets, or that its global rise will inevitably lead to conflictual relationships with other great powers. Rescher noted that there were two potential obstacles to reliance on predictive laws. First, the “intervention of chance and chaos in the relevant phenomenology may unravel the fabric of lawfulness”; and, second, the intrusion of change may “destabilise all attempts at formulating

descriptive laws”. Moreover, in some domains the phenomenology was likely to be “so complex as to put the operative laws outside the range of our cognitive vision”. These considerations probably apply to most efforts to use predictive theory to forecast national futures, whether in China or elsewhere.

Some social scientists in the fields of international relations and political science have reflected on the possible predictive potential of their disciplines. Many of their observations are also cautionary. Robert Jervis, for example, listed several persuasive reasons why it is difficult to predict the course of international politics including that:

- there are few laws or theories “whose validity is uncontested”;
- these theories are often “couched in terms of conditions and probabilities”;
- actors may alter their behaviour so predictions become “self-denying”;
- international politics is characterised by “unintended consequences, interaction effects, and patterns that cannot be understood”;
- there is “a large role for chance and accidents” because particular events “can send world politics down quite different paths”; and
- the past is not “a sure guide to the future”.63

Nazli Choucri warned that world affairs are complex and nonlinear. If we construct forecasting tools to search for linearities “then we almost certainly will generate invalid forecasts”. She observed that most forecasters “tend to adopt a position of persistent pessimism, or persistent optimism, or a random mixture of the two, without a solid underlying rationale” and that this amounted to the introduction of “systematic bias”, which was “a danger that even the most sophisticated analysts find difficult to avoid”. But “the most common error of all”, she found, was a parochial view that led forecasters to place undue emphasis on certain variables without taking a wider perspective.64

Even Hans Morgenthau – a pioneer of the realist school of international relations who believed that politics was governed by objective laws – recognised the limitations of predictive theory. He thought the “first lesson” students of international politics should “learn and never forget” was that the complexities of

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64 Nazli Choucri and Thomas W. Robinson, eds., Forecasting in International Relations: Theory, Methods, Problems, Prospects (W.H. Freeman, 1978), 72-75.
international affairs “make trustworthy prophecies impossible” and that this was where “the scholar and the charlatan part company”. Knowledge of the forces that determined politics among nations was limited, he emphasised, by “the ambiguity of the facts of international politics” and because “contradictory tendencies are at play”. Which tendency would prevail was “anybody’s guess”. The best that international relations scholars could do in these circumstances was to assess the probabilities for different tendencies and conditions to prevail. This advice has sometimes been ignored by realists of a more determinist inclination, as will be shown in Chapter 10.

John Gaddis also questioned the predictive value of international relations theory, especially in asking why such theory had failed to anticipate the demise of the Soviet Union. He concluded that part of the reason was that theorists, despite their awareness of the occurrence of abrupt change, tended to bias their historical and theoretical analyses “too much towards continuity” and rarely found “a way to introduce discontinuities into theory”. Gaddis believed the “hard” sciences had learned this lesson and had developed “a new understanding of complexity, chaos and catastrophe”. The failure of international relations theorists to grasp this lesson was “a methodological passing of ships in the night”, where “soft” scientists in the social sciences sought to imitate the traditional methods of “hard” scientists just as the latter were embracing uncertainty and unpredictability.

2.3.5 Predictive Models

Predictive models have also been used very widely to forecast aspects of national futures, especially in the economic and environmental domains. It is possible that more resources are employed in statistical modelling than in any other national futures method. Such models are supported by huge databases and a multitude of specialised staff in international organisations, governments, think tanks, research institutions, academic bodies, investment advisory organisations, and major

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businesses. China is no exception to the widespread reliance on statistical modelling for national forecasting.

Much commentary from futurists about predictive models has been quite negative. Glenn and Gordon surveyed several statistical modelling techniques, including time series analysis, regression analysis, multi-equation models and simulation modelling. These techniques assumed, they said, that “information contained in historical data can be extracted, analysed, and reduced to one or more equations that can be used to replicate historical patterns”. But such modelling techniques made questionable assumptions, including that “all information needed to forecast desired aspects of the future is contained in selective historical data”, that “model structure validly replicates the real life structure of the system that gave rise to the historical data”, that “the ongoing structure of the system that gave rise to the historical data will be unchanging”, and that deterministic, single-point forecasts were useful.57

As noted earlier, Rescher listed predictive modelling as the second main form of scientific prediction. He described it as “exploiting for predictive purposes an artificially structured collection of processes that parallels the system’s operations”. Such models were often expressed as mathematical equations. He observed that they had become “the high fashion of the day” and “the instrumentality of choice in forecasting”. Rescher believed that in some areas, such as weather forecasting, modelling techniques had been very successful, but he also noted important limitations including those inherent in the ambitious scope and scale of all large socio-economic models. They incorporated “so vast a series of suppositions and assumptions that the resulting structure, however interesting, has all the solidity of a house of cards erected on a foundation of sand”. The more complex and elaborate the model became, and the more parameters it included, “the more room we create for errors and their amplification”. Rescher saw data insufficiency and inability to cope with real-world complexity as major obstacles. He observed that although prediction “by means of laws and law-exploiting models” offered users a high level of rational

57 Glenn and Gordon, *Futures Research Methodology v2.0 (CD-ROM)*, Chapter 10.
comfort, it was nevertheless fortunate that informal judgemental processes that dispensed with the need for such detailed theories and models were also available.\textsuperscript{58}

Despite such serious charges, predictive modelling is used extensively by experts to study demographic trends, food supply, resource and energy availability, and increasingly also in the forecasting of environmental and climate change issues; but it is probably most frequently associated with the field of economics, where it is known as econometrics. Econometric forecasts for China – by international organisations such as the World Bank, by Chinese and foreign government organisations and research bodies, by investment advisers, and by think tanks and universities – have a long history.\textsuperscript{59} They provide some of the most methodologically-sophisticated forecasts of China’s future available, even though they are subject to all of the potential limitations that apply to other predictive models.

\textbf{2.3.6 Actors’ Strategies}

An essential but often-neglected consideration in forecasting national futures is the likely powerful if not decisive influence of the strategies, actions, reactions, and perceptions of human actors. The quality and competence of a regime’s responses to a range of major challenges, and the degree to which it is thereby able to maintain popular support, are of vital importance to a nation’s prospects. Various actors – including governments, leaders, political factions, civil society, and representatives of popular opinion – can often react forcefully to evolving trends in ways that modify or even reverse them. This is especially evident in the case of China, where to date the Chinese Communist Party (CCP) has managed repeatedly to surprise observers with its ability to adapt to changing circumstances, to manage pressing national issues, and to avoid falling victim to problems that many thought would ensure its downfall. Whether it will be able to continue this delicate balancing act is one of the major questions for the future.

\textsuperscript{58}Rescher, \textit{Predicting the Future: An Introduction to the Theory of Forecasting}, 107-110.
Gordon and Glenn highlighted the importance of studying actors’ strategies. The future is “never totally predetermined”, they maintained, because however influential past trends may be, actors “possess various degrees of freedom … to arrive at the goals they have set themselves”. Attention therefore needed to focus on “those actors who directly or indirectly control the key variables”. They suggested an Actors’ Strategy Table might be constructed, in matrix form, to plot the interaction of different actors. Key stages in the process included: noting each actor’s plans, motivation, constraints and means of action; identifying strategies, issues and objectives; noting convergences and divergences between actors; and evaluating power relationships.60

The propensity of human actors to adopt strategies that shape the future has been noted by several other authors. For example, Gaddis stressed that a major difficulty for social scientists who wished to anticipate the future was that they are dealing with human beings who are capable of “seeing the future take shape” and of devising measures “to hasten, retard, or even reverse trends”.61 Also of interest is Bruce de Mesquita’s claim that it is possible “to anticipate people’s choices and their consequences for altering the future” by using game theory to simulate decision-making.62

2.3.7 Surprise Factors

There appears to be a growing school of thought in the uncertain twenty-first century that it is necessary to be aware of, and if possible make allowance for, the near inevitability that unanticipated surprises will also have a potentially huge impact on national futures. This is a very difficult area in which to develop a coherent method, given that such surprises are by definition almost impossible to anticipate. Nevertheless but there certainly appears to be a strong case for forecasts to acknowledge that surprise-free national futures are unlikely, to ensure that they at least try to factor in the possible impacts of “known unknowns” – such as for example unanticipated economic downturns, climate change effects, military

60 Glenn and Gordon, Futures Research Methodology v2.0 (CD-ROM), Chapter 7.
conflicts, national disasters, health epidemics, terrorist acts, leadership changes, and disruptive technologies.

Perhaps the best-known recent exponent of the notion that the future is increasingly hostage to disruption by unforeseen surprise factors is Nassim Nicholas Taleb, author of *The Black Swan*. Taleb’s message for those engaged in forecasting and predicting is that they display both too much confidence in the predictability of events and too little awareness of the likely impact of uncertainty. Taleb’s figurative black swans have three attributes: they lie outside the realm of normal experience, they carry an extreme impact, and we concoct explanations after-the-fact that make them seem more predictable. Arguing that the influence of black swans was huge and increasing, he asked: “Why do we keep focusing on the minutiae, not the possible significant large events, in spite of the obvious evidence of their huge influence?” Taleb concluded that since black swans are unpredictable analysts needed to adjust to their existence rather than try to predict them. There are, he claimed, “so many things we can do if we focus on anti-knowledge, or what we do not know”.

Many now believe that the most threatening source of future global surprises may stem from the unpredictable consequences of global warming and climate change. Growing international concern about environmental and ecological threats has given credibility to the possibility – or the likelihood – of catastrophic global futures. China, as the world’s largest and fastest growing emitter of GHGs, seems destined to play a major part in international efforts to limit the most damaging effects of climate change, as will be discussed in Chapter 9.

### 2.3.8 Critical Uncertainties

Unlike the other methods described above, the concept of *critical uncertainties* has not been developed as a clearly-articulated method for analysing national futures. It is true that the term “critical uncertainties” is occasionally encountered in the literature on futures methods, and also in expert analysis of China’s future. It has

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64 Nassim Nicholas Taleb, ”The Black Swan: The Impact of the Highly Improbable,” *New York Times* 22 April 2007. The conviction that all swans are white was once regarded as an unassailable scientific fact, only to be overturned by the discovery of black swans by the first European settlers in Western Australia.
frequently been used in scenario construction to identify major unresolved issues that could lead to quite different scenario outcomes. John Hoffman, for example, recommended that in analysing China’s future experts should focus on the “key driving forces”, the “biggest uncertainties” and the “key variables”. He developed scenarios that attempted “not to predict a single future for China, but to work through the logical outcomes of the critical uncertainties facing China”.65 The identification and discussion of important uncertainties has also been a major focus for the forecasting of national and international futures in the series of Global Trends publications produced by the United States National Intelligence Committee. Two of these reports were structured to examine “Relative Certainties” and “Key Uncertainties”. The most recent Global Trends 2030 report included a new emphasis on “Game Changers”, which were defined as “critical variables whose trajectories are far less certain”.66 However, the concept of critical uncertainties has rarely been elaborated beyond this level and the term has been employed in different ways. Its meaning was perhaps assumed to be self-evident.

Although the study of critical uncertainties is not a well-established or widely-employed futures method, I have chosen to include it here for two persuasive reasons. First, I believe this thesis shows that the concept of critical uncertainties offers the basis for an effective framework to evaluate the range of forecasts developed over time by China experts. Second, I will argue that this concept could also be used as the basis for a valuable and productive framework for structuring ongoing research and analysis of possible alternative futures for China, and other countries. Such a structure would enhance appreciation of the diversity of expert opinion on major issues and increase awareness of the realistic potential for several possible outcomes.

The study of critical uncertainties, as developed in this thesis, involves researching a set of major and consequential issues about which there is in fact an energetic debate among expert forecasters. The first step in this process is to attempt to identify and define these critical uncertainties. They are defined as “critical” because they are

66 These reports are discussed in Chapter 5. Examples of the use of critical uncertainties in scenario analysis are noted in Chapter 6.
specified at a strategic or system level and because they will have a very high national impact. A hierarchy of these critical uncertainties can then be used both to analyse the ongoing discourse and to provide a framework for further research. The use of such a structured and iterative process maximises the value of existing research and could perhaps also stimulate more-comprehensive and better-coordinated institutional approaches to the study of national futures.

The concept of critical uncertainties captures the intention behind other similar terms – such as “drivers”, “major issues” and “key questions” – but emphasises the special need to identify those uncertainties that are most critical for national outcomes, to investigate the competing arguments among analysts about these uncertainties, and to remain open-minded about how they may evolve. This approach to critical uncertainties emphasises the necessity to keep in mind that the issues under investigation are uncertainties, even though many analysts choose to under-estimate or even ignore the level of uncertainty that is present. The process that I advocate involves carefully identifying, defining, and periodically revising, a relatively short list of the most significant uncertainties nationally and within each of four principal domains – political, economic, environmental, and international. These critical uncertainties are probably most conveniently expressed as a hierarchy of domain-specific interrogative questions. There will naturally be no one correct or enduring statement of critical uncertainties for any particular country. Rather, they will need to be flexibly redefined and revisited as required. They are also likely to reflect the different preoccupations of individual researchers.

I will seek to demonstrate in Chapters 7 to 10, and confirm in Chapter 11, that there is an excellent case for a method based on the consideration of critical uncertainties to be given greater prominence, especially for considering the most critical and determinative national issues within each of the four domains. Within each of these domains it is usually not difficult to identify some central and recurring issues that define much of the ongoing debate. The adoption of such a method would encourage acceptance of the likelihood that two or more alternative outcomes may potentially eventuate for each of the critical uncertainties, rather than perpetuating the not uncommon situation where individual experts doggedly compete in championing their own particular view, much to the bewilderment of onlookers. This new
approach could also encourage vigorous promotion of the most desirable futures, rather than premature acceptance of sub-optimal outcomes. In Chapters 7 to 10 the identification of a series of critical uncertainties has been used as the principal means to structure an investigation of the competing views and approaches in the literature. In large part readers are left to judge for themselves the merits of the various expert assessments, but it will likely become apparent that prevailing judgements are often open to challenge from new research or different viewpoints that can easily be overlooked in a tendency by many experts to rush to judgement.

In summary, while there are many specific methods that are potentially applicable for forecasting national futures, my investigation suggests that a combination of the eight inter-related key methods described above provides a suitable basis for the evaluation of expert attempts to forecast China’s future. Trend analysis must necessarily underlie all efforts to predict national futures. This analysis most commonly takes the form of expert opinion, whether by individuals or by groups of experts. Scenario construction is another useful method, permitting consideration of alternative futures and their likelihood. In addition, many experts resort to predictive theories, while others continue to rely heavily on predictive modelling. But these methods would be incomplete if they did not allow for the often decisive impact on future outcomes of the strategies of human actors, as well as the likely dramatic impact of future surprises. In addition to these accepted methods, however, I argue that there are major advantages in an alternative or complementary approach based on structuring research and analysis around clearly-defined critical uncertainties.

Following chapters explore the mixed success with which China experts have used various forecasting methods in the post-Mao period, and especially how they have fared in their quintessential task of forecasting in circumstances of continuing uncertainty.
3 EXPERT OPINION IN POST-MAO CHINA

During the vicissitudes of Mao Zedong’s Cultural Revolution, whose final phase sputtered to a close in the same year as his death in 1976, little serious thought appeared to be given by experts to China’s prospects for a glorious future. Even after this turbulent period ended – as Deng Xiaoping’s reformers progressively took control of the levers of power and launched China’s new era of reform and opening-up – attention focused mainly on China’s chances of achieving a modest stability and a return to basic levels of economic well-being. Only over a longer timeframe, and in most cases not until after China recovered from the political and economic aftermath of the harshly-suppressed 1989 Tiananmen protests, did most analysts begin to perceive the likelihood that China’s rise would make a major impact domestically and globally.

Speculation about China’s future outlook did, however, increase gradually during the closing decades of the twentieth century. Most of this literature relied primarily on the exercise of individual expert opinion. Those who sought insights into China’s future direction were usually compelled to depend disproportionately on the often subjective and polarised judgements of the most prominent and well-published commentators. This chapter surveys China experts’ views on broad national trends as they unfolded during first two decades of the post-Mao era.67 It will be seen that initial uncertainty and a degree of optimism during the period between Mao’s death and the Tiananmen crisis gave way to a profound pessimism among many China watchers in the aftermath of the crisis.68 The undeniable reality of China’s continued rise during the 1990s led to the re-emergence of a qualified optimism, but with growing external apprehension about the implications of its growing power.

67 Given the scope of this literature it is not feasible for this survey to consider the views of all experts who ventured an opinion on the subject. Like following chapters it does, however, aim to provide a representative sampling of the views of the most prominent experts.
68 The use of terms like “optimist”, “pessimist” and “sceptic” seems unavoidable, especially because they were widely used by individual experts to describe their own views or the views of other experts; but these labels are sometimes problematic. For example, some experts saw a strong China as a cause for optimism, and others for pessimism. Some were optimists in one regard, and pessimists in another.
3.1 Anticipating Mao’s Departure

China’s outlook in the post-Mao era was a subject for speculation among some experts even before his death on 9 September 1976. Among the most prominent was the eminent US scholar Doak Barnett in his book *Uncertain Passage*. He detected within China a “pervasive atmosphere of tentativeness and uncertainty”. He displayed considerable sensitivity to the difficulty of his task, noting that the past record of foreign specialists in projecting China’s future trends had been “a good deal less than infallible”. He thought this understandable given the complexities at work and the inadequacy of the available social science analytical tools. He believed that all projections must be subject to revision and that any serious student of China must “expect the unexpected”.69

This perceptive and valuable advice – reminiscent of Tetlock’s foxes – was unfortunately not always heeded by those who followed him, but Barnett’s approach served him surprisingly well. Although he stressed the considerable uncertainty facing China, his prognosis was cautiously optimistic and his forecasts stood the test of time quite well. He assessed that China would not become an economic superpower in the foreseeable future but steady modernisation would increase its prospects for political and social stability. China would develop its military power and international influence, but maintain a defensive posture and pursue flexible and pragmatic foreign policies. It would be preoccupied with domestic issues.70 He cautioned that there could be no scientific basis for determining if one should be “relatively sanguine” or “comparatively pessimistic” about China’s prospects. Analysts must necessarily fall back on subjective judgements. But he concluded nonetheless that there was “a considerable basis for taking a cautiously sanguine view”.71 Barnett’s main forecasting failure, like others, was in underestimating China’s capacity for rapid economic change.

A more uncertain and pessimistic forecast was offered by Harry Harding, although he was even more reluctant to venture a firm opinion than Barnett. He expressed

70 Ibid., 26-34, 112-118, 179-184 and 295-315.
71 Ibid., 318-321.
concern that the Maoist legacy of suspicion and violence would reduce the chance of a smooth political succession. He foresaw the possibility of “a violent struggle for power, widespread social disorder and even economic collapse”.  

This comment marked possibly the first of the many subsequent occasions in the post-Mao period when such a collapse scenario was raised.

Barnett’s and Harding’s reservations were not surprising. As Martin Jacques later noted, it is difficult to imagine who at the time of Mao’s death would have predicted that China “stood on the eve of a most remarkable period of economic growth that would entirely transform the face and fortunes of the country”. Nevertheless there were rare occasions when those who dared to make a bold attempt to foresee China’s future came strikingly close to success. In despatches from Beijing in mid-1976 (later declassified) Australian Ambassador Stephen Fitzgerald raised the possibility that during the last quarter of the century China’s economy might expand in the same way that Japan’s economy did in the third quarter, and that this might lead to “annual growth in the vicinity of 10% over a period of 25 years” and a ten-fold increase in GDP by 2000. Few other China watchers have predicted so successfully. Fitzgerald also ventured the opinion that the period to the year 2000 would see “the extension of dominant Chinese power and influence throughout the region”. This more extravagant prediction was possibly also the first of many instances when a dominance scenario was raised.

3.2 After Mao

The years immediately after Mao’s death were marked by continuing uncertainty among China experts. One of the earliest concerted attempts to foreshadow China’s likely course was made by Allen Whiting and Robert Dernberger, although they sought to deflate exaggerated expectations about their predictive abilities. Whiting declined to project China’s political future, but thought economic forecasting was

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75 Whiting and Dernberger, China's Future: Foreign Policy and Economic Development in the Post-Mao Era.
“considerably easier”. He felt safe, for example, in predicting there was no prospect of China becoming a global economic superpower in the next decade or of it facing “utter collapse”. He stressed, however, that the continuing fragility of the economy was “basic to all forecasts”. He saw China becoming a middle-range power with influence confined mainly to its immediate environment, whose economic weakness and trade dependency would dictate a foreign policy based on “caution and compromise”. Dernberger’s forecast was for “stable economic growth with moderate foreign policy behaviour”, which was not far from the actual outcome. Externally, he left open the possibility that China could adopt more assertive “or even hostile” positions.76

More optimistic views were not long in emerging as China’s political direction stabilised and its economic management steadily improved. Professional economists were especially sanguine. Saburo Okita judged that the leadership’s realistic and pragmatic approach would ensure rapid modernisation would continue, and by the end of the century China’s industrial capability would rival other major powers.77 A similarly optimistic view was expressed in 1979 by Herman Kahn who believed China had decided to modernise rapidly and join the international system. He felt justified in forecasting average GDP growth of about 6 to 8 percent for the next two decades. But he added – correctly as it turned out – that growth in the 1990s might accelerate, and that in any case by the end of the century China would be “a very large and rather modern nation”.78

US economist Dwight Perkins, in 1982, also chided those who assumed China would remain far behind the major powers well into the twenty-first century. He thought it reasonable to foresee China’s GDP rising after 1980 to 7 percent or more per year and quadrupling by 2000. This, he predicted rather excessively, could put China’s power “nearly on a par” with the United States by 2000 or soon thereafter. He

76 Ross Terrill also saw challenges ahead for a nation lacking a tradition of “dealing on equal terms with the rest of the world”: Ross Terrill, The Future of China: After Mao (New York: Dell, 1978), 249-255.
78 Herman Kahn and the Hudson Institute, World Economic Development: 1979 and Beyond (Boulder, CO: Westview, 1979), 415-417.
doubted, however, that China was “destined to be one of the great powers on this planet within a generation”.\footnote{Dwight H. Perkins, “The Chinese Economy in the 1980s,” in China Among the Nations of the Pacific, ed. Harrison Brown (Boulder, CO: Westview, 1982). See also Dwight H. Perkins, China: Asia’s Next Economic Giant? (Seattle, WA: University of Washington Press, 1986).}

Several non-economists began to show comparable levels of confidence in China’s prospects. Doak Barnett cited a World Bank report predicting that by the 2000s China would rise from a low-income to a middle-income country.\footnote{China: Long-Term Development Issues and Options, (Baltimore, MD: Johns Hopkins University Press, 1985).} He disputed opinions that an economy attempting to combine allegedly incompatible features of a command economy and a market system was destined to fail. It might succeed in creating “a historic first”, namely a communist nation with “a liberalized from of authoritarianism”. Its successful modernisation could also be a stabilising and constructive influence internationally.\footnote{A. Doak Barnett, “Ten Years After Mao,” Foreign Affairs 65, no. 1 (Fall 1986), 63-65.}

China’s actual growth in the 1980s exceeded the expectations of even these optimistic observers, with GDP expanding by an average of over 9 percent per year. Australian analyst Gary Klintworth was one of the few who anticipated this level of achievement might continue, predicting growth “well within the range of 6-9 percent per annum” for the next fifteen years. He thought China might not be a superpower for a long time, but it would loom very large.\footnote{Gary Klintworth, China’s Modernisation: The Strategic Implications for the Asia-Pacific Region (Canberra: Australian Government Publishing Service, 1989).} He proved quite accurate in this regard; but what neither he nor other experts anticipated was the massive impact of the Tiananmen crisis later that year and the subsequent sharp, though temporary, decline in China’s economic performance and international standing.

\section*{3.3 After Tiananmen}

The Tiananmen crisis of June 1989 – in which the CCP used military force to suppress a popular movement seeking accelerated political and other reforms – was a watershed event not only in China’s modern history but also in expert opinion about its future prospects. An emotive and pessimistic mood predominated in the publications of China watchers until at least the mid-1990s. Soon after the crisis a
compendium of the views of many of these scholars appeared.\footnote{George Hicks, ed. The Broken Mirror: China After Tiananmen (Harlow, UK: Longman, 1990).} George Hicks noted that the volume reflected “anger, impotence and frustration” among them following the massacre. For years, he suggested, “a thread of optimism – even of wishful thinking” had run through much of Western writing about China, but he claimed that Tiananmen broke that thread and made it clear that “the dissenting minority” who were sceptical about China’s reforms had “the clearer vision”. China had allegedly played on Western hopes that it would become “more like us”, disguising the reality that “communist systems are inherently incapable of reform”. Hicks noted that contributors shared, to varying degrees, a deep pessimism about China’s future.\footnote{Ibid., xv-xx.}

One of the most outspoken of these scholars was Jurgen Domes who asserted confidently that the continuation of the CCP into the next century had become “entirely unlikely”, and moreover that to assume otherwise was a delusion reflecting “nothing but incompetence in social science analysis”. He thought the future of communist single-party rule in China was “indeed predictable” and that it pointed “unmistakably toward a collapse of communist rule”.\footnote{Ibid., 130 and 466-472.} In this same volume several other scholars expressed equally pessimistic and extravagant opinions, with repeated reference to the prospect of collapse. Ramon Myers thought China’s cities could become “a tinderbox ready to ignite in flames” and plunging China into anarchy and eventual collapse. The CCP sat on “a political powderkeg.” Michael Byrnes also foresaw “the eventual dissolution of the PRC as a nation state.” Simon Leys thought China faced an irrepressible tidal wave that would sweep away communism. The regime’s collapse was “ineluctable”.\footnote{Ibid., 455-465, 149, 160 and 194-195.} Similarly, Harvard scholar Roderick MacFarquhar thought that, as in the Soviet Union, “the rot has gone too far”. The CCP would “follow the CPSU into the dustbin of history.”\footnote{Roderick MacFarquhar, ”The Anatomy of Collapse," The New York Review of Books (26 September 1991), 5-9.} A spectacularly gloomy view of China’s prospects was also offered in this period by W.J.F. Jenner, who
assessed that China was experiencing “a profound general crisis” that threatened not only its “moribund communist dictatorship” but also its future as a unitary state.  

A 1992 report to the US Congress included a mix of opinions from individual China experts. It was generally perceived that China’s leadership was divided, that reform had slowed dramatically, and that there would be little change until the demise of Deng. But the report also noted “numerous heated arguments” among US scholars and bureaucrats about where China was going. Most thought it might continue to “muddle through” or perhaps do even better. However, Christopher Clarke from the State Department’s Bureau of Intelligence and Research thought the post-Deng leadership would be forced to rely on coercion and repression. Angry citizens could seek to overthrow the regime. Jan Prybyla concluded that unless China adopted a market system the prospect of “an economic implosion – a house of cards-like collapse” was highly probable within a few years.

All these forecasts in the years following the Tiananmen crisis were handicapped to a greater or lesser extent by their inability to anticipate the major impact of Deng Xiaoping’s decision to throw his influence firmly again behind economic reform and modernisation. Deng, approaching ninety, embarked in early 1992 on a symbolic tour of southern provinces during which he visited prosperous new special economic zones and denounced leftist obstruction. This was accompanied by a surge in annual GDP growth to a stratospheric 13 to 14 percent. Fortuitously, this period also saw the passing away of several of the conservative party elders, further reducing opposition to accelerated reforms.

Despite these new stabilising trends, several scholars continued to question the viability of the Chinese state. Maria Hsia Chang predicted a nominally-united China could evolve into “a de facto, if not formal, federation”, and that its Marxist-Leninist

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90 Ibid., 8-13.
91 Ibid., 224-225.
system was threatened with disintegration.\textsuperscript{93} Edward Friedman agreed, claiming most Chinese were worried that “the toppling of the Leninist dictatorship in Beijing would lead to the disintegration of China”. The old system was “a potentially malignant cancer” maintained by the “frightened old men” in Beijing. Internal tensions were kept in check only by “widespread fear that hate-filled bloody chaos could engulf the country”.\textsuperscript{94}

A slightly more moderate view was expressed by David Shambaugh but he also was inclined on balance to be pessimistic, believing China’s economic growth was accompanied by social and political decay that was undermining the CCP’s rule. The Chinese economic locomotive was “barrelling down the tracks at dangerously high speeds, risking derailment.” He believed a “psychology of greed and ruthless opportunism” was taking hold in an increasingly anarchic society. The CCP was losing its grip on power and “eroding from within”. Shambaugh judged this situation was not “a recipe for its imminent collapse or a democratic-inspired revolution”, but the regime’s legitimacy was declining daily.\textsuperscript{95}

A distinctly negative view was taken by Richard Hornik who asked whether China was in fact a “Muddle Kingdom”. He recommended optimists should reconsider their “grandiose projections” that China would soon be the biggest economy in Asia if not the world. Its apparent economic success, visible mainly in its cities, was “ephemeral”.\textsuperscript{96} Gerald Segal also believed China was “a Middle Kingdom in a muddle”. There was “much revolutionary tinder scattered around the country”, and if it did collapse “no one should say they did not know why”.\textsuperscript{97} Segal suspected China might be heading for a chaotic era of informal federalism and increasingly devolved power.\textsuperscript{98}

\textsuperscript{93} Chang, "China's Future: Regionalism, Federation, or Disintegration.", 211 and 226.
\textsuperscript{94} Edward Friedman, "China's North-South Split and the Forces of Disintegration," \textit{Current History} (September 1993), 270-274.
\textsuperscript{95} David Shambaugh, "Losing Control: The Erosion of State Authority in China," \textit{Current History} (September 1993), 254-259.
\textsuperscript{96} Richard Hornik, "The Muddle Kingdom?: Bursting China's Bubble," \textit{Foreign Affairs} 73, no. 3 (May/June 1994), 28-42.
\textsuperscript{97} Gerald Segal, "The Muddle Kingdom?: China's Changing Shape," \textit{Foreign Affairs} 73, no. 3 (May/June 1994), 43-58.
By the mid-1990s, scepticism about China’s prospects was still very much in vogue among many analysts. David Goodman and Gerald Segal believed the “succession ding-dong” after Deng’s death would be protracted.\textsuperscript{99} They described the leadership as “the crumbling remnant of an authoritarian system ruled primarily by personality and smoke and mirrors”. Politically, China would probably operate as “a looser collection of increasingly independent units”. Further deterioration into economic collapse and political chaos was considered unlikely, but not to be dismissed.\textsuperscript{100} Willy Lam likewise saw an equally unpromising future for the CCP, which he likened to Cinderella “way past midnight” and with “advanced-stage Parkinson’s disease”. The CCP’s difficulties might open the door for federalism or for greater democracy.\textsuperscript{101} James Miles also saw the likelihood of major trouble ahead, including the possible spilling open of a “Pandora’s box of rivalry, hatred, vengefulness, and a myriad of other destructive emotions”, leading to a chaotic maelstrom whose effects would be felt world-wide. He cited a US Department of Defense forum in which half the participants allegedly believed there would be a breakup after Deng, with China’s foreign policy becoming increasingly unpredictable and threatening.\textsuperscript{102}

Another significant example of the unremittingly pessimistic tone of so much expert analysis about China during this period was Jack Goldstone’s article arguing the case for “The Coming Chinese Collapse”, again testifying to the powerful appeal of the collapse scenario. With a growing population, faltering agricultural production, worker and peasant discontent, and the state rapidly losing its capacity for effective rule, he assessed that China showed “every sign of a country approaching crisis”. He doubted that the collapse of communism in China could, or should, be averted. Given that the CCP was unwilling to grant the democratic reforms that might recapture popular support, Goldstone concluded: “we can expect a terminal crisis within 10 to

\textsuperscript{99} Deng Xiaoping died on 19 February 1997, but his political role had been considerably reduced for some time beforehand.
\textsuperscript{100} David S. Goodman and Gerald Segal, \textit{China Without Deng} (New York: Imprint, 1995), 4, 5, 14 and 92.
15 years”. Observers had been startled by the sudden collapse of the USSR, but there would be “no excuse for making the same mistake with China”.

During the late 1990s China’s GDP growth rate declined steadily to less than 8 percent and only returned to double digit figures in 2003. This fuelled continued scepticism, leading Gerald Segal to raise the provocative question of whether China really mattered on an international scale. He thought it was at best “a second-rank middle power” that for much of the past 150 years had “consistently disappointed”. China was “a small market” with only 3 percent of world trade, and its GNP was only 3.5 percent of the world total. Its economy was “effectively in recession”. In short China was “a classic case of hope over experience”, a country that “has great potential, and always will”. It was also “a second-rate military power” accounting for only 4.5 percent of global defence spending. It had few friends and was “a political pariah” whose international influence was “clearly puny”.

A similarly critical tone pervaded the thinking of London-based investment banker Callum Henderson. Not long ago, he noted, commentators were describing China as becoming “inevitably and inexorably” the world’s largest economy, but it was clearly undergoing a “significant and wrenching” economic slowdown that would defeat this ambition “for a considerable time – if ever”. He saw the potential for “complete financial and economic collapse”. He thought there was also “much to be optimistic about” and that China was “on the brink” of either further economic slowdown or a higher stage of development, but he judged it was certainly not inevitable that it would replace the US as the leading economic superpower. As he put it: “what goes up, can – let us not forget! – come down”.

### 3.4 China’s Rise

Not all experts were convinced that communist leadership in China was doomed or that it would be beset with regional disunity, economic decline, and the growing risk of comprehensive collapse. More positive views – that took into account the underlying resiliency of the Chinese state and the reality of its return to rapid

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104 Gerald Segal, "Does China Matter?" *Foreign Affairs* 78, no. 5 (September/October 1999), 24-36.
economic growth – were not long in reasserting themselves. Soon after Tiananmen, David Goodman ventured that “remarkably” the situation was on balance “not irretrievable” for the CCP. Harlan Jencks agreed it was probably premature to write off the regime. David Lampton also perceived China to be less fragile in the post-Tiananmen period than most other scholars assumed. While conceding China’s grave problems, he warned against thinking it was “a political and social volcano waiting to erupt” or that it was in a pre-revolutionary state. He argued that Chinese had benefited greatly from the reform program and did not want to put this at risk. No other institutions offered an alternative to the CCP.

Another nuanced view came from Harry Harding. He acknowledged China was “riddled by uncertainties” and thought it not surprising that following the Tiananmen crisis predictions had been dire, leading some observers to conclude the government might collapse “within a few weeks or months”. He noted, however, that extreme predictions had not been validated; suggesting internal contradictions might not have been “as antagonistic as the pessimists believed”. Harding was concerned about divisions within the central leadership, which he thought could produce “chronic immobilism” or even a military coup. He also believed state-society relations were still not stable, and doubted that high rates of economic expansion would be sustainable. However, he assessed that there were also “powerful integrative forces” that would hold China together.

A notably upbeat prognosis was offered by New York Times journalist Nicholas Kristof. His views exemplified a more positive view of China’s outlook among many analysts as the 1990s progressed. Kristof was one of the earliest Western commentators to use the phrase “the rise of China”, stating that – if it continued – it might be the most important world trend for the next century. He thought that on present trajectories China might displace the US as the world’s largest economy during the first half of the twenty-first century. He injected a note of caution,

107 Ibid., 154-159.
110 Ibid., 34-39.
however, warning of the “tectonic strains” China would face and the significant possibility that it would never achieve economic takeoff. He accepted that: “All kinds of things can go wrong, and economic trajectories are almost impossible to predict.” Military coups, chaos and civil war were all possible. Nevertheless, he thought it was at least a realistic possibility that China could sustain its boom for several decades, and that it would be “foolish – and perhaps dangerous – to neglect this likelihood”. He noted some economists believed that under favourable conditions China could maintain growth rates of seven to eight percent for “another couple of decades”, causing GDP to quintuple every 21 years. He argued that the West should no longer look at China’s “backwardness” as inevitable, and that it was “on a road that could restore it to its original greatness”. Kristof downplayed concerns about China’s military expansion, arguing that its territorial and military aspirations were “reasonable” and that it was not a “villain” or a “renegade”. His greatest concern was about environmental and climate change issues, including the pressure China’s growth would place on global energy supplies.\(^\text{111}\)

Jack Goldstone’s earlier prediction of China’s imminent collapse spurred Yasheng Huang to publish an article titled “Why China Will Not Collapse”. He observed that projections about China’s stability and cohesiveness were usually dismissed as wishful and short-sighted, and were “drowned out by the growing chorus of doom among China pundits”. He asserted, however, that the doomsters were “long on hype and short on facts”, and that there was no evidence to support cataclysmic predictions. Questionable assumptions had been used to reach sweeping conclusions. He believed “different analytical prisms” were required. Contrary to the image promoted in the international media, he believed China’s governability had improved and that control over the regions was still substantial. Such considerations supported “a relatively optimistic scenario”. China would face many difficult challenges, but national disintegration was not likely to be one. Western media presented China’s government as abusive, corrupt, and arbitrary, but typically underestimated the

adaptability of the regime. Huang called for a “more balanced and level-headed” assessment in view of the gap between conventional wisdom and hard evidence.  

A thoughtful and detailed analysis in a book published in 1998 by Daniel Burstein and Arne de Keijzer also questioned negative views about China. They noted that the pendulum of American thinking had swung “from optimism to pessimism, from hope to fear, from opportunity to threat, from the coming China boom to the coming conflict with China”. This swing, they believed, was promoted by those who wanted to portray China as “a new evil empire and a new national enemy” and as “fascistic, expansionist, hegemonic, and inherently adversarial”. Burstein and de Keijzer sought to offset this alarmism. Their prognosis for China bore in many respects a closer resemblance to actual subsequent developments. They assessed that China would prosper economically and become influential internationally. It would become in time “the world’s largest single nation-state economy”. It would challenge assumptions that there was “a high correlation between democracy and economic success”. They did not doubt China would be a nationalistic power, but thought this would not necessarily lead to “overall antagonism or constant friction” with other countries. China would be a challenge, but it need not become a threat.  

Burstein and de Keijzer concluded their assessment with a brave attempt to “fast-forward” to 2024. They foresaw a China that had stayed the course on economic reform and with GDP at near parity with the United States. It would have evolved a “new political-economic paradigm” quite different from the West. China and the US would be “the two leading superpowers” with bilateral relations much improved due to greater liberalisation in China and reduced US concern about China as a strategic threat. In the meantime practically every “dire scenario” ever predicted by Western pundits would have come to pass but “less apocalyptically than was imagined”. The CCP in 2024 had held China together, muddling through on most issues. Neither the Hawks nor the Pollyannas had been vindicated.

112 Yasheng Huang, “Why China Will Not Collapse,” Foreign Policy 99 (Summer 1995), 54-68.
113 Daniel Burstein and Arne de Keijzer, Big Dragon: the Future of China (New York: Touchstone, 1998), 19-21, 84, 97, 103 and 114.
114 Ibid., 341-348.
4 PESSIMISTS AND OPTIMISTS

By the late 1990s a clear division had begun to form between two camps of experts who seemed to be becoming locked in a contest between those who perceived China’s future as problematic and threatening, and those who were more inclined to believe it could manage its modernisation process successfully. In the subsequent period, considered in this chapter, several major contenders emerged in these pervasive but divisive debates. They began to assemble an array of new or enhanced arguments in favour of their either pessimistic or optimistic views. Their primary weapon was the persuasiveness of their expert judgement, but supplemented from time to time by other approaches and especially by arguments drawn from predictive theory or from ideology. This bifurcation of expert opinion was a notable feature of the 2000s, and continues to be an important influence on perceptions of China’s future. It subsumed a parallel but more extremist dialogue between those who argued that China faced collapse and those who believed it could achieve dominance.

4.1 The Case for Pessimism

The mood of confidence about China’s prospects among some foreign analysts, as its economy strengthened during the 1990s, was soon challenged once more at the turn of the century by a vigorous reassertion of the case for pessimism. This pessimistic school of thought, championed repeatedly and often fervently, has proved to be enduring. A resurgent scepticism attracted adherents with a variety of different viewpoints. Some were pessimistic about China’s governance; others were concerned about its economic development, or its environmental challenges, or its social inequalities, or its human rights performance; others were worried about the implications of its international ambitions and its military expansion. These experts continued to emphasise the possibility – or even the likelihood – that China’s political and economic system would collapse spectacularly in spite of its past progress. Some perceived that such an outcome was inevitable and even appeared to relish the prospect of a catastrophic future for China, especially if this cleared the way for political and economic reforms that they deemed to be both essential and desirable.
While many were willing to consider the possibility, and even the probability, that China would collapse under the weight of its numerous challenges and contradictions, it was left to one author in particular to carry the collapse argument to its logical extreme. In 2001 Hong Kong-based journalist Gordon Chang published his *The Coming Collapse of China* which interestingly has become, at least among English-speakers, one of the best known works on the subject of China’s future outlook. In a sense there was little that was new or original in Chang’s analysis.\(^{115}\) Several previous authors had explored the collapse thesis, but what distinguished his book was the inevitability and certitude that he attached to it. Few other authors have displayed a similar level of total confidence in their ability to predict China’s future. Moreover, Chang’s conclusions were little short of apocalyptic. Apart from his very explicit title, his chapter headings were indicative of his clear-cut position – for example, *The Discontent of the People Is Explosive, State-Owned Enterprises Are Dying, Chinese Banks Will Fail, China’s Economy Stagnates, WTO Accession Will Trigger Collapse, How the State Will Fall, The State Begins to Disintegrate.*\(^{116}\)

In this highly-polemical book Chang claimed that foreigners were so fascinated and dazzled by China’s potential that they did not see the facts, which were that China was a “paper dragon” and that symptoms of decay were everywhere. It was “in long-term decline and even on the verge of collapse”; boom was turning to bust; the regime was “fundamentally unpopular”. Chang’s analysis was distinctive in three respects. First, on particular issues the great majority of his judgements were uniformly and uncompromisingly negative. Second, his arguments were distinguished by the frequency with which he resorted to bald assertions – for example: “As time passes, the underlying problems fester. Economic dislocations become social ones, with dark political overtones. At some point there will be no solution. Then the economy and the government will collapse.” Third, Chang achieved notoriety for the fact that he (like Goldstone) was willing to attach a specific timeframe to China’s collapse. He asserted that: “We are but a few years, perhaps five, from that time.”\(^{117}\)


\(^{117}\) *The Coming Collapse of China*, xxv-xxvii.
It is also notable that Chang specifically and categorically excluded the possibility that the state as a key actor might be able to retake the initiative and avert disaster. This was indeed a critical element in his argument, which was that collapse was assured because the CCP was both unwilling and unable to change its authoritarian system. The Party’s rule had become “corrupt, repressive and brutal”. Even reform in non-political areas was “glacial”, like “molasses”. The “law of gravity” therefore could not be denied and at some point “the centrally directed system has to fail”. Another argument employed by Chang was that scholars tended to treat and downplay China’s challenges one by one; but the point, he argued, was that “China faces many challenges all at once, not one challenge at a time”. If all these challenges were added together “we can see why the regime will fail”. He also argued that even if China could solve its problems in “say, thirty years” that was irrelevant because it did not have the luxury of waiting that long. Its people were “hungry, angry, and worst of all, desperate” and would not tolerate such delay. He claimed that already somewhere in China was the person who would “end the Chinese state as it now exists”, because China was like “a lake of gasoline” and that person would only need to “throw a match”.

The concluding chapters of Chang’s book took on a visionary and messianic quality. He declaimed: “the people are in motion now and one day they will want to govern themselves. That is their destiny …. Sometimes democracy needs a strongman, and at a crucial moment he or she will appear …. The crowd, a million people behind a single man or woman, will cross Changan Avenue and descend upon Zhongnanhai …. It happened in Berlin and Bucharest and it will soon occur in Beijing: the people will take back their government …. And when the world witnesses police clubbing demonstrators and blood in the streets, the reaction will be immediate and emotional …. Across China activists will decide that this is their moment in history.”

Not surprisingly, Chang’s sweeping conclusions proved controversial. The journal China Brief offered a debate on the issues in which Robert Sutter argued that the Chinese regime would endure. It would be resilient enough to deal with anticipated challenges. It was unlikely to be either “lax or maladroit”. It would be aided by

118 The Coming Collapse of China, xv-xvii, xxviii-xxix, 16 and 44.
119 The Coming Collapse of China, 251-279.
popular aversion to chaos and a belief that there was “no viable alternative” to CCP rule. June Dreyer, however, was willing to commend Chang for questioning the conventional wisdom and raising the possibility that the People’s Republic of China might fall. She believed “it could happen”. Chang exercised a right of reply in which he castigated those who did not adopt a similar boldness. He was not surprised by the consensus that the CCP would survive because: “No one, we know, has ever been fired for extrapolating.” But when societies began to crumble “timid predictions” would not suffice. He asserted that “the inevitable” would soon occur in China, with the next five years being “the critical period”. The Party would “just stiffen and then collapse”. He assessed that “all the evidence” pointed to this and that “if anything was inevitable” it was the end of the PRC. He clarified that his specific timeframe for China’s collapse was actually “within a decade and maybe within five years”. In a following article he claimed there had been a stunning reversal of perceptions and that the optimists were “in retreat”. “Rosy predictions” were “falling by the wayside” and China was seen as “a failing giant”. The “truth”, he declared, was that it was “failing economically” and “starting to fall apart”. The century that some claimed belonged to China would last “just a decade at most.”

By the end of 2003, with more evidence of China’s strong economic performance and apparent stability, a different tone seemed evident in Chang’s analysis. Uncharacteristically he was struck by difficult epistemological issues: “As we learn more about the People’s Republic, we understand less.” There was not one China, but many. Its size and diversity made it “hard to figure out”. Observers could “view a sliver and know that portion well” but it was difficult to understand the whole. He also appeared to be more willing to acknowledge important aspects of China’s success. It was apparently a flourishing economy despite its authoritarian political system. It would profoundly affect the future and was “becoming a geopolitical force”. The Beijing model might be copied elsewhere, with the developing world taking on “a decidedly China-centric look”. But he raised another spectre. Even if China was an economic success, Chang feared it would become an international

threat – in fact “we may be creating another Soviet Union, one more dangerous than the first”. It could be “a large and economically-powerful dictatorial state … a foe that we’re not able to tame”.\textsuperscript{124}

Soon afterward, however, Chang apparently abandoned such revisionism. He returned to his earlier arguments, and added another – that because the velocity of China’s economy was now so much faster it had “even less control over what is happening”. The state was “courting disaster” due to its unsustainable trajectory. He noted that analysts had a terrible record in predicting turning points in human history and asked: “What are we missing now?” He suggested there might be guerrillas who were “gathering out of sight in the basement” including perhaps hundreds of “secret societies, political parties and revolutionary armies” who wanted to bring down the CCP.\textsuperscript{125} In 2006 Chang, still unrepentant despite China’s uninterrupted progress, wrote that his book had predicted the fall of the CCP “by the end of this decade”, hence it had reached “the halfway point”. He conceded China did not look set to fall, but maintained it was “a fragile nation”. Protests were becoming larger, more violent, more volatile and more widely-based. He still insisted the CCP was incapable of reinvigorating itself. A sharp economic downturn would place it in jeopardy. Popular unrest had the “potential” to cause government collapse.\textsuperscript{126}

Chang has continued, incorrigibly, to defend his position. In a late 2011 article he admitted that his prediction that the CCP would fall that year was wrong. But, he said, “I’m only off by a year …. don’t think I’m taking my prediction back”. Deteriorating economic conditions and mistaken policies meant China’s “sweet spot” would soon be over. China was “too dynamic and volatile” for the CCP to remain in power. Until recently everything was going well but: “Now, nothing is.” He concluded with a rhetorical flourish: “So, yes, my prediction was wrong. Instead of 2011, the mighty Communist Party of China will fall in 2012. Bet on it.”\textsuperscript{127}

\begin{footnotes}
\textsuperscript{124} Gordon G. Chang, “Is This China's Century?,” \textit{China Brief} 3, no. 16 (16 December 2003).
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While Chang was not without supporters, few others went so far. But one such was He Qinglian, a former journalist in China who believed the main reason China had remained stable was due to the state’s resort to political violence. The regime concentrated on “pulling up by the roots” all potential sources of instability, and on being able to “strangle at birth” any groups that might offer organised resistance. In He’s view Chinese society resembled “a volcano on the verge of a major eruption” with “underground fires, smouldering dangerously just below the surface, that could erupt and rage out of control in any place and at any time”. The day would come when the CCP would be “consumed in the conflagration”. Meanwhile, Venezuelan writer Moises Naim – like Chang – also attached a ten year timeframe to China’s impending crisis. He calculated China would “almost certainly have an accident within 10 years” that would slow its growth and destabilise its politics.

More significantly, US academic Minxin Pei came to rival Chang as perhaps the leading, most articulate, and most persuasive proponent of the pessimistic view. He was one of the first to elaborate the argument, based on political theory, that a developing country like China could not modernise successfully without political reform. He drew a parallel between China’s situation and the fall of the Suharto regime in Indonesia in 1998. Acknowledging that the notion China could go the same way might seem preposterous, he nonetheless argued that its political system was contending with almost identical weaknesses. A similar crisis might strike China if it failed within the next decade to introduce liberal and democratic reforms. He characterised China as a corrupt and predatory state. In a best case situation it might “muddle through for another decade or two without cataclysmic upheavals”, but in the worst case the political system could become so brittle that a leadership split, an economic crisis, or an external shock “could set off a chain reaction leading to a Suharto-type collapse”.

Pei’s analysis was more reasoned, plausible and persuasive than Chang’s, and his conclusions more qualified, but he was still determinedly pessimistic. He concluded

130 Minxin Pei, "Will China Become Another Indonesia?," *Foreign Policy* (Fall 1999).
that in the early-2000s China faced a crisis of governance. Its apparent dynamism and promise caused multinational corporations to “salivate” at the thought of its market potential, but he argued that “beneath this giddy image of progress and prosperity” was a different reality. Pei and like-minded analysts saw it as essential that China’s transition to modernity must involve “not simply a deepening of market liberalization but also the implementation of political reforms that could endanger the CCP’s monopoly on power”. The CCP’s determination to maintain political supremacy was therefore seen as inconsistent with its aim of developing a socialist market economy. Pei believed the lesson China had drawn from the collapse of the Soviet Union was that a communist regime could not survive without prioritising economic growth, but it mistakenly believed it could leave the political system untouched. Pragmatists might consider the requirements for rule of law, a market economy, and an open society to be “inconsequential cognitive nuisances” but he believed they were real. He believed the CCP exhibited the same pathologies as Brezhnev’s Soviet Union and Suharto’s Indonesia – “pervasive corruption, a collusive local officialdom, elite cynicism, and mass disenchantment” – the classic symptoms of degenerating governance that would force the CCP to rely increasingly on repressive measures.  

Pei thought the CCP was already exhibiting “organizational dystrophy, and unresponsiveness”. This was leading to “state incapacitation”, which in its extreme form would result in a failed state. The CCP was trapped in “a hopeless dilemma”, which was that any reforms that might alleviate social tensions could also trigger a revolution. The situation was “not yet life-threatening” if the new CCP leadership made appropriate institutional changes, but such reforms would be too threatening to its political control. He predicted China’s governance crisis was therefore “likely to continue to grow”. This might not cause imminent regime collapse but accumulating strains could lead to long-term economic stagnation. Hence he advised that the world needed to re-examine its “long-cherished views” about China because they might be “rooted in little more than wishful thinking”. Pei argued further that China’s economic success had been achieved not so much despite its “rotten” political system.

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132 Ibid., 101-109.
as *because* it was so rotten. Corrupt CCP officials had “effectively privatised the power of the state”. He concluded that the “only certain thing” about China’s political risks was that they were rising.133

Pei expanded on his earlier views in his 2006 book *China’s Trapped Transition*. He contended that post-Mao political reform was “at worst, an oxymoron and, at best, a series of tentative, partial, and superficial measures”. A democratic transition was “a distant, or even unrealistic, prospect”. China risked “getting trapped in a ‘partial reform equilibrium’, where partially reformed economic and political institutions support a hybrid neoauthoritarian order that caters mostly to the needs of a small ruling elite”. Pei admitted the central government retained “a surprisingly high level of authority” among ordinary citizens, implying a relatively low probability that social protest would result in the overthrow of the CCP. However, he believed the future accumulation of governance deficits could eventually lead to “a mass popular political mobilization” that would most probably “precipitate a quick regime collapse”. He concluded that despite China’s awe-inspiring progress a “set of self-destructive dynamics” was making the CCP increasingly anachronistic. He rejected the idea of “the efficacious neoauthoritarian developmental state”, maintaining this was incompatible with “a society’s collective desire for a more autonomous and rule-based economic and political order”.134

The bottom line for Pei was that without fundamental political reforms China’s rise was likely to “fizzle”, disappointing both Western liberal “engagers” who hoped China’s economic progress might lead to democratisation as well as “containers” who would have to look elsewhere for threats. He advised the international community that instead of viewing China as “the new superpower of the twenty-first century”, it might want to see it as “an underperforming giant that has failed to seize an historic opportunity for making a fundamental break with its authoritarian past

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133 Minxin Pei, ”Dangerous Denials,” *Foreign Policy* (January/February 2005).
and paid a heavy price for it”. Pei thus viewed China’s future through “dark lenses”.\(^{135}\)

In later articles Pei asserted the “only thing rising faster than China is the hype about China”. He admitted its growth record had “proved pessimists wrong and optimists not optimistic enough”, but urged caution “before we all start learning Chinese and marvelling at the accomplishments of the Chinese Communist Party”. He argued that the “often breathless conventional wisdom” overlooked major flaws that made many predictions about China’s trajectory “misleading, if not downright hazardous”. Behind the glowing headlines were fundamental frailties. In short: “China may be rising, but no one really knows whether it can fly.”\(^{136}\) He warned that although China’s ascendance seemed “unstoppable” its “irredeemably rapacious and self-serving” ruling elites would likely be overthrown “when a major crisis hits”.\(^{137}\) He acknowledged that China was “a premier world economic powerhouse”, but he thought it too soon to regard it as the next superpower because the likelihood of a significant economic slowdown in the next two decades was “real and even substantial”. Progressive internal decay threatened to produce a future regime change in a process that would be “disruptive, even cataclysmic”.\(^{138}\)

In early 2009 in the midst of the global financial crisis (GFC) Pei observed that forecasters of the futures of nations were “no different from Wall Street analysts” who relied on the past to predict the future. Since China had maintained thirty years of rapid growth they believed it could continue for another two or three decades. He acknowledged China’s “stunning performance” in overcoming what doomsayers had perceived as insurmountable obstacles, but argued that it still faced a choice between stagnation and fundamental change. It was “time to rethink complacent assumptions” which, to Pei, stemmed from “myopia … and, worse, a dismissive attitude to warning signs of trouble”. He alleged that most economists were handicapped by

\(^{135}\) Ibid., 212-215. Andrew Nathan, in a perceptive review of Pei’s book, commented that he had given “only weak evidence” to support his contention that China needed to adopt democracy and full marketisation. In Nathan’s view the question of whether China could prosper under an authoritarian regime was “exactly what is at stake in the Chinese experiment”. See Andrew J. Nathan, ”Present at the Stagnation: Is China's Development Stalled?,” *Foreign Affairs* 85, no. 4 (July/August 2006), 177-182.


\(^{138}\) Minxin Pei, “China's Not a Superpower,” *The Diplomat* (29 December 2009).
“intellectual tunnel-vision” and that they misjudged not just the economic fundamentals, but also “elephant-in-the-room risk factors” such as environmental degradation, socioeconomic inequality, and corruption. He believed that China’s rulers were “sitting on a ticking time bomb”.  

Pei has continued to maintain his pessimistic position, although still in a more qualified, more sophisticated, and more credible form than Chang. In a 2012 article he again suggested that instead of “obsessing” about China’s rise, we should be worrying about its fall. It had become “an ingrained habit” to discount the probability of regime change in “seemingly invulnerable autocracies”. An alternative perspective was needed based on “the assumption of declining Chinese strength and rising probability of an unexpected democratic transition in the coming two decades”. He accepted it was “premature” to write off the CCP’s adaptive capacity, and that China could come “roaring back”. But Pei also thought the CCP’s demise could not be ruled out. He saw in China’s continuing difficulties “invaluable clues to such a highly probable seismic shift”.  

Many of the arguments expounded by Minxin Pei were supported, though in a more dogmatic form, by British author Will Hutton. He argued that if the next century was going to be Chinese it would only be so because China had embraced the economic and political pluralism of the West in the form of democracy and “genuine capitalism”. This would involve adopting what he called “Enlightenment Institutions” such as rule of law, independence of the judiciary, freedom of the press, independent universities, and representative and accountable government – which Hutton considered “indispensable components of any well-functioning economy and society”. By contrast, the Chinese economic model – which he described as a halfway house in which the CCP tried to retain political control while allowing “only half a market economy” – was unsustainable. It was structurally unstable and must  

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140 Minxin Pei, "Everything You Think You Know About China Is Wrong," Foreign Policy (29 August 2012).
be strengthened by greater economic pluralism, which would in turn challenge the CCP’s pre-eminence.\textsuperscript{141}

Like others, Hutton catalogued a long list of governance shortcomings in China, and argued that if its growth ever slowed it would be “in mortal trouble”. Unless its economic model changed it would be unable to withstand the strain of tripling its economy over the next fifteen years, because the “law of large numbers” would kick in. A tipping point was approaching where without “self-sustaining entrepreneurial maturity” there would be “a sharp and destabilising deceleration” in China’s growth. Hutton concluded that China was caught in a gigantic dilemma. Simple extrapolations of its growth, and predictions that it would become “a one-party economic colossus”, were alarmist and naïve. He foresaw a China that was “riven with contradictions and full of potential menace” in a period when it was “coming to terms with the bankruptcy of communism and the logical impossibility of continuing to grow as it has”.\textsuperscript{142}

Another writer who was equally if not more critical of China’s governance and sceptical about its prospects was Australian analyst John Lee. He sought to make “the case for pessimism” by propounding similar arguments to those made previously by Chang, Pei and Hutton – namely, that significant political reform was unlikely, that market socialism was not a substitute for market capitalism, and that China therefore could not maintain sustain its economic and peaceful rise. Its trajectory, he believed, was “precarious rather than promising”. He considered much of China’s success to be illusory and that necessary reforms were not to be expected because they would threaten the Party’s position. He maintained that China’s market socialism was “a predatory, dysfunctional and grossly inefficient system that is enormously wasteful and unsustainable”. He assessed that the CCP was losing its appeal, its organisation was fragmenting, and it was seen as corrupt, self-serving, ineffectual and irrelevant. The regime faced “deep rivers of discontent” and was “trapped by its own contradictions”. It was becoming increasingly desperate and was


\textsuperscript{142} Ibid., 30-34, 118-120 and 331-357. In an interesting debate with British economist and politician Meghnad Desai, Hutton insisted China could only compete with the West if it became “more like us”. See Will Hutton and Meghnad Desai, “Does the Future Really Belong to China?,” \textit{Prospect Magazine}, January 2007.
rapidly losing credibility, fuelling chauvinistic nationalism, and risking crisis over unresolved territorial claims. Economically, “even a slight tremor in the US economy would be devastating”. In short, the country was “in a profound mess” and all the ingredients were present for “a potential social or political meltdown”. 143

In a frontal assault on China optimists, Lee lamented that the policies of other countries had become “overwhelmingly predicated on the ‘inevitable rise of China’, as if there were no other possibility”. Most experts, he alleged, were dazzled by modern China, and the presumption that this would be the Chinese century was “undoubtedly gaining momentum”. While a handful of other experts were doubtful about China’s prospects, Lee claimed the overwhelming consensus in the US, Europe and Australia was “one of general optimism”. He believed these experts suffered from “a well-intentioned, but self-induced ‘China blindness’”. He conceded that in some instances the case for optimism was “well thought out and formidable”, but believed even the most sensible optimists had failed to present compelling evidence that the Chinese authoritarian model could overcome its “profound and mounting contradictions, tensions and dysfunctions”. The evidence for pessimism, he believed, was “the more compelling if not yet irresistible conclusion”. 144

Lee claimed that many analysts tended to simply produce a “laundry list” of China’s successes and shortcomings, and assessed its prospects optimistically or pessimistically depending on which “side of the ledger” they saw as more compelling. But he emphasised the extreme seriousness of China’s problems, claiming that the CCP’s policies had created “a massive underclass of up to a billion people”, with 10-20 percent unemployment in urban areas and 20-40 percent in rural areas. 145

Somewhat inconsistently given his argument that China was destined to fail, Lee appeared nonetheless to see it as a threat to Western values and institutions. He quoted Milton Friedman’s view that China was “heading for a clash, since economic freedom and political collectivism are not compatible”, but he saw Beijing’s

143 John Lee, Will China Fail? (St Leonards, NSW: Centre for Independent Studies, 2007), 4, 13, 96-99 and 112-118.
144 Ibid., 3-7, 17-18 and 146.
“stubborn authoritarianism” as “pernicious” and an enormous danger to Western liberal-democratisation, because China’s success suggested there was “no inextricable link” between political liberalisation and successful transition to a free market. Some even saw authoritarianism as advantageous. This might discourage others from aggressively advocating liberal and democratic agendas. For Lee, the China model was “flawed, unsustainable, dangerously unstable” and its authoritarian logic was “contradictory and duplicitous”, but due to its potential appeal to others it presented a moral challenge that was “far more subtle, oblique and sophisticated” than that previously posed by the Soviet Union.146

Chang, Pei, Hutton and Lee all expounded, although with varied interpretations and probabilities, a common set of arguments based on predictive theory which maintained that without movement toward greater political liberalisation and marketisation China’s rise could or would be undermined. This created an irreducible dilemma, or Catch 22, because allegedly the CCP knew the introduction of such reforms would threaten its control. The weakness of these arguments was that China’s rise nevertheless continued, and the longer the CCP seemed able to lead its continuing advance the less credible the pessimists’ views appeared. They could always, however, fall back on the claim that the CCP was only postponing the inevitable. They could also point to undeniably serious challenges and potentially destabilising factors that were either worsening or at best were contained.

Enthusiasm about China’s future prospects was also challenged by Australian analyst Paul Monk. He noted a widespread view that China was destined to become an economic superpower, a strategic rival to the United States, and the dominant power in the twenty-first century. This new evaluation of China’s potential had occurred “with a rapidity quite as remarkable as the growth of its GDP” which, however, in 2004 was less than 12 percent of US GDP. Monk believed the conventional wisdom was based on “little more than linear extrapolations, decades into the future, of raw and unexamined recent growth rates”. It assumed “benign outcomes across a large

146 Lee, Will China Fail?, 3-4, 14-29, 95-99, 112-146 and 151-155. Stephan Halper shared Lee’s concern, although he was less inclined to question China’s future prospects. He believed the CCP had made a “civic bargain” with the Chinese people in which its political repression was tolerated in exchange for stability and economic advancement. See Stefan Halper, The Beijing Consensus: How China’s Authoritarian Model Will Dominate the Twenty-first Century (New York: Basic Books, 2010), ix-xii, 2-3 and 207-252.
number of variables crucial to China’s possible futures, without critically examining
any of them.” He referred to this “simplistic and overawed linear way of thinking” as
“the Linear Ascent Model (LAM)”. He dated the “lurch into LAM-think” to the early-1990s, when the use of purchasing power measures of GDP led to the sudden appearance of an “image of a Chinese economy of massive proportions”. He believed such extrapolations “surely belong to the realm of statistical fantasy”, and questioned if anyone could seriously believe China’s economy would expand to 50 times between 1981 and 2030. He thought it would be “irresponsible to rule out the possibility that China will fail to negotiate some critical thresholds in the early decades of the twenty-first century”.

Monk thought “tough questions” needed to be asked of those who conjured up extravagant pictures of China’s future. He suggested analysts should balance their “lurid imaginings” against China’s complex realities. These realities included its unreformed political system, foreign domination of its export industries, debt, and structural dysfunction – as well as increasingly grave demographic, social and environmental problems. He commended other more-sceptical analysts who had supplied the appropriate antidote for the optimistic “stuff and nonsense” and “hype and lashings of snake oil” about China’s economic prospects. China’s economic pressures were “volcanic in their intensity” and could “retard and even derail its growth”. He urged forecasters, therefore, to exercise caution and to develop “more serious, multi-dimensional assessments” of China’s futures.

Several other authors were also notably sceptical about China’s prospects. These included Joshua Kurlantzick. He thought China’s economic miracle was “largely a house of cards” and that this façade “probably will crack”. Its growth rates were “vastly overstated, the result of cooked books and massive deficit spending”. Economics writer Joe Studwell, in his 2003 book The China Dream, predicted that at some point in the next five years China would likely face a financial and banking

147 Despite Monk’s scepticism, by 2005 China’s economy had already expanded 20-fold since 1981 and it seems likely to grow 50-fold before 2030 even with much reduced annual growth.
148 Paul Monk, Thunder from the Silent Zone: Rethinking China (Melbourne, VIC: Scribe, 2005), 48-62.
149 Ibid., 50-59.
Inefficiencies and corruption were “bleeding the country dry” and signs of China’s political and bureaucratic malaise were “inescapable”. Its economic foundations were “laid on sand”. Scepticism reached new heights with two sensationalist best-sellers published by Peter Navarro titled *The Coming China Wars* and *Death by China*. Navarro believed China was on “a collision course” with the rest of the world and its future was “at best, highly uncertain”. Its “cowboy capitalism” and “amoral foreign policies” were triggering “a whole range of economic, financial, environmental, political, and military tsunamis that threaten to engulf us”. Kenneth Liebertal did not go so far. He believed, however, that China’s economic model was not viable and its rapacious exploitation of the environment was unsustainable. Its “wildly unbalanced growth” and accompanying corruption were creating social inequality and discontent.

The 2000s also saw some comparatively rare examples of national forecasting by observers within China. Three Chinese scholars – Wang Shaoguang, Hu Angang and Ding Yuanzhu – express the belief that growing social inequality and unrest in China could lead to violence and the reversal of reform. They feared that past progress could be wiped out by instability that rested “just beneath the surface of Chinese society” and could be triggered by some unforeseen crisis, such as economic turbulence or adverse external events. This, they ventured, could create a situation similar to that which led to the collapse of the Suharto government.

Another unusual instance where a Chinese scholar offered candid and quite negative views about his country’s future direction took form in a paper by Nankai University’s Zhang Ruizhuang. He considered that China’s rise to superpower status was still highly uncertain. Those who were “overzealous” about China’s rise should heed a Chinese saying that: “Any achievement divided by 1.3 billion is nothing; any problem multiplied by 1.3 billion is overwhelming.” China’s per capita GDP was only 131st out of 230 economies. Zhang maintained that China’s growth had been

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153 Kenneth Lieberthal, "Is China Catching Up with the US?,” *Ethos*, no. 8 (August 2010), 12-16.
quantitative rather than qualitative, disguising deep structural problems that might be “fatal to the sustainability of China’s economic growth”. Although average personal incomes had increased twelve times, many had been “left out” and were increasingly resentful. China was “sitting on a powder keg waiting to explode”. Externally, its foreign policy had “no principle, no vision, no cause, and no friends”. Zhang explained that his assessment was deliberately negative and one-sided, in order to challenge the over-optimism of those who saw only China’s sensational achievements.155

4.2 The Case for Optimism

Many experts obviously were quite comfortable about forecasting a pessimistic outlook for China, nevertheless a competing optimistic school of thought survived very much intact. The pessimists seemed anxious to entertain collapse scenarios, but optimists were often drawn to visions of the future in which China seemed destined to become dominant. Although optimists often appeared reluctant to be labelled as such – and in fact often mixed their optimism with caution and with professions of uncertainty – they tended to be equally as determined as their opponents to sway an increasingly bemused audience toward their viewpoint. This was perhaps understandable in view of China’s continued rapid economic growth and apparent political stability, in sharp contrast with the low expectations of pessimists.

As the new century progressed, many experts – especially investment advisors – became increasingly impressed with China’s economic prospects. A 2002 Deutsche Bank report concluded that 7 percent GDP growth over the next decade was achievable if reforms continued, and from this base a second decade of growth at 7 or 8 percent was also considered achievable.156 Soon afterwards a much-quoted report from Goldman Sachs marked a new level of optimism. It projected that China’s economy, in dollar terms, could be larger than the United States by 2041,

156 Noy Siakhachanh, China 2020: Challenges Ahead (Deutsche Bank Research, 2002).
and larger than any other economy by 2016. In the following year, however, an update projected China could overtake the US in the mid-1930s. For its part Morgan Stanley believed positive demographics would help China maintain a growth rate of 8 percent or more during the decade. It highlighted the “single-minded determination” of China’s politicians to “make things happen”.

By the mid-2000s several experts were making increasingly confident and upbeat forecasts about China’s glowing prospects. Oded Shenkar, for example, believed many aspects of its future potential were under-appreciated and that in fact the world was witnessing “the sustained and dramatic growth of a future world power”. The impact of its “inevitable ascent” would be enormous. China, he declared, would move beyond its dominance in labour-intensive and mid-technology industries to push into knowledge-intensive areas that would “drive the future world economy” and “catapult China into the ranks of leading economic powers”. He admitted China had a long way to go, but thought it would overcome its problems and emerge even stronger.

Shenkar argued that China’s imperial past provided clues to its future course, causing it to pursue “an extremely high level of ambition”. It would seek to restore its position as “a – if not the – leading civilization”, charting an independent course rather than imitating Western models. He attributed China’s exceptionality to “a special legacy, different institutions, sky-high ambitions, and a one-of-a-kind combination of resources, capabilities, and bargaining power”. He saw its rise as “a watershed event that will change the global landscape”. Its advance would not be linear, but it would be “unequivocally pointed forward”. Moreover, it would become “a broker and arbiter of global diplomatic affairs not only in Asia but the world over”. Rising military prominence would allow China to counterbalance the

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157 Dominic Wilson and Roopa Purushothaman, *Dreaming with BRICs: the Path to 2050* (Goldman Sachs, 1 October 2003).
158 Dominic Wilson, Roopa Purushothaman, and Themistoklis Fiotakis, *The BRICs and Global Markets: Crude, Cars and Capital* (Goldman Sachs, 14 October 2004). Further updating was required in later years as China’s economy returned to double digit growth and outperformed even Goldman Sach’s more optimistic forecast.
Western-dominated world “redrawing the political and security map and turning what it sees as a single player hegemony into a two- or three-player game”.\textsuperscript{161}

Despite his aggressive optimism, Shenkar was willing to consider other possibilities. He accepted that forecasting was “a tall task under any circumstances”, and especially in the case of China. He was concerned that an economically belligerent China might encounter rising protectionist sentiment “bringing the global economy down in the process”, although he thought this unlikely and that “a doomsday scenario” was more likely to arise from numerous internal problems. These possible obstacles notwithstanding, Shenkar remained confident the twenty-first century would see China re-emerge as the Middle Kingdom and become a leading force in an interdependent world. China might “not only turn our economic theories and political assumptions on their head, but also test fundamental threads in our society”.\textsuperscript{162}

Shenkar’s book was only the first of several that highlighted China’s increasing global impact. Ted Fishman was equally impressed with China’s economic dynamism, which he thought gave it a place in the world economy far greater even than its actual size. Most countries now saw China’s economy as critical for their own economic growth. He noted that expert opinions about China’s prospects had been “all over the map”, producing “a combustible mix of euphoria, fear, admiration, and cynicism”. But he felt confident that if any economy was going to supplant the United States, it would be China. In the not too distant future it might well have “the brand names, entertainment industry, and technology that set the world’s standard”. He assessed that China’s growing international influence need not lead to inevitable expansion of its military ambitions, because its economic strength alone would give it sufficient geopolitical clout. To Fishman, the dreams of China’s hundreds of millions of new entrepreneurs had become “the most powerful force in the world”.\textsuperscript{163}

During the second half of the 2000s, several experts made very optimistic forecasts for China’s economic future. Robert Fogel calculated that in 2040 its economy would

\textsuperscript{161} Ibid., 25-43, 161-162 and 164-165.

\textsuperscript{162} Ibid., 169-173, 177 and 187.

reach US$123 trillion, measured by purchasing power parity (PPP).\textsuperscript{164} This would be almost three times the GDP of the US and 40 percent of total global GDP.\textsuperscript{165} Some argued China would become unstable unless it permitted competing political parties, reduced income inequalities, addressed environmental hazards, improved health programs, and countered corruption. Fogel thought the difficulty with these arguments was they assumed its leaders were unaware of these problems, whereas in fact they were quite aware and were taking appropriate measures. This, he felt, was “a formula for continued political stability”.\textsuperscript{166}

US economist Albert Keidel was also bullish about China’s economic prospects and its potential global influence. He projected China would overtake the US economy, in dollar terms, by 2035 and almost double it by 2050. In PPP terms, China’s economy would overtake the US in 2020 and almost double it in 2040. He assumed China’s real growth rate would decline only gradually from 9.5 percent in 2010 to 5.5 percent in 2050.\textsuperscript{167} Keidel expected that with an economy double the size of the United States, China would assume “global commercial and institutional leadership”, including leadership of international organisations such as the United Nations, the World Bank, and the International Monetary Fund (IMF). The US, like Europe, would have “an important secondary influence” but its scope for unilateral action would be increasingly constrained. He thought that later in the century China could, if it wanted, become “a major – and possibly the leading – global military power”.\textsuperscript{168}

Keidel believed China was well able to cope with future challenges. It had evolved “a maturing, increasingly sophisticated decision-making system that is results-oriented”. Its economy had become “a multi-tiered moneymaking machine”. Many of its challenges were similar to those that had been faced and overcome by other

\begin{footnotesize}
\textsuperscript{164} Measurement of China’s GDP in terms of purchasing power parity (PPP) inflates the monetary value of China’s GDP by taking into account the fact that a standard “basket” of goods and services can be produced more cheaply in an economy with lower costs and prices than in the developed world. However, GDP is more commonly measured in terms of current market exchange rates (MER) where GDP values are expressed in US dollars. The numerical value of a developing country’s GDP is much higher in terms of PPP than at MER.

\textsuperscript{165} His calculations were based on the doubtful assumption that China’s economic growth would average 8.4 percent from 2000 to 2040.


\textsuperscript{168} Ibid., 6-7.
\end{footnotesize}
fast-growing Asian economies. He did not think pollution would choke off growth, and noted that Japan, South Korea and Taiwan had all passed through similar phases of serious pollution. Experience in other countries suggested, he said, that China might continue to develop participatory political mechanisms, including “an eventually more broad-based system of elections”.169

Optimistic perceptions of China’s possible future influence were further boosted by the publication in 2009 of a best-selling book by British analyst Martin Jacques with the attention-grabbing title *When China Rules the World*. He assessed that the hegemonic power of the United States was in decline – even though there was not yet widespread recognition of “the extent and irreversibility of that decline”. In this new context he believed China’s challenge to Western-style institutions and values would change the world profoundly. It was “inconceivable” that China would become a Western-style nation because it was the product of a unique history and culture. Jacques’ “underlying argument” was that China’s impact on the world would be as great as that of the US and “probably far greater”. Given that China promised to be “so inordinately powerful and different”, he found it “difficult to resist the idea that in time its rise will herald the birth of a new international order”. In the long term China would sponsor “a new China-centric international system which will exist alongside the present system and probably slowly begin to usurp it”. The US would “bitterly resist” this, with the consequence that “any transition will inevitably be tense and conflictual”. He speculated that “as the balance of power begins to shift decisively in China’s favour” the world might be divided into two spheres with East Asia and Africa under Chinese tutelage and Europe and the Middle East under the American umbrella; but such arrangements were “unlikely to be stable”.170

Somewhat surprisingly, in view of these clearly-stated conclusions, in the body of his book Jacques gave considerable credence to the sceptics’ views that there would be many potential obstacles to the sustainability of China’s economic growth. He believed continued rural-to-urban labour migration might sustain China’s economy “for at least the next five to ten years, perhaps longer” but there were “no

169 Ibid., 7-13.
guarantees”. There were “powerful reasons” for believing China’s current growth model was unsustainable. It was over-dependent on investment and income inequality was creating growing social tensions.\footnote{Ibid., 163-174.} Jacques risked further undermining the credibility of his optimistic viewpoint by admitting that his approach rested on assumptions that “might prove to be wrong”. He conceded that China’s economic growth would “certainly decline” and thought it also likely there would be profound political changes, perhaps including “either the end of Communist rule or a major metamorphosis in its character”. He continued to maintain, however, that China was “destined to become one of the two major global powers and ultimately the major global power”. In his final chapter he explicitly stated that he assumed China’s rise would not be derailed. He added that what would demolish his argument was if it for some reason “implodes”; but he though this unlikely, even though it could not be excluded. Instead he expected China would continue to grow stronger and ultimately emerge over the next half-century or less as the world’s leading power.\footnote{Ibid., 363-364.}

Jacques was ambivalent about the future international posture of a Chinese superpower. On the one hand he believed it would begin to display “a millennia-old sense of superiority” and acquire “the interests and instincts of a superpower”. But on the other hand (and rather incongruent with his book’s title), he also believed that in an important sense China “does not aspire to run the world because it already believes itself to be the centre of the world”. Hence it might be “rather less overtly aggressive than the West has been”, but that didn’t mean it would be “less assertive or less determined to impose its will.” Jacques believed China’s “global hegemony” was likely to grow over the next half century with traumatic consequences for the West. The West would discover “that the world is no longer Western”. He thought the biggest danger was that the US would adopt an aggressive stance, treat China as an enemy, and seek to isolate it.\footnote{Ibid., 392-394 and 409-413.}

In his concluding remarks Jacques observed that the prospect that China would fundamentally transform the world had been “consistently downplayed”. It was “the
elephant in the room that no one is quite willing to recognize”. He believed that a country that saw itself “for both cultural and racial reasons, as the greatest civilization on earth” would “clearly in time require and expect a major reordering of global relationships”. All this was well into the future because for the next twenty years or so, while China modernised, it would “remain an essentially status quo power”. However, in the longer term Jacques was concerned about the consequences of China’s “overweening sense of superiority and the hierarchical mentality this has engendered”. But, again qualifying his earlier comments, he argued that the decline of the West would not be followed simplistically by a Sinocentric world because China’s rise was only “part of a much wider phenomenon, an increasingly multipolar world and the proliferation of diverse modernities”. The new world “at least for the next century” would not be Chinese in the way that the previous one was Western, but China would “increasingly be in the ascendant and eventually dominant”. Jacques closed with a brief comment that an “unknown” for China was the effect of its growth rate falling “below 8 percent, perhaps to 6 percent or much lower even”, which could present “the biggest test Chinese society has faced since 1989”. But he added that if China continued to grow despite the global recession at 6 to 8 percent, while Western economies entered negative or near zero growth, this would significantly accelerate China’s ascendancy.174

Jacques’ book provoked a vigorous riposte from Minxin Pei in an article titled Why China Won’t Rule the World. Pei noted that predictions of Chinese dominance seemed to impress everyone but China itself. China’s leaders were, he believed, more concerned with domestic stability than with projecting itself on the international stage – because they understood how difficult China’s domestic challenges were and “how quickly fortune can turn”.175 The most trenchant review, however, came from Andrew Nathan who noted that despite his “breathless title” Jacques actually seemed unsure of China’s prospects. His “zigzag logic” left readers wondering whether China would “rise or founder”. Nathan also objected to the “overheated and oftentimes downright scary language” employed by Jacques to predict “a coming reversal of

174 Ibid., 429-434.
dominance” between the West and China. Most of these predictions had “already happened” and were not cause for “histrionic alarm”. He observed that Jacques’ “on-path predictions” were the safest to make because “most of the time things do move in the same direction”, but they did not do so “forever”. Sooner or later Nathan believed “something unpredictable will occur” – for example, “democratization or system collapse”.¹⁷⁶

Despite such criticism, by mid-2011 Jacques’ optimism seemed if anything to have grown. He saw China’s economy overtaking the US by 2020 if not earlier. Within “a decade or so”, the renminbi would become the dominant world currency, the IMF and World Bank would be marginalised by China’s influence, and Shanghai would replace New York as the global financial centre. China would achieve “global hegemony” in a world shaped by itself rather than by the US. Jacques believed this “Chinese world” needed to be understood and embraced because “willy-nilly …. it will come to pass”.¹⁷⁷ In 2012 he predicted that within two decades China would steadily usurp the US as “the dominant global power”.¹⁷⁸

Collectively Shenkar, Keidel and Jacques probably mark a high tide in expert expectations about China’s likely future dominance in world affairs. The optimism of many of their colleagues was frequently less fulsome and more qualified by awareness of the massive challenges it confronted. But although more cautious the views of many of these experts could still be readily described as optimistic. For example, from the mid-2000s the notion of China’s possible fragmentation and disintegration became increasingly discredited. Barry Naughton and Dali Yang remarked on the irony that concern about fragmentation had developed in parallel with a contrary view that stressed China’s “irresistible emergence” as a great power. These contrasting assessments both extrapolated trends in “an alarmist and one-sided fashion”. Given that China had in fact been able to sustain national unity, they

¹⁷⁸ Martin Jacques, “Why do we continue to ignore China’s rise: Arrogance,” Observer (25 March 2012). However, Jacques further muddied the waters in an interview with Australia China Quarterly on 11 October 2012 in which he remarked that the title of his book was “ironic” and “not meant to be taken literally”.

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thought it most relevant to examine the centripetal forces that were holding it together rather than those that were allegedly pushing it apart.\textsuperscript{179}

Compared to his pessimistic views in the previous decade, the mid-2000s also found Edward Friedman rather more confident in the ability of China’s authoritarian regime to maintain internal stability. He believed most Chinese were now preoccupied with grasping the opportunities presented by economic growth. He found it possible to imagine bursting economic bubbles, tensions over Taiwan, leadership infighting, and “a more militaristic and fascistic direction”; but on balance he thought that “at a great cost of gratuitous human suffering” China would hold together and continue to rise.\textsuperscript{180} A relatively optimistic assessment was also offered in a book edited by Hong Kong-based scholar Czeslaw Tubilewicz. He and other contributors agreed that forces had been released in China that were powerful enough to undermine the CCP’s rule and even tear the country apart; but he concluded that neither collapse of the CCP, nor collapse of China as a unitary state, nor large-scale social unrest, was likely.\textsuperscript{181}

Another expert who saw reason to be positive was former US Ambassador Charles Freeman. He thought it “not far-fetched” to consider that by 2025 China might have the world’s largest economy, and rule by law might have brought about “a high level of domestic predictability and tranquillity”. Habits of consultation and transparency, characteristic of democracy at its best, might have become integral to the CCP. China and the US might be leading the rehabilitation of the global environment, and establishing a presence on the moon; and a new global concert of major powers might be bringing about “a harmonious and largely peaceful world order”. Freeman recognised there were “many far darker scenarios than these”, but warned that all that was required to realise them was “to behave as if they are inevitable, and to


interact with China as though they were”. He argued that there was nothing more inevitable about pessimistic outcomes than about brighter possibilities.\(^{182}\)

Many optimists, interestingly, were professional economists. Apart from Albert Keidel, another who projected a positive outlook for China, and backed this up with some well-structured arguments, was UBS’s Jonathan Anderson. He noted that “the myth of China’s collapse” as typified by Gordon Chang was “wearing thin” and asked: “So which is it? Is China the world-beating juggernaut … or a fragile, stagnating economy on the verge of disintegration?” He thought the answer was neither. Most claims about China’s looming economic supremacy were “egregious overstatement”, but it was also “far from collapsing”.\(^{183}\) Anderson noted that if “like most vocal detractors” you wanted to portray China as “a basket case, with chronically loss-making firms, excessive bureaucratic intervention and highly distorted incentives”, this could be supported by relevant data; but if on the other hand “like most vocal champions” you wanted “to trumpet the state role as positive and pro-market, with healthy companies and limited interference”, this could also be supported. He favoured the latter position and was adamant that the economy was “not heading for disaster”. Regarding the main alleged show-stopper, namely China’s banking system, he maintained the state banks were “far from basket cases”. Regarding a second alleged show-stopper, China’s aging population, he argued this problem would probably be “not overwhelming”.\(^{184}\)

Regarding China’s future economic outlook, Anderson concluded that it fitted exactly the Asian growth model and should have little problem sustaining average real growth of 7.5 to 8.5 percent over the following two decades. He anticipated “surprisingly few major pitfalls” and felt most of the alleged dangers were overblown. Noting that China’s rise to date had been breathtaking, he nevertheless thought it fair to say: “you ain’t seen nothing yet”. By 2025 he predicted China’s economy would be the largest in the world.\(^{185}\)

\(^{182}\) Freeman, “China in the Times to Come.”
\(^{184}\) Ibid., 3-4, 36-37 and 77-78.
\(^{185}\) Ibid., 147 and 194. See also Jonathan Anderson, “China’s True Growth: No Myth or Miracle,” *Far Eastern Economic Review* (September 2006), 9-10.
In a debate with Minxin Pei, Anderson congratulated him on “an engaging review of long-term challenges”, but denied he had made the case for a looming crisis. Anderson readily agreed that China’s rise was not inevitable, but considered the risks of the economy derailing were “much lower than commonly believed”. China’s rise was “not some hazy prospect shimmering on the distant horizon, but a concrete reality”. It didn’t need 10 percent growth – 8 percent would “do nicely” and even 6 or 7 percent would only push back the target by a few years. Economic failure would not occur without “a massive disturbance or outright crisis that derails growth for a long, long spell – and you need it fairly soon”.186

Meanwhile, a consistently positive appraisal of China’s likely future prospects was also upheld over a long period by Australian economist Ross Garnaut. He played a central role in a series of meetings of professional economists from Australia, China and elsewhere who gathered at the Australian National University for annual China Update conferences. Garnaut initially – in 1999 – took a cautious stance, noting that the modernisation of China’s economy was such an immense undertaking that it would be “inevitably challenged” and would not proceed “in logarithmic straight lines”. Nevertheless he believed it unlikely that the risks China faced would lead to economic collapse. It would be capable of returning to its growth path “whenever it is temporarily knocked from it”. He assessed that it would be “a natural and in no way a miraculous outcome” if growth continued thereafter until its living standards rivalled those of the world’s most advanced economies. He forecast that economic output would double each decade and that by 2020 China would be the world’s second largest economy in dollar terms.187 Few others at this time shared such optimism, even though it proved an underestimation when China became the second largest economy in 2010.

Garnaut later argued that China would catch up with other countries sooner than most would expect because the use of market exchange rates (MER) to compare

186 Pei and Anderson, “The Color of China”.
187 Ross Garnaut, “Twenty years of economic reform and structural change in the Chinese economy”, in Ross Garnaut and Ligang Song, eds., China: Twenty Years of Economic Reform (Canberra: Asia Pacific Press, 1999), 9 and 24-25.
national incomes undervalued the incomes of developing countries.\textsuperscript{188} He was more concerned about China’s political situation, noting the likelihood of increased pressure for “wider participation in selection and control of national executive government”. Unless this was accommodated before China became a high income country, it could lead to “loss of internal cohesion and order”.\textsuperscript{189} He later also drew attention to another “rapidly emerging point of contention”, namely that China’s growth was accelerating global warming toward “critical points” and therefore raising difficult questions about the sustainability of that growth.\textsuperscript{190}

In 2005 Garnaut commented that predictions of China’s inevitable failure had been shown to be “already wrong”. The pessimists and other “legions of commentators” who said its economy would not succeed were “scrambling out of the dustbin of history”. Even the optimists had been “too timid in calling the scale and speed” of its growth. He acknowledged that China’s economy was under “immense stress”. The “wiser optimists” had always recognised there would be “bumps in the road, false turns … and detours”. They recognised also that the transformation of an authoritarian political system would be fraught with risks during China’s “inexorable but uneven emergence”. Nonetheless he thought there was reason for unprecedented confidence that it was “on course” to catch up with the world’s advanced economies.\textsuperscript{191} China’s comparative international trade advantage would shift rapidly from labour-intensive to technology-intensive products.\textsuperscript{192}

Another Australian who, on balance, offered a positive prognosis for China’s internal development was Hugh White. He expected its economy would “keep growing fast for another few decades” even if there were “bumps along the way”. The CCP had

\textsuperscript{188} Ross Garnaut, “Catching up with America”, in Ross Garnaut and Ligang Song, eds., \textit{China 2002: WTO Entry and World Recession} (Canberra: Asia Pacific Press, 2002), 5 and 11. Garnaut noted it had become conventional to query China’s growth statistics, but he believed them to be “not wildly misleading”.


presided over “an economic transformation of unparalleled size”. He noted, however, that it was uncertain whether China had established “a durable political and social base”. There was therefore a real chance that it might “stumble”, but equally it might not. White thought none of China’s problems were “a certain show-stopper”. Regarding Western doubts that it could succeed within a communist system he saw two possibilities. It could “defy history” and keep growing without changing its political system, or it could change that system. White thought China’s international influence would also increase, but he did not believe it would “rule the world” because no matter how much it grew – even if it overtook the US economy – there would still be “too many other strong states to contend with”.  

Although both are comparatively rare, optimistic projections by Chinese writers about their country’s future have been equally as uncommon as the pessimistic projections noted earlier. For example, in the early 2000s two Chinese authors with official and academic backgrounds, Wang Zhan and Huang Renwei, noted that developments in contemporary China would have been unimaginable twenty years previously, and they suggested that the nature of changes twenty years hence would be “even harder to imagine”. There would be “no turning back” in China’s modernisation, even though it confronted difficult challenges. They complained, not unreasonably, that numerous international strategic thinkers had failed repeatedly to appreciate that China’s development potential far exceeded the constraints and that “all sorts of lurking dangers” had already been put to rest. Predictions of China’s collapse had therefore missed the mark “time and time again”. 

Meanwhile, a new champion of Chinese optimism has emerged. Hu Angang, a well-known economist and influential adviser to the Chinese government at Tsinghua University, has been conspicuously upbeat about China’s prospects, providing probably the most comprehensive forecast of China’s future outlook by a Chinese author. In his 2011 book China in 2020: A New Type of Superpower he stated there was “no question” in his mind that China would become a superpower. Moreover, he asserted it would be “a mature, responsible, and attractive superpower”. He rejected

“fallacies” such as that China was a bubble economy or that it might collapse. To become a superpower he reasoned that China needed to catch up with and surpass the United States in “economic power, human resources and human capital, science and technology achievements, and the ability to address climate change”. He thought China was “trending in this direction” and that by 2020 it would attain superpower status, thereby ending “the era of American hegemony” and marking a shift “from unipolarity to a multipolar world dominated by the United States”. However, he judged that this new “era of great powers” would be “defined less by competition than by cooperation”. The great powers would be increasingly integrated economically, with “shared interests far outweighing potential areas of conflict”. China, he stated, would not seek hegemony or world domination or “be belligerent to other nations”. It did not want to replace the US and become “sole leader of the world”, but to work with the US on global challenges.¹⁹⁵

Hu assessed that by 2020 China would have the world’s largest economy (in PPP terms). It would also be “the global leader in innovation … the largest environmentally friendly society, and … a new base for contemporary world civilization”. He believed China was still in the takeoff stage of economic development and assumed its GDP would continue to expand at 8-9 percent “for quite some time”. By 2020 China would overtake the US and Japan to become the largest science and technology power. However, Hu conceded that whether China would become a superpower by 2020 was still “rife with uncertainty”. It had already become “the superpower of natural resource consumption and greenhouse gas emissions” and as a result would face mounting international pressure.¹⁹⁶

¹⁹⁶ Ibid., 22, 33-36, 95-110 and 157-158. In his Introduction Cheng Li described Hu as “a champion of Chinese optimism and exceptionalism” who had also “eschewed triumphalism”.

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5 ACKNOWLEDGING UNCERTAINTY

The preceding chapter illustrates the great divide that has characterised much of the expert debate about China for more than two decades. Neither the pessimists nor the optimists seem willing to draw back from their entrenched positions. Some of them displayed, in their inflexible defensiveness, many of the characteristics of Tetlock’s hedgehogs. It is important to distinguish, however, that although there has been a clear polarisation of expert opinion there have nonetheless been many pessimists and optimists (perhaps especially the latter) who have been less fervent or unequivocal than others. As shown in Chapter 4, many were prepared to acknowledge the contingent nature of their judgements and even the possible merits of contrary views.

Still other experts cannot be clearly labelled as either pessimists or optimists, no matter how cautious. They cannot be categorised in either of these groups because they accepted more readily the fundamental uncertainty of China’s future. This has driven them in many cases to pursue other approaches that permit them to acknowledge and confront this uncertainty. Like Tetlock’s foxes they are often more empirical, less predisposed to one argument or another, and willing to consider other viewpoints. They may be more concerned about expert subjectivity and bias, and about excessive reliance on intuition, ideological agendas, theoretical assumptions, or on a single big idea. They may display greater humility in the face of uncertainty, and be more willing to reassess their views over time. They include many experts who have come to believe that China’s prospects are essentially uncertain, unpredictable or dependent on evolving circumstances. The views and approaches of such experts are considered in this chapter.

5.1 Expert Responses to Uncertainty

One such expert was Avery Goldstein. He observed that forecasting was “fraught with uncertainty”, to the extent that predictions about rapidly changing systems such as China’s might be “an exercise in futility”. It was difficult when analysing “smaller pieces of the big picture” to identify “the most important forces at work and their likely consequences”. Deductions that were almost sure to be wrong included those that relied on “simplistic historical analogies” or on “excessive confidence in the indeterminate implications of social science theories”. He wished his own
assessments to be considered not as specific predictions but as “a modest attempt to highlight the key issues and forces”. 197

The difficulty of assessing China’s future has probably been most eloquently encapsulated by veteran China watcher Orville Schell. He commented that “the more one knows about China … the more difficult it is to assess its successes, much less prognosticate with any certainty about its future trajectory.” Noting the division between those who were either impressed or sceptical about China’s prospects, he suggested that in truth “both contradictory versions of China are real”. This was so because China was “in the process of one of the most tectonic and monumental transitions of any nation in the last hundred years”. He noted that even China specialists with many years of experience were confused by the fact that it “embraces within it contradictions that can lead even an astute observer to equal and quite opposite analyses of its health and its future”. He believed China’s stunning development might have come with “a hidden price which will only slowly come due”. In sum, he thought Mao’s view that the best way to understand a situation was to examine it through “the lens of contradiction” was still relevant to contemporary China, and “perhaps the only way to make sense of it”. 198

In a fascinating interview Schell explained that what made China difficult to prognosticate was that opposing scenarios were “almost equally plausible”. He could argue the collapse scenario and be “utterly convincing”, and also “quite compellingly” argue the peaceful evolution scenario. He believed all one could say about China was that it was “incredibly unresolved”, more so than any other country of consequence. He stood in awe of China’s ability to unleash “very dynamic, tectonic market forces” and still be able to maintain political control. But the million dollar question was whether this would last. He thought it even “somewhat counterintuitive” that China could resolve itself in a tidy fashion. In 1989 he would not have thought China could come so far, but he still believed it would be very difficult for the CCP to overcome China’s “very, very severe and ever tightening

197 Avery Goldstein, "Political Implications of a Slowdown," *Orbis* 43, no. 2 (Spring 1999), 203-221. Goldstein’s caution was appropriate because his own forecast about China’s economic prospects in the new century also proved inaccurate. He specifically ruled out a “much better than expected” scenario in which China would return quickly to double-digit growth.

contradictions”. He wondered how long China could go “without an economic downturn, an environmental catastrophe, a famine, a flood, a war, something?” A global downturn would also “really mess things up” because growth was the CCP’s “only source of real legitimacy”. Many Chinese were apparently happy with authoritarianism, but there also seemed to be “an ineluctable urge for people to have transparency, openness, a voice and participation”.

At times Schell appeared to lapse into pessimism. He accepted that even the most sceptical critics were “amazed at China’s developmental prowess”. But he considered that no other country of global consequence was “more in a state of irreconcilable contradiction”. It was in the midst of “a fevered but precarious transition”. He feared that a “destructive collision” between the CCP and various centrifugal forces seemed “almost inevitable”. China’s economic miracle was built on “a pyramid of dreams”. If its economic fundamentals weakened a collapse of confidence might be “frighteningly rapid and devastatingly destructive”.

Over the course of the past decade many other experienced China watchers echoed Schell’s sentiments. They acknowledged equally both the strengths and weaknesses of a rising China. Kenneth Lieberthal thought that if it effectively managed a number of major challenges China could in the three decades to 2033 become the world’s second most powerful country. But he cautioned that unpredictable obstacles were bound to arise, and that the “realistic array of possibilities” for China’s future was sobering. Willy Lam perceived China as “a bafflingly complex country” and a “bundle of contradictions”. There were in fact two Chinas: the China of the optimists, which was “an economic juggernaut” set to overtake the United States by 2030 and able to avoid implosion by using its wealth to defuse domestic tensions; and a China whose “overstretched social fabric” was “close to breaking point”, where even a minor mishap could “ignite a full-scale explosion”. Lam cited a Chinese Academy of Social Sciences (CASS) sociologist who thought China was at

199 Orville Schell, China’s Contradictions - and Possible Collapse (Global Business Network, September 2001).
200 Ibid.
201 Orville Schell, Red Star Rising / China - The Coming Collapse (RedHerring.com, 6 November 2002).
a crossroads – it could evolve smoothly or it could “spiral into stagnation and chaos”. Andrew Nathan also recognised both sides of the argument. He criticised Minxin Pei’s “purely negative account” for not presenting a balanced picture of China’s condition. It was taking steps to address its governance deficits and tolerated a rich internal debate about “the regime’s pathologies”. Pei ignored what Nathan saw as “the central fact of Chinese political life today: the power and unity of the central party elite”. But Nathan added that “even the most astute analysis of current trends may not accurately predict the future”. Major societal changes were “often disjunctive”, hence it was prudent to consider “wild cards” – such as a drastic weakening of the US economy, or a war between China and the US over Taiwan – that could derail China’s progress. David Lampton perceived “a marked paradigm shift” in thinking about China that threatened “to substitute one flawed framework (a ‘weak China’) for another (a ‘China on steroids’)”. The reality in his view was that China was “weak and strong simultaneously”. It was becoming a global economic force, but confronted huge developmental challenges that justified “reserved predictions” about its prospects.

Journalist James Kynge was equally if not more cautious, observing that the rise and decline of great powers could rarely be traced in a simple, linear fashion but was “full of twists and turns, false dawns and deceptive signals.” He was impressed by the emergence of China as “a palpable global force”. To the surprise of the rest of the world, and especially the United States, an authoritarian one-party state had succeeded in fostering a vibrant capitalist economy. However, predictions that China would become the world’s most powerful economy might be flawed because the process by which China was turning back the clock was “full of human suffering, alienation and longing.” China was: “like an elephant riding a bike. If it slows down, it could fall off.” But he was not uniformly pessimistic, hoping that China’s

205 David M. Lampton, "Paradigm Lost: The Demise of 'Weak China'." The National Interest (Fall 2005), 73-75.
pragmatism would supply a counter-argument to gloom and doom scenarios.\textsuperscript{206} George Walden likened China’s journey to a trip on the Shanghai Maglev train where the passengers “gaze at the scenery zooming past part in wonderment, part in apprehension”. He proposed that those outside China should emulate them, marvelling at the ride but also “alert and apprehensive”.\textsuperscript{207} Joseph Fewsmith thought the question was whether the Chinese model could be modified incrementally or would be bent to the breaking point, and if the latter was the outcome then change could be rapid and unpredictable.\textsuperscript{208}

Uncertainty also marked British analyst Kerry Brown’s views about China’s prospects, although he tended toward pessimism. He was confident China would continue to advance, but also impressed by the scope for serious setbacks. Its future was “a delicate balance” that could be upset by unforeseen events. He wondered whether, looking back on China in ten or twenty year’s time, the mid-2000s might be seen as “the period of over optimism”, comparable to earlier optimism about Japan.\textsuperscript{209} If it could manage its internal transition it could become one of the dominant global powers, but this was “a big if”.\textsuperscript{210} Brown doubted the CCP had the vision and global perspective to deal with future issues. By 2020 per capita GDP could reach a level where the population would demand action. Even if the CCP maintained its monopoly of power “it may well end in terrible bloodshed”.\textsuperscript{211} Brown was also ambiguous about China’s international impact. He thought it would be constrained by the reality of economic interdependence and by the continued “strategic dominance” of the US, but as it became stronger it would become “more assertive”. Even so, he saw an opportunity to frame with China “a new international settlement” that would help ensure the West and China did not clash needlessly.\textsuperscript{212}

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\textsuperscript{207} George Walden, \textit{China: A Wolf in the World?} (London: Gibson Square, 2008), 18-19, 244-246 and 271.
\textsuperscript{208} Joseph Fewsmith, ed. \textit{China Today, China Tomorrow: Domestic Politics, Economy, and Society} (Lanham, MD: Rowman & Littlefield, 2010), 278-283.
\textsuperscript{209} Kerry Brown, \textit{Struggling Giant: China in the 21st Century} (London: Anthem, 2007), 139-141.
\textsuperscript{210} Kerry Brown, "How China is Weaker Than it Looks," \textit{The Diplomat} (12 October 2010).
\textsuperscript{211} Kerry Brown, "China Will Get Democracy," \textit{The Diplomat} (8 April 2010).
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Diversity of opinion among China experts was clearly evident in a stocktaking exercise undertaken in 2008 by China Security journal, which canvassed opinions about China’s future from a disparate group of contributors. This revealed an eclectic range of views and reflected substantial ambiguity and confusion about China’s outlook. The journal had invited “leading thinkers” from inside and outside China to contribute short reflections. The Editor likened this experiment to the famous story of blind men investigating an elephant, with each one having a different perception depending on which part of the elephant they encountered. Comprehending such a rapidly changing country as China seemed “a similarly confounding task”. If any consensus was discernable, it indicated “deep uncertainty” about China’s prospects.213

The challenge of uncertainty was eloquently addressed in a 2011 book edited by David Shambaugh. As he put it: “The only thing that is completely predictable about China’s future is its unpredictability.” The forecasts of some Sinologists had proved “insightful and reasonably prescient” but many had foundered, often due to “mistaken attempts to impose logics, ideologies and analyses developed outside, or templates developed for the study of other systems and societies”. China was “not completely sui generis” but it had “its own intrinsic dynamics”. Contributors to the book, Shambaugh stated, were all appropriately cautious in their forecasts. None predicted “cataclysmic change” in the short- to medium-term, but they were not complacent. They anticipated a “dynamic stability”. Shambaugh accepted that should this “evolutionary rather than revolutionary perspective” be proved wrong, they risked subsequent ridicule by “the handful of noted American Sinologists who have been predicting wrenching and systematic change”.214

The range of expert opinion canvassed above illustrates amply that the views of pessimists and optimists clearly did not constitute the full spectrum of opinion about China’s future. The middle ground was well populated by those who accepted the omnipresence of uncertainty. The remainder of this chapter considers other approaches developed by experts in their attempts to manage the problem of

213 "Debating China's Future," China Security 4, nos. 2 and 3 (2008), 2-26 and 3-31 respectively.
uncertainty – including focusing attention principally on possible disruptors of China’s progress, and using expert groups to attempt to reach a greater degree of consensus. The following chapter discusses another approach that attempted to address uncertainty by considering a wide range of alternative outcomes – namely, scenario construction.

5.2 What Could Go Wrong?

Some experts chose a different way to address the issue of uncertainty. Putting the positives to one side, they concentrated only on the question: “What could go wrong?” This was an innovative approach. In practice, however, although most of these experts were more open-minded about China’s prospects than the pessimists they tended to also emphasise the likelihood of negative outcomes. Most were sceptical that China’s rise could proceed uninterrupted given the abundance of potentially disruptive challenges it would likely face.

An early example of this approach was a project in the early-2000s, led by Charles Wolf at RAND, which provided what one reviewer described as “a usefully sober alternative to the familiar rosy scenario”. The report sought to identify and assess the “potential adversities or fault lines” that might cause China’s economy to “go seriously awry” during the following decade. Potential fault lines were examined in eight areas: unemployment, poverty and social unrest; the 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 (SOEs); trends in foreign direct investment; and Taiwan and other potential conflicts.

Having identified these fault lines the report attempted to assess how severely China’s economy would be affected if they occurred “separately or in clusters”. It claimed to offer a countervailing perspective to an alleged “generally prevailing consensus, with a few notable exceptions” that China could maintain high growth indefinitely. 215

Wolf and his team attempted to quantify the possible negative impact on China’s GDP of each potential fault line. They estimated that this impact could range from a

reduction in GDP of 0.3 to 0.8 percent in the case of a deterioration of unemployment, poverty, and social unrest, to a reduction of 1.8 to 2.2 percent in the case of HIV/AIDS and epidemic disease. These percentages were calculated on the basis that each fault line occurred in isolation. The probability that none of these individual setbacks would occur was deemed to be low and that all would occur lower still, but it was considered likely that if one or two adversities occurred the interdependencies or cross impacts would raise the probability that other adversities would also occur. The authors of this intriguing method conceded that their results begged the question of how long each of the adverse effects would endure without inducing remedial measures. The project displayed commendable creativity, although the credibility of its attempt to quantify the likely impacts on GDP of each of the fault lines was certainly open to question.

Another paper that concentrated on negative trends was produced by June Dreyer. She discussed the potential impact on China’s growth of possibly-underestimated population growth, growing disparities between rural and urban incomes, inadequate social security, high levels of unemployment, an unstable financial system, widespread corruption, adverse effects of globalisation, energy constraints, environmental destruction and water shortage, as well as international issues such as territorial disputes. She assessed that these factors, which interacted with subtle and unpredictable effects, could jeopardise China’s development. Although she did not see any reason to predict China’s imminent collapse, she thought negative trends were likely to prevent China from “becoming the new hegemon, or even a superpower, any time soon”.

Similarly, in an article titled “What Could Go Wrong with China?” financial journalist Jonathan Laing expressed concern that China inspired so many superlatives and thought “Sino-euphoria” was overdone. He produced a long list of things that could go wrong including a rapidly aging population, health risks, environmental impacts, corruption, and income inequality. Even “China bulls” were

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216 Ibid., xvi-xxi.
217 Ibid., 6 and 169. Also questionable is why the study did not address other, and possibly more important, potential fault lines. It acknowledged that its coverage was “selective, rather than exhaustive”.
worried about its “investment frenzy”, as well as its shaky banking system, unemployment, economic inefficiencies, and geopolitical tensions. Meanwhile, he described Beijing as capable of “blatant thuggery”, and of “rapacity and naked self-aggrandizement”. He believed the risk of political instability and social unrest made China’s future unpredictable.

Former US Deputy Assistant Secretary of State Susan Shirk also emphasised the fragility and vulnerability underlying China’s apparent success. She expressed relative confidence in its economic prospects, but like many others highlighted a long list of domestic risk factors. China could be “ambushed by a political or economic crisis”. From the outside it looked like a powerhouse, but to its leaders it seemed to be “overwhelmed by internal problems”. These could cause it to behave rashly in dealing with external issues. She saw China as a brittle, authoritarian regime with “a deep sense of domestic insecurity”. Although it was an emerging superpower it was therefore a fragile one, whose progress could easily be upset.

Another analyst who focused on what could go wrong was Wing Thye Woo. He sought to identify the “high-probability challenges” to China’s continued high growth. Compared China’s economy to a speeding car, he identified three types of failure that could lead to a crash, namely a hardware failure, a software failure, and a power supply failure. The most likely hardware failure, he predicted, would be economic breakdown – comparable to a broken chassis. The most likely software failure would be a flaw in governance that created widespread social disorder – comparable to a fight among the occupants of a car. He believed the most likely power supply failure would be “a natural limit or an externally-imposed limit” – comparable to running out of fuel or having the engine switched off. In a later analysis, Woo emphasised the risks raised by the Chinese people’s rising expectations of their government as their knowledge of the outside world expanded.

219 Jonathan Laing, ”What Could Go Wrong With China?,” Barron’s (31 July 2006).
221 Wing Thye Woo, What are the High-probability Challenges to High Growth in China? (Brookings Institution, 2007).
He agreed with Minxin Pei’s portrayal of a trapped transition, but acknowledged that enlightened self-interest might triumph.222

Nicholas Eberstadt also questioned whether China’s ascendency was assured. He thought it worthwhile to consider “other plausible possibilities”, including economic, political or military risk factors that might “complicate, hinder, or entirely forestall” China’s rise. He assessed that one of these “wild cards” was a collapse of the CCP, another was an economic slowdown, but the most apparent risk arose from “the quality and capacity of governance”.223 Eberstadt observed that the difficulty with assessing alternative futures was “in having any presentiment today that such seemingly unlikely visions might actually unfold tomorrow”, but there was one trend that had “a high degree of regularity and even predictability”, namely China’s demographic outlook which he claimed had been a factor “largely neglected” by those who assumed a rising China. Furthermore, he believed the implications of China’s demographic trends were “on balance clearly unfavourable” and that they would place considerable pressure on its economic performance, weaken its social capital, and lead to increasingly arbitrary authoritarianism.224

The consequences of things going wrong were also debated by Ross Terrill and David Lampton. In an essay that considered the question: “What If China Fails?” Terrill favoured “The Case for Selective Failure”. He believed the most likely setback would be a sustained economic slowdown and that other possible triggers included social protest, ethnic unrest or a military conflict. Among areas of potential failure that might actually be advantageous he nominated, first, an end to the CCP’s political monopoly and, second, China’s inability to eclipse the US. He judged that China was “almost certain” to fail in eclipsing the US, while the CCP’s demise could lead either to a more sustainable political system or to “chaos”.225 In response, Lampton emphasised that it would be very much in the interests of the rest of the world if China did not fail and he believed the likelihood of large-scale failure in fact

224 Ibid., 132-153.
was “extremely low”. But he saw at least three paths that could lead China to fail, and if one of these began to unfold it would probably “cascade into the others”. First, various issues could lead to economic disaster; second, there could be a political breakdown, especially over the pace of political reform; and, third, China could reach its ecological limits. Overall, however, Lampton believed China would continue to enjoy vigorous growth for “the next couple of decades”. He thought its success would pose challenges but this would still be a far better outcome than the prospect of its failure.226

5.3 Expert Groups

Up to this point, this chapter has concentrated on the evolving opinions and analytical approaches of prominent individual experts. However, contemplation of China’s future has naturally not been the exclusive preserve of individuals. Within and across international organisations, business, government, academia, research institutes, and think tanks, there has been extensive collaboration between experts in an effort to capitalise on their combined skills and knowledge. This section comments on the achievements of some of those group endeavours. It is notable, however, that the literature reveals only infrequent evidence of serious effort to combine expert judgements and reach consensus. There have been many, many instances where experts have come together to share their expertise – through conferences and edited books, debates and discussions, and collaborative research and analysis – but relatively few cases where this has resulted in documented attempts to reconcile the conflicting views of individual experts.227

It is perhaps surprising that one of the most concerted attempts to shape a consensus of opinion among a group of China experts was also one of the earliest, occurring in the period immediately before Mao’s death. This took the form of a Delphi study coordinated by Vaclav Smil. Fifty experts from mainly Western countries were invited to participate, and twenty accepted. The exercise involved three rounds of


227 One of the main exceptions was where large numbers of analysts contributed to the development of quantitative models to project economic and environmental trends, as will be discussed in Chapters 8 and 9. Studies by international organisations and by commercial and government agencies also typically combined the expertise of many analysts, although the process was often not transparent.
questioning between November 1974 and March 1975. The experts were asked to give their views on a consensus list of the most “critical problems” affecting China’s future between 1975 and 2000, and on the likelihood and probable timing of twenty different major events. Of these events the most likely was assessed to be the emergence of a new “revisionism” in which revolutionary radicalism would be replaced by a more pragmatic style of governance. The chance of a leadership succession crisis was listed second. Interestingly, in view of forecasts in later years, the prospect of regional fragmentation, and of a collapse of the CCP, were among the lowest ranked. In Smil’s opinion Delphis were “just an exploratory tool” with obvious limitations, but they were useful where there was a high degree of uncertainty and disagreement. He thought criticisms of this technique often misrepresented it. Delphis seem now to be out of fashion, having perhaps become excessively complex and exacting in their application. But it seems regrettable, especially given the relative success of Smil’s Delphi, that no other such exercises focused on China have ever been attempted.

One of the biggest supporters of efforts to bring experts together to forecast China’s future was the US government. Some of this research, and especially that of the RAND Corporation, has made its way into the public realm. In 1995, for example, a RAND project attempted to identify indicators of potential adverse change in the Asia-Pacific region over the following 10-15 years. The resulting report, coordinated by Michael Swaine, was supported by “the labours of many individuals” including US scholars and officials. It was cautious in many respects but nonetheless came to some quite bold and specific conclusions, often contradicting the pessimistic views of previous authors. For example, it correctly forecast that domestic changes in China would “almost certainly not produce a significantly more democratic and pro-Western Chinese regime”. Neither would they “lead to the emergence of independent regional power centers or the complete breakdown of political rule in China”. The report predicted accurately that China’s authoritarian government and its current foreign policy stance would probably “continue for many years … marked by overall caution and pragmatism, a recognition of the need for a placid regional environment to permit a continued emphasis on economic reform, and a balancing of both

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cooperation and competition with the West”. Offsetting these rather positive conclusions, the report highlighted the influence of the Chinese military and of “ultraconservative nationalistic sentiments”. It thought sustained high economic growth and military expenditure could precipitate “highly adverse shifts” in China’s domestic and foreign policies.229

Two years later, in 1997, a joint study by RAND and the Pacific Council also included participants from diverse professional backgrounds. They met eight times – four hours each session – and to their surprise reached a consensus that they did not see China “as an inevitable and implacable enemy, nor as a country likely to collapse”, but they also stressed the multiple uncertainties China faced. They rejected pessimistic views expressed “with increasing frequency” in the US that China was a totalitarian and oppressive country, that it clearly intended to become “the dominant power in Asia and possibly the world”, that it would be unable to reform itself, that its disintegration had already begun, and that the regime was “heading for the dustbin of history”. The study also rejected an “optimistic view” that China’s inevitable economic growth would “propel it towards political liberalization and ultimately democratization”. It stressed the uncertainties, vulnerabilities, risks, openness, and complexities of China’s future. It also spent some time demolishing what participants called the “conventional wisdom” – which ironically rather closely resembled the actual outcome – that the Chinese economy was “on a trajectory of rapid growth likely to last for many more years, perhaps decades”, and that it was “a looming power and rival to the United States”. Straight-line projections that China would continue to grow at nearly 10 percent a year were considered unlikely.230

Another significant attempt by US experts to reach a consensus about China’s future prospects occurred in the context of a 1998 conference. Participants adopted the approach of concentrating on the various factors that either contributed to, or detracted from, stability in China. Some expressed quite negative views. David Shambaugh thought that the systemic conditions for regime decay or collapse were present. Bruce Dickson thought a revolutionary situation could develop “quickly and unexpectedly” and fundamental political change could then be “sudden and

229 Michael D. Swaine, China: Domestic Change and Foreign Policy (RAND, 1995), xiii-xiv.
tumultuous”. Dorothy Solinger, on the other hand, believed the coercive power of the state could be brought to bear to contain social unrest. H. Lyman Miller agreed that the CCP was capable of taking the initiative and being “the main author and the conscious agent” of change. The majority judged that factors favouring stability were dominant for the present, but that no reasonable analyst should assume this would continue indefinitely. Any predictions should be relative and contingent because they had “all too often proven wrong”. 231

Another assembly of US experts, who described themselves as the Aspen Strategy Group, met in the mid-2000s. They included senior figures from government and business as well as participants from China. A disparate range of views emerged, many of which were quite pessimistic. In his “Scene Setter” Kurt Campbell thought it an “essential truth” that the United States would not experience transition in its power relationship with China easily. Randall Schriver perceived that China’s leaders were also comfortable with a confrontational approach. Wang Jisi at Peking University said there had been “an unprecedented number of heated debates” among Chinese analysts in which some optimists predicted that China would catch up with the US economically in 20 years, while others disputed what they saw as “exaggerations of China’s strength”. 232 The conference process had some success, nevertheless, in producing consensus. Campbell reported “near universal acknowledgement” among participants that for the foreseeable future China’s leaders would be “profoundly focussed” on domestic goals, which would require a stable international environment. With regard to US-China relations, however, participants envisaged two potentially diverging paths – one of relative stability and coexistence, and another characterised by “a host of frictions”. Despite “much discussion” there was “no apparent consensus” about which of these paths was the most likely. 233

Also in the mid-2000s, two US think tanks – the Center for Strategic and International Studies and the Peterson Institute for International Economics – commenced a significant new project that appeared initially to offer a promising,

232 Kurt M. Campbell and Willow Darsie, eds., China’s March on the 21st Century (The Aspen Institute, 2007), 14-20, 25-34, 86 and 131-142.
233 Ibid., 159 and 161.
large-scale, ongoing, and institutionally-supported approach for assessing China’s likely evolution and impact. They agreed, however, that this objective was “no easy proposition” and that efforts to develop a comprehensive and balanced perspective were “unfortunately clouded, even distorted, by the lenses through which various observers interpret what they see”. In an attempt to provide “a basis for sound and sensible judgements” about China’s situation the two think tanks decided to undertake a three-year China Balance Sheet Project. The initial product of this project was a book which aimed, ambitiously, to generate a “firm factual and analytical footing” for analysis of China’s development and its implications – as well as “one stop shopping” for those who wanted “to grasp, in a single place, both the basics and the complexities” of China. This demanding task was addressed by several prominent US China experts who aimed to provide “a comprehensive, holistic view”. They were assisted by an advisory committee of other high-level experts. The project would provide “thorough, objective information” as well as further analyses, publications, conferences, and a dedicated website. The book’s authors highlighted the need for “a serious, informed, and sustained debate on China’s prospects” and they aimed to provide “a badly needed foundation for that discussion” through “comprehensive, authoritative, and accessible information and analysis”.

In the event, however, it seems fair to conclude that the project failed to live up to these commendable but exacting aims. It appeared, like preceding efforts, to rely primarily on the views and judgements of individual experts, albeit highly qualified and experienced. They sought to address critical questions about China’s future within four basic categories, namely Continued growth or collapse?; Democratisation or disorder?; Economic opportunity or threat?; and Security partner or rival? Within this framework, the authors largely succeeded in maintaining a relatively balanced approach. Dealing with the question of economic growth or collapse, Nicholas Lardy (one of the US’s best-known China economists) noted its impressive performance but emphasised that straight-line economic extrapolations were “rarely warranted” and that China needed to transition to a new

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consumption-based growth path. The democratisation or disorder question was addressed by Bates Gill who perceived that China’s leaders needed to balance pressure for political reform with concern for the CCP’s survival, and would certainly not follow a Western model “at least in the near term”. Addressing the question whether China would present an opportunity or threat for the world economy, Lardy thought on balance it was an opportunity but it risked a protectionist reaction. Regarding whether China would be a security partner or rival, Derek Mitchell felt Beijing’s actions suggested that its stated priorities – to create a favourable international environment for its economic development and to preserve its territorial integrity – were indeed the primary motivations of its foreign and security policy. But he thought its current defensive posture could become more assertive.235

The China Balance Sheet Project continued to be active over the planned three year period. A conference was held titled The China Balance Sheet in 2007 and Beyond with further papers by individual experts.236 A third and final publication appeared in 2008. A forceful and apprehensive appraisal by Fred Bergsten concluded that China had already become “a global economic superpower”. He believed it posed a major challenge to the rest of the world, with the potential to “disturb the existing international order and trigger security as well as economic conflicts”. On the other hand, he thought China and the US were converging on paths that made a future cooperative partnership “not only possible but also seemingly inevitable”. Charles Freeman thought that although China’s progress toward political reform was glacial, it was “far from being on the brink of collapse” and was likely to continue in power “for the foreseeable future”.237

In 1997 the US National Intelligence Council (NIC) published Global Trends 2010, the first of five major reports analysing and forecasting future global developments. Although these reports covered trends across all countries, China – as the largest emerging power and the biggest potential rival to the US – had a high profile. The

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235 Ibid., 2-3 and 18-154.
assessment process brought together experts from all sectors of government, research, and business to contribute to an agreed assessment of the global outlook, including many with China expertise. The five reports therefore comprise possibly the best available example of a coordinated, well-resourced, and ongoing expert assessment of China’s likely progress and influence. The tone of these reports was generally positive about China’s prospects, but they also emphasised there was considerable uncertainty.

_Global Trends 2010_, produced in 1997, concluded that although China had the potential to develop a modern economy and to become the region’s dominant military power it was “beset by significant internal problems” and its power would grow only gradually.\(^{238}\) _Global Trends 2015_, produced in 2000, saw China’s future as “fraught with unknowables” and assessed that it confronted an array of pressures that would reduce its ability to sustain economic growth as well as challenge the regime’s legitimacy and perhaps its survival. However, it thought China need not be overwhelmed by these problems. Either a “weak, disintegrating China” or an “assertive China” could pose a challenge to other countries, but the report found that a “more commonly held view among experts” was that China would continue to promote a peaceful external policy. Nevertheless, its economic potential raised the prospect that the People’s Liberation Army (PLA) could emerge eventually as the most powerful military force in its region.\(^{239}\)

The third report, _Mapping the Global Future_ published in 2004, looked at the development of key global trends to 2020. Experts from around the world were consulted in a series of six regional conferences on four continents, and more than a thousand people were involved over a one year period. The report presented “a range of possibilities and potential discontinuities” but did not claim to be able to predict the future. Linear analysis, it noted, would “get you a much changed caterpillar” but not “a butterfly”. It sought to identify “Relative Certainties” (e.g. the rise of Asia)

\(^{238}\) _Global Trends 2010_, (United States National Intelligence Council, November 1997).
and “Key Uncertainties” (e.g. whether the rise of China/India would occur smoothly).\footnote{Mapping the Global Future: Report of the National Intelligence Council's 2020 Project, (United States National Intelligence Council, December 2004), Foreword, 40 and 117.}

Perceptions of China’s status in world affairs received a further boost with the publication in 2008 of the NIC’s fourth report Global Trends 2025: A Transformed World, in which it was evident that assessment of the relative future power of China and the US had evolved substantially. The report claimed to be “the most collaborative yet produced”, including a workshop in Beijing. Its methodology focused on key trends and examined a small number of variables that it judged would probably have a disproportionate influence. It considered it a Relative Certainty that a global multipolar system was emerging, in which China was “poised to have more impact on the world over the next 20 years than any other country”. The United States would be only “one of a number of important actors”. But the report also indicated – based on an International Futures computer model – that in 2025 US national power would still be more than 50 percent higher than China’s. China was considered likely to still be more concerned about its internal development than with changing the international system.\footnote{Global Trends 2025: A Transformed World, (United States National Intelligence Council, November 2008), iv-xii, 1 and 14.}

The report noted that China’s prospects were “not unclouded” and it predicted that growth “almost certainly will slow, if not recede”. Each of China’s problems would be soluble in isolation, but in combination they could produce “a perfect storm”. A protracted economic slump “could pose a serious political threat” and tempt the regime to encourage “virulent and xenophobic forms of Chinese nationalism”. The report highlighted the potential for its judgements to be upset by surprises and unintended impacts, in an era likely to contain “more contingencies than certainties”. Finally, it emphasised that “leadership matters”, because no trends were immutable and effective intervention by key actors could “decrease the likelihood and severity of negative developments and increase the likelihood of positive ones”. Human actions were considered likely to be “the critical determinants of the outcomes”.

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Leaders and their ideas would be, as previously in history, “the biggest game-changers”.  

As noted in Chapter 2, the NIC’s fifth report *Global Trends 2030* introduced a new focus on these “game-changers”. They were seen as crucial because the future was not “set in stone” but the result of interplay between “megatrends, game-changers and, above all, human agency”. One such game-changer was the possibility of regional instability as a consequence of China’s rise. Several “Black Swans” were also listed including the possibility of a democratic China triggered by rising per capita income or the possibility of an “economically collapsed China”.  

A paper by Michael Horowitz and Philip Tetlock about these *Global Trends* reports found that they placed too much emphasis on conventional wisdom and engaged in “extensive hedging”. They accepted, however, that criticism of the reports was not entirely fair. A high level of accuracy could not be expected when predicting the long-term future due to the prevalence of “irreducible uncertainties” that made forecasting “something that falls between difficult and impossible”. Nonetheless they thought such reports were still worth the effort given the potentially huge benefits that might be obtained from even small improvements in the accuracy of probability judgements.  

5.4 Unreliability of Expert Opinion  

There is a continuing high level of public interest in the judgements and predictions of experts. Experts collectively, however, have begun to acquire a questionable reputation due in part to greater awareness that poor judgement is frequently not held accountable, as exposed by Philip Tetlock. Dan Gardner’s book *Future Babble: Why Expert Predictions are Next to Worthless, and You Can Do Better*, was greeted by one reviewer with the hope that it would “shock the human race, and particularly the

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244 Michael C. Horowitz and Philip Tetlock, "Trending Upward: How the intelligence community can better see into the future," *Foreign Policy* (6 September 2012).
chattering expert class, into a condition of humility about proclamations about the future”.\textsuperscript{245}

The preceding analysis of forecasts about China’s future suggests there is certainly some basis for doubts about the credibility and reliability of experts. China watchers predicted that China’s economy would collapse, that the CCP would disappear, that leadership successions would be unstable, that regionalism would lead to national disintegration, that social unrest would lead to revolution, that the financial system would fail, that the economy could not succeed without democracy and a free market, and that as it grew stronger China would seek to dominate Asia and challenge other major powers. Even optimists frequently underestimated China’s economic potential and overestimated its international influence. It continues to be striking that the most extreme of the possible outcomes – internal collapse and external domination – have both featured so prominently in the literature and continue to have many adherents.

Overall, however, expert forecasts about China’s future sometimes tend to contradict critics like Tetlock and Gardner. Despite their failures China watchers can also point to some degree of predictive success, or at least partial success. Many certainly exemplified Tetlock's foxes – “those humble types who accept the future is very difficult to predict”. China watchers who had acquired expertise through long-term scholarly research and direct exposure to the country produced many useful analyses and insights, and often came quite close to predicting actual outcomes. These experts showed admirable humility and awareness of the difficulty of their task. They resisted extremes of judgement and accepted the importance of balanced and sustained research. They were often willing to revise their opinions and to admit there was as much or more cause for uncertainty as for pessimism or optimism.

It could be argued that some of the most prominent pessimists and optimists also played a useful role – the pessimists by emphasising the real risks and challenges China faced and continues to face, and the optimists by pointing to the possibility

that China might surprise observers by doing better than expected. The evidence, in the case of many China experts, tends to challenge Tetlock’s finding that greater expertise, or even fame, may imply declining reliability of judgement. In short, it would seem inappropriate to be too quick to dismiss the value of the forecasting efforts of China watchers. Rather perhaps they should be commended for tackling such a difficult task. That said, however, there is also a cautionary message for the many “hedgehogs” who tended to become overconfident in their predictive abilities and were less focused than they might have been on the need to avoid confirmation bias, to consider contrary evidence, and to acknowledge uncertainty.

Before concluding this chapter, it should be emphasised that to their credit China watchers have often been among the most constructive critics of their own field. They frequently acknowledged the problems that confronted them, and their reflections and advice contained much insight. Cheng Li, for example, commented that inaccurate or false predictions by Western analysts highlighted “the deficiencies and inadequacies in the field of China studies”. A common problem among researchers, he believed, was that they tended to use “unverified sources, conventional approaches, and old analytical frameworks” as well as basing their arguments on “rumours, speculations, and myths”. 246 Aaron Friedberg believed experts lacked the kinds of “powerful predictive tools” needed to forecast China’s future. Nevertheless, he urged experts to attempt to “find ways of apprehending the full array of causal forces”. 247 He also acknowledged that forecasting China-US relations was “an inexact science”, since politics was “simply too complex and contingent”. It was easy to underestimate “the impact of personalities, unforeseeable errors, and random occurrences”. 248

Several experts have been especially critical of the persistent duelling between proponents of China’s likely dominance and of its coming collapse. 249 Barry


248 Friedberg, A Contest for Supremacy: China, America, and the Struggle for Mastery in Asia, 33-37.

249 These competing views evoke Katzenstein and Okawara’s contention that it was becoming difficult to counter the view that scholarship was about “paradigmatic clashes”, rather than “the disciplined
Naughton and Dali Yang expressed their perplexity about the inability of one group of experts to appreciate “the extent to which its own conclusions should be modified by the insights of the other perspective.” Josh Kerbel lamented that US predictions tended to range from “rising China” to “doomed China”, begging the question about how individual predictors could feel “confident enough to make firm single-outcome predictions”. John Hoffman noted that hardly a day went by without a new publication about the “China miracle” or the “China threat”. China was seen as either “on the verge of imminent collapse” or “on the brink of economic or political dominance”. He marvelled that any nation could be the source of “so much contradictory information and confusing conclusions”. David Lampton argued that opinions about China were a reflection of observers’ own subjective concerns. China was “a giant screen upon which outsiders project their hopes and fears.”

Cheng Li also took up this theme. He regretted that many experts were “burdened by stale perceptions”. He noted that “a large number of China analysts and experts held a very pessimistic view”, while optimists went to “the other extreme”. He advised China watchers to “avoid hewing to conventional, old-fashioned perceptions of this rapidly-changing country, taking special care to steer clear of dogmatic cynicism on the one hand, and ill-grounded optimism or wishful thinking on the other”.

On the positive side, however, this chapter has clearly shown the extent to which many China experts readily acknowledged the high level of uncertainty surrounding their subject. They also emphasised that their forecasts could be upset by unforeseen surprises and that they might be disproved by the tendency for important actors, especially China’s leadership, to take corrective actions. Andrew Nathan commented that analysing China’s “current trajectory” was “not the same as predicting what will happen in the future”, because unexpected events could throw any country off track.

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251 Kerbel, "Thinking Straight: Cognitive Bias in the U.S. Debate About China."
253 Lampton, "China: Think Again."
254 Li, "The China Paradox and American Misperceptions.", 27-36.
This had often happened in China “and probably will again”.255 Others, like Robert Fogel, pointed out that the difficulty with many arguments was that they assumed China’s leadership was “unaware of these problems”.256 Chetan Ahya maintained that China was differentiated from other emerging countries by the “single-minded determination of the politicians to ‘make it happen’”.257 Barry Naughton, looking back over several decades, discerned a consistent pattern that “when problems in China get really, really dramatic so that policy-makers are forced to address them, then they do”. He added that this might only occur when the government was “pushed hard enough so that they have no choice but to tackle the problem”, but when this point was reached their record was “extremely good.”258

255 Nathan, Is Communist Party Rule Sustainable in China?
256 Fogel, Why China is Likely to Achieve its Growth Objectives, 15.
257 Ahya et al., India and China: New Tigers of Asia.
258 Reframing China Policy Debate 2: China's Economy.
Many if not most China experts have resorted to scenario construction as a forecasting method. It is likely that part of the appeal of this strategy was that the use of scenarios explicitly acknowledged the existence of uncertainty by considering the possibility of two or more different outcomes. Critics might argue that this method was not necessarily effective in narrowing the range of uncertainty. In fact it often appeared to succeed in widening the range of possibilities. This weakness led Robert Fogel, for example, to comment that: “When speculating about the future, the range of possible scenarios is virtually unlimited. The point at issue is not what might occur, but what is likely to occur.” A number of China experts took up this challenge and were quite courageous in venturing to predict which of their scenarios were most likely to eventuate. Others displayed impressive ingenuity in developing innovative scenario construction techniques.

### 6.1 Possible Scenarios

Many analysts, however, chose not to risk assigning probabilities to their scenarios and were inclined instead to abandon themselves to uncertainty. It is notable how many scenario constructors were quite willing to consider the plausibility of both optimistic and pessimistic scenarios, thus perpetuating this long-standing dichotomy through simultaneous contemplation of both China’s continued rise and its potential collapse. Orville Schell advised businessmen to sketch out “with as much logic as you can” at least two possible outcomes – “the most dire scenario as well as the most hopeful scenario, and maybe something in between.”

The post-Tiananmen period spawned numerous scenarios that speculated about a wide range of future possibilities but offered only very limited evaluation of their credibility. Christopher Clarke offered five “mid-term possibilities” including *Democratisation* (for which there seemed to be little support), *Descent into Chaos* (with potential for “considerable violence and bloodshed”), *Continued ‘Dictatorship of the Proletariat’* (which could produce “Brezhnev-style stagnation”), *Resentful

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260 Schell, *China’s Contradictions - and Possible Collapse.*
Military (which could lead to armed clashes), and Rising Regionalism (with increasing tension and conflicts between regions inside China).\textsuperscript{261} Alternatively, Chu-yuan Cheng considered the possibility of Hardline Dominance (leading possibly to regime collapse), Reformist Resurgence (which accurately anticipated the victory of the reformists), the Rise of Regional Independence (marked by a revival of warlordism), and Toward a Greater Chinese Common Market (bringing in Taiwan, Hong Kong and Singapore).\textsuperscript{262}

Harry Harding suggested three post-Tiananmen possibilities. In the first and most pessimistic scenario China would abandon reform, resulting possibly in economic stagnation; in the second scenario economic reform would be thwarted by serious obstacles; and in the third and most optimistic scenario reform would be successful. He thought the third scenario might be the likely outcome, but cautioned it was “by no means inevitable”.\textsuperscript{263} Revisiting these scenarios two years later, Harding assessed that the “most extreme outcomes”, including geographical disintegration or the overthrow or collapse of the central government, were conceivable but unlikely. He added that although some feared China could threaten stability in the Asia-Pacific, he saw this as only “one of several plausible forecasts” and that it was “equally likely” China would choose peaceful relations, or that it would sink into internal political and economic decay.\textsuperscript{264}

In the late 1990s Harvard’s Martin Whyte commented that predictions about trends in China had yielded two popular but “wildly divergent” scenarios – a “stability scenario”, emphasising the likelihood that the leadership could maintain the status quo, and a “chaos scenario”, stressing the “wrenching and destabilizing” consequences of the leadership’s failure to diffuse the “social volcano”. He thought both scenarios had credibility. Referring to the fable of the blind men and the elephant he thought these scenarios deepened understanding of the shape of the Chinese elephant, but not enough to be able to predict confidently whether it would

\textsuperscript{261} China’s Economic Dilemmas in the 1990s: The Problems of Reforms, Modernization, and Interdependence, 8-13.
\textsuperscript{263} China’s Economic Dilemmas in the 1990s: The Problems of Reforms, Modernization, and Interdependence, 85-88.
“remain passive or go on a rampage”. He thought the continuation of “muddling through” might produce a state of “stable unrest”. But, given the “level of contentiousness and alienation” in Chinese society, the chaos scenario was “by no means a remote possibility”.265

Stepping forward to the 2000s when China’s rise seemed more assured, Kenneth Leibethal nevertheless also suggested a wide range of possible configurations for China’s outlook by 2033. These included, first, that it would be a successful country with domestic political competition but probably still one-party dominance; second, it would be authoritarian and nationalistic; third, a “soft” and corrupt authoritarian system with slower growth and declining international stature might emerge; fourth, it might become a democratic state with weak institutions and unmanageable popular demands; and fifth, a nightmare scenario could evolve with a divided elite, a contracting economy, environmental decline, territorial losses, and a declining international position.266 Analysts at McKinsey & Company noted that their crystal ball was “no more reliable than any other observer’s” but they thought China could take three possible paths: first, an Anarchic China (with unrest spiralling out of control); second, Authoritarian China (with plenty of growth but limited reform); and third, an Advancing China (with steady movement toward a market economy and a liberalised social structure). But they did not believe it possible to forecast which of these scenarios would develop.267

Paul Monk, in 2005 proposed four possible “models” for China over the next generation. None of them, he commented, were linear or entailed uninterrupted ascent or envisaged a Chinese-dominated twenty-first century. Only one of these scenarios was optimistic; namely, Mutation, which would see a substantial withdrawal of the CCP from power and substitution of “more democratic norms”. His other three scenarios were Maturation, in which China would keep “its head above water” but fail to realise either economic transformation or democratisation; Metastasis, in which a corrupt and repressive CCP would cling to power and oppose institutional change; and Militarisation, which could become increasingly likely as

266 Lieberthal, ”China in 2033: What will China Look Like in 30 Years?.”, 47-48.
China’s military budget and its hegemonic demands in Asia expanded, but this could be constrained by appreciation of self-defeating consequences. Monk commented that which of these models was most likely by 2020 was “not predetermined”.  

A major effort to construct useful scenarios for China’s future was also undertaken by the US National Bureau of Asian Research. It aimed to use “scholarly concepts and rigorous academic methodology” to develop alternative scenarios in 2020 for China’s foreign policy, domestic politics, economy, and society. Within each of these four areas a China expert was tasked to present three alternative scenarios. Notably, however, they mostly resisted assessing the likelihood of the scenarios. There was a deliberate emphasis on possible rather than probable outcomes, on the basis that this should help to “avoid being surprised by the unexpected”.  

With regard to foreign policy, David Lampton assessed that China’s posture might be broadly cooperative within the international community, at odds over many issues and intent on acquiring coercive power, or there could be a mixed outcome. (He ventured tentatively, however, that the cooperative scenario was unlikely, that the second more-conflictual scenario was avoidable, and that a mixed outcome was possible.)  

Regarding domestic politics, Cheng Li’s three scenarios were The emergence of a democratic China with greater political pluralism; Prolonged chaos resulting from economic disparities, rampant corruption, health crises, and environmental degradation; and A resilient, authoritarian regime supported by popular support for stability and disillusionment with democracy elsewhere. Li favoured the first scenario, but accepted there could be “multiple possibilities”.  

Regarding China’s economy, Peter Bottelier foresaw three very different scenarios depending on the extent of progress with reforms: first, A successful second transition, in which timely reforms delivered sustained growth; second, A failed second transition, with adverse economic and political consequences; and third, Crisis management, in which the state managed crises adroitly but with increasing difficulty. Bottelier commented that foreign observers were “often over-impressed” by the magnitude of China’s problems and “under-impressed” by its capacity to deal with them.

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268 Monk, Thunder from the Silent Zone: Rethinking China, 60.
269 Kuo et al., ”China in the Year 2020.”, 2-5.
270 Ibid., 8-15.
271 Ibid., 18-29.
272 Ibid., 32-40.
Yang identified three ideological currents in contemporary Chinese culture, namely Marxism-Leninism-Maoism, socio-political liberalism, and religious Confucianism. His cultural scenarios combined aspects of all three.\textsuperscript{273}

Selected elements from each of these four expert scenario constructions were then combined to construct four “distinct, plausible, and internally coherent futures”. They included \textit{Democracy with Chinese characteristics}, with a multiparty democracy, a thriving economy, and a “cooperative yet assertive” international posture; \textit{Strong CCP faced with economic challenges}, with a resilient, authoritarian regime, a stagnating economy, but a cooperative foreign policy; \textit{Inner-party democracy, international trouble}, with a “unique bipartisan government” and a successful economic transition, but ongoing foreign policy challenges; and \textit{Doomsday}, with declining central control, a “perfect storm” of economic failures, loss of legitimacy, and international contention, leading to China “spiralling down a cataclysmic trajectory”. These four scenarios were deemed to represent “a range of plausible futures”, providing “a mechanism to bound uncertainty and paint plausible outcomes by identifying internal and external variables, drivers, trends, wildcards, and signposts”. It was hoped this would help to “fine-tune and diversify” decision-making processes, although it seems reasonable to observe that this might prove difficult given that decision-makers were presented with such a comprehensive range of possible outcomes.\textsuperscript{274}

Two other experts subsequently used an approach that focused on only two or three opposing scenarios but again avoided clear endorsement of any. Kerry Brown’s first scenario, or Path One, was \textit{Stable China}. Fast-forwarding to 2026 he imagined a China that had become the world’s largest economy, aggressive environmental measures had conquered pollution, the CCP had survived, inner-party democracy had progressed, Taiwan favoured unification, and China with the world’s largest military and aid budget dominated Asia. Path Two, \textit{An Unstable China}, foresaw a very different world in 2026. China’s development had been “a death knell for the world’s environment”, it had gulped up most of the world’s resources in “two dazzling decades” of 10 percent growth, the Chinese state was “on its last legs”, income

\textsuperscript{273} Ibid., 42-52.
\textsuperscript{274} Ibid., 5-6.
Redistribution had stalled, national fragmentation was predicted, and the PLA threatened a military coup. Brown claimed some of these themes, from both scenarios, were already visible.\textsuperscript{275}

An equally uncertain future was reflected in three scenarios outlined by Michael Santoro, illustrating a “widely divergent range of possibilities”. Pax China portrayed an optimistic future in which a traveller to China in 2020 would see a prosperous and influential urban middle class, greater concern for the physical environment, free flow of information, an increasingly accountable political system, and a confident and non-threatening foreign policy. His pessimistic scenario, Nox China, envisioned violent disputes, loss of confidence in the legal system, tightening of security controls, dangerous pollution levels, declining foreign investment, nationalism and xenophobia, failed transition to a consumer-driven market, high unemployment, and military intimidation of Taiwan. He thought both scenarios were plausible, but “impossible to predict”. He thought it “less instructive to speak of probabilities and predictions and more important to think about the internal forces and dynamics shaping the future”. He did, however, dismiss a third “Muddling Through” scenario, believing that volatile social and political forces in China were unlikely to produce “benign gradualism”.\textsuperscript{276}

### 6.2 Probable Scenarios

Not all experts were so reluctant to assign probabilities to their scenarios, however. Others appeared to accept a responsibility to provide their best estimate of future developments, while acknowledging that other outcomes could not be dismissed. Michel Oksenberg and Kenneth Lieberthal, commenting on China’s prospects in the mid-1980s, went so far as to assign percentage probabilities to their five scenarios for the future of reform. In the first scenario, Corrupt Regime, attempts at reform failed; in the second, Effective Reform, reforms were successful; in the third, Status Quo, reforms stalled; in the fourth, Abandonment of Reform, many reforms were retracted; and in the fifth, Systemic Breakdown, the structure of authority collapsed. They believed it most likely that several of these scenarios would develop over time, but

\begin{itemize}
\item \textsuperscript{275} Brown, Struggling Giant: China in the 21st Century, xiv-xvi and 2-8.
\end{itemize}
still thought it possible to “hazard predictions about the likely outcome fifteen to twenty years hence”. They saw only a marginal chance (under 10%) of Corrupt Regime and even less (5% or under) of Systemic Breakdown. Successful Reform seemed most likely (35-40%) and Status Quo almost an equal bet (30-35%), with Abandonment of Reform less likely (20-25%). The most likely outcome, Successful Reform, would signal “the genuine emergence of this huge nation as a major player on the world scene”.277

In the mid-1990s Michael Swaine also assessed the probability of discontinuities in China’s development. Alternative One was A Highly Assertive China, Committed to Regional Dominance in which China used its growing power-projection capabilities to challenge the US. He assessed that this was unlikely – unless there was strong external provocation – because rapid growth in China’s military capability was not guaranteed and there would be “strong disincentives” against such a posture. Alternative Two was A Weak, Insecure, and Defensive China, Concerned with Preventing Foreign Intervention or Social Chaos, which might result if there were prolonged economic stagnation and leadership difficulties. Swaine commented that an extreme version of this scenario, perhaps resulting in “a complete collapse of the Chinese state”, was a topic of “intense debate”. But he listed a number of factors that would inhibit the “complete breakup” of China. Alternative Three was A ‘Normal’ China, Pursuing Much Greater Cooperation with the West, which he described as a best case scenario that was not likely in the near- to medium-term.278

Another scenario analysis, which with the benefit of hindsight was quite successful, was conducted in the same period by Richard Baum. He introduced his detailed set of ten scenarios by noting that the gloomy predictions of China experts in the wake of Tiananmen had soon been succeeded by “a new mood of buoyant optimism” after moderate reformers regained the upper hand, raising hopes that marketisation would lead to political liberalisation and even democratisation. Baum described the aim of his article as being to attempt to “sort out some of these conflicting claims and predictions” by examining the pros and cons of each scenario. He confessed he could

278 Swaine, China: Domestic Change and Foreign Policy, 98-111.
aspire to “nothing remotely resembling scientific certainty or precision” for this “essentially deductive/intuitive mode of analysis”. But he nevertheless thought it possible “using rudimentary political logic, readily available information and a modicum of common sense” to achieve “a reasonably thoughtful and coherent assessment” of the merits of his scenarios within a modest three to five year timeframe. However, he added the caveat that his results were highly tentative, and “merely suggestive, rather than predictive”. 279

Baum’s ten scenarios included three “evolutionary” scenarios: Muddling Through, with cautious market reform but no political reform; Neo-conservatism, in which decentralisation was reversed; and Neo-authoritarianism, with minimal political pluralism. There were four “devolutionary” scenarios: Immobilism, with a regime strong enough to prevent chaos but too weak to govern effectively; Regional Fragmentation, leading to independent geopolitical entities; Chaos, with regime melt-down and anarchy; and Praetorian Military Intervention, with the army as stabiliser. The final three “revolutionary” scenarios included two variants of a Democratization scenario: Breakthrough From Above, where the CCP voluntarily embraced political pluralism, and in the other, Revolution From Below, where the regime was swept away by massive popular resistance. In the final revolutionary scenario, Neo-Maoist Revival, a post-Deng leadership reinstated Maoist policies. Baum analysed each of these scenarios and thoughtfully argued their probabilities, assigning odds (from 3-1 to 50-1) for each. In order of probability, he considered Neo-conservatism, Neo-authoritarianism and Muddling Through to be “more likely”. His judgement in retrospect was impressive, given that elements or each of these three scenarios were present in subsequent developments. His “less likely” scenarios were Immobilism, Praetorian Military Intervention, Democratic Revolution From Above and Regional Fragmentation; and his “least likely” scenarios were Democratic Revolution From Below, Chaos, and Neo-Maoist Revival. Again his judgement proved sound given that none of these remaining scenarios has eventuated. He observed aptly, however, that the Chaos scenario was “the hardest to forecast” because its onset was “non-linear and sharply discontinuous” and therefore difficult to rule out. But he concluded that systemic collapse was rare and in China’s

case there were many powerful mitigating factors. Similarly he argued there were strong forces operating against the fragmentation scenario. He considered democratisation from above unlikely given that the CCP leadership was risk-averse, and democratisation from below also unlikely given that economic opportunity had blunted support for political reform and political opposition would be forcibly suppressed.

Another quite successful instance where China experts quantified the probability of future scenarios was revealed by Joseph Nye. With Ezra Vogel he produced in 1994 some unclassified scenarios for the US National Intelligence Council on possible developments in China over the following decade. They then asked “some academic specialists” to assign probabilities to them. The six scenarios comprised, first, *East Asian-Style Development*, marked by continued rapid economic growth and increased political pluralism (Probability 40%); second, *Democratic Reform*, in which political pluralism became established (Probability 10%); third, *Pinochet China*, with authoritarian (possibly CCP) government and continued rapid growth (Probability 10%); fourth, *Modern Middle Kingdom*, marked by nationalism and xenophobia, repressive government and lower growth (Probability 10%); fifth, *Federated Feudalism*, characterised by growing regionalism, slower growth, and serious wealth disparities (Probability 20%); and sixth, *Stagnation*, with leadership division, corruption, inefficiency, regional discontent, and depressed growth (Probability 10%). Nye noted that the first three scenarios, with a cumulative probability of 60%, all assumed high economic growth and relatively moderate foreign policies.  

Another unusual and ambitious approach to scenario construction was attempted in the mid-2000s in a book edited by South Korean Jae Ho Chung, titled *Charting China’s Future*. It attempted to identify “possible future contingencies for China’s political, social and international dimensions”. China’s future was characterised as “invariably an open-ended question”. It might not be “either a threat or a collapse”, and “various possibilities” might exist in between. Each of the eight expert contributors were asked to present a range of future possibilities and to assess the

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likelihood of these scenarios based on their “best informed guesses”. Chung was commendably cautious about the project’s limitations. He thought all discussions of China’s future must be “inconclusive at best, irrespective of their long list of conditionalities, projections and caveats”. There was no consensus in academia. Those who focused on structural problems tended to be negative, while those who focused on the adaptability of China’s leaders were more positive. He suggested at least eight scenarios: first, “the Yugoslavian model” where China fragmented; second, “the Indonesian scenario” where China failed to achieve either economic or democratic transition; third, “the Latin American model” with a non-democratic, corrupt and brutal regime; fourth, “an Indian scenario (of the 1990s)” where China attained democracy but failed economically; fifth, “a China model” in which it followed the East Asian model of developmental authoritarianism; sixth, “the French model” with China on a par with OECD nations and partly democratised; seventh, “the coexister” with China seeking to a cooperative, symbiotic relationship with the US; and eighth, a “China threat” where a strong China posed a revisionist challenge.

Among the contributors to Chung’s book, Bruce Dickson identified four scenarios, ranging from the most to the least likely, for the future of the CCP – namely, continued CCP rule, replacement by another form of authoritarian government or illiberal democracy, successful democratisation, and a military dictatorship. Yawei Liu identified three scenarios, again in order of likelihood, for possible electoral reforms – a “Putin solution” with limited democracy, a “Gorbachev syndrome” with full democracy, and “Russian roulette” or doing nothing. Tao-chiu Lam identified four scenarios for possible federalism – complete federalism, partial federalism, the status quo, and reduced local autonomy – with the last two considered equally the most likely. Chung himself identified four scenarios for social unrest – unrest contained, stable instability, democratising instability, and disintegrative instability – with stable instability the most likely. Shiping Tang identified four scenarios for China’s foreign relations – lasting unipolarity, somewhat weakened unipolarity, crumbling unipolarity, and China acquiring limited global influence – with

282 Ibid., 1-5.
crumbling unipolarity as the most likely. Peter Gries identified four scenarios for US-China relations – friends, partners, rivals, and enemies – with rivals the most likely. Finally, Jean-Pierre Cabestan provided five scenarios for the future of Taiwan – status quo leading to acceptance of Taiwan independence, unification under one-country two-systems, cross-strait war, interim agreement, and status quo but with no solution – with the latter most probable for the foreseeable future.283

Chung took the novel approach of amalgamating all of the most likely scenarios in each of the eight areas, resulting in a predicted outcome of continued CCP rule with limited democracy, relatively successful domestic conflict management, and China emerging as a limited global player but with tense relations with the United States, especially over Taiwan. Chung emphasised, however, that because these scenarios did not take into account the likely influence of “chance factors” or “unexpected determinants”, the book’s findings should be considered “tentative and subject to the test of time”.284

It is of more than passing interest that, among those experts cited above who attempted to assign probabilities to their scenarios, all were relatively successful. None could be said to have failed spectacularly. This limited sample therefore suggests, at least tentatively, that there are grounds to argue that scenario constructors should not feel unduly inhibited about attempting to calculate probabilities because this might significantly increase the usefulness of their efforts. The same success was not enjoyed, however, by another group of experts who were uniformly pessimistic about China’s prospects and chose to concentrate their attention primarily on determining which pessimistic scenarios might eventuate. These experts therefore gave only limited recognition to the presence of uncertainty.

In the immediate post-Tiananmen period, for example, Jurgen Domes conceded the theoretical possibility that the ruling CCP elite might survive but favoured four more-pessimistic scenarios. These comprised, first, a long period of repression leading to “a large-scale, extremely violent confrontation” in which communist rule

283 Ibid., 165-190.
284 Ibid., 11-13 and 203-204. A concluding chapter by Gilbert Rozman considered three further overarching scenarios for China’s future – Successful economic growth, possible stagnation, and new reforms – with the first considered most likely for the coming decade, the second for the following decade, and the third for the following two decades.
would “drown in a veritable ocean of blood”; second, “the return of reform oriented revisionists” leading to “a gradual edging of the Party out of power” and peaceful transition to a pluralistic political system; third, a backlash by orthodox forces leading to a nationwide revolutionary movement and the violent overthrow of communist rule; and fourth, a deteriorating economy causing a leadership crisis and transition to another political system. Domes judged that the first or fourth scenarios were more probable.  

Although his views were generally more nuanced, Geoffrey Murray in the late-1990s also explored several pessimistic scenarios. He noted that China might be “strong or weak, a superpower or an under-achiever”. A strong China would not be “a house-trained pussy-cat” but “a veritable tiger”. Its economic expansion would have “a tumultuous impact” on its neighbours and the world, with a “disruptive influence” similar to or greater than the Kaiser’s Germany or twentieth century Japan. Its pursuit of unresolved territorial claims could make it “a prickly presence” in Asia, especially with a leadership that seemed “driven by an ancient national-cultural chauvinism” and was bent on “regaining of its place at the centre of the world”. This strong China scenario might be reversed, however, if the current growth bubble burst and it disintegrated “into squabbling regional fiefdoms”. A worst case scenario could include economic downturn, social unrest and civil war, and even national disintegration. He concluded, however, that nobody knew what lay ahead for China and that there would be “many twists and turns”, “false starts” and even “temporary u-turns”.

When speculating about how China might escape the “transition trap” Minxin Pei also suggested three scenarios, none of which were encouraging for the CCP. In the first scenario a continued trapped transition would lead to economic decline and rising social tensions, but any attempted reforms would probably result in a Soviet-style anti-regime revolution; in the second scenario trapped transition without attempted reforms would lead directly to regime collapse; and in the third scenario reform might occur at the regional or local level resulting in governance divergence.

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285 Hicks, The Broken Mirror: China After Tiananmen, 469-471.
286 Geoffrey Murray, China, the Next Superpower: Dilemmas in Change and Continuity (New York: St Martins, 1998), 1 and 209-217.
as some areas within China escaped trapped transition and others stagnated or deteriorated. Pei did not rule out a fourth possibility in which China could be “stuck in a trapped transition for an extended period”, allowing the CCP to stay in power “even as the country is mired in misrule”.287

A further set of mostly negative scenarios was proffered by French author Guy Sorman. First, rebellion might break out “all over China” in protest against a corrupt and cruel regime, but the rebels might not succeed in overthrowing the CCP. Second, a decline in growth might lead to bankruptcy, although he considered this unlikely. Third, there might be “a gradual, structured transition to democracy” initiated by the CCP, but it would probably not willingly go down this path. Fourth, authoritarian rule might continue if it was sufficiently adaptable, which would be “probable but intolerable” especially for those Chinese who favoured liberal democracy. Sorman therefore advocated a fifth scenario in which outside intervention would restore human rights and freedom of speech for all Chinese.288

6.3 Innovative Scenarios

In addition to scenario constructions that declined to attach probabilities and those that did, others distinguished themselves by their innovative and/or resource-intensive techniques. These included, for example, an elaborate set of scenarios devised by two leading US authorities on the use of scenarios, namely James Ogilvy and Peter Schwartz.289 They approached their task “neither as futurists nor as experts on China”, but offered to use “the art and science of scenario planning” to address uncertainties “in a methodical and useful way”. Their book presented three detailed scenarios for China, each describing a possible future in 2020. The scenarios were based on “a subtle blend of trend analysis and well-tutored imagination” which took into account predetermined elements as well as driving forces.

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287 Pei, China's Trapped Transition: the Limits of Developmental Autocracy, 210-212.
Ogilvy and Schwartz were struck by the diverse range of forecasts for China. War planners perceived a China feeling “cornered and underestimated” while optimists envisioned a “Pax Sinica”. As an alternative to traditional approaches they proposed “the method of the story-tellers”, combining expert analysis with storytelling to “spin scenarios”. They did not expect their scenarios to unfold as presented, but they would reveal “coherent sets of possibilities that lie imbedded in the present”. This should mean that whatever happened “some reflection of it” should be seen in the scenarios and “you will be unlikely to get caught flat-footed”. However, they accepted that in a national system with multiple variables and complex interactions the future was “unpredictable in its very essence”. The system was “chaotic, not determinate”. China itself was “a complex adaptive system with billions of variables”. Nevertheless they claimed to be able to identify “ways of thinking about China’s possible futures”. They also identified “five big, hidden negatives” that might keep China from becoming “the powerhouse of the coming century”. These “Worms at the Core” included SOEs, rural poverty, environmental destruction, inadequate infrastructure, and corruption combined with an inadequate legal system.

Prior to setting out their own scenarios, Ogilvy and Schwartz commented on the “flurry of books” by other China “future-gazers”, which they thought had focused on differ formulations of three main conventional wisdom scenarios. In Scenario 1, *Singapore x 70*, China became “a disciplined, benign, tightly integrated economic powerhouse” just like Singapore only bigger. In Scenario 2, *Soviet Devolution*, China would break up, peacefully or violently, like the Soviet Union. In Scenario 3, *The Big Bully*, China would be “belligerent, brutal, harshly centralized, and absolutist” like North Korea. They thought China’s future was likely to be more surprising than any of these conventional scenarios. They claimed they would go “into the smoke and thunder of the great forces driving China” and come up with non-conventional scenarios that were “equally plausible”. Their scenarios would be based on different assumptions and logics and on “different models of development”, rather than on “a single model pushed faster or slower, higher or lower, optimistic or pessimistic, best case or worst case”.

Whether Ogilvy and Schwartz’s scenarios succeeded in meeting these lofty ambitions is very questionable. Although we have not yet reached 2020, their
scenarios have a fanciful and elusive quality. Scenario One, *The China Web*, imagined China becoming “a massively decentralized village-based economy linked by wireless telecommunication and efficient transport”. It would become a “vast ramifying web” linking tiny Township and Village Enterprises across the country, leapfrogging the industrial revolution and surprising the world by building a relatively clean economy. In Scenario Two, *The New Mandarins*, the culture of kinship and connection (*guanxi*) would become “the matrix of a new China” – a “network of networks” connecting families, clans, villages and language groupings across China and the world. Beijing would rule by providing the regulatory framework for a rapidly maturing economy, but it would get “out of the business of regulating people’s lives and thoughts”. In Scenario Three, *The Thief of Beijing*, China “collapses into a morass of decadence, corruption and greed” with “100 million robber barons clawing for wealth at any cost” and the environment becoming “a sewer”. Eventually a charismatic military leader emerges as a saviour figure and heads “the world’s largest kleptocracy”.

Another interesting approach was adopted by the US-based Global Business Network, in the context of a gathering of business representatives and invited speakers that addressed the question whether China would be “a global rule maker or rule taker” in the decade to 2015. In an introductory presentation, Orville Schell again emphasised China was a country of many contradictions whose future remained very uncertain. It was “between transitions” and not sure where it was going or what it wanted. China could “do everything right and still get it wrong”. It could be a rising superpower or a tinderbox. Participants worked in groups using a “scenario thinking application” developed by GBN that helped them to compile and prioritise numerous “critical uncertainties”, which were then used as the basis for scenario exercises.\(^\text{290}\) These critical uncertainties included China’s impact on the international economy, its global role and relationships, its military/strategic orientation, and its environmental challenges. The eleven main scenarios included: *Wag the Dog*, with China using regional adventurism to distract from internal crises; *The United States of China*, with multi-party elections and continued socio-economic progress; *Empire Strikes Back*, with a police state controlling social unrest; *Yin-Yang*,

\(^{290}\) *China’s Choices: A GBN WorldView Meeting Report*, (GBN Global Business Network, 2005). GBN noted that this meeting had been preceded by similar exercises over more than a decade.
with China becoming a superpower but a threat to the US; Losing Face, with a banking crisis and US intervention in Taiwan; Managing the Hurricane, with a dynamic China but adverse consequences; China, the Black Hole, with mismanagement and domestic collapse; Panda to Dragon, with China emerging as a robust economic actor; Thirsty Dragon, with China integrating with the global economy but facing multiple internal challenges; Everybody Loves China, with China opening up to the world; and SARS³, a deadly pandemic. Key learnings included that China’s future path would not be straightforward. Continued high economic growth was considered likely but accompanied by mounting environmental, resource and political/social problems.

A separate scenario exercise also led by Global Business Network asked how long China’s “winning streak” could last given ongoing threats from “corruption, environmental crisis, and social turmoil”. It presented four scenarios based on a quadrant method, with the horizontal axis representing a China with low or high economic influence and the vertical axis representing a China that resolved conflicts diplomatically or militarily. A “dream scenario” with China having high economic influence and resolving conflicts diplomatically was described as Emperor of Business. A China with low economic influence but resolving conflicts diplomatically was Emperor’s New Clothes, with China having boundless potential but never achieving First World status. A China with low economic influence and resolving conflicts militarily was Emperor of Asia. A China with high economic influence but resolving conflicts militarily was Emperor of the World, with China playing “by its own rules” and the United States losing global leadership.²⁹¹

Another two China-focused scenario construction exercises also used the quadrant approach. A large-scale project conducted by the World Economic Forum (WEF) explored prospects for the following 20 years. Its scenarios were developed during ten months of workshops in Singapore, Washington, London, Shanghai and Beijing, involving senior business executives as well as “thought leaders, scenario practitioners and public figures” within and outside China. The scenarios were “not predictions but possibilities” that were intended to challenge assumptions. The aim

²⁹¹ Doug Randall and Jesse Goldhammer, "Four Futures for China Inc.,” Business 2.0, August 2006.
was to help business communities understand “the complex interplay of underlying drivers and critical uncertainties”. 292

WEF’s quadrant approach again was based on the intersection of two major variables, namely (on the horizontal axis) whether China would implement effective internal institutional reforms and (on the vertical axis) whether the global environment would be inclusive or discriminative for China. These were considered to be the two most critical questions. The first scenario, Regional Ties, which was written as a Chinese government White Paper, considered the quadrant where reforms were effective but the global environment was discriminative; a second, Unfulfilled Promise, in the form of an article in a Western online journal, considered the quadrant in which the global environment was inclusive but institutional reforms were ineffective; and a third, New Silk Road, drawn from an Online Encyclopaedia of the World, considered the most favourable quadrant where the global environment was inclusive and reforms were effective. (The fourth quadrant, in which both factors were unfavourable for China, was not developed.) In the most favourable New Silk Road scenario China engaged constructively with the world taking steps to improve energy and climate security, a growing appetite for political freedom emerged, and by 2025 China became a “respected global actor”. In the other two scenarios, China’s success was either limited to its region or it experienced internal setbacks. The report encouraged organisations to develop strategies and policies “that would work in all scenarios”. 293

A very similar set of quadrant scenarios was developed for the City of London by SAMI Consulting and Oxford Analytica. These scenarios provided three alternative visions of China (and India) to 2015. The method included construction of an “influence diagram” to understand the drivers and their inter-relationships. Three key questions were considered: namely, how long could China sustain rapid economic growth, could it cope with the complexity it was creating, and how would it interact with the rest of the world. 294 The two principal drivers selected to construct the

293 Ibid., 7-9 and 66-67.
quadrant were (on the vertical axis) whether state institutions and commerce were sufficiently adaptive and effective, and (on the horizontal axis) whether the outside world saw China as a source of wealth and opportunity or as an economic threat and source of instability. Both of the WEF and SAMI Consulting/Oxford Analytica scenario constructions therefore saw the two critical drivers as being effective or ineffective governance and a positive or negative external environment. SAMI Consulting/Oxford Analytica also explored scenarios in only three of the four quadrants: first, The Crane Flies Against the Wind where government was effective but the external environment was negative, leading to accelerated change but significant instability; second, The Lion Leads the Dance where both the external environment and internal governance were favourable, which was seen as an extension of existing trends but with somewhat slower growth; and third, The Dragon Breaths Fire where both internal and external circumstances were negative, leading to long-term decline. The Crane scenario was seen as “realistic and plausible”, especially in the longer-term; the Lion scenario as very likely in the short-term but difficult to sustain thereafter; and the Dragon scenario as unlikely. 295

A further major scenario construction exercise, which explored China’s possible futures in 2020, was conducted in 2009 by the Center for Global Affairs (CGA) at New York University. The exercise aimed to bringing together qualified people, supported by long-term research on forces for change, to develop scenarios that could provide “penetrating insights” and identify “key actors, drivers and impediments of change” as well as possible wild card developments. It resulted in “three stylized future trajectories” for China in 2020, developed through “a facilitated conversation” with eighteen China experts. In his introduction to the scenario report, Michael Oppenheimer commented that authoritarian states appeared impervious to change “until suddenly they do”. He believed the value of scenarios lay in facilitating “structured speculation on how things might fall apart”. 296

The first of CGA’s three chosen scenarios was Fragmentation, in which challenges to central authority placed the survival of the CCP at risk. Growth rates of 9 to 11

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295 Ibid., 43-45 and 54.
percent were experienced until 2014, followed by a sharp economic downturn. By 2020 a leadership split was emerging, and China’s influence in Asia was becoming destabilising. In the second scenario, Strong State, China remained highly autocratic but growth continued at 8 to 9 percent, allowing it to effectively address internal challenges and ruthlessly suppress dissent. It was “a more constructive stakeholder” in the international system”, but was also an emerging protagonist in “a contest between democracy and state capitalism”. In the third scenario, Partial ‘Democracy’, the CCP was forced to accommodate popular demands for greater participation in government. Internationally, China was becoming more assertive and its “new brand of participatory authoritarianism” was challenging the Western liberal model. The three scenarios were not ranked by probability.297

Robert Broadfoot and Michael Enright also employed an innovative and well-structured approach to scenario development. They structured their analysis around four “key uncertainties”, including China’s ability to maintain rapid economic growth, its social cohesion, cross-Taiwan Straits relations, and relations with other great powers”. For each of these uncertainties two possible outcomes (“good” or “poor”) were considered, which when combined in a “Scenario Tree” resulted in a total of 16 possible scenario outcomes. Each scenario was considered to have a sufficiently high probability of occurrence that none could be discounted, but only five were given detailed treatment. (As an example, the first scenario labelled Every Country for Itself assumed that economic performance, social cohesion and cross-Strait relations were good, but great power relations were poor.) The authors stated they had not attempted to forecast China’s future but only to increase understanding of the “parameters of uncertainty”.298

It is difficult to fault most of these scenario methods in principle. They all had the virtue of raising for consideration a number of alternative futures that might otherwise not be considered. Collectively they raised awareness of many different possible outcomes other than those that were most popular or closest to the

297 Ibid., 5-41.
conventional wisdom. Some, with hindsight, stand up quite well. They certainly gave
due consideration to the presence of uncertainty, and increased appreciation of the
ability of human actors to influence or change trends and outcomes. These benefits
were often not without some drawbacks, however. Many scenario exercises could be
criticised for being either poorly researched, naïve or fanciful, lacking in depth, or
unhelpful to policy-makers in narrowing the range of future possibilities, as well as
for failing to provide a useful mechanism to evaluate the range of expert opinion.
The following chapters explore an alternative and complementary approach that I
suggest promises a much more effective means to structure and evaluate the expert
debate on the most critical and consequential issues in China’s future.
7 POLITICAL UNCERTAINTIES

7.1 Critical Uncertainties

As noted in Chapters 1 and 2, the pervasive influence of uncertainty has a huge impact on attempts to forecast China’s future and has led to substantial disagreement among experts on major issues. I believe this strongly suggests the likely considerable value of a fresh approach that focuses on comparing and evaluating the full spectrum of opinion among China experts within particular domains. Such an approach avoids placing undue reliance on the judgements of individual experts. It offers a way to move beyond a confusing and unproductive optimist-pessimist debate about China’s future. It encourages both optimists and pessimists to recognise the realistic possibility of outcomes that fall outside the relatively narrow range they have previously been willing to entertain. It also increases awareness that the future is not yet determined and that it may possibly be channelled in new and more positive directions.

The term *critical uncertainties* has been used by several experts – as noted above in the context of scenario construction. But I use it here in a different and broader context. The concept of critical uncertainties offers, in my opinion, an especially valuable and productive analytical tool. It implies that there are a number of major issues affecting China’s future about which it is not possible to offer definitive predictions and about which there is consequently a legitimate and ongoing debate. It therefore seems persuasive that an open-minded and comprehensive analysis and synthesis of these different expert views will likely yield a more robust understanding of the realistic range of future possibilities, and even perhaps suggest some of the more likely outcomes.

I recommend that the first step in this process should be to attempt to identify and specify the most important critical uncertainties, which can then serve as the starting point for an enduring but flexibly-defined analytical framework. As indicated in Chapter 2, these uncertainties are defined as “critical” because they are specified at a strategic or system level, and because they will have very high national, and even international, impacts and consequences. A well-defined structure of critical uncertainties can be used as a template to analyse the ongoing discourse among
analysts about China’s future and to provide a valuable foundation for further research. The end-result of such a synthesis of analytical discourse will potentially be a more comprehensive, nuanced and balanced overview of possible developments. The wider employment of such a structured approach would extract greater value from existing research and could encourage more comprehensive and better-coordinated institutional approaches to the study of national futures for China and other countries.

As also noted in Chapter 2, such critical uncertainties are probably best presented as a hierarchy of domain-specific interrogative questions, which will not endure for all time but will require regular updating and refining. This iterative process will inevitably be to some extent subjective and intuitive. For pragmatic reasons, this study considers only four over-arching domains – political, economic, environmental and international – and each of these domains is interpreted broadly and inclusively. For example, the political domain is interpreted to include the social underpinnings of the political system, the economic domain includes demographic aspects, the environmental domain includes natural resource and energy aspects, and the international domain includes military and security aspects.

In each of these domains the overarching question is likely to focus on how effectively China will perform in that domain. In the political domain, the highest-level critical uncertainty can be expressed provisionally as: “What are the prospects for China’s political governance?”; in the economic domain as: “What are the prospects for China’s economy?”; in the environmental domain as: “What is the outlook for China’s environmental management and sustainability?”; and in the international domain as: “How are China’s international relationships likely to evolve?”.

This chapter will also attempt to explore a second level of critical uncertainties within the political domain, based primarily on a review of the debate among China experts about these uncertainties. (Similarly, second level critical uncertainties for the remaining domains will be considered in the following three chapters.) It is noteworthy at the outset that when the prospects for political governance in China are discussed by experts outside China their primary preoccupation is not – as might be
expected – with the likely future **effectiveness** of the political system in delivering such public goods as prosperity, stability and equity. It often appears to be taken as a given that to date the Chinese governmental apparatus has been generally quite successful in these areas. Rather than focusing on effectiveness, a major competing preoccupation among China watchers has been with the **nature** or **form** of the evolving political system, and especially with whether the current authoritarian system is capable of continuing to perform effectively or whether an alternative and more liberal political system is likely to evolve to better cope with future challenges and expectations.

In short, the focus of many if not most China experts has been on the institutional nature of the future political system rather than its deliverables. There has been, especially among analysts in the United States, a huge interest in the question: **What are the prospects for continued authoritarian governance in China?** and especially in the obverse of this question: **What are the prospects for democracy in China?** Two other related issues have also received much attention, namely **Will China’s political stability be threatened by social unrest?** and: **What are the prospects for political liberalisation within an authoritarian system?** Given the preoccupation of China experts with these issues, this chapter will concentrate mainly on the spectrum of views about these four critical uncertainties.

### 7.2 Authoritarianism

China’s authoritarian regime has for many years given every appearance of being well-established and in-control. There has nevertheless been a vigorous exchange of views among experts about the regime’s durability, confirming that this issue should be included as a critical uncertainty. As noted in Chapter 4, a number of China watchers have been very doubtful about the future of the CCP – two of the most prominent sceptics being Minxin Pei and Will Hutton. Pei’s views have already been described, but he subsequently in 2012 revisited the issue of the CCP’s prospects and concluded that following China’s entry into the “democratic transition zone” the durability of one-party rule would be “doomed”. Unless it “immediately” pursued “de-totalitarianism” it might find that a Soviet-style collapse was “its only future”.299

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Hutton’s emphasis was on China’s inevitable political and economic failure if it did not adopt Western “Enlightenment Institutions” including a pluralist representative democracy. Zheng Yongnian was also sceptical about China’s authoritarian future. The Party, he said, was entering “uncharted waters” and if it faltered this might even lead to the breakup of the nation. He described the future of the CCP as undoubtedly the key uncertainty for China. He considered that “rigid flexibility” best described the CCP’s strategy, and judged that such rigidity would be unsustainable and ineffective “in the long run”.

Several other China watchers also stressed the multiple challenges and weaknesses confronting the authoritarian political system. The majority, however, appeared convinced the CCP would nevertheless remain in power for many years. This view appeared to strengthen during the 2000s. Harvey Nelson found seven reasons why the CCP would endure, at least in the near to medium term; including that the CCP could portray itself as the protector of stability, that there were no likely alternatives, and that it could manipulate nationalism. China had no desire to follow the example of the Soviet Union, so change would be approached “cautiously and incrementally”. Chinese seemed likely to prefer repressive authoritarianism to the alternative of turmoil.

In influential article Andrew Nathan observed that after Tiananmen many observers, including himself, expected the CCP would fall to a “third wave” of democratisation as posited by Samuel Huntingdon. But the Party had reconsolidated. Regime theory held that authoritarian systems were inherently fragile due to weak legitimacy, over-reliance on coercion, over-centralisation of decision-making, and emphasis on personal power. But Nathan noted the CCP’s version of authoritarianism had proved to be “resilient”, due in part to its success in institutionalising leadership succession,

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300 Hutton, The Writing on the Wall: China and the West in the 21st Century, x.
encouraging meritocratic promotion, and widening political participation. This weakened “too-hasty arguments that it cannot adapt and survive”. Further explanations for the regime’s success included the fact that living standards had risen, the CCP had coopted elites, the population feared disorder, and perceptions of the CCP’s unshakeable grip on power. He thought the available evidence proved the CCP was “not supine, weak, or bereft of policy options”. China’s leaders thought they could solve China’s problems and they intended to address them. Arguments about the superior merits of democracy held no appeal for them.  

Nathan noted that scholars like Talcott Parsons, Richard Lowenthall and Chalmers Johnston had debated the adaptability of totalitarian regimes for half a century, but the CCP had adapted significantly by abandoning utopian ideology and charismatic leadership, empowering a technocratic elite, reforming its bureaucracy, and reducing control over private speech and action – all without leading to regime change or the democratic transition that Parsons predicted as the consequence of such adaptation. Nathan believed democratic transition in China was therefore not inevitable. China had already transitioned successfully from totalitarianism to authoritarianism, suggesting “an even more disturbing possibility: that authoritarianism is a viable regime form even under conditions of advanced modernization and integration with the global economy”.  

In a later debate with Roderick MacFarquhar, Nathan continued to argue that current forces on balance supported the durability of the CCP’s rule, rather than collapse or democratisation. A single spark, he argued, would not start a prairie fire due to the effectiveness of the CCP’s fire brigade. The crucial factor in the regime’s resilience was “the elite’s will to power”. He doubted that gradual modernisation of the CCP’s rule would lead it to “grow out of authoritarianism”. Changes to date had seemed “to consolidate rather than weaken authoritarianism”. Nathan also maintained that three theoretical perspectives about China’s future were being misapplied. His response was: “It Ain’t Necessarily So”. First, he argued that Seymour Lipset’s theory that a rising middle class would demand democracy did not apply because China’s middle

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class did not support democratisation. Second, Talcott Parsons’ theory that a modern economy must function freely in order to operate efficiently did not apply because China’s market-state economy so far had worked effectively. Third, the theory associated with Francis Fukuyama and others that socialisation in a global culture would produce democratisation did not apply to China because it wanted to develop its own non-Western alternative modernity.  

Such views were echoed and even amplified by Kjeld Brodsgaard and others in a volume which argued that instead of losing its grip the CCP was reasserting and strengthening its control. They contested the transition paradigm espoused by Thomas Carothers, which implied the CCP would eventually wither away as China moved toward pluralism and democracy. Instead of regime breakdown the evidence was for regime resilience and revitalisation.  

Similarly, Jean-Pierre Cabestan emphasised the CCP’s successful adaptation and use of “proto-democratic” institutions to support its legitimacy, which he believed supported a “flexible authoritarianism” rather than the “fragmented authoritarianism” perceived by others. He saw progress toward a CCP that he variously described as “consultative but elitist”, “softer but stabilised”, and “enlightened but plutocratic”.  

Bruce Dickson initially appeared equally as impressed by the scale of the challenges facing the Party as by its new-found durability and adaptability. At the same time that he perceived an “unprecedented degree of institutional stability”, he also saw a weakening of the CCP’s strength at grassroots level. He questioned whether the CCP’s cooption and recruitment of new elites would strengthen or weaken its hold on power. His later research, however, led him to favour the view that the CCP’s power would strengthen. He used the term “populist authoritarianism” to describe China’s political system, noting that although conventional wisdom characterised it as beset by tension and turmoil, the CCP had been “more adaptable and more

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resilient than it often gets credit for”. He saw China’s problems as “more chronic than acute” and, unless there was an “unexpected flare-up”, did not anticipate an imminent threat to the regime. The CCP benefited from a widespread belief that democracy was “not appropriate for China”.\(^{310}\)

In the first of three books about China’s “red capitalists”, Dickson argued that these entrepreneurs might “prop up an authoritarian regime” rather than undermine it. A “linear and deterministic approach” to the theory of political development, he asserted, ignored “the weak link between economic development and democracy”. Adam Przeworski and Fernando Limongi, he said, had discovered there was “no simple correspondence between economic change and the timing of democratization”. The CCP might “remain in power indefinitely”, even though lasting solutions might require additional political reforms.\(^{311}\) Dickson’s two following books indicated an apparent strengthening of his views about the essentially conservative and pro-regime attitudes of the red capitalists, who he saw as crony capitalists, allies of the state, and partners in the status quo.\(^{312}\)

Although James Mann’s view of the CCP’s record on human rights and other issues was distinctly negative, he too saw little prospect that it would fade from the scene. He was strongly critical of a popular view in the West that China’s economic progress and engagement with other economies would gradually lead to democracy. He dismissed this naïve optimism as the *Soothing Scenario*. He was also unconvinced by another view that China’s weaknesses would lead to its collapse, which he called the *Upheaval Scenario*. Instead he thought it much more likely the world would need to accept a more realistic *Third Scenario* in which the CCP would probably continue to be around for a long time.\(^{313}\)

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A major study by David Shambaugh pointed to evidence of both “atrophy and adaptation” in the CCP’s development. He believed the Party had been “very proactive” in instituting political reforms, which belied the image popular among many analysts that China remained “an ossified Leninist state”. Western analysts considered China’s political reforms to be invalid unless they were “protodemocratic”, but he believed the CCP’s progressive adaptation had strengthened its legitimacy. At the same time as this adaptation was taking place he also observed a progressive process of atrophy in the CCP’s traditional instruments of control over the intellectual, social, economic and political life of China’s citizens. He judged that continuation of this process would also consolidate the Party’s power. He disagreed with those who thought the party-state was in “a kind of free-fall”. He concluded that it was adapting “fairly (but not entirely) effectively”. However, he agreed it would be naïve to presume the CCP would remain in power perpetually and saw this as “an open question”. Interestingly, Shambaugh’s later views appeared to move more strongly in this more sceptical direction. He assessed that since 2009 the CCP had become more repressive and insecure. A coalition of vested interests had aligned with hard-line elements to pull back reforms. As it celebrated its 90th birthday in 2011 the CCP seemed “frozen in fear of the future”. Like many 90-year-olds the Party had become “increasingly infirm, fearful, experimenting with ways to prolong life, but overwhelmed by the complexities of managing it”.

Andrew Nathan also seemed to move in this same direction. Writing again in the Journal of Democracy in 2009 he appeared to be more inclined to emphasise the potential impermanence of China’s authoritarianism than its resilience. On the one hand he was impressed by the CCP’s vigorous longevity. It had fostered rather than stifled change, it had promoted competent leaders, ensured orderly succession, generated effective policies, and attracted popular support. But, on the other hand, he thought the Party suffered from the “birth defect” that its authority had never been subject to popular review as occurred in democratic systems. Authoritarian regimes, therefore, were “not forever” and they lived “under the shadow of the future”. The

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CCP could only stave off crises by performing a flawless balancing act, and “it cannot afford to slip”.  

Subsequently, however, three major studies of the CCP all concluded that it remained a viable and formidable organisation, provided it continued to reform politically and perform economically. Richard McGregor noted that the Chinese communist system was “in many ways, rotten, costly, corrupt and often dysfunctional”, but it had proved to be “flexible and protean enough to absorb everything that has been thrown at it”. Through a combination of cooption and coercion – and by exploiting both economic growth and nationalism – it had strengthened its position. He concluded that for the foreseeable future the CCP’s leaders would “bestride the world as a colossus on their own implacable terms”. He added later that the idea of China becoming a democracy was “always a Western notion” born of theories about how political systems evolved. So far the evidence in China suggested these theories were wrong. The Party had made it clear it did not want China to become a Western democracy, and had the means to ensure it did not.

The second study, by Zheng Yongnian, agreed the CCP was proactive and would dominate as long as it continued to transform itself. He interpreted the CCP’s identity within a Chinese cultural context – as a transformed emperorship that accommodated some democratic elements. He believed that in the long haul democratisation was the CCP’s only option, but not along Western lines. The third study, by Kerry Brown, also argued that if the CCP continued to open up the political system it might still be around in half a century. He was not entirely convinced, however, entertaining a “nagging suspicion” that the CCP’s ambitions might in some ways be

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“fundamentally unsustainable”. A “nightmarish combination” of economic, social and environmental problems might bring it down.\textsuperscript{320}

Several other experts remained ambiguous or uncertain about the CCP’s longevity. Singapore academics John Wong and Lai Hongyi conceded that outside analysts had “constantely underestimated” the CCP’s ability to adapt and to manage crises, and that the CCP’s position was “not insecure”. They also believed, however, that without electoral democracy fundamental flaws in China’s political system could threaten the social order, especially if economic growth were to falter.\textsuperscript{321} Willy Lam was impressed by the Hu Jintao-Wen Jiabao leadership’s approach to socio-economic issues, but concerned about lack of progress in reforming the “antediluvian” one-party system.\textsuperscript{322}

Eric Anderson was more confident about the CCP’s prospects. He doubted China’s government would “significantly alter in form or function” in the next ten years, declaring confidently that: “A pragmatic, resilient, authoritarian regime will still be sitting in Beijing in 2020”. However, he noted that unforeseen developments had “a way of derailing even the best laid plans”.\textsuperscript{323} Stephen Platt and Jeffrey Wasserstrom speculated that unless the CCP reinvented itself with “a new legitimizing narrative” or “a new multiparty political structure” it could risk being overthrown, but they warned that this might take “many generations longer” than expected.\textsuperscript{324}

7.3 Social Unrest

Many experts who were sceptical about the durability of the CCP based their views on the expectation that the regime could be undermined by the disappointed hopes and rising expectations of less fortunate members of China’s society who had not

\textsuperscript{320} Kerry Brown, \textit{Friends and Enemies: The Past, Present and Future of the Communist Party of China} (London: Anthem, 2009), 23. This assessment can be compared with Brown’s early prediction that China would be a robust democracy by 2030.


\textsuperscript{323} Eric C. Anderson, \textit{China Restored: The Middle Kingdom Looks to 2020 and Beyond} (Santa Barbara, CA: Praeger, 2010), 117 and 243-246.

benefitted greatly from the general prosperity. This suggested a further critical uncertainty about whether the stability of China’s authoritarian regime will be threatened from below by social unrest. Several scholars assessed that such unrest was both widespread and growing. Minxin Pei, for example, observed that social tensions – as measured by official statistics for mass incidents and petitions – had risen to record levels. The government’s response mechanisms had failed to redress grievances, and its investment-driven economic strategy was causing “crushing social strains” that were “undermining the political stability critical to future prosperity”.325

Other analysts supported Pei’s view. Albert Keidel believed China’s modernisation, and official corruption, had created an “extraordinary scale of social unrest”.326 Jae Ho Chung, Hongyi Lai and Ming Xia found that social instability in China was “rising unabated” to a level that challenged the authority and legitimacy of the regime.327 Carl Minzner assessed that China’s political and social controls were fuelling “a destabilizing cycle of social unrest”.328 Researchers within China also expressed concerns. Yu Jianrong at CASS noted that social conflict was a highly sensitive topic in China and a “veritable mine field” for scholars. He ventured, however, that in the next decade or two China would probably enter “a period of frequent social conflict” in which peasants, workers and intellectuals would confront the dominant elitist alliance and create political, economic and social upheaval.329

By no means all experts, however, drew such negative conclusions from their study of social protests in China. Kevin O’Brien recognised the scale of such activity, but did not believe rural China was “about to explode”. Most protests were weakly organised, circumscribed, small-scale and local. They had a positive aspect in that

325 Minxin Pei, “China is Paying the Price of Rising Social Unrest,” Financial Times (7 November 2005).
they helped to deflect predatory behaviour. There was little evidence they posed “an imminent threat” to the regime. He saw the CCP’s tolerance of rural contention as a sign of the Party’s confidence and part of its “high-wire legitimation strategy.”

Several experts also emphasised that assessments claiming a high level of social unrest in China were contradicted by the results of numerous opinion polls that confirmed high and even strengthening support for the regime. Wenfang Tang noted that a comparison of eleven public opinion polls in Chinese cities between 1987 and 1999 showed that, despite dissatisfaction with the costs of economic development, support for the CCP was high. Zhengxu Wang’s analysis of survey data led him to argue that development had generated “substantial public satisfaction” with the regime’s performance and a high level of trust. He also judged that respondents did not appear to be intimidated about expressing their views freely in such polls. They indicated a much higher level of satisfaction with their country’s economic development than did respondents in Japan, South Korea, Hong Kong and Taiwan. Zheng concluded that in the absence of major crises the regime would remain in power.

Some US analysts were initially reluctant to accept such survey results. Edward Friedman argued that respondents in authoritarian societies probably felt compelled to give the politically correct answers. However, many others who examined these surveys closely were inclined to differ. Commenting on the 2003 edition of the CASS Blue Book of Chinese Society, Joseph Fewsmith noted that Chinese polls indicated a sizeable majority of citizens were cautiously optimistic about the future. 74 percent rated their overall situation as OK and 73 percent expected that life would be better in the future. Commenting on the 2007 edition, Fewsmith noted continuing or even deteriorating social problems, but overall optimism persisted. Over 90 percent expressed confidence in the party-state’s handling of affairs and

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thought overall socioeconomic development was good. Overall he thought the data looked “favourable in terms of social stability”, although with considerable conflict below the surface and dissatisfaction about specific local issues.335

Based on a survey he conducted in 2003, Tony Saich also noted a high level of satisfaction (86.1 percent) with the central government’s performance, although satisfaction with government at the township and village level had declined to 43.6 percent.336 He repeated these surveys in 2005, 2007 and 2009 and found that levels of satisfaction rose steadily at all levels reaching over 95.9 percent for the central government and 61.5 percent for local government. He believed the poorest in Chinese society were responding positively to the Hu-Wen government’s social welfare initiatives. Dissatisfaction with local officials and with corruption might, he concluded, be a source of social instability, but citizens did not blame the central government directly.337 US sociologist Ethan Michelson conducted similar surveys in China’s rural counties in 2002 and 2010. He too found growing levels of confidence and trust in government, crediting this to greater provision of social benefits, subsidies, reduced taxes and fees, and infrastructure improvements.338

Other positive polling results emerged from the Pew Global Attitudes Survey which showed that between 2002 and 2008 the percentage of respondents in China who expressed satisfaction with their country’s direction increased from 48 to 86, while the percentage who thought China’s economy was good rose from 52 to 82. In the 2011 survey, 85 percent remained satisfied with China’s direction and 88 percent saw the economic situation as good. These results were the highest among the 24 countries surveyed, and by a very wide margin.339

338 John Sexton, China Rural Unrest on the Wane, Survey Claims (china.org.cn, 22 March 2011).
Such strong findings from opinion polling led two other experts to draw conclusions that differed markedly from the prevailing wisdom about the level of social tension in China. Teresa Wright perceived growing acceptance of authoritarianism in China. She noted that “countless” national polls showed “remarkable support” for the CCP. Its reforms had persuaded most Chinese to accept the status quo. She thought this could change as memories of the Maoist era of deprivation faded and especially if the economy slowed, but even so she believed China might “confound prevalent assumptions that economic liberalization and growth lead to strain between an authoritarian regime and the society that it governs”.\textsuperscript{340}

Another important critique of prevailing views about social unrest came from Martin Whyte who disputed “the myth of the social volcano” in China. Based on a national survey he conducted in 2004, he assessed that respondents were critical of aspects of current inequalities, but only in a context of wider acceptance and approval. They perceived that these inequalities – arising when some members of society achieved wealth through hard work and seizing opportunities – were more acceptable than the structural inequalities of the Maoist period that were caused by the rigid assignment of individuals to hierarchies and locations.\textsuperscript{341} Whyte also found that China’s most disadvantaged citizens (including farmers) were not the ones who were most angry about new patterns of inequality.\textsuperscript{342}

7.4 Democracy

Despite the seeming durability of China’s authoritarianism, a great deal of expert attention has been devoted to assessing the potential for it to adopt a Western-style democracy – more attention perhaps than would seem justified by the all-too-apparent current obstacles to such a development. Several analysts were surprisingly optimistic about the outlook for democratisation, variously predicted for some time

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between about 2015 and 2030. Early hopes were of course dealt a major blow by the Tiananmen crackdown on pro-democracy activists but they were not completely extinguished. As noted earlier in this chapter, Andrew Nathan was one of those after Tiananmen who still perceived strong forces in favour of democracy. At that time he observed that “one of the firmest findings” in the social sciences was that a rising middle class would eventually foster an irresistible demand for democratisation. He therefore doubted China’s political stability would last, speculating that a future leadership split was likely and questioning whether the “Humpty-Dumpty” of regime legitimacy could be put together again. Nathan believed it most likely that democracy would be sponsored by reformists in the leadership, because although the populace were aware of the Party’s “incompetence, cruelty, corruption, and ideological bankruptcy” they also wanted order and stability. He thought provincial and even national elections might be introduced, but conceded that fear of instability might induce China to follow a more gradual path to democracy.343

Willy Lam was also hopeful. In 1995 he speculated that some Chinese leaders might be attracted to East European-style socialism with “real elections and other elements of pluralistic politics”. There would be strong opposition to such changes, but this might be offset by realisation that: “Not budging … might provoke a revolution”.344 Minxin Pei also saw possible progress toward democracy at this time. He thought authoritarian political institutions were fast decaying and hoped that new reforms promoting village-level elections and an expanded role for the National People’s Congress (NPC) might lead to “creeping democratization”.345

Perhaps the most conspicuous of those in the 1990s who saw bright prospects for democracy in China was Henry Rowen, who answered his question: “When will China become a democracy?” with the confident forecast that it would be “around the year 2015”. He accepted that some might think such a prediction foolhardy but pointed to “unmistakable signs” of positive change – including the beginnings of grassroots democracy, rule of law, and liberalising of mass media. He asserted that

Seymour Lipset had established a “worldwide norm” that the richer a country became the freer it would be. Rowen calculated that by 2015 China’s per capita GDP would reach a level at which several scholars had suggested transition to democracy would become irreversible. Although there could be setbacks, he envisaged that competition in local and provincial politics would ultimately extend to the NPC.346

1998 saw the publication of the first of several editions of the Journal of Democracy that explored the outlook for China’s democratisation. Responding to the question whether China would still be governed by the CCP in ten years, Zbigniew Brzezinski thought it would be forced by that time to share power. Émigré reformist Yizi Chen thought economic modernisation would undermine CCP rule and lead to electoral democracy within the decade. Arthur Waldron also believed the CCP would not survive the decade, but thought a democratic outcome unlikely. Most of the other contributors also believed democratic change was only likely in the longer term.347

Among contributors to another special edition of the journal in 2003, only Bruce Gilley seemed hopeful. He believed the weak institutionalisation of China’s authoritarian system would lead to a breakdown that could precipitate democratisation. He supported his argument by drawing attention to another aspect of predictive theory, namely Robert Dahl’s invocation of the “logic of concentrated power”, to claim the existence of an inexorable drive toward wider political participation.348

In following years Waldron became more optimistic about China’s democratic prospects. He reasoned that its dynamic economy and its more affluent and well-informed society could lead to political change sooner than many expected.349 Gilley also now asserted that conditions in China were shifting decisively in favour of democratic change. He cited de Tocqueville’s view that autocratic regimes that left reform until too late only ensured their demise. The CCP, he speculated, could “muddle along for years or disappear in a flash”. In a vivid scenario (which included a Table illustrating a notional 1000-seat Chinese parliament), he suggested 2012

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might be the year when China made “a second attempt to build an enduring democracy”. Pointing to the theoretical findings of several scholars that democracy would survive “come hell or high water” when per capita incomes rose above a certain level, he calculated that a democratic breakthrough in China would become “impregnable” by around 2020.350

Interestingly, a review of Gilley’s book that suggested Sinologists should “eschew prognostication and focus on understanding China’s complicated present” elicited a lengthy and impassioned response from him damning this argument as “logically flawed and professionally irresponsible”. Predictions, he asserted, were “the mission of social scientists” and without them there would be “a muddle of thought and a muddle of policy”. He stood by his forecast that China would obtain democracy by 2020, claiming that even if it was wrong it was useful. Given that, in his view, the idea of democracy was becoming “a universal value”, he believed the burden of proof should be on those who argued China would not become a democracy.351

In 2007 Henry Rowen revised his prediction that China would be free by 2015, claiming it would be “partly free” by 2015 and “free” by 2025. He cited democracy theories developed by Robert Barro and Adam Przeworski who found that higher incomes and education levels predicted higher freedoms. He was, however, prepared to consider that China might arrive at “a novel political arrangement that falls short of true liberal democracy”.352 Dali Yang found it hard to disagree with Rowen’s view that China would soon become “partly free”. Though some critics dismissed a linkage between per capita income and democracy as “bogus axioms of political development”, Yang believed regime studies showed dictatorships eventually died as economic development progressed.353

Another strong proponent of China’s likely democratisation was Cheng Li. He perceived the emergence from the mid-2000s of a populist faction and an elitist

faction within the CCP leadership. He believed this “inner-party bipartisanship” would make elections at the higher political level more likely “in the not-too-distant future”, and that competition within the CCP “might one day be extended to general elections in the country”. Writing in 2008, Li thought democratic elections might occur “sometime in the next decade or so”.354 In another article he assessed that the most likely political scenario for China in 2020 was “the emergence of a constitutional democracy with Chinese characteristics”.355

Li later accused the China studies community in the US of “political blindness” in overlooking the significance of China’s political experiments. He acknowledged the CCP was not willing to give up its political monopoly or move to a Western-style tripartite division of powers, but believed it realised its legitimacy was being questioned and that it was “moving toward change”. The CCP as currently constituted could not survive indefinitely “because societal forces will become increasingly active”.356 Li claimed in 2009 that leaders who supported competitive elections were now in control in China.357 He assessed that by 2025 inner-party democracy and factional politics would make China’s elections more genuine.358 Yet another analyst who seemed prepared to put an approximate date on China’s democratisation was Kerry Brown who indicated in 2010 that although he was extremely pessimistic about China in the short term, and relatively pessimistic in the medium term, he was “wildly optimistic” in the long term – to the extent that he predicted: “by about 2030 we will be looking at a robust democracy in China”.359

Such optimism about China’s democratic future appeared to be shared, however, by only a minority of China watchers. Others specifically cautioned against overestimating support in China for Western-style democracy. Zheng Yongnian, for example, felt a major issue for China experts was that their emotions “often prevent them from reaching realistic conclusions”. He questioned predictive theories that

357 Cheng Li, “Intra-Party Democracy in China: Should We Take It Seriously?,” China Leadership Monitor 30 (Fall 2009).
359 Brown, "China Will Get Democracy."
suggested China’s embrace of capitalist economic development would lead to democracy, as reflected in the works of scholars such as Charles Lindbloom, Samuel Huntingdon, Seymour Lipset and Barrington Moore. He shared Nathan’s view that democracy in China was more likely to be gifted by the political elite than created by social forces.\textsuperscript{360}

Many others were equally sceptical about China’s democratic prospects, including Harry Harding and Thomas Metzger who noted the CCP’s firm opposition to full democratisation, the possibility that economic and other setbacks could derail political reform, the vested interests of both rulers and the people in the status quo, and the influence of China’s Confucian tradition.\textsuperscript{361} Daniel Burstein and Arne de Keijzer did not rule out that in the “far future” China might be attracted by “the Western approach to democracy and personal liberty”, but they considered that adoption of full democracy was unlikely.\textsuperscript{362} Harvey Nelson disputed neo-liberal institutionalist theory that suggested globalisation would favour democratisation.\textsuperscript{363}

Andrew Nathan had also become more sceptical. His minimum definition for democracy in China included open, competitive and periodic elections for top power holders and he did not see this resulting from China’s experiments with political reform.\textsuperscript{364} Jonathan Anderson also questioned the idea that China could not growth without democracy. He countered that a better question might be whether China could grow \textit{with} democracy, since the other successful Asian economies were also effectively one-party states. He believed there was, in effect, “an unwritten contract” in which the Chinese people agreed to hold off on democratic aspirations in return for the benefits of growth.\textsuperscript{365} Even Cheng Li did not always appear hopeful about China’s democratic prospects, commenting on one occasion that it should not be
expected China would adopt a multi-party system in the near future and that a Chinese democracy would have “its own unique features”. 366

7.5 Liberalisation

Apart from uncertainty about whether Western-style democracy would triumph in China or whether authoritarian rule would continue to flourish in its place, another much-debated critical uncertainty – situated somewhere midway between these two alternatives – also aroused the interest of China experts: namely, whether or to what extent political liberalisation might make inroads over time into the nature of the CCP’s authoritarian rule. Two issues in particular attracted a lot of attention in the literature. The first was the extent to which political liberalisation had progressed within the authoritarian structure and how far it might develop in the future. The second related issue was whether incremental liberalisation might lead to the eventual emergence of democracy in China in the long term, and whether this might take the form of Chinese-style or Western-style democracy.

Some analysts seemed impressed by progress toward political liberalisation in contemporary China. Even Minxin Pei, at least in 2000, saw signs of “slow but real” political change. As a consequence, he was one of the first to use the expression “soft authoritarianism” to describe China’s emerging political system, and saw “real potential for democratic transition, perhaps in the second decade of the twenty-first century”. He perceived a decline in the use of political repression, increasing political pluralism, strengthening of institutions for rule of law, popular participation, and the development of civil society. He noted the introduction of village elections and an expanded role for the NPC and provincial People’s Congresses. 367 Others, like John Thornton, were also encouraged by how much was happening to broaden political participation. He said Premier Wen had indicated to a US delegation that he

366 Hoffmann and Enright, China into the Future: Making Sense of the World's Most Dynamic Economy, 263. Daniel Bell has argued that the idea of the CCP being succeeded by a Chinese Confucian Party was probably less far-fetched than transition to a Western-style democracy. See: Daniel Bell “The Chinese Confucian Party?”, Globe and Mail (Toronto), 26 March 2010.

could foresee elections expanding to provincial level.\textsuperscript{368} George Gilboy and Benjamin Read perceived the emergence of a “more restrained, rational and rule-governed” political system, as well as more transparency and responsiveness.\textsuperscript{369} Steve Tsang also saw indications that the CCP was emphasising continuous governance reform and greater public consultation.\textsuperscript{370}

The view taken by many other experts, however, including later by Minxin Pei, was that political liberalisation in China was unlikely to develop much further because it would threaten the CCP’s hold on power. Roderick MacFarquhar, for example, argued that substantial political reform was unlikely because it might take away “the stone that leads to an avalanche”.\textsuperscript{371} Other experts considered that the degree of political liberalisation the CCP had encouraged or tolerated to date was limited, or that it had stalled or even been reversed. Joseph Fewsmith, for example, commented that the prospects for significant political reform in China were “increasingly dismal”. The CCP, in his view, would continue on a trajectory of “modest, inner-party democracy” that would not threaten its control, at least “in the immediate future”.\textsuperscript{372} Zhengxu Wang pointed to opinion polls that showed more than 90 percent of Chinese believed democracy was good, but they did not support rapid democratisation because growth and stability were seen as more important.\textsuperscript{373} Another poll found 79 percent were satisfied with “the way democracy works in our country”, indicating they believed some form of democracy was already in place.\textsuperscript{374}

A mixed assessment of China’s political liberalisation was also presented by Charles Freeman and Melissa Murphy. They agreed the CCP had recognised the need for political reform but thought the trajectory was unclear. The Party favoured greater

\textsuperscript{368} John L. Thornton, “Long Time Coming: The Prospects for Democracy in China,” \textit{Foreign Affairs} 87, no. 1 (January/February 2008), 2-22. Thornton conceded, however, that China’s idea of democracy differed from the West and that how far it would proceed was an open question.

\textsuperscript{369} George J. Gilboy and Benjamin L. Read, “Political and Social Reform in China: Alive and Walking,” \textit{The Washington Quarterly} 31, no. 3 (2008), 143-164.

\textsuperscript{370} Steve Tsang, “Consultative Leninism: China’s new political framework,” \textit{Journal of Contemporary China} 18, no. 62 (November 2009), 865-880.

\textsuperscript{371} Verna Yu, “Reform unlikely, says China expert Roderick MacFarquhar”, \textit{South China Morning Post}, 31 October 2012.

\textsuperscript{372} Joseph Fewsmith, “Political Reform was Never on the Agenda,” \textit{China Leadership Monitor} 34 (February 2011).


\textsuperscript{374} Nathan, \textit{Is Communist Party Rule Sustainable in China?}
public participation in political decision-making, but under authoritarian leadership. Its approach was “instrumental, incremental, and idiosyncratic”. Its experiments were encouraging, but implementation was problematic. Kerry Brown arrived at similar conclusions in his study of China’s village elections, which he described as mired in corruption, vote-rigging and cronyism.

Clearly, therefore, expert opinion has been divided about the progress of political liberalisation in China. Sanguine views had perhaps been encouraged by seemingly explicit support from some Chinese leaders. Wen Jiabao appeared on several occasions to advocate increasing the momentum of political reform. In his report to the NPC in 2010 he said China’s modernisation and economic reform could risk failure without political restructuring, including expansion of “primary-level democracy”. He said the regime intended to “create conditions for the people to criticize and supervise the government and let news media fully play their oversight role”. In a speech to the Royal Society in London in 2011 he declared China would be a country that “fully achieves democracy, the rule of law, fairness and justice”. He saw people’s democracy as “the soul of socialism” and added “without freedom, there is no real democracy”. He also supported “a freer academic atmosphere” characterised by “the spirit of independence and freedom in thinking”.

Wen’s position certainly appeared to be at the leading edge of liberal political thinking in the CCP but, as Joseph Fewsmith pointed out, there was little evidence that he was advocating a level of reform that would challenge the CCP’s power monopoly. His remarks were broadly consistent with the most definitive statement of the CCP’s approach to democratisation as reflected in its 2005 White Paper titled Building of Political Democracy in China. This document described democracy as a universal aspiration but was adamant that “the political system a country adopts and the road to democracy it takes must be in conformity with the conditions of that

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377 Xinhua, 6 March 2011.
378 Xinhua, 28 June 2011.
country”. It endorsed political consultation and participation – including China’s system of people’s congresses, grassroots democracy and village elections, and inner-Party democracy – as part of “political democracy with Chinese characteristics”. But it maintained there was “no one single and absolute democratic mode in the world that is universally applicable”. In particular, the White Paper stressed repeatedly that the “most important and fundamental principle” for China’s “socialist political democracy” was leadership by the CCP. NPC chairman Wu Bangguo declared that China would never adopt “a multiparty revolving-door system or other Western-style political models”. He insisted that “socialism with Chinese characteristics” was “the only correct road” for China.

Some commentators nevertheless saw the prospects for Western-style democracy as still somewhat hopeful, perhaps influenced by the views of prominent Chinese thinkers like Yu Keping, a CCP official and professor at Peking University. Yu’s writings – especially his article published in Chinese in 2006 titled “Minzhu shige haodongxi” [Democracy is a Good Thing] – attracted much attention. He described democracy as “the best political system” and “the one with the fewest number of flaws”. As Andrew Nathan clarified, however, Yu’s concept of democracy was much more consistent with the CCP’s view than with a minimal Western definition. In his article Yu advocated “a socialist democracy with unique Chinese characteristics”. He did not want to “import wholesale an overseas political model”. Elsewhere he wrote tantalisingly of his hope that an incremental approach to democracy in China would lead to “breakthroughs in the fundamental nature of reform”, but he suggested the process would be “gradual and long”. He preferred an “orderly democracy” whose essence would be “political participation by the citizenry” but within a framework “led by the party and the government”. He envisaged that China’s citizens would “gradually experience more freedom in political elections” and that these elections would be “more and more competitive”.

381 This and other articles by Yu were translated in Yu Keping, Democracy is a Good Thing: Essays on Politics, Society and Culture in Contemporary China (Brookings Institution, 2009).
382 Nathan, “China’s Political Trajectory: What Are the Chinese Saying?”
but he saw the CCP remaining “at the center of political power in contemporary China”. 383

The subject of China’s democratic prospects was also raised by two Chinese scholars: Liu Yu at Tsinghua University and Chen Dingding at the University of Macau. Their views may exemplify those of many intellectuals in China who seem increasingly frustrated by the CCP’s lack of progress with political reform. Despite the “pessimistic view of China’s democratic future” held by Western academics, they saw many signs that “a fundamental political transformation” was occurring. They thought China was “moving closer to vindicating classical modernization theory” which saw economic development as likely to lead to eventual democratisation. In fact they were optimistic that China would become a democracy “around 2020 or so”. Importantly, however, they noted that the actual form that Chinese democracy would take was “uncertain” and was unlikely to resemble the Western model. 384

Some have nonetheless clung to the hope that at least in the long term China will become fully democratic. The signatories of Charter 08, including over 350 intellectuals and human rights activists in China, called for the replacement of authoritarianism by a new political system that would include periodic, competitive elections for all major government positions. But given the contrary preferences of even China’s most liberal leaders and most of its influential public intellectuals, several experts have reached the conclusion that a more-limited Chinese style of democracy may be the most likely end result. Shaohua Hu, for example, believed China would sooner or later be democratic, but he assessed that it could follow a different model to the West and believed this should be respected. 385 Even Bruce Gilley, one of those seemingly most confident about China’s democratic prospects, speculated that a Chinese-style democracy could be quite different to, and possibly even better than, the Western model. He thought China’s democracy could even push established democracies to deepen their own democratic experiences. 386

Rowen also conceded that Chinese democracy could be “a novel political arrangement that falls short of true liberal democracy”. 387

It seems likely that the nature and extent of political liberalisation within the structure of authoritarian rule will continue to be debated as one of the most important critical uncertainties in China’s political future. What seems to emerge clearly from the debate so far, however, is that the replacement of authoritarianism by democratic political values and institutions has come to be seen by most experts as at best a distant possibility. They appear to accept that the best that can be hoped for is a Chinese style of democracy under CCP leadership which for some considerable time will fall well short of what many in the West would define as democracy. Moreover, few experts appear to expect that the prospects for political liberalisation will improve significantly under the new leadership installed in November 2012.

This pessimistic outlook for China’s democratic prospects has still, however, not persuaded some China watchers to abandon completely their hopes that true democracy might eventually prevail in the distant future. Cheng Li has again challenged the durability of the CCP’s “authoritarian resilience”, arguing that resistance to democratic change is causing the political system to stagnate. To avoid a “bottom-up revolution” it must, he claimed, “embrace a systematic democratic transition with bold steps towards intra-Party elections, judicial independence and a gradual opening of the mainstream media”. 388

Andrew Nathan, in a new 2013 collection of articles in the Journal of Democracy, claimed that the “consensus” was stronger than at any time since the Tiananmen crisis that the CCP’s resilience was “approaching its limits”. He stated that informed observers perceived deep changes that would eventually have major consequences. Based on his investigation of regime change theories – including threshold models, revolutionary bandwagons and information cascades – Nathan noted that such transitions were paradoxical in that they appeared retrospectively to be “inevitable but not predictable” until a tipping point was reached. Regime change depended not

387 Rowen, “When Will the Chinese People Be Free?”, 49.
only on there being a majority in favour of change but also triggering events. In the case of China a “breakthrough moment” might be triggered by something like “a foreign humiliation”. He believed that “the expectation of dramatic change” persisted, and that it could be led by pro-democracy forces inside the CCP. He also conceded, however, that such change might instead “galvanize a shift from social dissatisfaction to social support for the current regime”, or it might lead to “a descent into disorder”. 389

7.6 Political Futures

The most important finding from the above consideration of critical uncertainties in the political domain is that China experts expressed a very wide range of conflicting views. It is abundantly clear that there was no consensus about China’s political direction. This concluding section summarises some key aspects of the expert debate. On the question of the prospects for the continuation of an authoritarian regime, a number of experts were sceptical but the majority were impressed by the strength of the CCP’s grip on power and tended to believe it would maintain its legitimacy by responding gradually and as it deemed necessary to popular demands for political participation. They proposed various labels to describe this political model including soft authoritarianism, resilient authoritarianism, flexible authoritarianism, populist authoritarianism and adaptive authoritarianism. 390 As time passed some scholars began again to question these conclusions and to consider the possible impermanence of the authoritarian model, but others countered that in their view the CCP appeared to be increasingly entrenched.

On the question of the prospects for democracy, it is fascinating that despite the majority view accepting the durability of China’s authoritarianism a significant number of experts appeared to be very confident that China would in due course achieve a Western-style democracy. They were even prepared to attach surprisingly specific timeframes to such predictions. However, the majority of other analysts continued to discount the possibility of an imminent Western-style democratic future


and to question the predictive power of the various theories, including democratic transition theory, which claimed to verify the likelihood of this outcome.

Among the methods used by experts to forecast China’s political future, quantitative analysis also played a part. Those who favoured regime change scenarios frequently cited official Chinese statistics about the rising number of “mass incidents”, which they believed indicated a very high level of social unrest. However, several other experts questioned the significance of these statistics and drew attention instead to the remarkably high level of popular support for the government indicated by the findings of numerous opinion polls and surveys. They refuted “the myth of the social volcano” and identified a high level of acceptance of China’s authoritarianism.

Contradictory findings probably contributed to a tendency for many experts to focus on a possible alternative outcome to the triumph of either Western-style democracy or a robust authoritarianism: namely, the possibility of increasing liberalisation within the authoritarian system. Optimists saw promising signs that this was occurring and were encouraged by the support of some Chinese leaders and scholars for accelerated progress toward democracy. But others countered that what most of these commentators had in mind was a form of “democracy with Chinese characteristics” in which the CCP remained firmly in control. In this situation it was argued that the best that could be hoped for was incremental political liberalisation within an authoritarian structure.

It is evident that many if not most of these diverse expert forecasts about China’s political future have failed, at least so far, to be realised. Those who predicted that democracy would emerge in the short to medium term have been proved wrong, as have those who hoped for greater progress toward political liberalisation. Those who argued for the durability of authoritarianism have been vindicated to date, although the adaptability of this authoritarian system has not been as great as some anticipated. The powers of predictive political theory also remain at this point distinctly unproven in the Chinese context.

One thing the expert debate confirms is that opinions about the future configuration of China’s current authoritarian system, and even more so the prospects for an imagined alternative democratic system, still remain divided. Discussion will
continue about whether the CCP is capable of providing the quality of political governance that its increasingly articulate citizens expect and that their rising expectations of modernity will perhaps demand. It seems clear that the quality and form of political governance in China will remain a critical uncertainty that will continue to be debated hotly among experts both within and outside China, even though most experts see radical change as unlikely in the short term. The outcome is an open question that will depend on the evolution of the political process and on the influence of key actors both within the leadership and within society. The prevailing uncertainty is well expressed in Hugh White’s comment that the real question is whether the CCP can “strike a balance” between keeping control and allowing enough reform for it to retain legitimacy. Political reform seems likely to be incremental at best but there may be scope for the regime to shore up its political legitimacy through progress in areas like economic and environmental reform, the prospects for which will be considered in the next two chapters.

8 ECONOMIC UNCERTAINTIES

The highest level critical uncertainty for China’s future in the economic domain could be expressed simply as: *What are the prospects for China’s economy?* Within this over-arching critical uncertainty several others can be identified at the next level of a hierarchy of uncertainties. Three of these have received special attention in the forecasting endeavours of China experts, and are considered in this chapter. Since the commencement of high growth in the post-Mao period, one question in particular dominated the debate: *How fast will China’s economy grow?* In recent decades this critical uncertainty has frequently taken the specific form: *When will China’s economy overtake the United States?* A third and perhaps more important critical uncertainty, relating to the quality of growth, underlies these two mainly quantitative issues, namely: *Will China succeed in transitioning to a more sustainable economic model?* In recent years this last question has become the main preoccupation among economists.

8.1 Economic Growth

It is not surprising that China experts have been fascinated for several decades by the question of its likely future growth rate. No other large country had expanded as rapidly as China did from the early-1980s. The economic impact and benefits of that growth, both domestically and internationally, soon became a subject of great interest. That interest was also heightened by the fact that China’s economic growth would be a major factor underpinning in its success in other domains – including its political legitimacy, its capacity to address environmental concerns, and its ability to exert influence internationally.

Forecasting of China’s economic growth was naturally an area of expert analysis in which quantitative techniques received primary emphasis, relying especially on statistical modelling and econometrics. Many organisations within the Chinese government and academia – in collaboration with international partners and with each other – devoted intensive effort during the post-Mao period to the assembly, analysis and modelling of the relevant data. Typically their analyses were based on variations of the classical production function used to calculate GDP growth. They applied various assumptions or estimations to calculate the rate of growth of the three
main factors of production – labour, capital and productivity – which in turn allowed them to estimate the growth of GDP.\textsuperscript{392}

This was not an area, however, where econometric forecasting enjoyed notable success. The major distinguishing feature of the majority of forecasts of China’s economic growth over several decades was their consistent underestimation.\textsuperscript{393} Even those who thought they were being optimistic often underestimated both the strength and durability of growth. These optimists, as already noted in Chapter 3, included analysts in the 1980s like Herman Kahn and Dwight Perkins who expected growth to continue at around 7 percent or higher for the remainder of the twentieth century. They based this expectation on China’s apparent commitment to economic reform and the argument that its growth path would therefore probably follow that of other successful East Asian economies like Japan and South Korea. Others were more cautious, although quantitatively their forecasts were often quite similar, with estimates again hovering around the apparently-alluring 7 percent mark.

The World Bank offered an excellent example of a major organisation that maintained over time a cautious and conditional but still relatively positive position regarding China’s growth prospects. A 1985 in-country study conducted by the Bank concluded that GDP growth approaching 7 percent was feasible, but it included a slower growth scenario. It wisely emphasised that the study contained projections not predictions, that the future was “inherently unpredictable”, and that forecasts were “often confounded” – especially in a country like China.\textsuperscript{394} A new report in the aftermath of Tiananmen presented a quite positive set of scenarios. The base scenario assumed a “somewhat accelerated schedule” of reform, leading to annual growth of 7.5 percent to 2000. A second scenario assumed slower reform and consequently predicted slower growth, while a third rapid reform scenario projected annual growth of 8.5 percent. The Bank warned that calls to increase growth to 10 percent (the

\textsuperscript{392} For example, they used variations of the Cobb-Douglas Production Function including $Y = AK^aL^{1-a}$ where $A$ represents productivity, $K$ is capital and $L$ is labour.

\textsuperscript{393} Although difficult to verify objectively, it seems reasonable to speculate that this underestimation may to some degree have been due to persistent bias on the part of Western economists. Such bias may have stemmed especially from an often-encountered view that China’s economic prospects would be seriously constrained unless it adopted further reforms that would make it conform much more closely to a free market economy. At least in the short-term, this view did not appear justified.

\textsuperscript{394} \textit{China: Long-Term Development Issues and Options}, 1–43. Projections were based on a model that provided “a simplified representation” of twenty sectors of China’s economy, including 600 variables and “many assumptions”.

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actual outcome) would discourage reform and create a “stop-go cycle”. Another Bank forecast in 1997 insisted, however, that China’s strengths should not be underestimated. Its new estimates projected GDP growth would slow from 8.4 percent in 1996-2000 to 6.9 percent in 2001-2010 and 5.5 percent in 2011-2020. Despite the fact that this was more optimistic than most other forecasts, it again was outstripped by actual growth; although the report did include a comment that sustained rapid growth to 2020 was “clearly possible” with further reforms and skilled management.

Interestingly the World Bank’s main concern was not with defending its actual record of underestimation but with responding to accusations of over-optimism. It hastened to acknowledge that the past was a poor predictor of future performance and that long-term projections were “not for the fainthearted”. It emphasised there was “always the possibility of nonlinear change, as key variables start to behave quite differently” and that China’s nonlinearities might be “especially pronounced”. If reforms faltered this could lead to “Sinoclerosis” and the fading of China’s promise. But on a more hopeful and more prescient note the report added that if reforms continued China might enjoy rapid and sustainable growth, heralding “the most remarkable economic transformation the world has ever seen”.

In following years the Bank continued to struggle with the task of assessing China’s future economic prospects. A major study in 2007 noted “certain fragilities”, but concluded these need not be serious constraints on growth. Nonetheless its projections indicated GDP would grow by an average of only 6.6 percent between 2005 and 2020. The study acknowledged these projections were conservative, but considered it unlikely that China and India would come to dominate the world economy in this timeframe. In 2009, however, the Bank’s China Office issued a revised and significantly less cautious estimate authored by Louis Kuijs, which despite the onset of the GFC projected average annual GDP growth of 8.4 percent

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395 China: Reform and the Role of the Plan in the 1990s. These GDP estimates were developed using “a new standard projections model” that was drawn up before growth soared to 14 percent in 1992.
397 Ibid.
from 2010 to 2015, and 7.0 percent from 2016 to 2020. Even more optimistically the Bank’s Chief Economist, Justin Yifu Lin, later commented that China could maintain 8 percent annual growth until 2030 “if the country can overcome various challenges”. Early projections of China’s GDP by RAND were markedly more conservative than even the World Bank. From 1989 a team led by Charles Wolf issued several pessimistic long-term growth forecasts. The first report projected GDP (PPP) growth at only 4.7 percent between 1990 and 2010. Another 1995 report projected annual growth to 2015 at 3 percent in a “disrupted growth” scenario and 4.9 percent in a “stable growth” scenario. A 2000 report again used disrupted and stable growth scenarios in which GDP (PPP) grew at 3 percent and 5 percent respectively. Wolf reaffirmed his sceptical forecasts for China’s economy in a separate article where he disputed other more “buoyant” estimates. A further RAND report in 2001 projected 4.8 to 6.4 percent annual growth to 2020, and no higher than 3.8 percent in a disrupted growth projection. A probably declining savings rate, slowing productivity, and “institutional bottlenecks” were the main factors cited in support of this excessively negative assessment.

Despite persistent underestimation by the World Bank and RAND, from the mid-1990s the credibility of China’s continuing economic rise was reinforced by increasingly positive growth estimates from several other international organisations and economic forecasters. The Organisation for Economic Cooperation and Development (OECD) in 1996 considered three possibilities for the following 15 to 20 years: an optimistic outcome with continuation of a 9 percent growth trajectory, a

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400 China Daily, 24 March 2011. See also Ye Xie, “China Growth Can Beat 8% for 20 Years on Reform, Says Lin”, Bloomberg, 8 January 2013.
401 Charles Wolf, Jr et al., Long-Term Economic and Military Trends, 1950-2010 (RAND, April 1989). This report raised again the enduring question of the appropriateness of using the purchasing power parity measure of GDP, which adjusted GDP figures to take into account the lower prices for domestic consumption of various goods and services in many countries. RAND thought that PPP more accurately reflected “real resource parities”.
less favourable performance causing growth to fall to 4 or 5 percent, and a mixed outcome leading to growth of only 5 to 6 percent. The “prevailing view” was that, for the coming decade or more, high growth (around 8 percent) was likely. This optimistic view proved of course to be not far below the actual outcome, but OECD analysts were spectacularly mistaken in predicting that China was unlikely to run long-term surpluses in either its trade balance or balance of payments, and in questioning China’s ability to attract foreign investment. Ten years later another OECD report concluded China’s high growth rate was “unsustainable” over the long term due to demographic trends, but growth was still not expected to fall much below 7 to 8 percent by 2025.

A 1997 report to the US Congress also included a notably optimistic forecast for China’s economy to 2010. It warned of likely strains arising from a contradiction between centralised control and a free-wheeling market system as well as from demands for political reform, but expected China’s GDP to increase by an average of over 9 percent in 1995-2005 and over 8 percent in 2005-2010. This forecast was one of the most optimistic during this period, and therefore one of the closest to the (even higher) actual outcome. The report noted that even such impressive straight-line projections to 2010 might still “seriously understate” future performance potential, but only if accompanied by transition to a democratic market system.

Additional increasingly-optimistic projections in the early-2000s by investment advisers Deutsche Bank, Goldman Sachs, and Morgan Stanley have already been noted in Chapter 4, although even their optimism was outstripped by China’s actual performance. Not all were convinced, however. Murray Weidenbaum in 1997 suggested the only forecast that could be made with confidence was that “a straight-line extrapolation of the past is most unlikely to occur.” China he declared, perhaps to his subsequent embarrassment, would “not continue to grow at double-digit rates

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for the coming decade”. In a 2003 report, Thomas Rawski thought poor investment decisions and asset management would keep China on a path of low growth, stagnant employment and widespread over-capacity. He saw a lesson for China watchers in Japan’s declining growth and in the “rapid obsolescence” of books about Japan’s economic ascendancy, illustrating “the twin dangers of overconfidence and linear projections”. Rawski later assessed that the momentum of growth could allow countries like China to “surge ahead while dragging considerable excess baggage”, but he also warned that fiscal mismanagement could “tip China’s dynamic economy into Japanese-style quicksand”.

Despite these dissenters, other experts on China’s economy continued to be considerably more optimistic. John Wong was among the most positive, believing China had become the world’s most successful transitional economy and that it was “easy to be optimistic” about its future potential. Its dynamic growth could be “slowed but not stifled”. Nicholas Lardy also assessed that China’s economic prospects were “far better than the pessimists believe”. He thought China’s rapidly expanding private sector would leave pessimists who predicted mass unemployment and political crisis “scrambling to find something else to worry about instead”. Martin Wolf offered the novel opinion that China was underachieving and not living up to its full potential. If it would only adopt the right mix of policies, its growth would accelerate further and its economic boom could be “in its middle, not its end”. What was remarkable, he felt, was not how quickly China had grown but “how slowly it has done so”.

During the second half of the 2000s there was no shortage of other experts who also took a very sanguine view of China’s economic prospects. The opinions of Robert Fogel, Albert Keidel, Ross Garnaut and Hu Angang have already been cited in Chapter 4. Fogel, who predicted growth of 8 percent or more up to 2040, was

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411 Loren Brandt, Thomas G. Rawski, and Lin Gang, eds., China's Economy: Retrospect and Prospect (Woodrow Wilson International Center for Scholars, 2005), 56 and 60.
414 Martin Wolf, "Why is China Growing so Slowly?," Foreign Policy (2005).
encouraged by China’s continued progress toward a market economy and by other reforms.\textsuperscript{415} Albert Keidel believed there was “little reason to be so pessimistic” as some experts. China’s leaders were “agile, energetic” and were pursuing a “hive of reform proposals” in a political system that was “nimble and robust”.\textsuperscript{416} Barry Naughton, one of the most eminent China economists, appeared to agree. As noted in Chapter 5, he saw a “very consistent pattern” that whenever problems in China got “really dramatic” the policy-makers would address them. Many analysts had predicted the collapse of China’s growth, the demise of the CCP, and the discrediting of the China model, but so far these sceptics had “never been right”.\textsuperscript{417}

Another upbeat economist was Dwight Perkins, who complained on one occasion that optimists were “generally looked down upon in the academic world”. It was easier to be a pessimist if you wanted peer respect. Like Naughton, his optimism was reinforced by long observation that when steps were needed to ensure continued economic progress, China’s leaders had “eventually gone ahead and made them”.\textsuperscript{418} Perkins argued that China’s growth since 1979 had been driven by very strong productivity growth. He assessed that “no plausible pace of economic reform” could reduce growth to below 5 percent.\textsuperscript{419} But Perkin’s optimism was actually quite conservative. He expected only 6-8 percent growth during the decade to 2015, falling to 5-7 percent in the decade to 2025.\textsuperscript{420}

It is noteworthy that growth forecasts by economists in China tended often, and over a long period, to be more optimistic than the majority of their Western counterparts. This was an area where China’s experts were evidently less wary about making

\textsuperscript{415} Fogel, \textit{Why China is Likely to Achieve its Growth Objectives}. See also: Robert W. Fogel, "$123,000,000,000,000: China's estimated economy by the year 2040. Be warned," \textit{Foreign Policy} (January/February 2010). For criticism of Fogel’s projections see Nicholas Consonery, "A $123 Trillion China? Not Likely," \textit{Foreign Policy} (7 January 2010), and Gordon G. Chang, “China’s Economy to Reach $123 Trillion?”, www.forbes.com, 8 January 2010.


predictions than, for example, in the political arena. In a 1987 book compiled by Chinese economists, CASS Vice-President Liu Guoguang noted that the government’s target to quadruple per capita GDP by 2000 required annual GDP growth of 7.2 percent, but he expressed confidence that “a still greater speed” would be achievable. Looking beyond 2000 the authors assessed, with commendable prescience, that China’s economy would “continue to forge ahead”. They expected that the mid-2000s would see “tremendous change” that would “literally put China in the front ranks of the countries of the world”. The book included a review of related research by Western authors (including by Whiting, Dernberger, Kahn and Perkins) which commented that their views suffered from “limitations and inadequacies” including in their understanding of China’s situation and socialist system.421

A decade later Li Shantong and Fan Zhai, in the State Council’s Development Research Center (DRC), presented a business-as-usual scenario which forecasted average annual growth of 7.9 percent from 2000 to 2010 and 6.6 percent from 2010 to 2020. They expected growth to be supported by continued high capital investment, but constrained by scarcity of natural resources, a grave environmental situation, income inequality, unemployment, an aging population, and financial risks.422 Cai Fang and Wang Meiyuan in CASS noted doubts among Western economists about the sustainability of China’s growth, but also assessed that rapid growth would remain “unassailable” over coming decades.423

Guo Wanda, at the China Development Institute in Shenzhen, observed there were four different opinions among Chinese economists. The first group thought problems might emerge after 2010, the second that an aging population would slow the economy after 2020, the third that rapid growth would continue until 2030, while the fourth and most optimistic group thought rapid growth would last until about 2050. Guo agreed with the second and third groups which he said formed the “mainstream” among Chinese economists. He highlighted a number of possible “hiccuphous” or risks, but felt they could be resolved. The most significant risks would be external

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rather than internal.\textsuperscript{424} Similarly, Fu Jun at Peking University thought that “barring disastrous events such as wars” China’s growth rate would continue at about 8 percent for the next 10 to 20 years, even though: “Linear projection of that longitude is of course dicey to say the least.” Like Fogel and Perkins he based his optimism on, among other things, the continued transfer of labour from rural to urban areas.\textsuperscript{425}

A confident view of China’s economic prospects was also taken by Wang Yahua and Hu Angang. They observed that China’s growth performance had exceeded “almost all expectations”. They suggested the reason must be that scholars, both Chinese and foreign, did not understand the factors behind China’s growth. They believed the “intrinsic driving force” at the core of China’s unexpected degree of success was not productivity as suggested by Perkins, but efficient capital utilisation which had created “a golden period of all-round accelerated development”.\textsuperscript{426} A collaborative study in 2007 between Chinese and US researchers was also quite confident about future prospects. They developed a business-as-usual scenario projecting 8.1 percent growth between 2006 and 2020, an optimistic scenario projecting 8.6 percent growth, and a risk scenario projecting 7.1 percent growth.\textsuperscript{427}

8.2 Overtaking the United States

As rapid growth continued and China’s economy grew progressively larger a new uncertainty began to fascinate China watchers: namely, when – if ever – would China’s economy surpass the United States. This speculation marked something of a watershed in the development of both expert and popular perceptions about China’s potential future status. Prior to the turn of the century few analysts mentioned this possibility. One of the earliest examples appeared in 1997 in an Australian government-sponsored research paper. The paper drew on work by Angus Maddison, Harry Wu and others that measured GDP in terms of purchasing power parity. Maddison and Wu believed that by 1990 China had already, in PPP terms, become

the world’s second largest economy, which raised “the question of when China’s GDP in PPP terms will overtake that of the USA”. The paper indicated this would occur “sometime between 2010 and 2035”. On the assumption that China’s GDP would grow annually by 7 percent and the US by 2.7 percent, the authors calculated that China’s GDP (PPP) would overtake the US in 2020.\textsuperscript{428}

Such predictions sparked an enduring controversy about the measurement and validity of comparisons between the economies of China and the US in PPP terms that has still not been resolved satisfactorily. As the Australian paper noted, the advantage of the PPP approach is that it uses converters that “better reflect the ability of a unit of local currency to purchase goods and services in its country of issue”. PPPs were therefore believed to overcome the problem of undervaluation of the Chinese currency compared to US dollar valuations. Comparisons based on fluctuating market exchange rates (MER) only accurately reflected the comparative value of goods traded internationally. Other experts have countered that some of the key ingredients of national power, such as advanced military technology and hardware, are best reflected by MER. They pointed out that there are also “several problems” with the methodology and practice of producing, and especially updating, PPP converters.\textsuperscript{429} Nevertheless, it seems incontestable that the normal practice of making GDP country comparisons in US dollars at current exchange rates is seriously misleading because it ignores that fact that many important components of GDP – for example transportation, construction, infrastructure, and other labour-intensive activities – cost much less in a country like China than in the US. (Fortunately, however, it seems likely that this controversy will diminish over time as the Chinese yuan and US dollar converge in value, causing PPP and MER ratios to also converge.)

Another early study that examined the prospect of China overtaking the US was undertaken by Chinese scholars Hu Angang and Men Honghua. Using World Bank figures they noted China’s GDP (PPP) in 2000 was half that of the US, and (like the

\textsuperscript{428} China Embraces the Market: Achievements, Constraints and Opportunities, (East Asia Analytical Unit, Department of Foreign Affairs and Trade, Australia, 1997), 45-46.

Australian paper) estimated that by 2020 it would be greater than the US. (They noted that, using Maddison’s estimates, this would occur in 2015.) They also sought to compare the two countries in terms of Comprehensive National Power, taking into account relative national strength in eight key resource categories. They estimated US CNP in 1998 was three times China’s, but by 2020 would be only double. A further study in this early timeframe was published by Emilio Casetti, again using PPP data from Maddison and others. All of Casetti’s seven separate projections indicated China would achieve economic parity with the US before 2050, and four indicated parity before 2020.

Progressively more optimistic PPP-based estimates of China’s prospects continued to appear, with their proponents all arguing PPPs were more appropriate for comparing the total size of national economies. Morgan Stanley projected in 2004 that China’s GDP (PPP) should be bigger than that of the United States within a decade. The Economist estimated China would overtake the US in 2017. Carsten Holz estimated this would occur between 2012 and 2015. Angus Maddison updated his views on China’s long-term economic performance in a major new report issued by the OECD in 2007. He projected that China was likely by 2015 to resume its historic position, during the tenth to the fifteenth century, as the world’s largest economy (in PPP terms). He estimated that in 2003 China’s economy had already reached 74 percent of the US and was more than twice as large as Japan, which it overtook in 1992.

By the late 2000s, however, the use of PPP measures became increasingly controversial, giving rise to some heated exchanges. In 2008 Maddison and Wu

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432 Ahyia et al., India and China: New Tigers of Asia.

433 “The World in 2026: Who will be number one?”, Economist, 18 November 2005.

434 Carsten A. Holz, China's Economic Growth 1978-2025: What We Know Today about China's Economic Growth Tomorrow (Hong Kong University of Science and Technology, 2005).

noted that the World Bank had recently issued new multinational PPP comparisons that indicated China’s GDP in 2005 was only 43 percent of the US, compared with their own estimate of 82 percent. They found the Bank’s “weird results” to be “highly implausible”.\textsuperscript{436} In a subsequent review of this article, two World Bank economists were equally sceptical of Maddison and Wu’s views, which they believed were “cavalier” and “naïve”. They defended the Bank’s “robust multilateral comparison process” and rejected Maddison and Wu’s “idiosyncratic and increasingly anachronistic” PPPs.\textsuperscript{437}

The World Bank’s radical revision of its PPP estimate for China’s GDP also attracted considerable attention from other experts. Albert Keidel noted that this 40 percent reduction of China’s GDP meant that alarming estimates that it would overtake the US were now “moot”. China, he commented, was “just not that big now and will not get big any time soon”.\textsuperscript{438} The \textit{Economist} reflected that the difficulty in measuring PPP was one reason why economists preferred MER, but it added that though PPP data might be imperfect it still gave “a better picture of the relative size of economies than market exchange rates do”.\textsuperscript{439} Frederic Vogel, who had overseen the update, agreed that some of its assumptions could be challenged, but he saw it as a useful benchmark. A spokesman from the University of Pennsylvania, which maintains a reputable alternative set of international PPP calculations, added that its figures would also be revised.\textsuperscript{440} These various reports drew attention to the high level of confusion surrounding the estimation of PPPs, but they also reflected continuing support for an alternative to misleading MER comparisons.

Meanwhile projections based on PPPs produced ever-nearer horizons for China’s economy to overtake the US. Journalists noted that the IMF’s updated World

\textsuperscript{436} Angus Maddison and Harry X. Wu, “Measuring China’s Economic Performance,” \textit{World Economies} 9, no. 2 (April-June 2008), 18-19 and 35.

\textsuperscript{437} Yuri Dikhanov and Eric V. Swanson, "Maddison and Wu: 'Measuring China's Economic Performance';," \textit{World Economies} 11, no. 1 (January-March 2010), 199-203.


Economic Outlook database indicated China would overtake the US in 2016. US economist Robert Feenstra estimated that in PPP terms China would overtake the US by 2014. The Conference Board estimated this would occur in 2012. Justin Lin, reportedly stated that in PPP terms China’s economy would be twice the size of the US by 2030. One analyst trumped all of these projections, however. Arvind Subramanian at the Peterson Institute asked whether China might not already be the world’s number one economy in PPP terms. By his calculations, China had overtaken the US some time during 2010. He too considered PPP estimates were a “more revealing way of comparing standards of living and economic size across countries”.

Subramanian sought to expose a “central conceit” which claimed that US economic pre-eminence would not be seriously threatened. He indicated that in his new book Eclipse: Living in the Shadow of China’s Economic Dominance he had developed a new “index of dominance” that concentrated on three key measures – namely, GDP, trade, and the extent to which a country is a net creditor. He thought no other measures were as instructive about dominance as these. Assuming average 7 percent GDP growth in China and 2.5 percent in the US, he estimated that by 2030 China’s GDP (measured half at MER and half at PPP) would be one third greater than the US. Its trade would be twice that of the US. Finally, China was a substantial net creditor whereas the US was a very large debtor. Subramanian claimed that already in 2010 the US had only a marginal one percent advantage when measured by his index of dominance. He predicted that by 2030 further decline in the US would give rise to a “near-unipolar world” dominated by China. The gap between China and the

441 Mark Weisbrot, “2016: when China overtakes the US”, Guardian, 27 April 2011. However, an IMF spokesman was quoted as saying that PPPs were “not the most appropriate measure for comparing the relative size of countries to the global economy”, and that the IMF believed MERs provided “a more relevant comparison”. Under this measure, the US would still be 70 percent larger in 2016.
442 Yao Yang, “When will China’s economy overtake America’s”, China Daily, 4 June 2011.
443 Tiernan Ray, “Conference Board: China’s GDP to Surpass U.S.?”, barrons.com, 10 November, 2010. However, The Conference Board’s PPP converters were not the same as those used by the World Bank and IMF.
US in 2030 would be similar to that between the US and its rivals in the 1970s. In his book he also predicted the Chinese yuan could “rival the dollar” as a reserve currency by 2020. He rejected Martin Wolf’s argument that China was “a premature superpower” because its economic strength was offset by low per capita income. He claimed instead that China would be “a precocious superpower” because by 2030 its per capita income would be at the middle level or higher.

Leaving aside for the moment all of these estimates based on PPPs, it is time to shift attention to the fact that over the past two decades a competing set of estimates about China’s prospects for overtaking the US economy has appeared that were all based on MER comparisons. These MER-based forecasts received more attention and seemed to have more impact on the popular imagination that those based on PPP. Initially, expectations in MER-based forecasts were quite modest. In one 1990s projection OECD analysts assessed that China seemed destined to become one of the world’s largest, if not the largest, economy sometime in the next century. Murray Weidenbaum speculated that if China grew at 8 percent annually it would “give the United States a run for its money for being the largest economy in the middle of the 21st century”.

Many subsequent forecasts of China’s GDP (MER), during most of the 2000s, also remained very pessimistic. Fu Jun at Peking University thought that even with an average annual growth rate of 8 percent, China would not overtake the US economy at MER until 2040. Richard Cooper at Harvard University calculated that in 2025 China’s GDP would still be only one third of the US. The Economist was also

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447 Subramanian, *Eclipse: Living in the Shadow of China’s Economic Dominance*, 109. This prediction was disputed in a review by Martin Wolf in the *Financial Times*, 16 October 2011.
448 Arvind Subramanian, "China a 'Precocious' Superpower?," *Business Standard (New Delhi)* (26 October 2011).
449 Michalski, Miller, and Stevens, "China in the Twenty-first Century: An Overview of the Long-term Issues." These projections were presumably at MER.
450 Weidenbaum, "Three Scenarios on the Future of China."
451 Fu Jun, "Can the Growth of the Chinese Economy Be Sustained?."
452 Richard N. Cooper, "Whither China?", *Japan Center for Economic Research Bulletin* (September 2005). Cooper believed PPP-based comparisons were problematic because China was “tied to the world economy at market prices”, and because PPP rates were based on “fragile” and “arbitrary” price comparisons. He considered that for geo-political and geo-economic purposes MERs were more
initially cautious, estimating that by 2026 China’s GDP (MER) would still be less than half the US.\textsuperscript{453} Similarly, World Bank economists assessed that in 2020 China’s GDP (MER) would probably be less than 30 percent of the US.\textsuperscript{454}

Some concluded China’s economy would never surpass the US because the latter simply had “too big a lead”.\textsuperscript{455} John Tatom in 2007 argued that speculation about China’s economic ascendancy was “wildly premature”, and unlikely to happen “for another thirty years or more”. He envisaged that in a best case scenario China would continue its current rate of growth and catch up with the US in 2031. However, he considered this unlikely since adverse trends would probably cause China’s economic growth to decline in which case it would not match the US until at least mid-century.\textsuperscript{456} The Economist Intelligence Unit considered it too early to talk of “Asia’s century” and thought the US would remain the most important single country “across all the dimensions of power”.\textsuperscript{457} Derek Scissors, at the Heritage Foundation, also argued in 2010 that there was “a reasonable chance” that China’s economy would never surpass the US, given the potential for the US economy to revive and for China’s to decline.\textsuperscript{458}

Against the weight of such scepticism, however, a new interpretation was offered in 2006 by John Hawksworth at PricewaterhouseCoopers. In the first of several papers about the prospects for the major emerging economies to 2050, he pointed to the likelihood that PPPs and MERs would steadily converge over that timeframe. He estimated initially, and very cautiously, that by 2050 China would only reach 95 percent of the US economy at MER and be 40 percent larger in PPP.\textsuperscript{459} Two years

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\textsuperscript{453} “The World in 2026: Who will be number one?”, \textit{Economist}, 18 November 2005.
\textsuperscript{454} Winters and Yusuf, \textit{Dancing with Giants: China, India and the Global Economy}, 5-7. See also Feenstra et al., \textit{Who Shrunk China?: Puzzles in the Measurement of Real GDP}.
\textsuperscript{457} Economist Intelligence Unit, "Foresight 2020: Economic, industry and corporate trends."
\textsuperscript{458} Derek Scissors, \textit{10 China Myths for the New Decade} (The Heritage Foundation, 28 January 2010).
\textsuperscript{459} John Hawksworth, \textit{The World in 2050: How Big Will the Major Emerging Market Economies Get and How can the OECD Compete?} (PricewaterhouseCoopers, 2006), 3-7 and 21. He agreed with those who considered that PPPs gave a better idea of the long-term comparative size of national economies.
later, however, he revised his forecasts drastically, concluding that China would overtake the US economy at MER by 2025, and be 29 percent larger in 2050 measured in either PPP or MER.\footnote{John Hawksworth and Gordon Cookson, \textit{The World in 2050: Beyond the BRICs, a Broader Look at Emerging Market Growth Prospects} (PricewaterhouseCoopers, 2008), 2, 12 and 15-16. Hawksworth also drew attention to the World Bank’s revision of the price basis for its estimate of China’s GDP (PPP), which meant that instead of being three-quarters of the size of the US economy in 2008 it was now only estimated to be one half.} A further assessment by Hawksworth in 2010 concluded China’s GDP (PPP) would equal the US by around 2020, and by 2030 it would be clearly the world’s largest economy by any measure.\footnote{John Hawksworth, \textit{Convergence, Catch-Up and Overtaking: How the balance of world economic power is shifting} (PricewaterhouseCoopers, January 2010).} In a later and slightly more cautious report he assessed that China’s economic progress would be “slower but equally inexorable”, resulting in its GDP (MER) being larger than the US by 2032 if it pursued “growth-friendly policies” and if there were “no catastrophic shocks”.\footnote{John Hawksworth and Anmol Tiwar, \textit{The World in 2050: The accelerating shift of global economic power - challenges and opportunities} (PriceWaterhouseCoopers, January 2011), 3, 6, 12, 18 and 20. Hawksworth assumed China’s average annual growth rate to 2050 would be 5.9 percent compared with 2.4 percent for the US. He emphasised that it was crucial to factor in inflation and exchange rate appreciation in emerging economies, which would cause their PPPs to converge more quickly over time with MERs.}

Hawksworth was not the only analyst who became progressively more optimistic about China’s prospects, at MER, for overtaking the US economy. The most famous of these more optimistic forecasts was the 2003 Goldman Sachs report mentioned in Chapter 4. It included an eye-catching graphic indicating China’s GDP (MER) would overtake Japan in 2016 to become the world’s second largest economy, and as early as 2041 it would overtake the US to become number one. The report pointed out that it had not simply extrapolated from current trends, but had assumed conservatively that China’s real growth would fall steadily from 7 to 8 percent in the 2000s to 5 to 6 percent in the 2010s, and to less than 4 percent by 2040. But it also took into account the likelihood of significant appreciation of China’s currency.\footnote{Wilson and Purushothaman, \textit{Dreaming with BRICs: the Path to 2050}. The report stressed that any long-term projection was “subject to a great deal of uncertainty” because the further ahead you look “the more uncertain things become”.} Goldman Sachs attracted a similar amount of attention when it issued a revised forecast in 2007 that suggested China’s GDP (MER) would overtake the US much earlier, by 2027. By 2050 it would be 84 percent larger than the US. But these projections were again
based on conservative GDP growth assumptions – less than 5 percent annually in the
2020s and less than 3 percent in the 2040s.464

Other optimistic forecasts in the mid-2000s for China overtaking the US at MER
included a report by Carsten Holz, which estimated this would occur as early as
2025.465 Barry Naughton thought China would reach parity in about 2035.466
Meanwhile, China’s currency continued to appreciate against the US dollar, which
may have been a factor in Albert Keidel’s new prediction (also noted in Chapter 4)
that China’s GDP (MER) would match the US by 2035 and almost double it by
2050, and in PPP terms would overtake the US in 2020 and almost double it by
2040.467 This drew a well-judged comment from Stephen Voth in the CIA’s Senior
Analytic Unit that when projecting long-term economic growth small differences in
assumptions result in large changes to forecasts. For example, he noted, that if
Keidel’s assumed GDP growth was reduced by half a percent and if the yuan
converged with the dollar by 2040, then China’s GDP would be only a quarter larger
than the US rather than double – which implied “a different picture of the world in
2050”.468

After the 2008 GFC, there was a virtual flood of new forecasts about when China’s
economy might overtake the US – certainly too many to document here. Many of
these (like earlier forecasts) reached wildly different conclusions. This bewildering
variety of forecasts, all based on different assumptions and presenting competing
arguments for the use of PPPs or MERs, continued to raise serious questions about
the credibility and utility of these forecasts. Forecasts at MER included a report by
Uri Dadush and Bennett Stancil which projected that the US would give up its place
as “the world’s preeminent economic power” to China in 2032 (at MER), and by
2050 China would be 20 percent larger.469 Standard Chartered Global Research in

464 Dominic Wilson and Anna Stupnytska, The N-11: More Than an Acronym (Goldman Sachs, 28
March 2007), 8 and 18. See also: Jim O’Neil and Anna Stupnytska, The Long-Term Outlook for the
BRICs and N-11 Post Crisis (Goldman Sachs, 4 December 2009).
465 Holz, China’s Economic Growth 1978-2025: What We Know Today about China’s Economic
Growth Tomorrow.
466 Reframing China Policy Debate 2: China’s Economy.
467 Keidel, China’s Economic Rise - Fact and Fiction.
468 Michael D. Swaine et al., China’s Economic Rise - Fact and Fiction (Transcript) (Carnegie
469 Uri Dadush and Bennett Stancil, The World Order in 2050 (Carnegie Endowment for International
Peace, April 2010). Their model was based on the standard Cobb-Douglas production function. They
2010 argued that the world was entering a new “super-cycle” of sustained high growth and therefore projected that China’s GDP (MER) would overtake the US by 2020 and be almost double by 2030.\textsuperscript{470} HSBC, in startling contrast, estimated that by 2050 China’s GDP (MER) would still be only 10 percent greater than the US.\textsuperscript{471}

In the midst these diverse claims and counter-claims about China’s future level of global economic preponderance, several new estimates began to reflect a new acceptance, at least by some experts, that China’s economy would overtake the US sooner rather than later. Conflicting views about whether China’s GDP should be measured in terms of PPP or MER seemed less relevant because even in terms of the more exacting MER measure it seemed very probable that China’s ascendency was approaching and could only be upset by a major new disturbance. An \textit{Economist} article in late-2010 included an interactive graphic that allowed readers to input their own assumptions about the growth of GDP (MER) for China and the US, and also about inflation and currency appreciation rates. The graphic appeared to make the point quite convincingly that the period within which China would overtake the US was not particularly sensitive to changes in any of these variables. Even quite pessimistic assumptions for China and optimistic assumptions for the US, or vice versa, did not greatly affect the result. The \textit{Economist}’s “best guess” was that China would grow at 7.75 percent and the US at 2.5 percent, inflation would average 4 percent in China and 1.5 percent in the US, and the \textit{yuan} would appreciate by 3 percent annually. This resulted in China overtaking the US in 2019. If China grew at only 5 percent, this would only delay catch-up to 2022.\textsuperscript{472}

\textsuperscript{470} Standard Chartered Global Research, \textit{The Super-Cycle Report} (Standard Chartered Bank, 15 November 2010), 5, 21 and 30. Standard Chartered declined to use PPP measures because they could be “difficult to interpret” and consistent PPP weights were “difficult to estimate across time”. It assumed substantial appreciation of the \textit{yuan} and average annual growth of 6.9 percent to 2030.

\textsuperscript{471} Karen Ward, \textit{The World in 2050: Quantifying the shift in the global economy} (HSBC Global Research, January 2011), 3 and 22. The report projected China’s average annual growth in the 2010s at 6.7 percent, falling to 4.1 percent in the 2040s, while US growth steadily increased to 2.1 percent in the 2040s.

\textsuperscript{472} \textit{Economist}, 16 December 2010 and 10 January 2011. In a further article on 31 December 2011 the \textit{Economist} updated its prediction for when China would overtake the US to 2018. Its blog later accepted a bet from Michael Pettis that this will not happen, with Pettis basing his own prediction on China achieving barely 3 percent annual growth in the decade to 2020.
Similar conclusions were reached by John Ross at Shanghai’s Jiao Tong University who agreed the “central date” for China’s economy to overtake the US was 2019, within a date range of 2017 to 2021.473 Yao Yang at Peking University calculated that if China grew by 8 percent annually and the US by 3 percent, if China’s inflation rate was 3.6 percent and the US 2 percent (the averages for the past decade), and if the yuan appreciated 3 percent annually (the average of the past six years), China would become the world’s largest economy by 2021.474 Predictions by the IMF and OECD that China would overtake the US in 2016 also attracted much attention, although some commentators appeared to overlook that these forecasts were PPP-based.475

Despite the apparently emerging consensus that China will overtake the US economy by about 2020, it is notable that the US National Intelligence Council’s Global Trends reports continued to hold out in favour of a later date. The 2004 report stated, very conservatively, that most forecasts indicated China’s GDP, in dollar terms, could be the world’s second largest by 2020, while the 2008 report saw this occurring even later by 2025. This was quite astonishing given that China actually became the world’s second largest economy (at MER) only two years later in 2010. The 2012 report was also still quite conservative, estimating that China would probably not surpass the US until “a few years before 2030”. Moreover, three of the report’s four scenarios for 2030 indicate the US economy at that time would remain larger than China’s. These conservative conclusions may possibly be based on an assumption that China’s GDP growth would drop sharply by 2020, perhaps due to it facing a “middle-income trap” and other challenges noted in the report.476

8.3 Economic Transition

The doubts raised in Global Trends 2030 about when China’s economy might overtake the US serve to introduce another much-discussed critical uncertainty. This

474 Yao Yang, 4 June 2011, op cit.
concerns China’s ability to successfully manage a transition to a more sustainable economic model that will overcome new obstacles to growth and improve social equity. This qualitative question is perhaps even more important than the quantitative questions considered above about China’s future rate of growth and when it may become the world’s largest economy. Could failure to achieve this transition bring about the collapse, or partial collapse, about which there has been so much debate? Or could experts again be underestimating China’s economic management capacity?

China’s economy has admittedly been in a state of transition for decades, and will no doubt remain so for decades to come; but there are two serious obstacles that are increasingly debated among China experts. First, as mentioned in previous chapters many analysts have pointed to China’s changing demography and especially to the implications for growth of the approaching peak and subsequent decline in the population of working age. Second, many economists believe China’s very high level of investment as a proportion of GDP and its correspondingly low level of domestic consumption are unsustainable, and that its economic model therefore needs to change fundamentally. Underlying these issues is the theoretical concept of a “turning point” that was first articulated by economist Arthur Lewis in the 1950s. Lewis believed that developing countries would face this turning point at the time when the availability of cheap rural labour began to decline and wages therefore began to rise. This would progressively undermine the viability of their labour-intensive industries and require these economies to transition to a new development model. Many theorists also argued that when per capita incomes reached a certain level this would create a “middle-income trap” as labour costs led to declining international competitiveness.

During the past decade a great deal of attention has focused on China’s demographic challenges. Much of this commentary has been pessimistic, based on UN population projections that China’s working-age population will peak around 2015. Nicholas Eberstadt’s concerns have already been noted in Chapter 5. He added subsequently that demographic risks were likely to buffet China in a “perfect storm” with the result that its future growth might be “much slower” than had been assumed.477

477 Nicholas Eberstadt, The demographic risks to China’s long-term economic outlook (Swiss Re - Centre for Global Dialogue, 24 January 2011).
Similarly Wang Feng argued that these demographic trends portended “a looming crisis” that was “imminent and inevitable”\(^\text{478}\).

Many others accepted that in the longer term the aging of China’s population would have a serious impact, but were considerably more confident about the potential to offset the negative effects of demographic change in the short to medium term. A Goldman Sachs study noted that observers were concerned China would “get old before it gets rich”, but it countered that the continued availability of surplus labour from the agricultural sector and the rapid growth of human capital through education would delay serious impacts on labour supply. The study considered that by the time China became an aged society in 2027 it would already have attained developed country status. It concluded that China was taking the necessary steps to ease demographic constraints and that these would be less important than most believed.\(^\text{479}\) Robert England also noted that China would soon begin to age rapidly – by 2025 13 percent would be over 65, and 23 percent by 2050. Nevertheless, he believed this was unlikely to be “a significant dampener” on the economy until 2020 due again to surplus rural labour. Thereafter aging could slow the economy but would not prevent China’s emergence as an economic superpower.\(^\text{480}\)

The prevailing opinion among many economists thus appeared be that demographic factors, although important, need not be a major show-stopper for China. These demographic issues did, however, draw attention to a second related obstacle that was of even greater concern. This was the perceived need for China’s overall economic model or strategy to be changed before these demographic factors were reinforced by other unsustainable aspects of the economy. In particular, it was thought that the economy would need to rely less on the stimulus provided by investment and exports, and much more on substituting domestic consumption as the main growth driver and as a means to address income inequality. Many, including apparently the Chinese government, agreed with this assessment. Analysts at the


\(^{479}\) Helen Hong Qiao, *Will China Grow Old Before Getting Rich?* (Goldman Sachs, 14 February 2006).

World Bank and the IMF were among the first to highlight this issue. They assessed that a growth pattern based on massive investment in industrial production was lifting already high investment to “unsustainable levels” and called for a rebalancing of the economy by reducing subsidies to industry and investment and by developing the services sector.481

Nicholas Lardy expanded on these concerns. He noted that China’s leadership had agreed in December 2004 to “fundamentally alter the country’s growth strategy” toward primary dependence on domestic consumption. While this was “laudable”, he believed subsequent policy initiatives had been too modest to change the underlying growth dynamic. Household consumption was only 38 percent of GDP, the lowest for any major economy. Meanwhile rising investment was still fuelled by an unprecedented national savings rate that had reached 50 percent of GDP, leading to inefficient use of investment and to overcapacity.482 Such advice appeared to be well received by the leadership, with Premier Wen warning of underlying problems in an economy that was becoming increasingly “unstable, unbalanced, uncoordinated, and unsustainable”.

Some economists appeared to be relatively optimistic about China’s ability to negotiate the transition. Ross Garnaut believed the turning point would not be as sharp as it had been in other East Asian economies because China’s greater size, diversity and internal barriers meant the impact of labour scarcity would be felt more gradually.483 After the GFC Garnaut assessed that “large and immediate structural

483 Ross Garnaut, “The turning point in China’s economic development”, in Ross Garnaut and Ligang Song, eds., The Turning Point in China’s Economic Development (Australian National University E
change” was required, but China could continue to grow rapidly if it expanded domestic demand, through both private and public investment and consumption.\textsuperscript{484} Similarly, as also noted in Chapter 4, Hu Angang displayed considerable confidence that China’s productivity would be boosted substantially through its massive investment in education and human capital and its rapid absorption of higher technologies. Referring to the alleged middle-income trap, Arvind Subramanian pointed out that Japan’s decline had come only after it had succeeded spectacularly by catching up with the per capita incomes of the advanced economies – whereas China’s per capita income was still only about one quarter of the United States.\textsuperscript{485}

CASS also appeared to be relatively sanguine. It expected that continued rapid urbanisation would “keep the economy on the fast track” for 15 to 20 years. It predicted China’s urbanisation rate would reach 52 percent by 2015 and 65 percent by 2030. An additional 10 million rural residents would arrive in China’s cities annually.\textsuperscript{486} McKinsey Global Institute estimated that 1 billion people would live in China’s cities by 2030, and that by 2025 five million new buildings and 50,000 skyscrapers would be constructed.\textsuperscript{487} This would create a massive new middle class whose expenditures would boost consumption. The World Bank estimated China’s middle class would increase from 56 million in 2007 (13 percent of the global middle class) to 361 million in 2030 (38 percent of the global middle class).\textsuperscript{488}

These positive considerations notwithstanding, the majority of foreign experts have continued to emphasise the urgent necessity for China to transform its economic model. Many have also expressed considerable concern about China’s ability and willingness to do this. In a partial response the government dramatically increased the scale of fiscal support for previously under-funded health, education and welfare programs, but observers concluded it was still making little progress in altering the


\textsuperscript{486} \textit{“Urbanization expected to fuel economy”}, \textit{China Daily}, 30 July 2010.


\textsuperscript{488} Maurizio Bussolo et al., \textit{Global Growth and Redistribution: Are China and Japan Reshaping the World?} (World Bank, November 2007), 21.
fundamentals. Revisiting the issue in 2012, Nicholas Lardy commented that it was “far from clear” that China would make the “concerted and sustained effort” required for economic rebalancing. He believed that the beneficiaries of unbalanced growth had acquired disproportionate influence in economy policy and had to date succeeded in blocking reforms. 489

Despite the objectives set in the Eleventh Five Year Plan (2006-2010) and repeated in the Twelfth Five Year Plan (2011-2015), capital investment remained very high as a proportion of China’s GDP while household consumption continued to languish. Evidence of frustration with this lack of progress was readily apparent, for example, in remarks by the DRC’s Zhang Yongsheng. He noted that the Twelfth Plan had enshrined a commitment to transforming China’s development model, but privileged vested interests were a major obstacle. Like Wen, he saw the high-export, high-investment economy as “unbalanced and unstable”. 490 Meanwhile CASS produced a new index measuring the ratio between investment and private consumption as a share of GDP that showed the index had continued to climb in 2012 as investment surged relative to consumption. 491

Among experts who were particularly concerned about China’s transition prospects, one of the most pessimistic was economist Michael Pettis at Peking University. Noting that the current economic model transferred low interest savings from households to the corporate sector for mega-investments, he argued that such investment – especially in infrastructure and real estate – was “increasingly wasteful”. This investment needed to be replaced as the main engine of growth by much greater household consumption, which at only 35 percent of GDP was “far less than any other country”. Pettis also believed, however, that all scenarios for rebalancing the economy would require growth to fall substantially during the transition period. Chinese economists, he said, were projecting that annual GDP growth would soon fall to 6 or 7 percent, but he maintained that the sharp reduction of investment that would be a necessary precondition for successful rebalancing

491 Xing Yun, “Economic Imbalance Worsening, Think Tank Warns”, Caixin, 14 December 2012.
would cause growth to fall even more dramatically. He predicted that by 2013-14 GDP would “slow sharply” and by 2015-16 “predictions of a sustained period of growth rates at 3 percent or lower will no longer seem outlandish”. It is noteworthy, however, that Pettis did not think even this would necessarily cause China to “collapse”. It would “adjust”, even though this would occur “neither easily nor quickly”.

Pettis backed his concern about China’s economic transition by pointing to “the bleakness of historical precedents”. He was much more concerned about the middle-income trap than Subramanian, observing that other countries that had achieved more than a decade of investment-driven rapid growth and rising incomes – for example, Japan – had then experienced “lost decades” of very low growth. The World Bank had already reclassified China as an upper middle income country, and considered it well-positioned in 15 to 20 years to become a high income country. Sadly, Pettis commented, many countries had failed to transition at this stage to a new growth model.

A substantial additional contribution to the discussion of China’s economic transition prospects was made by Barry Naughton. He expressed concern that China’s giant 2009 fiscal stimulus package had further postponed a shift to “self-sustaining, consumption-led growth” and saw little evidence of the political will to change a growth pattern that benefited powerful interest groups. He gave full credit to the Hu-Wen leadership for a “staggering” array of new and beneficial welfare initiatives,

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494 Robert Zoellick, remarks to a conference on “China’s Challenges for 2030”, Beijing, 3 September 2011. See also, “Beware the middle-income trap: China’s roaring growth cannot last indefinitely”, Economist, 23 June 2011.

but he believed they were being “swamped” by the old growth model. Looking back over the period since reform began in 1978 Naughton commented that many experts had predicted crisis but all had been proved wrong. He therefore considered it would be foolhardy to predict a crisis in the immediate future. However, he also emphasised that China faced a new and complex mix of economic challenges. He had “a fairly high degree of confidence” that by around 2015 China would be transitioning to “a slower but higher quality growth path”, but he doubted that this would be easy.

By 2011, as details of China’s evolving economic strategy became clearer, Naughton saw worrying indications that it was adopting a risky new model that sought to encourage both greater domestic consumption and increased state investment at the same time. Naughton discussed the emergence of what he called a “new state activism” in China, marked by “a dramatic increase both in the degree of direct government intervention in the economy and in the volume of resources going into that initiative”. This “qualitatively different model of government-economy interaction” had not, he believed, received the attention it deserved. China’s policymakers now envisaged “a vital, ongoing, and vigorously deployed role for the state”. He believed this placed at risk previous hard-won progress with market-oriented reform. He ventured no predictions but considered that a “crucial and unknowable factor” would be the ability of policymakers to later scale back the economic role of the state.

After the GFC, Naughton elaborated, China’s policymakers had apparently concluded that robust intervention in the economy should be the new norm. In this new era “vigorous, coordinated, top-down measures to shape the economy” were seem as a sign of the superiority of the Chinese system. He cited Wen Jiabao’s support for making use of “both market mechanisms and … the advantages of the socialist system, which are efficient decision-making, a powerful organization, and the concentrated power to accomplish big things”. Naughton emphasised that market

497 Ibid., 86-88.
mechanisms in China remained strong, but they were now to be accompanied and reinforced by an “acceleration of government activism”. He saw this as “an enormous gamble”. If successful, China would “leap into middle-income status with a speed of transformation never seen before in human history”. The new model, Naughton continued, involved shifting the economy to “a much more knowledge-intensive, more broadly inclusive, and environmentally friendly path”. Huge supporting investments were now being made – especially in seven new “Strategic Emerging Industries” and sixteen “Engineering Mega-projects” – that with their “enormous scope and ambition” would be large enough to drive the whole development process. They involved “a remarkable acceleration” in the government’s resource allocation. Naughton judged, however, that the success of this radical new approach to economic governance – involving a considerable expansion of the already powerful role of the state – was likely to be mixed. He believed the new strategy would create macroeconomic imbalances, feed inflationary pressures, and make it even more difficult to move to a consumption-led economy.499

An alternative appraisal of China’s transition outlook was offered in a new assessment by Nicholas Lardy. Like Naughton, he warned that China’s economic “distortions” due to “superelevated levels of investment and systematic suppression of consumption” were accumulating and risked “a sharp and wrenching correction”. He considered that management of these distortions would necessitate a shift away from previous “winners” in manufacturing and property development, and toward private consumers and service sectors. This would require the government, contrary to the direction described by Naughton, to allow the market to guide “ever larger” areas of the economy.500

Lardy believed, however, that such rebalancing was “eminently achievable”. Investment would need to be reduced from an “extraordinarily high” 48 percent of GDP to about 38 percent. To support the government’s 7.5 percent GDP growth target, this would require the share of consumption in GDP to grow by a similar percentage. He recommended that this be done gradually over a ten year timeframe.

499 Ibid., 320-328.
because “unwinding these imbalances more quickly” would entail “a lurching correction in investment growth”. In contrast with his earlier concerns, he now thought the “common refrain” that economic reform would be defeated by powerful vested interests was overstated. He doubted that these interests would be able to block the key reforms needed for rebalancing because the policy instruments were controlled centrally. Moreover, because the social transfers and income redistribution included in rebalancing would have “immense public popularity”, vested interests would “have a hard time resisting”. As the need for reform became increasingly apparent the CCP would want to cultivate public support in order to shore up its legitimacy. 501

Eswar Prasad was also optimistic about the prospects for China’s economic transition. He agreed with Lardy that it would be difficult for vested interests to block reforms because they would be “sold as being for the benefit of the masses”. He saw evidence that, although it was “far too early to declare victory”, China was already witnessing “a gradual but remarkable transformation” in its growth model. Private and government consumption combined had already reached more than half of GDP and the decline in the share of private consumption had been halted. Physical capital investment and exports were no longer the dominant contributors to growth. 502 A Barclays report also argued that with appropriate reforms China would transition successfully from a “miracle economy” to “normal development”. It was “in the middle of a major and broad-based structural transformation”. By narrowing its technological gap with advanced economies it could avoid the middle-income trap and join the global high-income group “within the next decade”. 503

Although Pettis, Naughton, Lardy and other experts clearly differed about China’s prospects for rebalancing its economy, they all accepted that the government’s ability – or inability – to manage the transition successfully would have a major if not decisive influence on China’s future outlook.

501 Ibid.
503 Yiping Huang, Jian Chang, and Steven Lingxiu Yang, China: Beyond the Miracle (Barclays, March 2013), Foreword.
8.4 Economic Futures

To summarise, the discussion above indicates that expert forecasts about critical uncertainties in China’s economic future were not quite as diversified as in the case of forecasts about its political future, where judgements were highly polarised. The few experts or organisations who believed China’s economy might decline dramatically were outnumbered by those who were more optimistic.\textsuperscript{504} A mainstream view has emerged that lower but still healthy economic growth is likely to continue in China, albeit with possible short-term disruptions. A similar majority also concedes that China is likely, probably within one or at most two decades, to overtake the US economy. In addition to this quantitative debate about China’s likely economy growth rate, however, other experts increasingly drew attention to potential major problems regarding the quality of that growth and to a requirement for China to transition to a quite different economic model. They noted that failed transition could significantly alter earlier quantitative forecasts.

Two principal issues were raised, the first of which was the possibility that China’s aging population could undermine growth by reducing its comparative economic advantage. This argument attracted much support, but many experts appeared to believe this potentially-detrimental turning point could be delayed and offset by reliance on the greater productivity likely to result from a more-educated workforce and more-advanced technology. Experts generally considered it likely, however, that a second more intractable obstacle would emerge unless China moved to an economy that relied less on continued very high levels of investment and more on domestic consumption. Despite clear statements of government support for such a transition, there has been as yet only modest movement in this direction. Many experts have expressed concern about the potential for strong vested interests, including within the Party and the government, to continue to frustrate such plans. There is also uncertainty about the optimum configuration of a revised economic model, including about to what extent high investment and state intervention in the economy is indeed a liability. Lack of progress toward economic transition has nonetheless injected a degree of scepticism into the debate about China’s growth prospects.

\textsuperscript{504} The optimists often included a proviso that growth would need to be accompanied by further reforms, especially free market reforms.
The questions that arise in the economic domain have naturally favoured the use of quantitative forecasting techniques, including econometrics and other forms of predictive modelling. Huge databases and complex formulas were employed, resulting in a multitude of estimates for China’s likely future GDP growth rate. But the repeated shortcomings of such economic modelling were amply demonstrated by, for example, the consistent underestimation of China’s likely growth, even by those who were most optimistic. No matter how sophisticated the models, their reliability depended critically on the accuracy of their many assumptions and the extent to which they took account of a potentially huge number of variables. The record of China experts in predicting its economic progress has therefore been very mixed. In their defence, however, most economic forecasters readily conceded and even emphasised the limitations of the forecasting tools available to them. Quantitative forecasting of China’s main economic variables will continue to be an imperfect and iterative process that can perhaps be improved only marginally by due recognition of the difficulty and uncertainty of the undertaking.

Expert analysis of China’s economic growth prospects could also benefit from greater attention to the powerful influence of human actors. China’s state planners have by common agreement been unexpectedly and consistently successful in the past in managing its still rapidly-growing economy. Their future role may be either the key to producing even better results, or an unintended liability for developing a more sustainable economy that encourages quality rather than quantity of growth.

The expert debate about when China would become the world’s largest economy has also been handicapped by divergent forecasts and questionable assumptions. In particular, such forecasting has been seriously hampered by the surprising and indeed embarrassing absence of an accepted and plausible basis for comparing the size of national economies. The appeal of using PPP comparisons for this purpose seems compelling because it defies credibility to rely entirely on MERs which ignore the important fact that many goods and services can be provided much more cheaply in China than in developed countries. Some experts believe China’s GDP may already have overtaken the US in PPP terms, and even if this is not the case most agree this will certainly occur quite soon. However, the reliability of PPP measures has been discredited by the procedures used to compare domestic prices of a basket of goods
and services in each country, and by major and erratic revisions of PPPs during infrequent updates. As an apparent consequence of these difficulties with PPPs, primary reliance continues to be placed on misleading comparisons based on MERs. Given the extent of this methodological confusion it is perhaps not surprising – although certainly concerning – that there is still considerable variance in expert predictions about when China’s GDP will surpass the US, although much less so than a few years previously when estimates varied enormously.

Past experience has to date defied the conviction of many experts that extrapolation of previous trends was the least likely path for China’s economy. With hindsight, such simple extrapolation would often have been more accurate than the results of intensive modelling. That may not always be the case, however, if such extrapolation is invalidated by the failure of China’s leadership to manage economic transition successfully. Even with slightly slower growth, however, China’s spectacular economic development continues to present daunting challenges for its environmental management, as will be explored in the next chapter.
9 ENVIRONMENTAL UNCERTAINTIES

A comprehensive analysis of China’s environmental trends would potentially encompass a diverse range of areas and require consideration of expert analysis of numerous uncertainties. These uncertainties would, for example, include the availability of natural resources (especially water), China’s ability to meet its future energy requirements, and the likely effects of specific pollutants on China’s environment and on the health of its citizens. It is beyond the scope of this chapter to give detailed consideration to all of these issues. The main focus will therefore be on examining the range of expert opinion about the most consequential subject area in this domain, namely the likely impact of China’s still massive resource and energy consumption on its GHG emissions and on climate change. This critical uncertainty can be expressed simply as: “What is the outlook for China’s environmental management and sustainability?” From both a national and global perspective, uncertainties in this area appear likely to be the most critical of the uncertainties in all domains.

Within this reduced subject area, primary consideration will be given to two specific critical uncertainties. The first, which has received much attention in expert analysis, approaches the question from the viewpoint of governance. It concerns both the willingness and the ability of China’s political and administrative systems, at both central and local levels, to formulate and implement measures that will rein in GHG emissions. This critical uncertainty can be expressed as: How successful will China be, from a governance perspective, in managing the negative impacts of economic growth on its environment and on global climate change? The focus of this analysis will be on the strategies and performance of key actors and decision-makers in devising and implementing appropriate counter-measures. This includes the ability of the government to withstand the powerful driving forces and vested interests that favour continued expansion of resource and energy consumption and resist the imposition of measures to control resultant pollution and emissions.

The second – more strategic and more quantitative – critical uncertainty, which has begun to receive more attention, can be expressed as: Will China’s efforts to achieve environmental sustainability, by reducing its energy intensity and carbon emissions,
be overwhelmed (or assisted) by continued economic growth? This critical uncertainty focuses essentially on calculating the net quantitative effect of the conflict between two opposing forces – the growth of emissions and the success of measures to contain them. This question has usually been addressed by experts through various forms of scenario-based statistical modelling.

9.1 Managing Environmental Impacts

Experts within and outside China appeared to be chiefly preoccupied in the early post-Mao period with issues of political stability and economic growth, rather than with its management of its environment. The most prominent Western scholar to begin drawing attention to China’s worrying environmental direction was Canadian academic Vaclav Smil. His assessment was notably pessimistic, both about the problems and about the measures being adopted by the government. He documented alarming trends in deforestation, erosion, desertification, loss of arable land, declining water resources, air pollution, and species extinction. He was encouraged by the beginnings of a bureaucratic response but also highlighted “fundamental limitations”. The implications of failure were “grim”, but he thought this was “at least as likely” as success. He concluded that the most fundamental check on China’s future would be its “staggering mistreatment” of the environment.

As time went by Smil’s pessimism deepened. He forecast, with impressive anticipation, that even if China’s energy consumption stabilised in the 1990s, it would expand again in the subsequent decade. China would become “the planet’s leading environmental transgressor”. He calculated that even with aggressive environmental management it would become the world’s largest GHG emitter between 2010 and 2025. A spark of optimism was evident, however, in his comment that there was “no preordained progression” in China’s environmental

505 Energy intensity and carbon intensity can be defined as the amount of energy consumed or carbon emitted, respectively, per unit of GDP.
508 This proved to be an underestimation when China became the largest emitter in 2006 or 2007.
trends because “human futures, while not infinitely alterable, are amazingly malleable”. 509

Among Chinese authors, Guangdong-based academic He Bochuan was also notably pessimistic about the ability of China’s leaders to manage its environmental challenges. His book *China on the Edge* was a best-seller within China in the 1980s. He considered there were “no effective or feasible measures” available to counteract key environmental trends in China. It had gone “past the point of no return” and the latent environmental crisis might explode. 510

By the mid 2000s a groundswell of concern about China’s environmental mismanagement had developed among many experts and commentators, which led them often to contemplate the possibility of collapse. The “terrible price” paid by China’s environment in exchange for its impressive growth was dramatically documented by Elizabeth Economy in her book *The River Runs Black*. A “long, slow process” had commenced to introduce environmental protection measures, but this was not backed by sufficient empowerment of environmental agencies. She noted the potential for political discontent about environmental issues to “bring the country to its knees economically”. Economy considered three scenarios: *China Goes Green*, with greater environmental investment and the CCP recast as a new political party in a 2013 presidential election; *Inertia Sets In*, with ineffective management of pollution and climate change; and *Environmental Meltdown*, including possible internal collapse and civil war. 511

Meanwhile China’s outspoken Deputy Environment Minister Pan Yue attracted international attention with his daring statement that China’s economic miracle would “end soon” because the environment could not keep pace. 512 Peter Aldous warned that China’s “skyrocketing” emissions were threatening global climate disaster, but deduced that this did not “loom large” in the thinking of China’s

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leaders.\textsuperscript{513} Jianguo Liu and Jared Diamond, noting the competition between economy and environment in China, seemed pessimistic about “which horse would win the race”.\textsuperscript{514} Other experts expressed growing concern about an emerging water crisis, which might have political consequences.\textsuperscript{515} Peter Engardio believed “runaway environmental degradation” was the greatest challenge facing China, but counter-measures were “at best at a standstill”.\textsuperscript{516} A major assessment by international experts, headed by Peter Ho, noted China’s authorities were “painfully aware” of the severity of environmental problems but an “increasingly obsolete” Chinese state seemed incapable of meeting the challenge. Like other countries it appeared to favour only “incremental change”, which might eventually trigger self-destruction.\textsuperscript{517}

Scepticism among experts about China’s motivation and ability to manage pressing environmental issues rose to new levels in the early 2000s when its accelerating economic growth led to a breakout in energy consumption. From 2001 to 2005 GDP growth surged dramatically and energy consumption, led by a booming heavy industry sector, increased at an equal or even faster rate. This marked the end of a period of some two decades in which China’s energy consumption had, very commendably, expanded at only about half the rate of GDP growth. The Aspen Strategy Group noted “growing awareness” in China of this problem, but believed it was “not making adequate investments – or using adequate technology”. They concluded that without international assistance for China, catastrophic global warming would be unavoidable.\textsuperscript{518}

China’s worrying new energy consumption and carbon emissions trends were analysed by Daniel Rosen and Trevor Houser. They observed that between 1978 and 2000 China’s economy grew annually by 9 percent while its energy demand grew by

\textsuperscript{513} Peter Aldhous, "China's Burning Ambition," Nature 435 (30 June 2005), 1152-1154.  
\textsuperscript{517} Peter Ho and Eduard B. Vermeer, eds., China's Limits to Growth: Greening State and Society (Malden, MA: Wiley-Blackwell, 2006), vii, 7 and 15-21. Ho discussed the problem of “greenwash” where a thin “green veneer” was used to disguise environmentally unfriendly development.  
\textsuperscript{518} Campbell and Darsie, China's March on the 21st Century, 53-60.
only 4 percent, but demand subsequently surged as high as 13 percent in the 2000s. They believed China’s leaders were well aware of this problem and had “lofty ambitions” to limit energy consumption, but progress was slow because “the same vested interests responsible for the current economic trajectory frustrate efforts to change course”.

From the mid-2000s the Chinese government began to initiate strong countermeasures to limit energy usage and carbon emissions. But, in the period leading up to the pivotal 2009 climate change summit in Copenhagen, experts continued to question the effectiveness of these countermeasures and the extent of the government’s commitment. The World Bank was among the first to voice its mounting concern. In a major new report in 2007 it assessed that the acceleration of China’s “already enormous” energy consumption might grow to a level that would be “difficult to satisfy.” Even “more alarming”, the authors emphasised that the “window of opportunity” to control energy consumption was “closing rapidly” due to the “huge current growth of investments in existing rather than new and advanced energy technologies”. IEA forecasts had indicated China could be responsible for one-quarter of the growth in world CO₂ emissions between 2002 and 2020. Crucial reforms had “stalled”, policy making was “piecemeal and uncoordinated”, and implementation was “weak”. The report stressed in a tone bordering on desperation that the “time for action has arrived”. But, it added, “urgency is the characteristic lacking in (China’s) energy and environmental policy”. These blunt observations were softened only marginally by the Bank’s alleged optimism that with stronger action China could transform itself “from a laggard to a global leader, leapfrogging some stages of development to boldly deploy (new) technologies”.

Elizabeth Economy also continued to be disturbed by China’s perceived inaction. In a new series of articles in 2007 she raised the spectre of “Shanghai under water,

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Tibetan glaciers disappearing, crop yields in precipitous decline, epidemics flaring”; but she believed its leaders paid “about as much attention” to climate change as did George W. Bush. They showed “little inclination to move aggressively”. China’s GHG emissions had tripled over the last thirty years and might triple again in the next thirty years. She conceded it would be “unfair” to say China was “doing nothing”. It had set “bold targets” for energy intensity and for renewables in its Eleventh Five Year Plan. But its development strategy suggested “little will change in the foreseeable future”. The guiding logic was “growth at all costs”. Economy’s critique went further. She judged that China’s environmental problems were systemic, arising from its “corrupt and undemocratic political system”. Without a “fundamentally different” political system she thought China would not “return to global pre-eminence” but would suffer “stagnation or regression”.

Grave concern was also expressed by US researchers Malcolm Shealy and James Dorian. Noting China’s rapidly expanding energy consumption they asked: “Is the world in denial?” They projected China’s coal consumption might triple between 2005 and 2025, and that its carbon emissions could also triple. Such concerns led to proposals for greater international efforts to assist China. William Chandler called for the US and China to break their “suicide pact” on climate change. He was encouraged by Chinese sources which suggested it could “cut its current emissions growth by half through 2020 and from that level reduce absolute emissions by one-third by 2050”. However, although the central government had set “sound high-level policies” for energy efficiency, it left implementation to “unprepared, underresourced provincial leaders”.

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Kelly Sims Gallagher was also sceptical about the true commitment of China’s leaders to environmental management. She believed they were driven primarily by the need to meet rising energy demands, which were seen as “more pressing” than global warming. In 2006 alone, she observed, China installed almost as much new power capacity as India’s entire electricity system. Moreover, many local governments “ignore or flaunt even the most basic energy-efficiency policies”. China’s carbon emissions had grown by 9 percent annually from 1999 to 2004. It was building 34 new ultra-supercritical coal-fired power plants, but she said it had in 2006 built three times that number of traditional coal plants. By using “the cheapest technologies available” it was “locking itself and the world” into high emissions in future decades.\(^{525}\) Gallagher accepted that China’s leaders expressed great concern about environmental issues and had passed many laws and regulations, but provincial and local governments failed to enforce such regulations “more often than not”.\(^{526}\) Paul Harris shared this view, claiming the central government had “limited control over the vast bureaucracy outside Beijing” and had succumbed to the “strong nationwide fixation on economic growth”. The future looked “bleak indeed”.\(^{527}\)

Nevertheless, by the late 2000s some experts began to see new measures – such as China’s announcement that it would aim to reduce the energy intensity of its economy by 20 percent between 2005 and 2010 – as indicating a promising new determination to address environmental challenges. A report by the US Department of Energy’s Lawrence Berkeley National Laboratory (LBNL) assessed that this new target marked “a major shift in China’s strategic thinking”. It also commended a program that committed 1,000 of China’s largest enterprises to meet specific energy saving targets. But LBNL still appeared sceptical about whether this shift in thinking would be sufficient. The 20 percent target would be difficult to achieve given the recent spike in energy intensity, which had raised the spectre of “a huge ‘unexpected’ disturbance” in the global energy and climate system. The target was considered

\(\text{Change, (Pew Center on Global Climate Change & Asia Society Center on U.S.-China Relations, January 2009).}^{525}\)


\(\text{Paul G. Harris, “China's Road to Destruction: Following the West on Global Warming,” Global Asia 3, no. 4 (Winter 2008), 88-94.}^{527}\)
“extremely ambitious” and “almost certain” to fall short. LBNL thought China would be hampered by many factors, including especially by the reality that in China “making money matters” and policies that obstructed this were “particularly difficult to put into practice”.

In a more optimistic vein, however, LBNL commented that it would be inadvisable to underestimate the Chinese government’s ability “to achieve large goals”. LBNL’s Mark Levine testified to a US congressional committee that one of the greatest misunderstandings between China and the United States was the failure to recognise that China during the last two decades of the twentieth century, and again more recently, had put “tremendous effort” into reducing carbon emissions through implementing “aggressive and innovative” policies. Indeed China showed increasing indications that it accepted the reality of climate change and its anthropogenic origins, and that it was prepared to take serious steps. In December 2006 it issued a National Climate Change Assessment Report that candidly assessed the recent and likely future impacts on China – including temperature rises, falling agricultural productivity, desertification, loss of biodiversity, sea level rise, permafrost degradation, glacier melting, intensified droughts, and water shortage.

Reactions from international experts were still mixed, however. Joanna Lewis commented that China’s efforts “should not go unrecognized”, including its closure of many small high-polluting power generation and industrial plants, its aim to produce 16 percent of primary energy from renewable and hydropower sources by 2020, and the establishment of a high-level National Leading Group on Climate Change to oversee specific targets and timetables. Even so, she thought current

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528 Jiang Lin et al., Achieving China’s Target for Energy Intensity Reduction in 2010: An Exploration of Recent Trends and Possible Future Scenarios (Ernest Orlando Lawrence Berkeley National Laboratory, December 2006). This report was reissued in the following year with the more upbeat title: Taking Out One Billion Tons of Carbon: the Magic of China’s 11th Five Year Plan.

529 Mark D. Levine and Nathaniel T. Aden, Global Carbon Emissions in the Coming Decades: The Case of China (Lawrence Berkeley National Laboratory, 2008), 28-29.


531 This was followed by issue of China’s National Climate Change Programme (2007), China’s Scientific and Technological Actions on Climate Change (2007), and China’s Policies and Actions for Addressing Climate Change (2008). Such documents were regularly updated in later years. See also: Roger Irvine, Victim of Success: China's Growth and Environmental Consequences (Sydney: Lowy Institute for International Policy, December 2009), 6, and Climate Change Mitigation Measures in the People's Republic of China, (Pew Center on Global Climate Change, April 2007).

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policies would be insufficient to achieve the required emissions reductions.\(^5\) ZhongXiang Zhang, at the East-West Center in Honolulu, was “cautiously optimistic”. He noted China had failed to achieve its targeted energy intensity reduction in 2006, but the government was making “concerted efforts”.\(^6\) Ross Garnaut, Frank Jotzo and Stephen Howes at the Australian National University noted it would be “in China more than anywhere else” that the success of global climate change mitigation would be decided. They thought many mainstream forecasts underestimated the challenge China faced to reduce energy and carbon intensity. It was, however, “starting” to put ambitious policies in place.\(^7\) Researchers at the Stockholm Environment Institute (SEI) were less charitable, arguing that China’s policies were at best a repackaging of existing strategies that happened to have “co-benefits” for climate change mitigation. A fundamental shift was required and eventual success was considered uncertain. Obstacles – including administrative shortcomings, conflicting central-local priorities, and rent-seeking and corruption – were considered to be “deeply rooted in the Chinese political system”. SEI urged China to place climate change “at the core” of its strategy. It added that this issue was a “critical uncertainty” for China and the world.\(^8\)

From early 2009 international attention began to concentrate on the prospects for progress during the international negotiations in Copenhagen at the end of the year. Expectations naturally centred on China, which was described as a potential “dealmaker”.\(^9\) Jianjun Tu, at the Carnegie Endowment for International Peace, described its target to reduce energy efficiency by 20 percent as “one of the most

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significant carbon mitigation initiatives in the world”. The seriousness of China’s intent appeared to be confirmed in remarks by its top negotiator Minister Xie Zhenhua who commented that China had “done a lot” to reduce emissions and would work “aggressively and actively” to reduce them further. US Special Envoy for Climate Change Todd Stern described China’s role as close to being the “alpha and omega” of the Copenhagen negotiations given that it was “rocketing up the emissions curve”. He cited modelling which indicated that even if other countries reduced emissions by 80 percent before 2050, China’s emissions alone “under business-as-usual assumptions” would lead to atmospheric CO₂ levels of 540 ppm and a 2.7 degree temperature rise. But he believed China recognised that a business-as-usual course was unsustainable.

Some experts defended China’s progress. ZhongXiang Zhang detailed China’s positive actions and lamented that it seemed to have become “a Christmas tree on which everybody could hang his/her complaints”. His view was supported by a wave of major new reports that documented China’s progress and manifested an increasing degree of cautious optimism. In 2008 The Climate Group, an international NGO network, published its first edition of China’s Clean Revolution, which found that “far from ignoring climate change” China was becoming a leader in low carbon industries. The Climate Group conceded the jury was still out on whether China could meet its challenging targets, but it would soon be “the No.1 manufacturer of various critical low carbon technologies” and had a “strong and comprehensive low carbon policy framework”. For example, it had not only closed many small and inefficient coal-fired power plants but the new plants that replaced them “almost exclusively” used super-critical or ultra-super-critical technology.

A second China’s Clean Revolution report assessed that China’s strategic vision of a low carbon world might reduce the cost of low carbon technologies internationally.

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539 Todd Stern, China and the Global Climate Challenge, Center for American Progress, 3 June 2009.
540 ZhongXiang Zhang, “Is it fair to treat China as a Christmas tree to hang everybody's complaints? Putting its own energy saving into perspective,” Energy Economics 32 (2010), S48-S56. See also ZhongXiang Zhang, Climate Commitments to 2050: A Roadmap for China (Honolulu, HI: East-West Center, 4 December 2009).
541 China’s Clean Revolution, (The Climate Group, August 2008).
Tony Blair, in his foreword, noted China was “among the world’s leaders” in producing wind turbines, solar panels and biofuels, and its steel and cement plants were “among the most efficient in the world”. The report also recorded that China had introduced “a number of watershed laws and programs” and considered it had “the capacity to enforce these”. Even achievement of its 2010 energy intensity target was in sight.\(^{542}\) China’s low carbon credentials were also lauded in a *China Greentech Report*, which assessed that it could soon emerge as a global greentech innovator.\(^{543}\)

This optimism contrasted with a sobering IEA report which assessed it would take decades for other power sources “to push coal from its dominant position” in China.\(^{544}\) However, US journalist Keith Bradsher took a more positive attitude. He considered that what was “largely missing in the hand wringing” was recognition that China had suddenly emerged as the “world’s leading builder” of more-efficient and less-polluting coal plants that were “mastering the technology and driving down the cost”. This progress was “as fast and serious as anywhere in power-generation history”.\(^{545}\)

Julian Wong and Andrew Light at the Center for American Progress also protested against “the common refrain from climate action naysayers” that China was building two new coal-fired power plants per week, making emissions reduction commitments by other countries irrelevant. They countered that China had already “forged ahead with building its own low-carbon economy” and could become “the unquestioned leader” in clean energy technologies. If China achieved its 2010 energy intensity reduction target this would save one billion tons of carbon dioxide per year, compared with the EU’s targeted annual saving of 300 million tons.\(^{546}\) Beijing-based Deborah Seligsohn was also upbeat. She believed China’s ambitious and impressive approach was under-appreciated. She perceived that from 2007 a combination of

\(^{542}\) *China’s Clean Revolution II: Opportunities for a Low Carbon Future*, (The Climate Group, August 2009).


\(^{544}\) *Cleaner Coal in China*, (International Energy Agency, 20 April 2009), 22 and 26


\(^{546}\) Julian Wong and Andrew Light, *China Begins Its Transition to a Clean-Energy Economy: China’s Climate Change Progress by the Numbers* (Center for American Progress, 4 June 2009).
domestic and international pressure had produced a “real consensus” in China, leading to “a fully articulated climate change policy” backed by clear and measurable targets.\textsuperscript{547} She cited IEA estimates that 80 percent of China’s coal-fired plants would be modernised by 2011, and 90 percent by 2020. The average efficiency of coal-fired plants in China now exceeded the United States. China’s wind generation was projected by 2020 to reach five times the target set in 2005.\textsuperscript{548}

In the lead-up to Copenhagen, China appeared to become increasingly aware of the need to show the international community that it was responsive to pressures for it to make specific commitments to limit its carbon emissions. As early as 2006 Hu Angang had advocated shifting China’s growth model to “a green development path”.\textsuperscript{549} In 2009 he proposed a new approach. He argued that the current classification of nations as developed or developing did not “reflect reality” and proposed instead that global emissions reductions should be based on dividing countries into four groups according to their ranking in the UN’s Human Development Index. This would place China in the second category of the HDI, immediately after the most developed countries, and increase its expected contribution accordingly. By 2010 it was expected to reach the first category. Hu believed Copenhagen was “our last chance to save the planet”.\textsuperscript{550} Several other Chinese proposals for capping global emissions emerged at this time, but they recommended that a global emissions budget should be based on \textit{cumulative} per capita emissions, placing the main burden on developed countries.\textsuperscript{551}

An early sign of the Chinese government’s possible willingness to make new commitments came from Su Wei, a leading member of its negotiating team, who reportedly stated that China could “very easily” translate its energy intensity targets

\textsuperscript{547} Deborah Seligsohn, “China and climate change: Doing more than you think,” \textit{China Economic Quarterly} (September 2008).
\textsuperscript{548} Deborah Seligsohn et al., \textit{China, the United States, and the Climate Change Challenge} (Washington, DC: World Resources Institute, October 2009).
into limits on CO₂ emissions. This was followed in September 2009 by Hu Jintao’s undertaking at a special United Nations summit that China would “endeavour to cut carbon dioxide emissions per unit of GDP by a notable margin by 2020 from the 2005 level”. Then on 26 November 2009 China’s State Council made the long-awaited announcement of a voluntary and domestically-binding commitment to reduce China’s carbon intensity by 40 to 45 percent by 2020 compared to 2005.

As events unfolded, however, Copenhagen was to be something of a public relations disaster for China, in spite of its resolve to reduce its own emissions. Its apparent inflexibility caused it to be accused by journalists and even by some negotiators of having “wrecked the talks”, although others pointed the finger at the United States and developed countries. ZhongXiang Zhang commented that China’s rejection of “unilateral” 2050 emissions cuts by developed countries was not only “hard to understand” but had cast it in “a very bad light”. However, he speculated that China’s reluctance may have been due to fear that it would be pressured to also take on additional exacting commitments, a view that has since been supported by others. Bjorn Conrad pointed out that Chinese negotiators probably feared that if they agreed to the proposed 2050 targets for developed countries this would “automatically” imply an “implicit reduction obligation for the developing world and China” in order to meet the global 2 degrees Celsius target. China was also justifiably disappointed by the failure of developed countries to commit to more ambitious mid-term targets following its own mid-term commitment to reducing carbon intensity. Nevertheless, negative international perceptions of China’s willingness to act on climate change issues persisted. Many experts also remained critical of China’s environmental governance. Joanna Lewis pointed out that between

553 See for example Mark Lynas, “How do I know China wrecked the Copenhagen deal? I was in the room”, Guardian, 22 December 2009, and George Monbiot, “If you want to know who’s to blame for Copenhagen, look to the US Senate”, Guardian, 21 December 2009.
2010 and 2030, China was expected to account for 40 percent of all new energy-related CO$_2$ emissions.\footnote{Joanna Lewis, "Environmental Challenges: From the Local to the Global," in China Today, China Tomorrow: Domestic Politics, Economy, and Society, ed. Joseph Fewsmith (Lanham, MD: Rowman & Littlefield, 2010), 264-275.}

Continuing doubts about China’s commitment were also evident in a 2010 joint report by the United Nations Development Programme and Renmin University. It commented that China had probably promulgated more laws, policies and measures for low carbon development than any other developing country, but these would be “only partially effective” without strong measures to deal with implementation obstacles that included poor coordination, weak regional and local implementation, and insufficient monitoring and enforcement.\footnote{China and a Sustainable Future: Towards a Low Carbon Economy and Society, (China Human Development Report, Renmin University and UNDP, 2010), 75-96.} A much more positive stance was taken, however, in a report by David Held, Eva-Maria Nag and Charles Roger. They thought there was a “notable disjuncture” between China’s reputation for “ongoing obstinacy” in international negotiations and the impressive scale of its domestic initiatives. A revolution in domestic governance had made implementation of environmental policies legally mandatory and an important factor in local officials’ performance evaluations. Policy-makers had shown “great determination” and had introduced new measures “on a scale nearly unparalleled elsewhere”. This contradicted the dire picture found in international commentary portraying China as an “obstinate climate laggard”.

As the Copenhagen debacle receded further, China’s ongoing efforts to stimulate development of low carbon sectors in its economy won increasing recognition. A Pew survey pointed out that China had become the leader within the G-20 in clean energy finance and investment. China was also drawing level with the US in terms of installed renewable energy capacity. It was becoming “the world’s clean energy powerhouse”.\footnote{Who's Winning the Clean Energy Race?: Growth, Competition and Opportunity in the World's Leading Economies, (G-20 Clean Energy Factbook, Pew Charitable Trusts, 2010).} Energy Secretary Steven Chu argued the US could no longer use China’s alleged inaction on environmental issues as an excuse, rather “China’s rapid
action should be a motivation”. A Deutsche Bank report stated that China had developed “robust policy frameworks, including clearly defined national targets, strong incentives and integrated plans”. China was “a fast adopter of clean technologies” and was the leader in renewable electric power, having doubling its installed capacity during 2009 alone. China’s annual clean energy investment exceeded the US and was three times greater than the US as a percentage of GDP. Deutsche Bank saw China becoming “a game changer” for clean technology industries globally.

China’s Twelfth Five Year Plan included new targets to reduce energy intensity by a further 16 percent from 2010 to 2015, and to reduce carbon intensity by 17 percent. Energy efficiency, nuclear energy and renewables, and electric vehicles were highlighted as three of the seven Strategic Emerging Industries to be allocated high investment priority under the Plan, which also referred to “step by step establishment of carbon emissions trading markets”. The Climate Group concluded that China placed low carbon growth “at the heart of economic strategy in a way that no other country has done”. It was likely to become “the world’s fastest growing market for climate solutions” and “the world’s biggest exporter of key clean technologies”.

The 2011 and 2012 China Greentech Reports were also enthusiastic, declaring that China was now “a greentech leader” standing “at the center of almost every greentech market” and the world’s largest clean energy investor. It had been criticised at Copenhagen but was leading by domestic action. Its seven Strategic Emerging Industries, including the three that were energy-related, were targeted to absorb 8 percent of GDP by 2015 and 15 percent by 2020, which could leapfrog China over developed countries. The report also observed that it was unimaginable that Europe, Japan or North America could build 20,000 kilometres of high-speed

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rail in a decade, or imitate China’s surge in nuclear power, or take back China’s lead in wind installations.\textsuperscript{564}

Amid this chorus of approval there were some dissenting voices. Not all commentators were impressed. John Lee claimed that the greening of China was “a mirage”. He admitted the new Five Year Plan contained “superficial evidence” that China was taking climate change seriously, but saw this as a “carefully crafted message” designed to impress Western markets. He asserted (unsourced) that “for every coal-fired station shut down in the past three years, two have sprung up”.\textsuperscript{565} Lee advised environmentalists not to be fooled by China’s plans for a carbon tax because they were “little more than clever political theater” to allow it “to emit even more”.\textsuperscript{566} But it was rare for commentators to display this degree of scepticism and Lee’s claims drew a response from US analysts who asserted his “incendiary” article – also described as a “confusing diatribe” – was “plain wrong”. They accused Lee of not doing “any serious research” and suggested that instead of attempting to “frighten people with figures plucked out of the air” he should “stick to the facts”.\textsuperscript{567}

Even other commentators who were very concerned about environmental trends in China were nonetheless usually prepared to concede the scale and sincerity of its efforts to manage these impacts. A report by the Economist Intelligence Unit, for example, stated that 35 percent more coal would be consumed in China in 2020 than in 2010, and carbon emitted by burning coal and other fossil fuels would rise by 43 percent. China would be greener in relative terms, but grey would “remain the dominant colour”. However, the Unit acknowledged China was taking aggressive measures to encourage low-carbon energy, with “some notable successes”. The combined share of nuclear and renewables in energy supply would rise from 13 percent in 2010 to over 16 percent in 2020. China would become “the primary engine” driving the global green economy. Trial carbon trading schemes were

\textsuperscript{567} Alvin Lin and Yang Fuqiang, “China’s carbon tax is very real”, China Dialogue, 27 January 2012.
underway and a carbon tax, at a relatively low rate, was also considered likely by 2015.568

9.2 Achieving Environmental Sustainability

By the early 2010s most experts who paid close attention to China’s efforts to curb energy intensity and emissions appeared on balance to be impressed by the scale of its response, at least from a policy, administrative and governance perspective. But in quantitative terms this still left open a second critical uncertainty: namely, whether its relative success in reducing its energy intensity and carbon emissions might still be overwhelmed by the consequences of its continued high economic growth rate – and by its continued emphasis on fossil fuels and heavy industry investment. This issue has also received a great deal of expert attention. Typically analysts employed a variety of statistical modelling and scenario techniques to attempt to project trends in energy demand, energy intensity, carbon emissions, and carbon intensity.

In the 1990s some estimates by international agencies of China’s energy and emissions trends were relatively optimistic. A surprisingly sanguine World Bank report in 1997 thought that China could reduce its 2020 carbon emissions to below their existing levels, even while economic output quadrupled. Energy intensity in 2020 was expected to fall to 62 percent of its 1995 level. With only “a few crucial adjustments” an environmentally sustainable future was considered to be “well within reach of China’s current policies and resources”.569 This level of optimism was rare, however. The IEA was impressed by China’s past success in controlling energy intensity, but much more pessimistic about the longer term trends. It estimated in 1996 that China’s annual CO2 emissions would almost double by 2010, and reach 17 percent of the world total.570

568 Martin Adams, ed. A greener shade of grey: A special report on renewable energy in China (Hong Kong: Economist Intelligence Unit, 2012), 2-7.
570 Robert Priddle, “China’s Long-term Energy Outlook.” in China in the 21st Century: Long-term Global Implications (OECD, 1996), 95-99 and 121-125. The IEA included several caveats, noting that its forecasting model was based on many assumptions and on scarce data, and that standard techniques of extrapolation were “highly dubious” given the unknown affects of future policy measures and the unpredictable behaviour of economic agents.
By the turn of the century growing concern among experts about China’s global environmental impacts led to the development of several major bilateral and international collaborative research projects and modelling exercises. The scope of this collaborative activity between China and other countries has not had a high public profile, but is long-standing and has undoubtedly been very influential. An early example was a study in 2000 of energy futures to 2020 by the Chinese and US Academies of Sciences and Engineering. It expected China’s carbon emissions would overtake the US “over the next several decades”.\footnote{Cooperation in the Energy Futures of China and the United States, (Washington, DC: National Academies Press, 2000), 15-20 and 47-48. The study claimed, rather dubiously, that “significant progress” had been made in forecasting energy demand using increasingly complex modelling systems that achieved “greater accuracy of predictions”. See also, Energy Futures and Urban Air Pollution: Challenges for China and the United States, ed. National Academy of Sciences (The National Academies, 2007).} In another collaborative report the lead was taken by China’s Energy Research Institute (ERI) but with strong support from counterparts in the US and especially from LBNL. Three years of joint research led to the publication in 2004 of a report in Chinese titled \textit{China Sustainable Energy Scenarios in 2020}. Three scenarios were developed: an Ordinary Effort scenario that assumed a low priority for environmental sustainability, a Promoting Sustainability scenario that assumed implementation of new policies outlined in China’s Tenth Five Year Plan, and a Green Growth scenario that assumed more aggressive measures. The report found that, depending on which scenario eventuated, energy use might rise by 70 to 130 percent by 2020, while carbon emissions over the same period could rise by 50 to 100 percent or more.\footnote{Zhou Dadi and Mark Levine, China’s Sustainable Energy Future: Scenarios of Energy and Carbon Emissions (Lawrence Berkeley National Laboratory, 2004), 1-4 and 13-27. Subsequent estimates fell within a similar range.}

The dramatic reversal during the early 2000s of China’s energy efficiency achievements led to renewed efforts by Chinese and foreign experts to assess its prospects for achieving environmental sustainability. Perhaps the first foreign analysts to give an early warning of China’s energy consumption breakout, and to examine the future implications quantitatively, were William Chandler and Holly Gwin. They noted that although for two decades previously China had held its energy demand growth to 60 percent of GDP growth (an elasticity of 0.6), in 2002-2003 that demand had grown “perhaps one-third faster than GDP” (an elasticity of 1.3). They concluded that this could mark “a momentous change” in China’s ability
to control its GHG emissions. If its efficiency policies faltered its energy demand could grow “nearly four-fold by 2050”. It had reached a turning point where, in the absence of counter-measures, a rapid expansion of emissions “could overwhelm domestic and international mitigation efforts”.

Others were much slower to pick up this new trend. In a notable example of forecasting failure by multiple agencies, most analysts missed the turnaround in China’s energy efficiency performance. They failed to anticipate it and they were slow to recognise it after it happened. Both the Chinese government and the International Energy Agency (IEA) had predicted annual energy demand growth would remain at 3 to 4 percent up to 2010. In fact energy elasticity reportedly increased from less than 0.5 between 1978 and 2000 to up to 1.5 between 2001 and 2006. Energy consumption grew four times faster than predicted in most forecasts.

Another quickly-outdated assessment from the US Department of Energy’s Energy Information Administration (EIA) had projected that China’s share of global carbon emissions from fossil fuels would grow from 13 percent to only 18 percent in 2025 – a level that in fact was reached only a few years later. A Goldman Sachs analysis brought forward the time when China’s CO₂ emissions might exceed the US to 2015, with China’s share of world emissions reaching one quarter to one third by 2030 – both mileposts that have already been reached. Researchers at CASS noted in 2006 that the Chinese literature also contained many over-optimistic scenarios for future emissions. Actual consumption in 2005 had been higher than these Chinese scenarios.

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had projected for 2010, while consumption in 2010 seemed likely to be close to or higher than had been projected previously for 2020.577

In reaction to these mistaken forecasts, a report by Mark Levine and Nathaniel Aden at LBNL constituted what might almost be called an anti-forecast. Instead of offering their own projections, they dwelt on the astonishing inaccuracy of previous estimates. They noted that a “profound change” in the level of China’s emissions had clearly occurred around 2002, and asked why forecasts over a long period before and after this date had been “so greatly in error”. China’s energy-related carbon emissions had already surpassed the United States in 2006, something the IEA and EIA as recently as 2004 had thought would not occur before 2025 or 2030. (China’s emissions therefore overtook the US within two or three years of the 2004 forecast, rather than in two or three decades.) Furthermore, 55 percent of global emissions growth between 2000 and 2006 had come from China alone. China’s annual emissions growth had averaged 10 percent after 2000 compared to 5 percent between 1980 and 1995. By 2006 China’s share of global emissions had reached 20 percent.578

LBNL surveyed a number of forecasts over previous years by IEA and EIA, as well as three “highly respected” Chinese forecasts (from Tsinghua, ERI and DRC). It drew attention to the dramatic swings in these forecasts. The most recent were the highest, the immediately preceding forecasts were the lowest, and the older forecasts fell in the middle of the range. These miscalculations were due to the astonishing fact that the three-year increase in China’s emissions from 2002 to 2005 was “equivalent to the increase projected to take place over a period of fifteen or more years!” This suggested to Levine and Aden that predicting China’s energy and emissions trends in coming decades would be “precarious”, because this depended greatly on China’s ability to “tame its burgeoning energy demand”.579

578 Levine and Aden, Global Carbon Emissions in the Coming Decades: The Case of China.
579 Ibid.
This well-meaning advice went largely unheeded, however. It was not long before a new crop of forecasts appeared, their authors apparently undeterred by their colleagues’ earlier failures. In total, from the mid-2000s at least thirteen large-scale assessments appeared that attempted either to project energy and emissions trends forward under various scenarios to 2030 or 2050, or – following a quite different approach – to project the reductions that would be required to meet predetermined targets.

The first of these reports were understandably quite pessimistic given the recent emissions surge. Australian researchers Peter Sheehan and Fiona Sun noted that China’s energy consumption in 2001-2005 had increased by an average of 9.8 percent annually, compared with forecasts ranging from 2.6 to 4.7 percent that had been produced by IEA, EIA, ERI/LBNL, and China’s National Development and Reform Commission (NDRC).\(^\text{580}\) Assuming continued high GDP growth and energy intensity, Sheehan and Sun projected that China’s energy use and CO\(_2\) emissions could increase almost sixfold from 2002 to 2030.\(^\text{581}\) In a subsequent paper, however, they seemed impressed by China’s new policies, which they thought could reduce projected energy use and emissions in 2030 by up to 35 to 40 percent. They assessed that the government’s new target to reduce energy intensity by 20 percent between 2005 and 2010 was “unlikely to be achieved”, but believed China was now committed to a “full range of instruments” that should ensure “major reductions”.\(^\text{582}\)

Alarming projections of China’s CO\(_2\) emissions path were made by several other experts. US analysts Maximilian Auffhammer and Richard Carson projected China’s likely emissions to 2015 would be larger by “a factor of two or more” than previous forecasts, overtaking the US by 2010 rather than 2020 due to alleged “abandonment of energy efficiency programs”.\(^\text{583}\) The World Bank’s Zmarak Shalizi calculated that

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\(^{580}\) See also the low levels of carbon emissions forecast in Detlef van Vuuren et al., “Energy and emission scenarios for China in the 21st century - exploration of baseline development and mitigation options,” *Energy Policy* 31 (2003), 369 and 372.

\(^{581}\) Peter Sheehan and Fiona Sun, *Energy Use and CO\(_2\) Emissions in China: Retrospect and Prospect* (Centre for Strategic Economic Studies, Victoria University, Australia, June 2006). Notably, they qualified their forecast with the comment that the failure of earlier projections indicated the limited ability of advanced modelling techniques to predict future developments.

\(^{582}\) Peter Sheehan and Fiona Sun, *Energy Use in China: Interpreting Changing Trends and Future Directions* (Centre for Strategic Economic Studies, Victoria University, Australia, 2007).

\(^{583}\) Maximilian Auffhammer and Richard T. Carson, *Forecasting the Path of China’s CO\(_2\) Emissions: Offsetting Kyoto - and Then Some* (University of California, 2006). See also John Hawksworth, *The
under a business-as-usual scenario China’s energy use and CO₂ emissions might more than double by 2020 and almost double again by 2050. The EIA’s new 2006 forecast indicated China’s percentage share of both global energy consumption and global CO₂ emissions would almost double between 2003 and 2030. The IEA’s 2007 forecast estimated that by 2010 China would be the world’s largest energy consumer, and over the period to 2030 it would install “more new electricity generating capacity than exists in the United States today”. It would also account for 42 percent of the growth in global CO₂ emissions to 2030. In a Science magazine article, Chinese and US researchers raised a hypothetical scenario in which China’s carbon intensity kept pace with a GDP growth rate of 7 percent, causing its emissions to equal current global emissions by 2030. An ominous report by Geoffrey Blanford, Richard Richels and Thomas Rutherford at Harvard University warned that China’s emissions might soon cause international goals to stabilise atmospheric CO₂ levels to “become unattainable”. They noted that China’s emissions since 2000 had grown annually by over 10 percent, compared with 2.8 percent in the 1990s.

A three year study published in 2009 by the UK’s Tyndall Centre for Climate Change Research appeared more hopeful. However, it was not based on the usual approach of projecting expected emissions growth under various assumptions, but on identifying four scenarios with different premises that if achieved would all meet a predetermined global target of stabilising atmospheric CO₂ at 450 ppm. This was the first of several such normative forecasts. Significantly, the study indicated China’s emissions would need to peak between 2020 and 2030, with early large-scale action

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being critical to success. China’s carbon emissions would rise by 24 to 72 percent between 2005 and 2020, depending on the size of its emissions budget, but decline thereafter by 15 to 70 percent by 2050. This was considered “challenging but achievable”. Renewable energy was seen as having huge potential, possibly contributing over 40 percent of total energy demand by 2050. Nuclear power could contribute up to 12 percent.\(^{589}\)

Other studies followed the example of Tyndall in taking an optimistic view of the possibilities for curbing China’s carbon emissions significantly if its government acted strongly and quickly. A report by McKinsey & Company, which also took a normative approach, examined over 200 efficiency and abatement technologies to assess their maximum potential to assist China to reduce its emissions. A Baseline scenario concluded that for each of the five year periods to 2030 China could reduce its energy intensity by 17 to 18 percent. Even so, its absolute emissions would more than double over that period. However, an Abatement scenario, in which China fully deployed the available technologies, could reduce emissions in 2030 to nearly half of the Baseline, or only 10 percent higher than emissions in 2005. In this scenario coal’s share of coal in overall power supply would reduce from over 80 percent to as low as 34 percent. McKinsey tempered this startlingly optimistic projection by acknowledging it would require no less than a “green revolution” and that any delay in seizing the window of opportunity would greatly reduce the potential emissions savings.\(^{590}\)

Two other major studies, both from the Stockholm Environment Institute, emerged prior to Copenhagen. They recommended very aggressive emissions reductions that seem unlikely to be achievable. A joint report by SEI and leading Chinese economists contained emissions scenarios ranging from business-as-usual to a deep reduction scenario that would ensure a global temperature increase of no more than 2 degrees Celsius. The report stated that China accounted for almost one quarter of global emissions, and that during the 2000s its own emissions were responsible for

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\(^{590}\) *China's Green Revolution: Prioritizing technologies to achieve energy and environmental sustainability*, (McKinsey&Company, February 2009).
almost 60 percent of the global increase. It would “not be easy” for China to “drastically reduce” its emissions, but this was considered to be both possible and necessary. The report calculated a global carbon budget to 2050, and China’s share of that budget. It recommended “bold and ambitious action” to ensure emissions peaked as early as possible and preferably by 2015. If China’s emissions did not peak until 2025, the required emissions reduction would be “virtually unattainable”.

The second report, authored by Charles Heaps, developed SEI's Deep Carbon Reduction Scenario in greater detail, examining the feasibility of “massively reducing” emissions by 2050 (to about 85 percent of the level in 1990). Heaps emphasised this was “only a technical feasibility study” rather than a forecast. If the Scenario was achieved emissions would peak in 2017, with cumulative reductions that were considered sufficient to limit global warming to less than 2 degrees Celsius.

The pre-Copenhagen period saw some manifestations of support within China for specific national emissions reduction targets, including target dates for peaking and reducing absolute emission levels. Hu Angang and Guan Qingyou asserted that China had a responsibility to play “a major role in the global fight against climate change”, especially since it was already “one of the biggest victims”. Hu and Guan estimated that with average GDP growth of 7.5 to 8 percent between 2006 and 2020, China’s GDP would be almost five times its level in 2000. After 2020, however, they expected emissions would “start to decrease” and a low carbon economy would become “a huge opportunity”. They advocated a “three-stage roadmap” in which China would aim for its carbon emissions “to peak by 2020, or no later than 2030”, to reduce to 1990 levels by 2030, and to reduce further to half of 1990 levels by 2050.

The Chinese Academy of Sciences warned that China’s emissions might double within two decades. Its target was considerably less demanding, however.

592 Charles Heaps, A Deep Carbon Reduction Scenario for China (Stockholm Environment Institute, 24 May 2009).
593 Hu Angang and Guan Qingyou, “Fighting Climate Change: China’s Contribution,” China Dialogue (8 & 10 October 2008), and Hu Angang, “A new approach at Copenhagen.”
recommending that emissions should peak between 2030 and 2040.\textsuperscript{594} This more conservative target was supported by China’s science and technology minister.\textsuperscript{595}

The search for a date by which China might reach peak emissions was given much greater credibility by a landmark new forecast of its energy and emissions outlook that included contributions from experts in several of China’s government research organisations, including the Energy Research Institute and Development Research Center. Although it did not have official endorsement, this report was of major significance. Titled the \textit{2050 China Energy and CO\textsubscript{2} Emissions Report} it totalled, in Chinese, almost 900 pages. It admitted China’s emissions had overtaken the US and proposed policies that could slow emissions growth by 2020 and reach a peak around 2030, then possibly fall by 2050 to 2005 levels or lower. It proposed financial and price reforms, a carbon tax, and steps toward a cap-and-trade system. It warned of a massive potential threat to China from climate change including droughts, floods, retreating glaciers, water shortage, and falling agricultural productivity. In the study, Jiang Kejun from ERI warned that with a business-as-usual approach carbon emissions could almost double by 2040, compared with an increase of only about one third under a \textit{Low Carbon} scenario or even less under an \textit{Enhanced Low Carbon} scenario. He described a low carbon strategy as “difficult but doable”.\textsuperscript{596}

This report was followed by a similar pre-Copenhagen forecast compiled by a task force that included many leading Chinese climate change experts as well as international participants. It described a low carbon economy as “inevitable” for China. It did not recommend specific limits on absolute emissions but some of its scenarios included the “possibility” of reaching peak emissions. It presented four scenarios – \textit{Business-as-Usual}, \textit{High GDP Low Carbon}, \textit{High GDP Enhanced Low Carbon}, and \textit{Low GDP Low Carbon} – each detailing the technologies required, the economic implications and the related emissions. China, the report stated, faced “a major strategic choice” – to “retake the road of developed countries” or to take a low

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\item \textsuperscript{595} Jonathan Watts, “China’s carbon emissions will peak between 2030 and 2040, says minister”, \textit{Guardian}, 6 December 2009.
\item \textsuperscript{596} Reports by Chris Buckley, \textit{Reuters}, 17 August 2009.
\end{itemize}
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carbon pathway that would reduce annual energy consumption by almost 20 percent and emissions by almost 30 percent. After 2030, if this pathway was adopted, China’s absolute emissions would peak. The task force also recommended targets for 2050 to reduce energy intensity by 75 to 85 percent and carbon intensity by 85 to 90 percent. After 2015 China could “leap into the top ranks in the world” in third generation nuclear power, electric vehicles, and cleaner coal. After 2030 it could lead the world in large-scale fourth generation nuclear power, solar and bio-energy, and other cutting-edge technology.597

Following China’s November 2009 announcement of its major new goal to reduce carbon intensity in 2020 by 40 to 45 percent compared to 2005, and after the contentious Copenhagen summit, a new debate sprang up among experts about whether this seemingly impressive target would be difficult or relatively easy for China to achieve. Many asserted it would indeed be challenging. Fatih Birol, the IEA’s chief economist, stated that the new target meant China had accepted responsibility for over 25 percent of the worldwide emissions reductions needed to limit warming to 2 degrees Celsius – more than its share on a population basis. The target was also in line with the IEA’s 2010 scenario for stabilising atmospheric CO₂ at 450 ppm, suggesting China was “pulling its weight” toward achieving this global target.598 LBNL was slightly more cautious. It judged that China’s 2010 energy intensity goal was likely to be nearly achieved, and that it was “highly likely” its new 2020 carbon intensity goal would attract “a similarly serious commitment and effort”. It added, however, that use of a carbon intensity metric – rather than one related to absolute emissions – obscured the level of effort required and would allow emissions to continue to grow.599  

Others were even more sceptical. Michael Levi at the US Council on Foreign Relations saw China’s target as “disappointing”, “business-as-usual”, “conservative”, and showing “low apparent ambition”. The EIA, he said, had already projected a 46

597 *China’s Pathway Towards a Low Carbon Economy*, 1-5, 70-78, 94-97 and 120.  
599 “Statement of the China Energy Group, Lawrence Berkeley National Laboratory on China’s Recently Announced Carbon Intensity Target”, undated. For similar comments see Bo Xu et al., *An Analysis of Chinese Carbon Dioxide Mitigation Strategy* (Royal Institute of Technology, Sweden, June 2010).
percent carbon intensity cut for China, the IEA had projected the equivalent of a 40 percent cut, and ERI had projected a 44 percent reduction. The IEA had recommended China should aim to cut its carbon intensity by 48 percent between 2005 and 2020, and McKinsey had identified opportunities that would achieve a 54-56 percent reduction. Levi himself calculated that a 56 percent reduction should be feasible.600

Several experts came strongly to China’s defence, however. William Chandler and Wang Yanjia thought China’s new carbon intensity target was “severe, even draconian” and imposed efficiency standards “to a degree unparalleled in any other country”. It had already forced the close of “tens of thousands” of factories, power plants, and production lines. For China to bind itself to such a target was “surprising” and reflected its “fear” of climate change. Criticism, they asserted, could be explained only by “lazy scholarship” or “reflexive ‘China bashing’”. China’s 40 to 45 percent target would require it to reduce its carbon intensity by 4 percent annually. The idea that this represented nothing more than business-as-usual was “demonstrably false”.601 David Stern and Frank Jotzo agreed that China’s target would require ambitious mitigation policies. They estimated a business-as-usual scenario would produce only a 24 percent reduction.602 ZhongXiang Zhang believed that meeting its target would be “challenging and costly” for China, and assessed that if it succeeded it would contribute an impressive 31.6 percent of the global reductions required under the 450ppm scenario.603 David Cohen-Tanugi described China’s target as “almost” in line with the level required, according to the IEA, to

601 William Chandler and Yanjia Wang, Memo to Copenhagen: Commentary is Misinformed - China’s Commitment is Significant (Carnegie Endowment for International Peace, December 2009).
keep atmospheric GHGs below 450 ppm. He considered three scenarios: a Previous Domestic Commitments scenario that would result in only a 37 percent carbon intensity reduction between 2005 and 2020; an Extended Efforts scenario leading to a 48 percent reduction; and an Economic Restructuring scenario that could reduce carbon intensity by up to 57 percent.

The post-Copenhagen period saw the completion of several additional forecasts of China’s prospects for curbing energy and carbon intensities. The joint UNDP/Renmin report cited earlier presented three low carbon scenarios based on a “Technological Optimization Model” developed by Renmin. In the Business-as-Usual scenario emissions would increase rapidly and not peak until after 2050; in the Emissions Control scenario extensive mitigation measures would be adopted, but emissions would still probably not peak before 2050; but under the Emissions Abatement scenario policy-makers would set a target to reach peak emissions by 2030, which was considered difficult but technologically possible. Notably, both the Emissions Control and Emissions Abatement scenarios envisaged carbon intensity dropping by more than China’s official target – by 51 percent from 2005 to 2020, and by 69 percent from 2005 to 2030. Emissions Control would see an 85 percent drop in carbon intensity by 2050 and Emissions Abatement a 91 percent drop.

A 2010 World Bank report, with a whole-of-Asia coverage, indicated that under a Sustainable Energy Development scenario China’s CO₂ emissions might peak by 2025. This assumed achievement of a “daunting” 4.3 percent annual decline in energy intensity. The report lauded the scale of China’s achievements to date, describing its energy intensity reduction from 2005 to 2010 as “the most aggressive emissions reduction target in the world”. It commented that China was installing new...
supercritical coal-fired power plants at only slightly greater cost than traditional plants, and already accounted for 75-80 percent of the world’s installed capacity of supercritical and ultrasupercritical plants.\(^{607}\)

China’s own research institutes also continued to explore scenarios for accelerated development of a low carbon economy. A working paper by ERI’s Jiang Kejun considered possible pathways and “technological leaps”. He included a \textit{Baseline} scenario reflecting existing policies and measures; a \textit{Low Carbon} scenario with structural reform, dissemination of available technologies, “aggressive diversification” of the fuel mix, and “aggressive standards” for energy efficiency; and an \textit{Enhanced Low Carbon} scenario that explored new technologies, maximised use of renewables and nuclear power, and introduced Carbon Capture and Storage (CCS). Under the two Low Carbon scenarios, CO\(_2\) emissions would begin to plateau after 2020 and peak in 2030. Only under the Enhanced Low Carbon scenario would emissions fall sharply after 2030.\(^{608}\)

A 2011 report by LBNL pursued an interesting new approach. It used an enhanced version of LBNL’s China End-Use Energy Model to develop scenarios that, instead of concentrating on energy supply, focused on the determinants of future energy demand. Mark Levine noted that, in conventional forecasts, scenario analysis was typically based on macroeconomic variables without reference to energy end-use, which he saw as a “serious omission”.\(^{609}\) Their new approach gave LBNL the confidence to forecast that China’s emissions would not grow indefinitely but would level off and decline, because “saturation” of demand would “peak around 2030”.

The report presented two main scenarios: a baseline or \textit{Continued Improvement} scenario (CIS), and an enhanced energy efficiency or \textit{Accelerated Improvement} scenario (AIS). Both indicated that energy consumption would approach a plateau around 2040, but CO\(_2\) emissions would plateau or peak in 2025 under AIS and in 2030 under CIS. Both scenarios also suggested that the 40 to 45 percent carbon emissions cut target set by China under the Copenhagen Accord is unattainable through these pathways.


\(^{609}\) Julie Chao, \textit{A Surprise: China’s Energy Consumption will Stabilize} (Lawrence Berkeley National Laboratory, 27 April 2011).
intensity goal was “possible”. The share of coal in energy demand would be reduced to about 47 percent by 2050 under CIS, and to 30 percent under AIS. Coal demand would peak around 2030. Heavy industry energy demand would peak around 2015.\textsuperscript{610}

A fifth post-Copenhagen forecast was released in 2012 by the UK’s Grantham Institute for Climate Change. Using a normative approach, it examined the existing and new energy technologies that could allow China to “significantly decarbonise” its economy by 2050. If successful, Grantham considered these technologies would have a major cost reduction impact on global low carbon development. Noting that China’s emissions had more than doubled since 2000, the report warned that with business-as-usual assumptions it could contribute nearly 30 percent of global emissions by 2050. It concluded, however, that there were “several feasible pathways” for emissions reductions that would be “broadly consistent” with limiting global warming to 2 degrees Celsius.\textsuperscript{611}

The relative optimism of these post-Copenhagen reports is evident. But other commentators emphasised the huge environmental pressures that still confronted China despite its evident good intentions. Nicholas Stern acknowledged China was at the forefront of development of low-carbon technologies and that a low-carbon economy was a central priority of the Twelfth Plan. He estimated, however, that even if China achieved its carbon intensity targets up to 2020, and made similar progress between 2020 and 2030, its emissions alone in 2030 (if GDP growth averaged 7 percent) would already be almost half of the maximum global emissions consistent with avoiding a temperature rise above 2 degrees Celsius. He recommended China should therefore aim to cut its emissions intensity by 50 percent each decade or 29

\textsuperscript{610} Nan Zhou et al., China's Energy and Carbon Emissions Outlook to 2050 (China Energy Group, Lawrence Berkeley National Laboratory, April 2011), vii-xv, 3 and 53. See also Nan Zhou et al., Peak CO\textsubscript{2}: China's Emissions Trajectories to 2050 (China Energy Group, Lawrence Berkeley National Laboratory, June 2011), and Mark D. Levine, Will China Overwhelm the World with its Greenhouse Emissions? (Lawrence Berkeley National Laboratory, February 2010).

\textsuperscript{611} China’s Energy Technologies to 2050, (Grantham Institute for Climate Change, Imperial College London, January 2012). See also Neil Hirst, An Assessment of China’s 2020 Carbon Intensity Target (Grantham Institute for Climate Change, August 2011), Executive Summary.
percent in each five year plan. Stern commented that this would require “a stronger level of ambition than currently envisaged” in China’s targets.612

On an equally sombre note, Germany’s Hanns Maull pointed out that the IEA’s 2010 World Energy Outlook estimated – even in its optimistic New Policies scenario – that China could account for about 35 percent of the net increase in world energy demand to 2035, and it could also account for 58 percent of the growth in global CO₂ emissions in that period. Its electricity demand was projected to triple between 2008 and 2035. The IEA had described this expansion as “staggering”. By 2035 China could account for 28 percent of global emissions, compared to 12.5 percent for the US and 7.8 percent for the EU. However, Maull accepted that China would continue to do “a great deal” to help stem global warming and that its emissions might peak before mid-century.613 The IEA’s 2011 World Energy Outlook also offered little comfort, noting that from consuming half as much energy as the US in 2000, China had become the world’s biggest consumer, and by 2035 it was projected to consume almost 70 percent more than the US.614

Given these indications that even China’s best efforts to transition to a low carbon economy might be overwhelmed by continued rapid emissions growth, it is not surprising that it remained concerned about its environmental prospects. In January 2012 its scientific advisors, in a Second National Assessment Report on Climate Change, warned that China faced “extremely grim” conditions as a consequence of global warming. Without counter-measures its grain output could fall 5 to 20 percent by 2050. By 2100 its average temperatures could rise, under various scenarios, between 2.5 and 4.6 degrees. Many of its provinces and cities could face severe or chronic water shortages, the retreat of its glaciers could accelerate, and rising sea levels could threaten some of its biggest cities and export zones. Even so, the report

612 Nicholas Stern, China's growth, China's cities, and the new global low-carbon industrial revolution (Centre for Climate Change Economics and Policy (UK) and Grantham Research Institute on Climate Change and the Environment (UK), November 2010).
stated, China’s CO$_2$ emissions would only begin to fall after about 2030, with big falls only after 2050.\textsuperscript{615}

### 9.3 Evaluating Environmental Forecasts

The quantitative forecasts reviewed above represented, in aggregate, a major national and international effort by statistical modellers to provide guidance to decision-makers about China’s potential future emissions pathways, giving them the opportunity to plan and act appropriately. These separate and independent forecasts were especially valuable because they approached the task from several different perspectives. Even Spyros Makridakis and Nassim Taleb conceded that averaging the forecasts of several models tended to improve accuracy and reduce variance in forecasting errors.\textsuperscript{616} The reports also conformed to Vaclav Smil’s recommendations that specific single-point forecasts be avoided in favour of developing alternative scenarios, and that forecasters should include normative scenarios where the focus was not on projecting trends but on indicating the policy measures and technologies required to meet pre-determined targets.\textsuperscript{617}

It was also encouraging that independent efforts were made to compare the methods and findings of these different forecasts. Perhaps the most detailed comparison was conducted by Li Huimin and Qi Ye at Tsinghua University. They compared the reports discussed above by McKinsey, Tyndall, ERI, Renmin/UNDP, LBNL and the IEA, highlighting significant and “confusing” variations due in large part to their different methods and assumptions. They found, for example, that emissions in 2050 for the scenario with the highest emissions were 3.7 times the scenario with the lowest emissions. Projections of the timescale for reaching a peak in emissions also varied greatly, with most falling within the 2030 to 2050 range or later. However, they made the important observation that most scenarios based on accelerated mitigation efforts were in agreement that these were likely to lead to much slower emissions growth and a steady decline after about 2030. Li and Qi concluded that

\textsuperscript{615} Chris Buckley, “China report spells out ‘grim’ climate change risks”, Reuters, 17 January 2012.
\textsuperscript{616} Makridakis and Taleb, “Living in a world of low levels of predictability.”
although the results of these studies were “very uncertain”, nevertheless they all indicated the feasibility of a continuous reduction in emissions intensity.\textsuperscript{618}

Similar comparisons were made by LBNL and the Grantham Institute. LBNL noted the forecasts all suggested China’s energy and CO\textsubscript{2} emissions were unlikely to peak before 2030, although growth was expected to slow after 2020 in the abatement scenarios. They also assumed China would meet its 40 to 45 percent emissions reduction target by 2020. All the forecasts highlighted the clear benefits from continued aggressive decarbonisation of China’s economy. LBNL commented that each new modelling approach added new insights, and that “robust and credible” models could play a key role in informing policy-makers. It expressed concern that even “slightly different” modelling assumptions could result in “significant discrepancies”, but despite such differences NBNL found that five of the major modelling studies showed a “general clustering”, or agreement, in their projections of China’s future energy consumption and emissions.\textsuperscript{619}

Considering all scenarios together, however, they revealed large variations in forecasted emissions outcomes, especially to 2050. The scenarios can be grouped approximately into four categories – first, baseline scenarios that assumed continued rapid growth in emissions; second, abatement scenarios that assumed vigorous but still relatively modest mitigation efforts; third, enhanced abatement scenarios that assumed timely, determined and ambitious efforts; and fourth, deep reduction scenarios that would require immediate and aggressive reduction efforts and be very challenging economically, politically and technologically. Most of the modelling teams (including IEA, Tyndall, McKinsey, SEI and Grantham) argued that only the fourth group of scenarios would give any confidence that China could meet global climate mitigation objectives. This fourth group would require its carbon emissions to peak by 2020, while the third group saw emissions peaking around 2030, and the second group saw emissions peaking before 2050.


\textsuperscript{619} Two separate LBNL reports compared scenario results to 2030 and to 2050 respectively: David Fridley, Nina Zheng, and Nathaniel T. Aden, *What Can China Do?: China's Best Alternative Outcome for Energy Efficiency and CO\textsubscript{2} Emissions* (Lawrence Berkeley National Laboratory, July 2010), and Nina Zheng, Nan Zhou, and David Fridley, *Comparative Analysis of Modeling Studies on China's Future Energy and Emissions Outlook* (Lawrence Berkeley National Laboratory, September 2010).
Collectively the reports provided the best publicly-available quantitative estimates of China’s environmental trends. Significantly, many of them were somewhat more optimistic in many respects than might perhaps have been expected. They highlighted the potential for China to take action, supported internationally, to mitigate the worst of the possible consequences of its growth for global climate change. Such attempts to forecast China’s environmental future quantitatively can be viewed in two ways. On the one hand such projects are laudable for their ambitious scope and apparent precision. They potentially offer unique insights – not possible through any other approach – into vitally important questions such as: what impact specific measures might have on managing future energy demand and carbon emissions; when China might be able to reach a peak in its annual emissions and then reduce them; and whether China will be able to make a sufficient contribution to global efforts to manage climate change. On the other hand such modelling has in the past proved to be notoriously unreliable, as shown only too clearly by their abject failure to anticipate the paradigm-changing effects of the surge in China’s energy demand in the early 2000s. It is little wonder that the findings of such forecasts are still considered speculative and that their reliability is much debated.

Within the forecasting profession, Charles Doran pointed out that forecasts ultimately fail because “no technique has been developed that allows the forecaster to predict … when a nonlinearity will occur”. Vaclav Smil pointed out that energy and environmental forecasting offered some of the best examples available of failed predictions – not just because the forecast values were “significantly off”, but because the “uselessness” of such forecasts aiming to look from five to fifty years ahead often became obvious within just a few years or even months. He believed the long chains of assumptions used in increasingly complex models, as part of their quest for realism, had become self-defeating. Forecasts would continue to fail because many critical variables could not be anticipated or estimated. In circumstances of high uncertainty, he quipped that complex models were unlikely to

621 Smil, China’s Past, China’s Future: Energy, Food and Environment, 210-211. He cited an example where his own forecast of China’s energy demand had proved to be accurate only by chance because his underestimation of one factor had been cancelled out by his overestimation of another factor.
produce better results than a small electronic calculator or jottings on the back of an envelope.\footnote{Smil, "Perils of Long-Range Energy Forecasting: Reflections on Looking Far Ahead.", 252 and 261.}

It remains to be seen whether the degree of optimism displayed in many recent forecasts of China’s environmental trends will be regarded with hindsight as unrealistic or misleading. Makridakis and Taleb criticised academics for encouraging the expectations of decision-makers that sophisticated models could provide accurate assessments of future uncertainties. Statistical models, they argued, sometimes underestimated uncertainty catastrophically. In complex social systems, events were interdependent and were affected greatly by human actions and reactions. Some modellers might argue that not all trends turn out to be radically nonlinear, but this became much less defensible as time horizons increased.\footnote{Makridakis and Taleb, "Living in a world of low levels of predictability."} Makridakis, noting that the “one certainty” was that forecasts are “usually wrong”, advised modellers to deal with this situation by following three steps: “(1) ‘Accept’ the existence of uncertainty, (2) ‘Assess’ its magnitude, and (3) ‘Augment’ its range.” As a simple rule, he suggested forecasters should estimate the upper and lower range of their predicted values and then double that range.\footnote{Spyros Makridakis, Robin M. Hogarth, and Anil Gaba, "Forecasting and uncertainty in the economic and business world," \textit{International Journal of Forecasting} 25 (2009), 794-812.}

Fortunately modellers of China’s environmental trends have not adopted an excessively cautious or defeatist attitude. They have accepted a responsibility to provide the best advice they can. By refusing to be defeated by uncertainty it seems clear they have succeeded in providing invaluable assistance to China’s decision-makers. It is difficult, for example, to imagine how China would have been able to announce its specific and ambitious commitments to reduce energy and carbon intensity without the information and reassurance provided by forecasters and their models. Nor would it seem likely without such modelling results that China would have begun to talk, despite all the evident constraints, about possible timeframes within which it might reach a peak in emissions. Some of its advisers have recommended advancing the timetable for peak emissions. Jiang Kejun, for example, pointed to the more rapid than expected development of renewable energy as reason
to expect that emissions may peak by 2025. Other reports suggest China may have also begun to consider interim targets for absolute emissions limits.

Makridakis’s assessment that modellers routinely underestimate the extent of uncertainty in long-term forecasting suggests nevertheless that forecasters should be more imaginative and exploratory when considering specific uncertainties, both negative and positive, that may impact on their findings. In China, it is possible to speculate about several specific negative uncertainties that could limit the effectiveness of its efforts to reduce emissions. These include, for example, the likelihood that necessary changes will continue to be resisted by vested interests in business and government that give greater priority to economic growth, profitability, and personal enrichment. There could also be public resistance to measures that increase the cost of living, and a loss of momentum due to perceptions that the easy gains in emissions reduction – the “low-hanging fruit” – have already been harvested. Unforeseen crises – such as economic slowdown or recession, political unrest, and international conflict – could also undermine the achievability of ambitious scenarios.

Most concerning among all of these negative uncertainties is the possibility that China’s continued strong GDP growth may offset the effectiveness of even the most vigorous measures to contain energy demand and emissions growth. China’s GDP grew by 9.2 percent in 2011 and the IEA estimated its emissions increased by 9.3 percent, spurring a 3.2 percent rise in global emissions despite falls in the US and Europe. Consequently China was unable to achieve its energy intensity target in 2011. On the other hand, slower GDP growth could also have negative consequences, especially by reducing the resources available for investment in low carbon development. Another potential source of large forecasting errors may be statistical underestimation of China’s actual carbon emissions. Researchers published

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625 Yan Yan, “China’s emissions may peak as soon as 2025”, Chemistry World, 12 December 2012.
626 For example, David Fogarty and David Stanway, “China emissions study suggests climate change may be faster than thought”, Reuters, 10 June 2012. In January 2012 China also announced an absolute limit on total energy consumption by 2015, see “China’s cabinet approves energy consumption control target”, Xinhua, 30 January 2013.
628 However, with slower growth in 2012 carbon intensity fell by 4.3 percent. See Trevor Houser, China’s 2012 Energy Report Card, Rhodium Group, 27 February 2013.
an article in *Nature* magazine that drew attention to differences in China’s national and provincial level carbon emissions data. They concluded that reporting of China’s emissions in 2010 had been underestimated by 1.4 gigatonnes – equivalent to Japan’s total annual CO₂ emissions.⁶²⁹

Forecasters also need, however, to take into account uncertainties that have potentially large *positive* impacts. In this context it is notable that there are several very powerful motivations, if not imperatives, for China to pursue a low carbon and environmentally sustainable future. First, its energy security will be threatened if it does not preserve domestic fossil-fuel energy reserves and reduce its over-dependence on imported energy sources. Second, it is highly motivated to improve the health and quality of life of its citizens by reducing atmospheric and other forms of pollution – especially after the media attention given to record levels of air pollution in Beijing.⁶³⁰ Third, it seeks opportunities to restructure its economy, including by capitalising on the potentially vast commercial gains to be made from accelerated development of a low carbon global economy. Last but not least, China acknowledges the need to protect its own environmental interests and the future of the planet by contributing to global measures to fight climate change. China’s decision-makers and modellers appear to be well aware of all of these imperatives. Its leadership has shown considerable political resolve, including a willingness to impose challenging new environmental targets and actions, and a capacity for determined implementation of them. While it is likely China’s still rapidly growing emissions will remain the major single source of global emissions growth, its innovative environmental leadership also suggests it will be a major contributor to global solutions.

Cleaner fossil-fuel sources and technologies may also assist to contain emissions, perhaps to an extent not previously anticipated. Experience in the United States, for example, suggests the potentially dramatic potential for exploiting unconventional gas deposits. The huge expansion of shale gas extraction in the US has, according the

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⁶³⁰ A Deutsche Bank report has projected that on current trends China’s PM 2.5 air pollution could increase by 70 percent by 2030, or be reduced (in ambitious reform scenarios) by about 20 percent by 2020 and over 50 percent by 2030. See Jun Ma, Michael Tong, and Audrey Shi, *China: Big bang measures to fight air pollution* (Deutsche Bank AG, 3 March 2013), 4.
IEA, led to its energy-related carbon emissions falling over the past five years by 450 million tonnes (compared to a 700 million tonnes increase in China in 2011 alone). The Twelfth Five Year Plan reportedly aims for shale gas to provide 10 percent of China’s energy by 2020. Expanded non-fossil fuel power generation also has very promising potential in China, including especially the planned huge and rapid expansion of cheaper and safer nuclear power. In addition, China evidently has great hopes for continued exponential growth of wind power, including offshore wind. A joint ERI and IEA report has estimated wind’s share in China’s electricity production could rise from 1 percent today to 17 percent by 2050. China’s massive investment in wind and solar systems is relentlessly driving down unit costs, making the use of these renewable technologies much more attractive domestically and globally. Last but not least China’s introduction of pilot carbon emissions trading schemes, followed by a national scheme possibly starting in 2015, may also have a huge impact.

These potential developments, which could affect China’s environmental trends both negatively and positively, underline the major uncertainties that continue to confront efforts by modellers to forecast future trends. But such uncertainties do not seem likely to fundamentally undermine the value of those forecasts to decision-makers. Uncertainty is an inherent part of the forecasting process, but that process is necessarily organic and ongoing. Forecasters can hope to manage uncertainty somewhat more effectively if they learn from previous mistaken assumptions and are alert for new trends and future surprises. It is also difficult to dispute Vaclav Smil’s view that it will not be possible in any case “to prevent our forecast-happy, computer-equipped civilization from issuing a ceaseless stream of outlooks and predictions and scenarios”.

9.4 Environmental Futures

The exploration above of expert opinions about two major critical uncertainties in China’s environmental future reveals that their views have evolved significantly. It

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634 Smil, China’s Past, China’s Future: Energy, Food and Environment, 26 and 210-215.
may be useful here to summarise these developments. During the 1980s and 1990s the prevailing consensus gave rise to serious concerns about the steady deterioration of the environment. Experts were very sceptical about the Chinese government’s willingness to address this issue with sufficient vigour. Concern quickly turned to alarm following the revelation that energy intensity had soared in the early 2000s. This raised the further gloomy prospect that China’s GHG emissions would undermine international efforts to counter global warming.

Most China watchers were very slow, however, to become aware of the impressive scale of the government’s reaction. Some experts continued to be very pessimistic about China’s environmental performance, while others who followed its actions more closely saw cause for hope. Many of the latter were inclined to defend China’s progress despite its declining image in international climate change negotiations, especially at Copenhagen. China’s newly-announced domestic targets to reduce energy and carbon intensity were considered likely to have an important beneficial impact. Others drew attention to its unexpectedly rapid progress in developing a low carbon economy and indeed in becoming a world investment leader in this field. China’s reputation for environmental management was still mixed, but it attracted many supporters as well as critics among environmental experts.

At the same time China’s carbon emissions have nonetheless continued to grow strongly, making it the world’s largest emitter and the world’s biggest contributor to the growth of global emissions, and threatening to undo its creditable progress in reducing emissions intensity. In response, from the mid-2000s, a number of both Chinese and international forecasters turned their attention to modelling future emissions trends and calculating the scope for progress in reducing emissions under various scenarios. These scenarios ranged from (unlikely) business-as-usual scenarios to (very challenging) normative scenarios that made an appropriate contribution to international targets for containing global warming. Such forecasts (including those by China’s own research agencies) indicated a surprisingly high level of ambition and even of cautious and qualified optimism among forecasters about the feasibility of achieving an early plateau or peak in China’s absolute emissions, followed by steady reductions over the longer term. Those forecasts appeared to increase the Chinese government’s confidence, and determination, to
maintain progress in controlling emissions. Much uncertainty remains, however, about whether such efforts will be enough to counter still-rising emissions and make a sufficient contribution to reducing global atmospheric GHG concentrations.

Despite their ominous and potentially catastrophic implications, it is puzzling that these critical uncertainties in the environmental domain have tended to be comparatively less studied and less frequently discussed among mainstream China experts than uncertainties in the other three domains. There is also only a low level of public awareness of the issues being debated among environmental forecasters or of the shifting trends in their views. Partly this may be because expert studies in the environmental domain are somewhat less accessible to the public, partly because the discussion is more complex and technical, and partly also because the trends themselves are changing rapidly making keeping up-to-date more difficult. This is unfortunate because a plausible case can be mounted that uncertainties in China’s environmental domain are more critical than in any other, especially if one accepts the prevailing judgement of the great majority of scientists, governments and international organisations that early action to curb GHG emissions is critical for the future viability of the world’s climate, ecology and economy.

The consequence of inadequate public awareness of environmental developments and uncertainties in China is that perceptions are often inconsistent with the changing realities. There is awareness that China’s environmental problems are huge, and that it is the chief source of the current growth in global emissions. There appears also, however, to be a common and largely mistaken perception that the Chinese government’s response – and its participation in international climate change negotiations – is woefully inadequate. There is an accompanying widespread feeling that there is little point in other countries taking vigorous measures to contain GHG emissions if China is not willing to act with equal vigour. In contrast with these popular perceptions, the expert views surveyed in this chapter suggest that China – despite being clearly the major current contributor to the climate change crisis – is acting with considerable vigour and determination, and shows some prospect of beginning to curb the absolute level of its emissions. It seems indisputable, therefore, that it is in the interests of all countries for China’s efforts to receive greater recognition, encouragement and support. It is also apparent that there is a very strong
case for the critical uncertainties presented in this chapter to be kept under continuous and intensive scrutiny.
10 INTERNATIONAL UNCERTAINTIES

Critical uncertainties in China’s international domain are also of major global interest and concern. The continued growth of China’s international influence, or its decline, could have a decisive influence on the fortunes of many countries and on the stability of the international system. The highest-level critical uncertainty in this domain can perhaps be expressed simply as: *How are China’s international relationships likely to evolve?* Within this overarching question, however, expert attention has universally focused mainly on a more specific critical uncertainty: namely, *Will China’s international behaviour be competitive or cooperative?* This draws attention to the possibility of two alternative futures, one of which could potentially be enormously disruptive and damaging for other countries and ultimately also for China itself, while the other could be crucial for global prosperity and sustainability. In reality it seems highly likely that the future will involve both competition and cooperation, with the key question being how far the mix will tend on balance toward either positive or negative outcomes. In either case, there is a great deal at stake.

In a competitive future the specific major uncertainties could include: whether China’s development is likely to pose a threat to other countries; whether as its power increases its behaviour will be increasingly assertive; whether its interactions with other countries will lead to economic, military or other forms of conflict; whether, for example, its territorial claims might lead to confrontation with its regional neighbours; whether China’s international behaviour will lead to strategic competition with the United States and other major powers; whether China’s military development might fuel an arms race or a new Cold War; and whether China might even eventually dominate the future international system? In a cooperative future the major uncertainties could include: whether China will be a cooperative and constructive player in the international system; whether its interactions with other countries will be shaped by shared concerns and a growing appreciation of interdependence; whether or to what extent China’s international posture will be determined by domestic priorities; and whether improved communication may alleviate strategic mistrust and mutual misperceptions.
Within the international domain there is an especially prodigious and constantly growing volume of literature about China’s likely future attitudes and actions. As a consequence it will not be possible in this domain to do more than highlight the major competing views and forecasts of a selection of some of the most influential experts in China, the United States, Europe, and also Australia. From a methodological viewpoint this expert debate relies mainly on trend analysis and expert judgement, but there have also been quite frequently instances where experts have attempted to use international relations theory to reinforce their forecasts.

10.1 A China Threat?

In the early post-Mao period concerns among Western experts about China’s future international influence were relatively subdued. The new regime led by Deng Xiaoping emphasised economic development rather than ideological fervour and appeared to tolerate gradual liberalisation. Perceptions took a radical turn following the Tiananmen crisis, however, and were further heightened by the strong expansion of China’s economy from the early 1990s. Many new assessments of China’s strategic intentions were extremely negative. One of the first to call attention to an alleged new China security threat was Ross Munro, who as early as 1992 claimed that China seemed “firmly embarked on a course of explosive economic growth and military assertiveness that will indeed (as Napoleon reportedly predicted) reverberate throughout Asia and the world”. It would also pose “a growing threat” to vital US interests, with the prospect that “an inevitably conflict-ridden relationship” might descend into “full-blown hostility”. In terms that were strikingly similar to much commentary twenty years later, Munro claimed that nowhere had China been “more aggressive” than in the South China Sea where it was “rushing to establish an overwhelming military presence”, making it “virtually certain” that it would become dominant there.635

An even more fully-fledged portrayal of China as a likely new threat was presented by Denny Roy. He perceived “an alarming indication” that as a potential superpower China was likely to be “assertive and uncooperative”. There was “a strong possibility” it would use force to seek hegemony in its region, which might plunge

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Asia into a new Cold War. As an authoritarian, unstable third world regime and a
dissatisfied, irredentist power, it would be prone to militarism, hyper-nationalism and
adventurism. He claimed China was also “highly averse to interdependence, and to
subjection to international norms and regimes”. Several other US analysts drew
rather similar conclusions. Larry Wortzel saw China as seemingly locked in a “quasi-
imperial competition for regional hegemony”. David Goodman and Gerald Segal
feared China would probably opt for “more nationalism and less cooperation”, and
predicted that “each time the Chinese elephant puts its foot one step further, Chinese
leaders will see little reason to halt their lumbering advance.”

Richard Bernstein and Ross Munro, in their 1997 book The Coming Conflict with
China, observed that many US policy-makers and experts believed China would
inevitably become Westernised, that it would be pragmatic, materialist and non-
threatening. They, however, believed China’s “sheer size and inherent strength, its
conception of itself as a center of global civilization, and its eagerness to redeem
centuries of humiliating weakness” were “propelling it toward Asian hegemony”.
China’s military leaders accepted the need to “quietly nurse our sense of vengeance”
and “conceal our abilities and bide our time”, but Bernstein and Munro thought it
“almost indisputable” that over the next one or two decades China would seek to
become “the dominant power on its side of the Pacific”. They expected it to pursue
“four interrelated goals” to achieve domination of Asia: namely, gaining sovereignty
over Taiwan, achieving control of the South China Sea, inducing US military
withdrawal from Asia, and subordinating Japan. In the context of political and
military tensions associated with the 1996 Taiwan election, they assessed that China
had become “increasingly prickly and aggressive” and had behaved “like a rogue

636 Denny Roy, "Hegemon on the horizon?: China's threat to East Asian security," *International
Security* 19, no. 1 (Summer 1994), 149-168. In a later article, Roy took a much more impartial view:
758-771.
637 Larry M. Wortzel, "China Pursues Traditional Great-Power Status," *Orbis* 38, no. 2 (Spring 1994),
157-175.
638 Goodman and Segal, China Without Deng.
639 Richard Bernstein and Ross H. Munro, *The Coming Conflict with China* (New York: Vintage,
1997), xviii-xix and 70-73, and Richard Bernstein and Ross H. Munro, "The Coming Conflict with
America," *Foreign Affairs* 76, no. 2 (March/April 1997), 18-32.
country”. If the CCP lost its legitimacy this could lead “to paranoia and arrogance, and to the use of bluster, threat, and xenophobic appeal”. 640

Samuel Huntington’s view that international competition would increasingly revolve around a “clash of civilizations” also included specific concerns about the challenge China might pose to international order. He believed its rapidly increasing military spending, its attempts to purchase an aircraft carrier, and its assertion of sovereignty over the South China Sea, were “provoking a multilateral arms race”. 641 He thought it would want to see East Asia “return to its traditional unipolar pattern with a hierarchy of power centered on Beijing”. “China’s history, culture, traditions, size, economic dynamism, and self-image”, he maintained, would all impel it to seek hegemony. Like every other emerging major power it would engage in “outward expansion, assertion, and imperialism”. He conjured a scenario in which a future conflict between the US and China in the South China Sea might escalate into a “global civilizational war”. 642

Several other US commentators also seemed eager to embrace extravagant depictions of China as a regional or even global threat. 643 Constantine Menges believed it would pursue a “stealthy strategy of geopolitical and economic dominance” that would put it on “a collision course” with the US. China allegedly wished, furthermore, to ensure “that no important country acts contrary to its purposes and that the resources China wants and demands from other states will be provided on its terms”. It believed it must “either dominate the world or be dominated by the United States and its allies”. Menges detailed a remarkable scenario, with an “illustrative timeline”, describing eight stages by which China would secure total global military and economic hegemony. 644 Another robust assessment was offered by Charles

641 Samuel P. Huntington, "The Clash of Civilizations?,” *Foreign Affairs* 72, no. 3 (Summer 1993), 45-47.
Krauthammer, who maintained that “any rational policy toward a rising, threatening China” should include “containing China as it tries relentlessly to expand its reach” and “undermining its pseudo-Marxist but still ruthless dictatorship”.645

10.2 Peaceful China?

Not surprisingly, such imaginative depictions of a China threat drew a variety of strong reactions. Even Richard Bernstein expressed concern that the discourse on China had become “radicalized”. When he and Charles Munro wrote their book, they believed it would “nail down one end of the emerging spectrum of views on China”, but they now found themselves in “a middle position” between those who advocated engagement and those for whom China was “a new incarnation of the old Soviet expansionist menace”. He did not believe China had the ambition or the resources to dominate the world.646 David Lampton rejected the proposition that China was “a rogue state with hegemonic ambitions” because this did not accord with its past behaviour or future interests. It had made “concerted and successful efforts” to improve its relations with all neighbouring countries, participated constructively in many international institutions, and adhered to international treaties and regimes. Its military capabilities were modest, it was not undertaking “a huge military buildup”, and its inflation-adjusted defence spending was “much less significant” than others claimed.647 Ted Carpenter and James Dorn also assessed that rather than attempting to “bully its neighbours and dominate Asia” China was more likely to be a stabilising and cooperative power. Unlike Nazi Germany or the USSR, it was not “a messianic, expansionist power” but a normal rising power that did not pose “a malignant security threat”.648

Similarly, Michael Swaine was disturbed by a trend in China watching that perceived a belligerent China as “the primary threat to peace in Asia”, engaging in a “crash program of military expansion” designed to coerce its neighbours and eject the US from the region. He said such analysis was “fundamentally wrong”. Its proponents routinely employed “distortions, half-truths and, in some cases, complete

648 Conference papers were collated in: Ted Galen Carpenter and James A. Dorn, eds., China’s Future: Constructive Partner or Emerging Threat? (Washington, DC: Cato Institute, 2000).
falsehoods”. In reality, he said, China’s military upgrade sought to remedy “a hopelessly obsolete … and largely ineffective army”, and was “subordinate” to sustaining economic growth. He agreed China’s growing military power could not be viewed with indifference, but it could not be accurately assessed using the “faulty data, political rhetoric and simplistic assumptions” of China threat proponents.649

In a survey of opposing views in the United States about the China threat, Joseph Nye noted that Arthur Waldron believed war in Asia was “probable”. Robert Kagan thought the Chinese leadership saw the world “in much the same way Kaiser Wilhelm II did a century ago”. The New Republic magazine believed China had “embarked on a program of massive militarization” and that it was “only a matter of decades” before it became “the other military superpower on earth”. On the other hand, Nye indicated that many analysts were sceptical about a Chinese threat in terms of either its capability or intentions. Owen Harries thought vested interests in the US were “suffering from an enemy-deprivation syndrome”. Andrew Nathan and Robert Ross believed that “for the foreseeable future” China could not “establish regional domination or become a global superpower”. David Shambaugh thought that “recent hype” about a China threat was “grossly overblown, not empirically grounded, irresponsible and politically dangerous”. For his own part, Nye conceded that if China was “unconstrained” it might wish to expel the US from East Asia and “exercise hegemony … over its neighbours”, but “in the real world” states learned to be practical. He therefore assessed that prospects for avoiding conflict with China were good, provided the US disregarded “the advice of pessimists who would seize the moment to turn a vision of inevitable conflict into a self-fulfilling prophecy”.650

During the 2000s other experts also rejected the China Threat hypothesis in its more extreme forms. Herbert Yee concluded that many such assertions were “exaggerated or simply groundless, and are full of bias, prejudices and even racist accusations”. He believed “mainstream thinking” among Chinese leaders and academics favoured a

650 Nye, “China’s Re-emergence and the Future of the Asia-Pacific.”
stable long-term relationship with the US. Contrary to the views of “anti-China hands”, Emma Broomefield thought its portrayal as a looming military threat was “a gross exaggeration”. She anticipated that mutual interests would encourage China and the US to pursue “cooperation rather than conflict”.

David Lampton assessed that China was emphasising economic rather than military growth because the latter would alarm the rest of the world, produce “countervailing coalitions”, and divert resources from pressing domestic priorities. He drew attention to China’s “vulnerabilities and uncertainties” and expected “bumps, perhaps major bumps” in its economic performance. Consequently, he thought it likely China’s leaders would “probably for decades” be preoccupied domestically. It would not become “another Soviet Union” because it had shown little inclination to build “an excessive strategic arsenal”. Lampton believed it would be “a strategic blunder of breathtaking and historic proportions” if US policy managed to transform a country focused on its internal development into an adversary. He also thought China’s leaders increasingly understood they had an interest in assisting the development of a stable international system.

Lampton’s views were echoed by Harry Harding, who considered it unlikely China’s rise would lead to military conflict unless its “core interests” were threatened. It did not have fundamental concerns about an international system that had benefited it so much, and its economic interdependence would deter it from military adventures. Although Minxin Pei took a negative view of China’s internal development, he also did not see it as an expansionist power. He assessed that China was hemmed in by powerful regional rivals and therefore would not become a dominant hegemon in Asia, let alone further abroad. It might flex its muscles on territorial and economic


\[655\] Harry Harding, “Think Again: China,” Foreign Policy (March/April 2007).
issues, but would draw the line on empire-building overseas. China, he concluded, might want to be a superpower but “it is not, and will not be one”. 656

Andrew Nathan was also sceptical about China’s future impact. While noting that it would be the world’s largest economy “sometime within the next 30 or 40 years”, he suggested it would be “a very new kind of number one” because on a per capita basis it would “still be poor”. Its focus would be internal and it would remain only “a supporting player on the global economic stage”. Its ascension could be “derailed by domestic instability or global economic shocks”. It would not dominate militarily because there would be “no power vacuum to expand into” and it would not have “the kind of military lead to force its way to supremacy”. He concluded: “Neither conquest nor domination is an option.” Looking to the longer term, he asked if China might “eventually gain technological and military leadership and seize superpower status”. But he judged that this would be “very far into the future”. Unless the US and its allies failed to maintain their own technological and military growth, China’s superior economic status would not “confer as much power as it did in the past”. 657

A thoughtful analysis of China’s response to “China threat theories” was presented by Yong Deng. Chinese analysts, he commented, saw these threat theories as based on an exaggerated and anachronistic view of China’s strategy. They nevertheless perceived the need for “behavioural adjustments” that would disprove the theories and build a new image of a cooperative and responsible China. They therefore promoted the concept of China’s peaceful rise, hoping that the shared challenges of globalisation would “transform great-power politics”. Deng saw China as a victim of the phenomenon of “categorisation”, in which its “out-group” status meant it was very difficult to convince the US of its benign intentions. 658

The concept of “peaceful rise” was popularised by Zheng Bijian – a senior Chinese scholar and adviser – who emphasised China would not “seek hegemony or predominance in world affairs” and explicitly welcomed a “positive” US role in the

656 Pei, “China's Not a Superpower.” See also Shujie Yao, Can China Really Become the Next Superpower? (China Policy Institute, University of Nottingham, April 2007).
Asian region. “Peaceful rise” morphed into “peaceful development” which Jia Qingguo at Peking University thought would reassure the world of “the benign nature of China’s rise”. Wang Jisi said Chinese found it hard to understand assertions that their country was a threat to the outside world. They viewed such portrayals as “international schemes and conspiracies” to thwart China’s emergence as “a genuinely powerful and respected nation”. Yan Xuetong at Tsinghua University perceived “a new wave of anti-China sentiment reminiscent of McCarthyism” that was “potentially capable of triggering another Cold War”.

Zhu Feng, also at Peking University, believed China’s rise would be peaceful because “for many years” it would be preoccupied with socio-economic development. Although it was seeking “a proactive role in international affairs” it would be constrained by US unipolarity. It would pursue “soft-balancing” against the US, but it could not adopt “hard-balancing” measures such as military expansionism and alliance-building. It would “avoid military provocations and foreign policy adventurism”, provided the US accommodated its core national interests. Zhu noted the popularity of two options for US-China relations – a “New Power Concert”, favoured by the optimists, and a tense and unstable relationship assumed by the sceptics. For his part he considered it would be in China’s interest to “cooperate with the American strategic order”. Within the unipolar system, China was “a satisfied, cooperative and peaceful country”.

China’s official responses included Jiang Zemin’s assertion that allegations of a China threat were “completely groundless” since China’s modernisation needed “a prolonged period of peace and stability”, and that even when it became strong and powerful it would not threaten other countries. Premier Li Peng gave a “solemn promise” that China would “never seek hegemony nor a sphere of influence”. Most Chinese scholars echoed these sentiments, according to Yee, although some

659 Zheng Bijian, "China's 'Peaceful Rise' to Great Power Status," *Foreign Affairs* 84, no. 5 (September/October 2005).
questioned the wisdom of peaceful development and urged China to “prepare militarily for a future showdown with the United States and its allies”. He concurred with Lee Kuan Yew’s view that China-bashing would “only antagonize a whole generation of Chinese and make them anti-American and xenophobic”. 664

10.3 Assertive China?

As the new century progressed it became less common for experts to portray China unequivocally as a threat. In place of these exaggerated threat predictions, there was a tendency instead for earlier comments about an “increasingly assertive” China to receive greater emphasis. This formulation had the advantage of leaving China’s future intentions more open while still raising concerns about the direction of its current international strategy. Michael Swaine, for example, considered three possible scenarios – a Chaotic China, a Cooperative China, and an Assertive China. He concurred that there were “extremely powerful” reasons to expect an assertive strategy “for all the time-honored reasons associated with power-politics”. Given, however, “the inherently high level of uncertainty afflicting all projections relating to China’s future growth” he recommended the US continue a strategy of “realistic engagement”. 665 Alistair Johnston asked whether China was currently pursuing a status quo foreign policy or whether, in “the most common characterization”, it was “a dissatisfied, revisionist state”. He concluded it was not clear that the revisionist label was “accurate at this moment in history”. But he could not guarantee China would not become revisionist in the future, especially in the event of domestic upheavals or “a spiralling China-US security dilemma”. 666

Minxin Pei was now less ambivalent than previously. Three key factors led him to assess that China’s international posture was predisposed to be assertive – namely, its authoritarian political system, its realist worldview, and Chinese nationalism. The assertiveness engendered by these three “demons” would only be moderated by “assertive pragmatism” which would lead China “occasionally” to behave like an

internationalist power, even though this did not reflect its true disposition.\textsuperscript{667} A similar view was held by John Lee who argued that for pragmatic reasons China avoided overt confrontation with the West, but in fact it was “a deeply insecure power” and saw the United States as a “strategic competitor”. It behaved as a “largely cooperative” power, but was also “a disruptive and subversive one”.\textsuperscript{668}

Following the GFC, and especially from 2010, many Western commentators perceived significant changes in China’s international stance. They pointed to increased Chinese assertiveness regarding US arms sales to Taiwan and to its more active position regarding its maritime claims in the East and South China Seas. Minxin Pei asked whether an assertive China had become the “New Normal”. He believed its growing tensions with the West stemmed from “powerful and enduring dynamics” that would lead to “repeated disagreements or even acrimonious confrontation” with the West. Clearly, he claimed, China was “no longer keeping a low profile” as counselled by Deng Xiaoping, but was “flaunting its newly acquired power and status” to its domestic audience.\textsuperscript{669} Gordon Chang also perceived an “increasingly assertive” China, with hawkish officers in the PLA becoming more influential. He assessed that “China’s ambitions know few bounds these days” and that the “arrogance” of young PLA officers was the result of China’s “ongoing remilitarization”.\textsuperscript{670}

A special report from the \textit{Economist}, with input from many experts, raised the question whether China was “Friend or Foe?” Its “keen sense of its growing national power and American decline” had reportedly begun to alarm China-watchers. One Chinese scholar, Yuan Peng, was said to have urged China to “give up the illusion of US partnership and face squarely the profound and inevitable strategic competition”. The report concluded the “most likely outcome” was “a more assertive China that wants to get more done abroad without fundamentally upsetting the world order”. On

\textsuperscript{667} Minxin Pei, \textit{Assertive Pragmatism: China's Economic Rise and its Impact on Chinese Foreign Policy} (Paris: IFRI, Fall 2006).
\textsuperscript{668} John Lee, \textit{China's Insecurity and Search for Power} (St Leonards, NSW: Centre for Independent Studies, 13 November 2008).
\textsuperscript{669} Minxin Pei, “An Assertive China the 'New Normal'?” \textit{The Diplomat} (24 November 2010).
\textsuperscript{670} Gordon Chang, “The Remilitarization of Beijing,” \textit{The Diplomat} (21 September 2010).
territorial issues it might be “uncompromising and increasingly unreasonable”, although on other issues it would probably be prepared to negotiate.671

David Shambaugh also expressed considerable concern. After spending a year in China in 2009-2010 he judged that the world had progressed to a new phase of Chinese assertiveness. He reportedly described China’s diplomacy as “very truculent, sometimes strident, sometimes arrogant, always difficult”.672 He expected this would be remembered as the period when China became “more difficult for the world to deal with”. He wondered whether this would be temporary, because it represented mainly the views of conservative and nationalist elements that were only one part of “an extensive, animated, and diverse domestic debate”. He concluded that China had “multiple international identities and a schizophrenic personality” but the centre of gravity was “anchored” by realists. This portended an increasingly self-interested nation that would seek to maximise its own power. China’s behaviour would often appear inconsistent and conflicted, but with “a predominant realist, and troubling, character.”673

Michael Swaine was less convinced. He agreed that China’s assertiveness had become a persistent new theme. The image of a “supposedly cautious, low-profile, responsibility-shirking, free-riding Beijing” had given way to that of a “more confident, assertive (some say arrogant), anti-status quo power”. He pointed out, however, that Western and Chinese observers saw this development from very different perspectives. Western commentary saw China’s assertiveness as brash, insulting, anti-Western, driven by chauvinism and strident nationalism, and challenging to international order and security. Few acknowledged China’s continued support for international norms or its domestic limitations. Chinese sources viewed its actions as defensive and highlighted its limited capabilities, its policy of peaceful development and its opposition to hegemonism. Unofficially, many Chinese saw assertiveness as a justifiable reaction to Western provocation. They “virtually all” favoured a “more activist” foreign policy. However, Swaine believed the majority supported selective, non-aggressive, and cooperative

671 “Friend or foe?: A special report on China's place in the world,” *Economist* (4 December 2010).
672 David Pilling, “China will not be the world’s deputy sheriff”, *Financial Times*, 27 January 2010.
interaction with other countries, based on “strong awareness” of China’s limitations and the dangers of seeking predominance.674

Thomas Christensen also questioned the extent of China’s assertiveness. He agreed its new posture was more truculent, hypersensitive, abrasive, and even more arrogant than previously, and “a world apart” from its previous strategy of reassurance and emphasis on peaceful rise. But he thought this was “better understood as reactive and conservative rather than assertive and innovative”. He suggested other countries should try to channel the aspirations of a “constructive and assertive” China into addressing pressing global challenges. However, he assessed that China’s international involvement was now also complicated by a new insecurity arising from its inability to ignore the increasing number of domestic actors who were able to influence its foreign policy.675

From a Chinese perspective, Da Wei – an expert at the China Institutes for Contemporary International Relations (CICIR), one of Beijing’s most influential think tanks – agreed that public opinion was exerting increasing influence in China’s foreign policy. However, he attributed this to the government’s increased tolerance of differing viewpoints. He did not agree that this plurality of influences meant the world was facing “an increasingly ‘arrogant’ or ‘tough’ China”. He saw “no evidence” of “a top-down, coordinated and unanimous adjustment” of China’s official foreign strategy. He cautioned that Western overreaction could create “a vicious cycle of negative relations and self-fulfilling prophecies”. It would be better, he advised, for Western countries to find “a beneficial location” for themselves

within the new global order rather than blindly criticizing China and creating “conditions for a new kind of cold war”. 676

10.4 A Military Threat?

A number of Western experts based their concerns about China’s future international impact on its growing military capability. Morton Kaplan assessed that the US military contest with China would “define the twenty-first century”, and thought it would be “a more formidable adversary than Russia ever was”. Its naval and air forces might not match the US for some decades, but it was perfecting “the high end” of the art of asymmetry which could allow it to achieve “a sort of political-strategic parity”.677 Jonathan Pollack, along with many other military analysts, highlighted a new Chinese emphasis on developing “anti-access” capabilities.678 US Department of Defense reports expressed growing concern about the future effect on regional military balances of China’s growing power projection capabilities. By the late-2000s US analysts pointed to its growing submarine force, its evolving conventional missile strike assets, its anti-satellite potential, and especially to its developing land-based, anti-ship missile capability that would threaten US aircraft carriers.679 Meanwhile, the PLA Navy deployed a refurbished aircraft carrier of its own, with additional and more-capable carriers expected to appear in the future. Andrew Erickson noted that if China used its carriers cooperatively this would strengthen the international system, but if it used them to intimidate its neighbours this would likely lead to “great-power competition and conflict”.680

679 Andrew S. Erickson and Michael S. Chase, "An Undersea Deterrent?", USNI Proceedings 136, no. 6 (June 2009); Mark Stokes, China's Evolving Conventional Strategic Strike Capability: The anti-ship ballistic missile challenge to U.S. maritime operations in the Western Pacific and beyond (Project 2049 Institute, 14 September 2009); Andrew S. Erickson and David D. Yang, "On the Verge of a Game-Changer," USNI Proceedings 135, no. 5 (May 2009); Andrew S. Erickson and David D. Yang, "Using the Land to Control the Sea?: Chinese Analysts Consider the Antiship Ballistic Missile," Naval War College Review 62, no. 4 (Autumn 2009), 53-86; and Toshi Yoshihara, "Chinese Missile Strategy and the U.S. Naval Presence in Japan: The Operational View from Beijing," Naval War College Review 63, no. 3 (Summer 2010), 39-62.  
Some drew more dramatic conclusions about the future consequences of China’s military growth. Dan Blumenthal thought China was developing a “growing ability to coerce U.S. allies, interdict U.S. forces, and cut off U.S. access to parts of the global commons in possible pursuit of regional hegemony”.\footnote{Dan Blumenthal, “Sino-U.S. Competition and U.S. Security: How Do We Assess the Military Balance?,” \textit{NBR Analysis} (December 2010), 4.} John Tkacik believed China posed “a multidimensional matrix of threats”, all of which could “blow up in America’s face at a moment’s notice”. He highlighted its apparent intention to assert its territorial claims and to dominate East Asian sea-lanes and airspace. In particular, he believed China’s “increasingly adamantine” claims in the South China Sea, the Taiwan Strait and the East China Sea were “certain to be resolved in one of two ways: either China gets what it wants or it will use armed conflict to enforce its so-called ‘core interests’”.\footnote{Investigating the Chinese Threat, Part One: Military and Economic Aggression, (United States Congress House Committee on Foreign Affairs, 28 March 2012). See also John J. Tkacik, \textit{A Chinese Military Superpower?}, (Heritage Foundation, 8 March 2007).}

Several analysts believed previous assessments had underestimated China’s ability to rapidly deploy new capabilities. Andrew Erickson and Gabe Collins observed that its anti-ship ballistic missile system had become operational “far faster than many foreign observers thought possible”.\footnote{Andrew S. Erickson and Gabe Collins, “China Deploys World’s First Long-Range, Land-Based ‘Carrier Killer’,” \textit{China SignPost} (26 December 2010).} Amy Chang agreed that China’s military modernisation had “outpaced the estimates of U.S. and other foreign observers”. As examples she cited not only its anti-ship ballistic missiles but also new Yuan-class diesel-electric attack submarines, a new anti-satellite system, and J-20 stealth fighter aircraft.\footnote{Amy Chang, \textit{Indigenous Weapons Development in China’s Military Modernization} (US-China Economic and Security Review Commission, 5 April 2012).}

Others were relatively less concerned about China’s military development. Robert Ross accepted that China was developing a new generation of military capabilities but he believed “neither alarm nor exaggerated assessments” were justified because China had not developed the technologies to be a serious threat. The threat was “simply vastly overrated” because the US could be “confident in its ability to retain maritime dominance well into the twenty-first century”. The US Navy was taking measures to minimise its vulnerabilities. China’s aircraft carriers would not be a
threat for decades, and in the meantime they would be simply “an additional target” for US forces. A RAND report judged that China was likely over the next twenty years to become “a true peer competitor” of the US, and to “achieve local superiority in its immediate neighbourhood”. But the authors considered it would remain “focussed on its immediate periphery” and that economic consequences would be “a powerful mutual deterrent” against the risk of conflict.

A different perspective, but one that also tended to downgrade the Chinese threat, was proffered by Erickson. First, he argued that rather than continue to grow rapidly China might “slow or even falter” due to the “increasing headwinds” it faced. It might follow an “S-curved trajectory” with accelerated development giving way to subsequent decline, greatly affecting the scale of its military challenge to the US. In any case he assessed that China’s primary challenge would be within the Yellow, East, and South China Seas and that its “blue water” expansion did not pose “a serious problem”. Even in its neighbouring waters its forces would be “highly vulnerable”. Its anti-access and area denial capabilities were significant, but he judged that even after the US moved beyond its “unipolar moment” it would “remain the world’s sole super-power for years to come”. Referring to Minxin Pei’s view that China risked being caught in a “trapped” political and economic transition, Erickson raised the possibility of a trapped military transition also. As the PLA attempted to integrate more advanced technologies, he thought a slowdown in the pace of capability enhancement was likely. The PLA could become “trapped in its region”, especially if China’s growing assertiveness led its neighbours to accelerate their own military development. It could “stir up the Near Seas” but not “make tsunamis beyond that”.

686 James Dobbins et al., Conflict with China: Prospects, Consequences, and Strategies for Deterrence (RAND Arroyo Center, 2011), vii-viii. The argument that the US should cooperate with China from a position of military strength in the South China Sea was also emphasised in Patrick M. Cronin, Cooperation from Strength: The United States, China and the South China Sea (Center for a New American Security, January 2012), 5-6.
687 Andrew S. Erickson, Through the Lens of Distance: Understanding and Responding to China’s 'Ripples of Capability' (United States Naval War College, January 2012).
688 Andrew S. Erickson and Adam P. Liff, “A Player, but No Superpower,” Foreign Policy (7 March 2013).
Another approach taken by experts to assess China’s future military capabilities was to examine trends in its defence expenditure. This analysis was often hampered, however, by lack of rigour in evaluating these quantitative trends. First, the fact that China’s official defence budget did not include all defence-related expenditure complicated estimation of the total budget. This led to estimates of the real level of China’s defence spending ranging from twice to ten times the official figure.\(^{689}\) Second, estimates of expenditure trends sometimes failed to adjust for inflation. RAND noted that at nominal prices China’s official defence budget grew eleven-fold between 1978 and 2003, but only about three-fold at constant prices. In real terms, its defence expenditure declined in most years during the 1980s and significant double-digit increases only became established from the 1990s. Third, analysts rarely compared growth in defence expenditure to the growth of total government expenditure. RAND noted that China’s defence expenditure had remained stagnant or even declined as a percentage of total central government expenditures.\(^ {690}\) Fourth, there was no agreement among analysts about whether comparisons between China’s defence spending and that of other countries should be considered at market exchange rates or purchasing power parity. John Tkacik argued China’s defence expenditure should be considered in terms of PPP, which “simply reflects the reality that a billion bucks buys a lot more ‘bang’ in China than in the United States”.\(^ {691}\)

Others expanded on these difficulties. Dennis Blasko noted that attempts to estimate China’s military budget did not use “a consistent analytical methodology” and were often guilty of “fact-free” analysis. He observed that most “reputable outside estimates” ranged from two to four times the official budget, with the Pentagon’s 2010 estimate being a little over double. He assessed that the rate of growth of the military budget continued to be “coordinated” with the rate of overall economic growth.\(^ {692}\) Others noted that China’s defence spending as a proportion of GDP was still less than half that of the US, and that in absolute terms its defence spending in

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\(^{689}\) Nye, "China's Re-emergence and the Future of the Asia-Pacific.", 68.

\(^{690}\) Keith Crane et al., Modernising China’s Military: Opportunities and Constraints (RAND, 2005), xx and 101-110.


2010 was only about one-seventh that of the US.\footnote{Andrew Davies and Andrew Rothe, Theory and practice - A comparative look at China's new Defence White Paper (Australian Strategic Policy Institute, 15 June 2011), 6 and 7. These estimates came from the Stockholm International Peace Research Institute (SIPRI).} Andrew Erickson and Adam Liff agreed that Western attempts to estimate the amount of China’s defence spending that was not included in the official budget were “plagued by serious reliability issues”.\footnote{Andrew S. Erickson and Adam P. Liff, “Understanding China’s Defence Budget: What it Means, and Why it Matters,” PacNet 16 (9 March 2011).} In a later study Liff acknowledged that China’s defence spending had become the second largest in the world, but they argued that concerns about the growth of these expenditures were based on “an over-simplistic narrative” about its strategic intentions. China’s military modernisation was driven by “decades of neglect and military backwardness” and increases in nominal defence spending had been “heavily mitigated by rampant inflation”. Real increases had been “relatively constant” as a percentage of GDP and had constituted “a declining percentage” of total central government expenditure.\footnote{Adam P. Liff, “Demystifying China's Defence Spending: Less Mysterious in the Aggregate,” China Quarterly (March 2013), 1-26.}

Nevertheless several experts continued to express concern about China’s military spending. One report commented that although it allegedly faced “no serious security threat from any of its neighbours”, it was increasing its defence spending while other major powers were cutting. In PPP terms its “core military budget” was approaching US$300 billion. Moreover, the report argued, a proper comparison with the US should only consider US military spending in the Asian theatre.\footnote{Defending Defense - China’s Military Build-up: Implications for U.S. Defense Spending, (A Joint Project of the American Enterprise Institute, the Heritage Foundation and the Foreign Policy Initiative, March 2011).} China responded to such statements by pointing out that military expenditure in the US and other countries was also growing rapidly, while in 2010 China’s defence budget had increased by only 7.5 percent despite strong domestic support for increased spending.\footnote{Wu Jiao, “China refutes military spending report”, China Daily, 10 July 2010. One survey found that over 80 percent of Chinese respondents supported higher military spending; see “Military Spending: Will ask, should tell”, Global Times, 5 March 2010.} China’s 2010 National Defense White Paper pointed out that recent annual increases in defence expenditure were several percentage points below increases in total expenditure. A spokesman denied China had “hidden military
expenditure”, and argued that its defence spending was low both as a proportion of GDP and in view of China’s “vast amounts of land and long coastlines”. Given the imponderables involved in estimating China’s current defence expenditures, it is little wonder there has been similar uncertainty about predicting future trends, although this did not prevent some from making the attempt. China Daily took umbrage at (unsourced) Japanese reports suggesting China’s military expenditure could double by 2020, more than triple by 2030, and increase seven-fold by 2050. However, analysts at IHS Jane’s Defence reportedly expected China’s defence spending to double by as early as 2015, driven by investment in sophisticated new equipment. The Economist calculated that China’s defence spending – which in 2011 was one fifth of the US – could catch up with the US by 2025. Trefor Moss ventured that China could become the world’s biggest military spender in the 2020s or 2030s, although he wisely added that there were “too many unknown variables” to make an accurate prediction.

### 10.5 Competition or Cooperation?

Perceptions of China’s increased assertiveness after 2010 and of its growing military strength have stimulated a wide-ranging dialogue among experts about whether its relationships with the United States and with other regional countries were likely to become increasingly competitive, or whether – under the continued influence of a cautious and pragmatic policy – they would remain mainly cooperative. What was noteworthy and concerning about this discussion was that a growing number of experts, both in the West and to a lesser extent in China, appeared to believe that the element of competition was growing and the impetus for cooperation declining. In the West, some experts appeared to reach a deterministic conclusion that China’s rise would inevitably be accompanied by an intensifying strategic competition with other major powers, and especially with the US. Nick Bisley, for example, assessed that

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China’s “distinctly more assertive tone” during 2010 was unlikely to be just “an errant year” following which China would “go back to hiding its claws and getting on with domestic development”. Rather, he saw China’s new confrontational posture as “a harbinger of a new, evolving regional order in which friction and conflict among Asia’s major powers will increasingly become the norm”. China had become “a state that will not be beholden to outside conceptions of its interests nor constrained by multilateral institutions or processes”. The prospect was for “an unstable and increasingly uncertain region”, with the potential for events to escalate “in unsettling and potentially destructive ways”.703

This revitalised notion of an inevitable and destabilising strategic competition in Asia, with China at its epicentre, became increasingly popular in some quarters. Its most committed contemporary spokesperson has perhaps been Aaron Friedberg. In his 2011 book A Contest for Supremacy Friedberg stated he had long been troubled by a “wilful, blinkered optimism” about the prospects for US-China relations. Most China experts, he alleged, seemed to believe rivalry between the two countries was “highly unlikely, too terrifying to contemplate”. However, he recalled he had once predicted there was a good chance of “an open and intense geopolitical rivalry”.704

Friedberg observed that concerns about such rivalry had now become more widespread, fed by new evidence of China’s “expanding capabilities and ambitions” and by its becoming “far more assertive in word and deed”. He believed the US and China had become “locked in a quiet but increasingly intense struggle for power and influence”. Each side had “strategic objectives that threaten the fundamental interests of the other side”. The US aimed to promote regime change in China, nudging it gradually toward liberal democracy. Beijing for its part felt the need to constrict US influence in the Western Pacific “pushing it back and ultimately displacing it as the preponderant power in East Asia”. Friedberg conceded both sides remained willing to cooperate, but feared that as China grew stronger the current “muted rivalry”

might “blossom into something more open and dangerous”. He asserted that for more than a century the US had not faced a strategic competitor like China, which had more people, resources, and industrial strength than Nazi Germany or imperial Japan, and a more efficient economy than the Soviet Union.\(^{705}\)

Friedberg thought optimism about China could prove to be “profoundly dangerous”. The regional military balance would “start to tip sharply in China’s favour” and the US could find itself “pushed to the margins of Asia if not out of the region altogether”, compelling it to acknowledge China as the “preponderant regional power”. China could then enforce its territorial and resource claims in the region and undermine prospects for democratic reform. Much commentary on China, Friedberg said, was based either on “straightline-itis”, which assumed prevailing trends would continue, or “collapse-ism”, which assumed what goes up must come down. The first possibility could, he believed, be ruled out; but the second could not because no country could maintain high growth indefinitely. He judged, however, that “for the moment” China’s continued rise was “a better bet than catastrophic decline”. By 2050 “at the latest” China’s economy could be the world’s largest.\(^{706}\)

Friedberg’s “conditional prediction” was that if China’s power continued to grow and it retained its authoritarian regime, relations would become “increasingly tense and competitive”. Cooperation might persist, but it was likely to become “more limited and more difficult” as the relationship became “increasingly brittle”. He already saw evidence of “an increasingly intense and focussed military competition” and judged that US power projection forces in East Asia could become “wasting assets” unless it made substantial new investments. He suggested several ambitious capability enhancements, including being able to threaten China’s economy and perhaps also its mechanisms for domestic political control.\(^{707}\)

In a later article Friedberg’s concerns seemed to have strengthened. He thought the bilateral power balance was “set to shift sharply in Beijing’s favour”. China’s ruling elites had become “both arrogant and insecure”. This reflected “a fundamental


\(^{706}\) Ibid., 5-8, 33-35 and 237.

\(^{707}\) Ibid., 35-57, 153-155, 215-244 and 264-284.
divergence of interests” due to China’s desire for regional hegemony and Washington’s unwillingness to allow it. China’s “truculence” was causing its regional neighbours to welcome the “more muscular rhetoric” coming from Washington.708 John Lee supported Friedberg’s strategic assessment. He thought China’s ascent was “likely to spark an intense security competition with the U.S., leading to the strong possibility of war”. China was “a revisionist power” due to its “fundamental dissatisfaction with several of its land and maritime borders” and its “desperation to secure its ‘core interests’”. Although Deng’s strategy had been to avoid conflict, Lee believed future generations would be “more confident and assertive”. China’s “strategic dissatisfaction and impatience” could lead to “disastrous miscalculation and error”.709

Friedberg also found some support in a more unexpected quarter. Although he did not favour the same solutions as Friedberg, David Shambaugh had also become considerably more pessimistic about prospects for the bilateral relationship. Comparing Chinese perceptions of the US during his stay in Beijing with his impressions from earlier visits over thirty-two consecutive years, he concluded that “something very negative” was happening. His contacts appeared to regard the US with “a combination of disinterest and disgust”. A “new robust Chinese nationalism” was on display. On his return to the US he found this negativity was reciprocated in a “paradigm shift” among Washington’s China watchers. Shambaugh saw China and the US as “tangled titans” with numerous interdependent interactions in many domains. They were “inextricably tied together” and cooperated extensively, but he nonetheless perceived a “rising competition”. He labelled this condition as “coopetition” reflecting “the contradictory dual nature – and the ‘new normal’ – of the relationship”. Competition was becoming “primary” and cooperation “secondary and declining”. Interdependencies between China and the US bound them together but simultaneously caused frictions that increased competition. He called this

708 Aaron L. Friedberg, "Bucking Beijing," *Foreign Affairs* 91, no. 5 (September/October 2012), 48-58.
“competitive coexistence”. The tangled titans would find it “increasingly difficult to co-exist – yet they must”.  

These pessimistic views were contested, however. Alongside those who saw China as an inevitable strategic competitor for the United States and a challenger to the existing regional order, other experts continued to expect that with appropriate diplomacy China’s impact on world affairs would be less disruptive and its behaviour more cooperative. Andrew Nathan, for example, thought Friedberg’s attempt to synthesise the views of China’s hawks had created “a false unity”. He countered that China’s policy-makers had “consistently been more cautious in practice than the Chinese media have been in their rhetoric”. A serious audit of China’s capabilities would show it was “bogged down both internally and in Asia generally”. China’s leaders, he assessed, acted “more like people under siege than like people on an expansionist warpath”. Given its many limitations, he argued that even if China stayed “on course” it could not hope for “anything that can be called supremacy, or even regional mastery, unless U.S. power radically declines”. Furthermore, “the more China rises, the more most of China’s neighbours will want to balance with the United States, not against it”. Writing with Andrew Scobell, Nathan also emphasised the continued limitations of China’s “overstretched military”. Similarly, Lyle Goldstein argued that China was rising “in a thicket of strong-willed and suspicious competitors in Asia” and that “natural balancing processes” would constraint its ambitions.

Another researcher who appeared comparatively relaxed about China’s growing economic and military strength was US intelligence analyst Eric Anderson. His view was that although China was intent on its “re-emergence as the ‘Middle Kingdom’” it did not have “delusions of imperial grandeur” or wish to “engage in a campaign of territorial conquests”. It would seek the restoration of its traditional dominance in China’s region.

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Asia through “a loose coalition of nations with a single, widely recognized power center”. It would not use “coercion or co-option”. Anderson predicted that in 2020 China would “remain focused on economic development … be the dominant policy leader in Asia, and … be a senior, respected member of the international community”.  

Henry Kissinger has been especially prominent among those who are hopeful about the prospects for a cooperative relationship between the US and China. He declared that the assumption that strategic confrontation with China was inevitable was “as dangerous as it is wrong”, and that military imperialism and provocative diplomacy was “not the Chinese style”. He assessed that when China expressed its cooperative intentions this was “less a preference than the strategic realities”, given the disparity between its military power and that of the US and its allies. China sought cooperation with the US “for many reasons” including the priority it placed on its internal development and its awareness of “the potentially catastrophic impact of a Cold War”. Kissinger noted that groups in both the US and China now claimed a “contest for supremacy” was inevitable and “perhaps already under way”, making appeals for cooperation seem “outmoded and even naïve”. He countered that Americans should remember that even when China’s GDP equalled the US, its wealth would be distributed among an aging population four times larger than the US that would still be preoccupied with major domestic challenges. He thought China’s military buildup was not “an exceptional phenomenon” but a logical consequence of its increased economic power. He also rejected Friedberg’s advocacy of a US policy that “stripped of diplomatic niceties” would aim to actively hasten a transition in China that would sweep away authoritarianism and substitute a liberal democracy. In his book On China Kissinger indicated his belief that the “crucial competition” between the US and China would be economic and social rather than military. He foresaw a future US-China relationship based on “co-evolution” or a “Pacific

\[714\] Anderson, China Restored: The Middle Kingdom Looks to 2020 and Beyond, xi-xxiii, 29 and 249-250.  
Community” in which both sides would seek to cooperate where possible and minimize the risk of conflict.\footnote{Henry A. Kissinger, On China (London: Penguin, 2012), 520 -530.}

Meanwhile, British scholar Barry Buzan also appeared quite hopeful about the prospects for a cooperative relationship between China and other countries. He foresaw the likely emergence of a new world order of “decentred globalism” because the US was unlikely to remain a superpower while China was unlikely to become one. The global distribution of power would be more equitable and world order would be shaped by “the conspicuous and pressing presence of collective problems”.\footnote{Barry Buzan, “The Inaugural Kenneth N. Waltz Annual Lecture. A World Order Without Superpowers: Decentred Globalism,” International Relations 25, no. 3 (2011), 3-25.}

Another alternative to Aaron Friedberg’s pessimistic assessment was provided by Michael Swaine. He too saw the potential for strategic competition to be managed successfully. In his book America’s Challenge he recommended the US should continue to emphasise a dual policy of “cooperative engagement balanced with hedging” because China was likely to become “neither a sworn enemy or an ally or close and trusted friend”. He was concerned that growing mutual distrust was already producing “a dangerous zero-sum mind-set” in the defence communities of both sides. He urged Washington to “push back against hawkish voices” and examine long-term alternatives to the “current emphasis on U.S. military preponderance”.\footnote{Michael D. Swaine, America’s Challenge: Engaging a Rising China in the Twenty-First Century (Washington, DC: Carnegie Endowment for International Peace, 2011), 15-19.}

Swaine believed that because China wanted a stable environment for its economic development it had tried to avoid strategic rivalry. It had asserted a set of “core interests” as a “marker” for other countries, but like the US it favoured a strategy that combined cooperation and hedging, and sought to balance the influence of “hard-liners and more moderate elements”. He judged that Chinese and US strategic objectives in Asia that were not “fundamentally incompatible”, although in the future there was potential for “tense situations or crises” and for “a deliberate security competition”. However, he believed the two countries faced “a growing number of
common problems in this new century that demand cooperative solutions”, which would “reinforce incentives … to avoid worst case outcomes”.  

Swaine thought there were some US analysts – especially in the defence, military and intelligence areas, and also in conservative institutes and defence industry – who believed China’s ambitious military modernisation program, and its alleged intent to seek dominance in the Asia-Pacific region, meant it should be treated as “an actual or potential adversary”. However, his extensive interviews with former US officials indicated this hard-line perspective did not predominate “among senior civilian (and many, if not most, military) decision-makers”. They sought to avoid “a self-fulfilling hostile relationship” and believed China’s leaders recognised “the huge cost” that would result if it confronted the US. Swaine himself saw “very little, if any, evidence” that China would consider altering its strategy of peaceful development “during the next few years”. He rejected the view that a “severe polarization” was inevitable if China’s rapid growth continued. An alternative would be “some kind of cooperative balance” among major powers in the region, or a variant of a “concert of powers” although he thought this might be problematic.  

Joseph Nye also cautioned against assuming that conflict was inevitable in the US-China power transition. He drew attention to Thucydides’ view that the Peloponnesian war was caused not only by the rise of Athens’ power but by the fear this engendered in Sparta. It would be a mistake, he argued, to base fear of China on historical analogies – for example, comparing China to imperial Germany. China still lagged far behind the US and even when it reached economic parity the composition of its economy would be very different. The facts, he concluded, did not currently justify “alarmist predictions of a coming war”. There was “time to manage a cooperative relationship”, and “much more to gain from working together than in allowing overwrought fears to drive them apart”.  

A new perspective from outside the United States was provided by Hugh White, whose assessment of the likelihood of competition in the emerging China-US relationship seemed at first sight to be quite pessimistic. In early articles he had

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720 Ibid., 34-51.
721 Ibid., 147-182 and 337-380.
speculated about the likelihood that China’s rise would have a major, and probably negative, influence on the geopolitics of the Asian region.\textsuperscript{723} Optimists, who thought China’s rise could be “accommodated within a unipolar global order under US leadership”, might be right; but he thought this “inherently unlikely” as US primacy eroded. White’s position, however, was that the most damaging consequences of strategic competition could potentially be avoided. As a “second-best outcome”, short of US primacy, he recommended a new power-sharing arrangement – in the form of a “concert of powers” in Asia. Nevertheless, he saw China and the US as “strategic competitors, pure and simple”. Moving to a new stage of “cautious but respectful cooperation” would not be easy, especially for US realists who believed China was determined to establish its own hegemony in Asia. White thought the “most likely outcome” of such a negative mindset would be the emergence of “a systematically adversarial” US-China relationship – something that seemed to be viewed with “surprising equanimity” by some in the US.\textsuperscript{724}

Following the GFC White saw further evidence of China’s geo-strategic ascendency. It would be “a long time, if ever” before it could become the world’s leading power, but he thought it would pose an increasing challenge.\textsuperscript{725} He estimated China would become the world’s richest country around 2030, which would make it “too strong to live under American leadership in Asia” and cause it to seek to “lead in its own right”. He thought, however, that China would seek a balance between “maximising its influence while minimising disorder”. The “least likely possibility” was that it would “try to impose on Asia a harsh hegemony”, although there was “always a risk” that future leaders would “become more ambitious as their power grows”. He again suggested a “concert of Asia” in which power would be shared “in a collective leadership with Asia’s other strong states”. This would only be possible if the US allowed China “some political and strategic space”. If it did not do so, the US risked “drifting into strategic rivalry” without weighing the great costs involved. In White’s view China was “already too powerful to be contained without intense and protracted

\textsuperscript{723} Hugh White, “Australian Defence Policy and the Possibility of War,” \textit{Australian Journal of International Affairs} 56, no. 2 (2002), 260.
\textsuperscript{724} Hugh White, “The Limits to Optimism: Australia and the Rise of China,” \textit{Australian Journal of International Affairs} 59, no. 4 (December 2005), 469-480.
pressure from America”, which would risk “major war – even nuclear war”. Yet the “drift to antagonism” had already begun. China’s leaders had become “more pushy” making the US “all the more inclined to push back” and “arm up”.726

White spelt out his concert of Asia proposal in greater detail in his book *The China Choice*. He believed the future would be “bleak” without an accommodation between China and the US. This would require Washington and Beijing to decide how far each was willing “to adjust its ambitions and aspirations to accommodate the other”. The relationship would “always be competitive” but the question was whether the two sides could nevertheless continue to cooperate. They were “already taking the first steps” toward a relationship that precluded cooperation. Each was building its military forces and seeing issues, like the South China Sea disputes, through “the lens of rivalry”. The US, he suggested, had three options: to “resist China’s challenge and try to preserve the status quo in Asia”, to “step back from its dominant role in Asia, leaving China to establish hegemony”, or to allow China a “larger role” in the region while “maintaining a strong presence of its own”. Most Americans, he said, assumed the first option was “the only choice”; few considered the second; and most did not “even consider” the third. He argued, however, that the third option would best serve US and Chinese interests because any attempt by either to dominate would lead to “sustained and bitter strategic rivalry, imposing huge economic costs and a real risk of catastrophic war”.727

A rather similar view was adopted by Australia’s former prime minister Kevin Rudd, who also emphasised the critical importance of avoiding major confrontation between China and the US. This, he thought, was “difficult but doable” within a “deeper and more institutionalized relationship” that was “anchored in a strategic framework that accepts the reality of competition, the importance of cooperation, and the fact that these are not mutually exclusive propositions”. China underestimated, in his opinion, the uncertainty created by its pursuit of its territorial interests and the “security dilemma” this created. Nevertheless it had an “even stronger interest” in maintaining strategic stability in the next decade, which meant it would prefer to

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726 White, "Power Shift: Australia’s Future Between Washington and Beijing."
resolve conflicts peacefully. Like White, Rudd thought a US policy that either accelerated strategic competition or sought to maintain the status quo would be much less appropriate than a “third possibility”. This would involve introducing “a new framework of cooperation that recognised the reality of strategic competition but defined key areas of shared interests and sought to counteract the “yawning trust gap” by building strategic cooperation through “real success in cooperative projects”. Presidents Obama and Xi had “a unique window of opportunity” to disprove the “deeply depressing historical norm” that the rise of new great powers would trigger global conflict.\footnote{Kevin Rudd, “Beyond the Pivot,” \textit{Foreign Affairs} 92, no. 2 (March/April 2013), 9-15.}

10.6 China’s Responses

China’s official rejection in the early 2000s of Western assumptions that it posed a threat to regional stability and to neighbouring countries has been noted earlier. But, despite its continued fervent assertions rejecting expansionism and hegemonism, it has experienced considerable difficulty convincing the rest of the world of its peaceful intentions. In 2011 it issued a White Paper on \textit{China’s Peaceful Development} that “declared solemnly again” that peaceful development was China’s “strategic choice”. The “fundamental purpose” of its armed forces was “to safeguard China’s sovereignty, security, territorial integrity and interests of national development”. It would not engage in an arms race, did not “pose a military threat to any other country”, and was committed to solving disputes and crises by peaceful means. Furthermore, it saw peaceful development as “a global trend” necessitated by “a growing list” of increasingly severe global challenges and common security issues that had to be handled cooperatively.

China’s international relations scholars generally supported this official viewpoint, as might be expected. During the mid-2000s Wang Jisi continued to champion a moderate, prudent and cooperative international stance for China. He thought China’s leadership was “very cautious and sober-minded in its projection of Chinese power”, and that its actual behaviour internationally gave “little reason to doubt its sincerity in striving for world peace and stability”. It was a status quo power rather than a challenger to the current world order. He believed it was “certain” China
would continue to be “defensive and prudent”. Wang’s opinions appeared at that time to represent the dominant viewpoint among China’s officials and scholars. Most Chinese, he acknowledged, viewed the US as a major threat and considered that US primacy would eventually decline, but he believed its dominance would continue for a long time. He emphasised the strength of US “hard power” and stated that strategic planning in Beijing was “not based on an assessment of a weakened US at present or any time soon”. Therefore “leading Chinese strategists” favoured a low international profile, a moderate foreign policy, and not directly challenging the US. China was worried about US power and its intentions toward China, but it gave priority to “mounting pressures at home” for which it needed “an extended period of calm internationally”. Wang advised other countries not to assume China and the US were becoming “long-term strategic rivals”.

Post-GFC, however, there were clearly important shifts in the perceptions of many of China’s international relations experts about its most appropriate international posture. Most favoured a more proactive role. Many tended to take a distinctly negative view of US policy and actions, and were pessimistic about the prospects for bilateral cooperation. Andrew Nathan and Andrew Scobell assessed that China’s experts regarded the US itself as “a revisionist power that sought to curtail China’s political influence and harm China’s interests”. The US was “omnipresent” for China, which felt “an acute sense of its own vulnerability”. Chinese analysts saw their country as “pacifistic, defense-minded, nonexpansionist, and ethical” while the US was “militaristic, offense-minded, expansionist, and selfish”. A small group of Chinese analysts saw US and Chinese interests as “not totally at odds” but Nathan

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731 Wang Jisi, “America in Asia: How much does China care?,” Global Asia 2, no. 2 (Fall 2007).
and Scobell believed they were “outnumbered” by others, especially from military and security agencies, who thought China must stand up to the US.\(^\text{733}\)

In this new situation former mainstream strategists like Wang Jisi found themselves fighting a rear-guard action. Wang noted that China had redefined the purpose of its foreign policy to emphasise safeguarding three core interests, namely its political stability, sovereignty and territorial integrity, and economic and social development. He criticised “reckless” and unauthorised statements that had identified specific core interests beyond the issue of Taiwan. He also criticised “popular” but “misguided” attempts to portray the United States as a major threat. To base China’s grand strategy on this notion, he argued, would “seriously hold back” China’s economic development.\(^\text{734}\)

Speaking informally to Peking University students, Wang said China should not try to imitate the US as the world’s superpower. Rather, it should concentrate on creating a benign external environment for its development and focus on its own affairs.\(^\text{735}\) He appeared concerned that China’s foreign policy had become “more proactive than ever before”, putting so much emphasis on safeguarding core national interests that it was perceived internationally as “increasingly assertive”.\(^\text{736}\)

Wang was supported by other scholars like Zhu Feng, who considered China was still “an adolescent power” and its power disparity with the US had not “significantly narrowed”. He acknowledged that US-China competition would intensify but considered this did not necessarily mean the relationship will be “unmanageable”. He assessed that both sides wanted “to handle the conflict, not escalate it”. He noted “ominous” indications of a US intent to shift its focus to Asia, but believed there was “little worry” that this would signal a new Cold War.\(^\text{737}\)

In the post-GFC era, however, the opinions of China’s moderates continued to be contested by those who often appeared to favour a more robust foreign policy. An unusually-candid example of such views was provided by Lin Limin at CICIR. Lin

\(^\text{733}\) Andrew J. Nathan and Andrew Scobell, "How China Sees America," *Foreign Affairs* 91, no. 5 (September/October 2012), 32-47.


portrayed a new international strategic situation characterised by the decline of the West and the rise of non-Western countries. He accepted that the US would retain its “sole superpower status” for “a long time”, and that even if it lost this status it would still be “a first-rate world power long into the future”. But, even though China would only be able to match the US’s comprehensive strength “in the distant future”, it was when compared to the medium powers (such as Russia, Japan and Europe) “like a triton among the minnows”. Lin suggested that if China wished to “grow as a world power” it could begin by becoming “the top Asia-Pacific power first”. In order to “dominate the world’s agenda”, China would need to “first pursue geo-political dominance in the Asia-Pacific”. Such a strategy would “make for an easier rise for China, as compared with direct ascension to global power”.

In an apparent reference to the moderates, Lin noted that after the Cold War people began to believe “peace and development” were the “theme of the times” and that a “new era of co-existence” was emerging. He asked, however, how the US was likely to react as China progressed through its “strategic sprint” phase and “accelerated to the position of global ‘boss’” after it overtook the US economy in about 2020. Would the West accept China’s rise peacefully or “prepare for a preemptive war to stop the rise of China”? It remained to be seen if this situation would lead to “conflict in the long term”. Lin therefore suggested China would need to “adopt a modest and prudent strategy” that avoided “pushing the major Asian countries to America’s side”, but it should also “make full preparations in its military, and enhance its technical strength in self-defense in order to make spiritual preparation for a potentially devastating war”. 738

Yan Xuetong at Tsinghua University also assessed that the world was transitioning from unipolarity toward bipolarity, with China becoming a “less powerful counterpart” to the US. China’s economic disparity with the US would disappear within the decade, while the gap between these two powers and other major powers would widen. 739 He argued nevertheless that the rise of China was unlikely to lead to conflict, and that the only kind of hegemony China should seek was a “humane

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739 Yan Xuetong, “The weakening of the unipolar configuration”; in Leonard, China 3.0, 112-117.
hegemony” that would result when it received “more international support than others”. Yan sought to explain fluctuations in US-China relations through use of “a theory of superficial friendship”. He thought the policy of “pretending to be friends” had led to an unstable and ineffective relationship because it did not recognise that China and the US had “fewer mutually favourable interests than unfavourable ones”. He suggested it might be better to transform the relationship “from superficial friendship to superficial enmity”, which would provide a better basis for addressing conflicting interests through “positive competition and preventative cooperation”. Yan also stated that he and “a number of colleagues” believed the US pivot would lead to increased competition with China but not to a Cold War. He assessed that China and the US were “moving towards all-out competition” but across a broader range of both military and non-military areas than had been the case between the US and Soviet Union. He likened this competition to “a game of football” rather than “a boxing match”. It could lead to “occasional conflicts” but violence would not be “the primary means”.

A helpful commentary on competing Chinese views was given by Wu Xinbo. He observed that Chinese academic circles had become “more sharply divided” on the nature of the China-US relationship. Optimists, including himself, argued the two countries were “more likely than not to become real partners”, while pessimists contended that “structural contradiction” and “conflicting and confronting interests” would make it difficult to develop “real strategic friendship”. He offered three alternative scenarios for the future of China-US relations in which the two countries might become partners, competitors, or enemies and assessed the most likely relationship would be “a blend of cooperation, competition, and limited conflict”. China and the US would be “both partners and competitors … but not enemies”. He

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anticipated that China’s growing self-confidence would make it “more active in agenda-setting and tougher in bargaining”.

Wu noted that China’s activism regarding its territorial claims in the East and South China Seas had added greatly to concerns in other countries that its foreign policy had taken a disturbing new direction. However, he and other Chinese scholars claimed these actions were reactive to “the so-called US pivot”, and that China had been forced to respond when other Asian countries took advantage of the pivot to push their own territorial claims. Instead of backing down, China’s response had been to adopt a “tit-for-tat” strategy and to continue to develop its military capabilities. He warned that if the US continued to attempt to counter-balance China’s rising influence, heightened competition and regional instability would be “inevitable”. He considered that US interests would be better served by working toward a pattern of “shared power and responsibility” in the region.

Side-by-side, however, with China’s forceful assertion of its determination to protect its core national interests, a new and parallel emphasis on cooperative relationships reemerged. Following Xi Jinping’s February 2012 visit to the United States there were frequent references to China’s desire to develop a “new type of major power relationship”. Many of the same Chinese scholars who emphasised the reality of competition have simultaneously highlighted the necessity for cooperation with the US and other regional countries. They set important boundaries for China’s ambitions. For example, Lin Limin – despite his previous comments – suggested China would need to “adopt a modest and prudent strategy” that expanded cooperation and limited the risk of conflict. It should also avoid “pushing the major Asian countries to America’s side”. Regarding China’s maritime territorial disputes he recommended that “putting aside disputes and working at negotiations should remain our consistent stance”, and that a “small group of trouble-makers” should not be allowed to “lead us by the nose over a couple of tiny cliff islands”. China could not achieve “strategic ascendancy and permanent stability and security”

744 Wu Xinbo, ”Not Backing Down: China Responds to the US Rebalance in Asia,” Global Asia 7, no. 4 (Winter 2012).
in an antagonistic Asia-Pacific environment. Lin advocated that China should choose a “cooperation paradigm” in preference to a “conflict paradigm”. If it chose cooperation it could “secure the best interests at the lowest risk”, while if it chose conflict it would either win “a tragic victory” or be defeated. He perceived that although there was widespread pessimism about China-US relations, leaders and decision-makers in the two countries had “a deeper understanding” and displayed “a cautious optimism”. He was encouraged that the US had begun to engage China “on a more equal footing” and that its “habitual arrogance and domineering attitude” had been “dampened significantly”.

The majority of China’s international relations experts seem united in advocating a renewed emphasis on cooperative relationships, and in reaffirming China’s clear and long-standing official policy of peaceful development. To a greater or lesser degree, however, they – like their government – also continue to stress China’s determination to uphold its core interests and associated requirements. These include its expansive maritime territorial claims, its opposition to US arms sales to Taiwan, and its concerns about strengthened US alliance relationships in the Asia-Pacific. In the words of Rear Admiral Yang Yi, a former director in China’s National Defense University, peaceful development is “an important part of China’s strategy”, but this did not mean “that China can stand humiliation and provocation”. These comments suggest that in the eyes of China’s experts there is real scope for its future international relations to develop cooperatively, but still considerable risk of conflict over specific issues where China considers it has little room for flexibility.

10.7 The Utility of Theory

This chapter has so far avoided – with some difficulty and only partial success – the much-discussed issue of whether, or to what extent, predictive theory may assist experts to forecast the likely trend of China’s international relations. If it could be shown theoretically that China’s international behaviour is predetermined – or at

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least strongly influenced – by factors inherent in the nature of the international system, this might give greater weight to the views of those experts who based their opinions on such theory. External perceptions of modern China have been especially influenced by one particular school of Western international relations theory: namely, “realism”. Realism, and especially “structural realism”, attributes conflict among states to the structural anarchy of the international system rather than to the characteristics of individual great powers.

One of the major exponents of structural realism has been John Mearsheimer, who also argued the case for “offensive realism” which maintains that states are driven to promote their interests by maximising their share of world power. Mearsheimer’s view about China’s likely negative international impact was forthright. In his _The Tragedy of Great Power Politics_ he commented that China had the potential to become “considerably more powerful” than the United States. Its “appetite for power” meant it would “almost certainly use its wealth to build a mighty military machine” that would be “so powerful that other states would not dare challenge it”. Such a China would be “more powerful and dangerous” than Wilhelmine Germany, imperial Japan, Nazi Germany or the Soviet Union. If China became “a giant Hong Kong” it might have four times the power of the US and “gain a decisive military advantage”. It would be “strongly inclined” to seek hegemony. This would occur not because China had “wicked motives” but because “the best way for any state to maximize its prospects for survival is to be the hegemon in its region of the world”.

Mearsheimer later elaborated that China’s rise could not be peaceful because its continued economic growth would lead to “an intense security competition” with the US “with considerable potential for war”. To predict Asia’s future, he said, “one needs a theory of international politics that explains how rising powers are likely to act and how other states in the system will react to them”. His theory said that the structure of the international system “forces states concerned about their security to compete with each other for power”, and that “the mightiest states attempt to establish hegemony in their region of the world”. China, therefore, would “try to

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750 Ibid., 396-402.
dominate Asia” and make itself “so powerful that no other state in Asia has the wherewithal to threaten it”. China would recognise, in Mearsheimer’s colourful metaphor, that it was “better to be Godzilla than Bambi”. He was more moderate than some in thinking it unlikely China would “pursue military superiority so that it can go on a rampage and conquer other Asian countries”, although he added that this was “always possible”. It was likely China would at least want to “dictate the boundaries of acceptable behaviour” to neighbouring countries, and it would also probably try to “push the United States out of Asia”. The problem, he argued, was that the US “does not tolerate peer competitors” and it would “go to great lengths to contain China and ultimately weaken it”. Mearsheimer regarded this prospect as “categorically depressing” and wished he could be more optimistic, but international politics was “a nasty and dangerous business”.\(^\text{751}\)

Mearsheimer later criticised those who trusted China’s protestations about its peaceful intentions, noting that such intentions could not be “empirically verified” and could always change in the future. Even if, as some argued, China’s past behaviour had not been aggressive, this was not “a reliable indicator” of its future actions. Its military capability would “change markedly” and: “Then, we will see how committed it is to the status quo.” China’s leaders also could not be sure of future US intentions and were likely to see it as revisionist and “a war-like and dangerous country”. They would therefore conclude the best way to maximise their security would be to continue to expand their own military power and regional dominance. Mearsheimer conceded there was a high degree of economic interdependence between the US and China but doubted this would prevent strategic competition. In two decades China’s military would rival the US in terms of quality and “should be larger, maybe even much larger” than the US. Moreover, the US would need to project its power across the Pacific, while China could operate “in its own backyard”.\(^\text{752}\) In an interview in China, Mearsheimer accepted that for several

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years there would be “powerful incentives” for China and the US to manage potential conflicts, but he asserted that a stronger China would “take greater risks”. 753

Another realist, Robert Kaplan, observed that social science theories were ultimately “gross simplifications of reality” and that even the “most brilliant of them” would be right only about 75 percent of the time. He nevertheless found Mearsheimer’s theory-based argument to be compelling. Mearsheimer had told him he was constantly meeting people who were impressed by China’s desire for a peaceful relationship with the US, but he would reply that “these Chinese will not be in power in 20 or 30 years, when circumstances may be very different”. He added: “Because we cannot know the future, all we have to rely upon is theory. If a theory can explain the past in many instances, as my theory of offensive realism can, it might be able to say something useful about the future.” 754

Apart from offensive realism, two other international relations theories tended to support the view that the risk of conflict between China and other countries would grow in proportion to its power. The earliest of these was the “security dilemma”, which Robert Jervis observed would arise because “many of the means by which a state tries to increase its security decreases the security of others”. As each state reacted, this would lead to a spiralling competition. 755 A variation of the security dilemma was “power transition theory”, which originated in the work of A.F.K. Orginski. 756 He maintained that the international system was not anarchical but hierarchical. A stable international hierarchy was dominated by the most powerful nation, but could be destabilised when a revisionist challenger threatened to reach parity with the hegemon. These three theoretical approaches – offensive realism, the security dilemma, and power transition theory – all tended to accentuate fears about China’s future international impact. Nevertheless they met with strong criticism from several quarters.

753 John Mearsheimer, “Can China, US avoid tragedy of great power politics”, Global Times, 27 May 2012. In this interview Mearsheimer estimated that 50 percent of experts within the US government and 75 percent of US academics, agreed with his views.
Many of the most plausible counter-arguments to offensive realism were marshalled by Zbigniew Brzezinski during an exchange with Mearsheimer. Noting that China’s rise had been peaceful so far, he asserted that future conflict was “not inevitable or even likely” because China’s focus remained on economic development and on “winning acceptance” as a great power. It was therefore “not inclined to challenge the United States militarily”. A focus on history and on “the iron laws of political theory” might point to “some inevitable collision or conflict”, but he argued there were “other political realities” that would incline China to continue its cautious foreign policy. It was “determined to sustain its economic growth” and this could be disrupted by a confrontational policy, which might also threaten the CCP’s hold on power. China’s leadership appeared to him “much more flexible and sophisticated than many previous aspirants to great power status”. He also doubted China would have the military power to push the US out of Asia. Brzezinski therefore believed it would be possible for China to “avoid the negative consequences that often accompany the rise of new powers”. He was “impressed by the power of theory” but thought that when events did not “fit the theory” the theory should be revised.\(^{757}\)

Such a revision of theory seemed to take form in the work of Charles Glaser. In his book *Rational Theory of International Politics* Glaser argued that “international anarchy did not generate a general tendency toward competitive international strategies” because in many circumstances “cooperation is a state’s best option for achieving security”. He distinguished between “security-seeking” states and “greedy” states. If a security-seeking state could feel secure within the international status quo, it would be more inclined to be cooperative than a greedy state that was “fundamentally dissatisfied” with the status quo. The most powerful states would be more inclined to be greedy, which explained concerns about China’s growing power. But in addition to material power – emphasised by offensive realists – Glaser deduced that states’ security calculations were also influenced by two other important variables: namely, the state’s motives and the information it had about the motives of other states. The security dilemma would be eliminated if both states were “sure that the opposing state is a security-seeker”. Glaser concluded that the

\(^{757}\) Zbigniew Brzezinski, “Clash of the Titans,” *Foreign Policy* (January/February 2005).
international system did not “consistently favour competition”. He disputed realists’ claims that China’s “unique qualities, past behaviour, and economic trajectory” would drive it to become a destabilising force internationally. He believed that structural forces leading major powers into future conflict would be “relatively weak” and that disputes in Northeast Asia would be controllable due to the “security prevalent in the international system at large”. Glaser contended that when the security dilemma was “mild” it created “incentives for restraint and cooperation”. Therefore conflict between the US and China was “not predetermined”.

Several other authors also expressed reservations about the application of international relations theory, and especially power transition theory, to prediction of China’s future path. For example, Steve Chan took a “contrarian” view, compared to those who used power transition theory to predict that the danger of war would increase as the “dissatisfied challenger” (China) caught up with the “existing hegemon” (the United States). He questioned why a “rising latecomer” would confront the pre-eminent power when differential growth rates alone would soon make it more powerful. He expected therefore that rather than behave as a “cocky, rash upstart” China would probably try to avoid a “frontal collision”. Other researchers explored the potential for institutionalism and multilateralism to assist in “socialising” China and in paving the way for its cooperative participation in the international system.

Jeffrey Legro also questioned the persuasiveness of international relations theories. He argued that uncertainty about whether China would be driven by a desire to maximise its power, or whether it would be generally satisfied with the international order, revolved around the essential difficulty of “divining future intentions”.

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759 Charles Glaser, ”Will China's Rise Lead to War?,” *Foreign Affairs* 90, no. 2 (March/April 2011), 80-91.
China’s future was “likely to be contingent” and to be dependent on “the interaction of foreign policy ideas and events”. He agreed there were “good reasons to believe” China’s aims would grow as its power grew, but he countered that “power is not destiny”. He pointed to a “large and very insightful” constructivist literature that showed the influence on foreign policy of “collective ideas” including beliefs, norms, discourses and culture. He concluded that “the way China thinks about the world” would be an important influence.762

Experienced China watchers such as Andrew Nathan and David Shambaugh also considered the prospects for strategic competition with China from the viewpoint of international relations theory, but chose to take an eclectic view. Nathan thought that realism – interpreted as emphasising the pursuit of national interests – often provided answers to the puzzles of China’s foreign policy. However, he found that constructivism and institutionalism were also important influences.763 Shambaugh judged that whether from a realist, liberal or constructivist perspective, it was clear that international structures did much to shape China-US relations. Security structures tended to encourage competition, while economic and normative structures tended to constrain such competition. The high degree of interdependence between the two countries and the network of institutional links tended to reduce disruptions but could also create frictions.764 Shambaugh criticised an “increasing obsession” in the academic China community with social science theories that created “further impediments to understanding – more often blurring than clarifying the object of study”.765

This discussion among Western experts raises the question of how international relations specialists within China itself have reacted to predications about its future behaviour that were developed by theorists outside China. They have often questioned the assumptions of Western theory. In particular they have been inclined

to rebel against the notion that China’s future international interactions were somehow prescribed or predetermined by the findings of Western theory. For example, a book co-edited by Robert Ross and Zhu Feng, and including contributions by other Chinese scholars, assessed that the behaviour of states was “not determined by a single variable” and that power transitions were also “not predetermined”. The authors accepted that the US-China power transition would be accompanied by significant conflicts of interest and “persistent strategic competition”, but they concurred that war was “not the inevitable outcome”. Each transition was “a unique event” influenced by “multiple factors” that affected prospects for conflict or cooperation. Neither the rising power’s ambitions nor its level of dissatisfaction with the international order could be determined in advance. In particular, the preoccupation of rising powers with economic development could influence them to seek a cooperative international environment. They felt optimistic that China and the US could avoid “a destructive power transition war”. They perceived “enduring international factors” that would “maximize policymakers’ opportunity to develop constructive policies”.766

In this context, an interesting interchange occurred between Barry Buzan and China Foreign Affairs University’s Qin Yaqing. Qin challenged Buzan’s view that China’s peaceful participation in international society might become more difficult without greater effort from China and other states. Buzan had noted that China’s insular tendencies might strengthen the argument of realists that its rise would “inevitably” lead to rivalry or confrontation.767 In response, Qin said he believed China’s peaceful rise would be no more difficult to maintain than in the past. He thought Buzan failed to understand “China’s sea change”. He thought both China and the West could avoid confrontation and “be mutually transformable in the process of interaction”.768 Buzan responded in turn by agreeing that China’s peaceful rise was “definitely possible”, although he maintained it would not be easy because “the future is full of uncertainties”. He was especially concerned about Western “offensive liberals” who

sought to “homogenize” international society along Western economic and political lines.\textsuperscript{769}

Not all Chinese scholars objected to the notion that China’s rise might not be peaceful, however. Yan Xuetong, for example, described himself as “first of all, a realist”. He supported the idea of a harmonious international system, as proposed in China’s official foreign policy, but did not believe it was possible. He observed that “we realists don’t believe the world can be harmonious” because “every power is greedy for leadership”.\textsuperscript{770} But, as noted above, Yan also considered that sustained conflict was not inevitable.

10.8 Actors and Perceptions

Theorists clearly were divided between realists who believed material and structural factors were more important in determining China’s international future and institutionalists and constructivists who believed the influence of organisations and ideas would be at least equally important. Most China watchers, however, appeared willing to side with constructivists at least to the extent of acknowledging that the actions, strategies and perceptions of human players would certainly be a very important factor. It was also readily conceded, however, that the influence of those actors and their perceptions could be both positive and negative.

On the one hand, experts outside China observed that both China’s official foreign policy spokespersons and a majority of its international relations experts supported a peaceful and cautious international stance. They rebelled against undue emphasis on the structural determinants of international politics. Rather, they emphasised interdependence and the need to tackle jointly a variety of new and pressing twenty-first century issues that would lead states to prefer cooperation over conflict. They eschewed the pursuit of hegemony and traditional great power competition. Wen Jiabao, during a visit to the US, once claimed that the argument that a rising power

\textsuperscript{769} Zhang Xiaoming and Barry Buzan, "Correspondence: Debating China's Peaceful Rise," \textit{Chinese Journal of International Politics} 3 (2010), 447-460.

\textsuperscript{770} Creutzfeldt, "Yan Xuetong on Chinese Realism, The Tsinghua School of International Relations, and the Impossibility of Harmony."
was “bound to seek hegemony” did not apply to China because this went against its “cultural tradition” and the will of its people.771

On the other hand, concern has been expressed by many outside experts about competing influences on China’s foreign policy, especially the apparent upsurge of nationalism. US scholar Wang Zheng, for example, has argued that it is not possible to assess the future direction of China’s international strategy without considering the critical influence of its historical memory of a “Century of Humiliation”. This memory had been cultivated and amplified in a “master historical narrative” promoted by a government-directed campaign of patriotic education, summarised by the slogan “Never Forget National Humiliation”.772 Increasingly negative Chinese perceptions of the attitudes and intentions of the US and other countries were also fuelled by emotive events like the 1999 bombing of China’s Belgrade embassy, the 2001 US spy plane incident, the 2008 Tibetan uprising and Olympic torch controversies, and more recently by perceptions of the infringement of China’s maritime territorial claims.

There has also been evidence in relations between China and the United States of the steady development of mutually negative perceptions. Peter Gries, a long-term analyst of the development of Chinese nationalism, noted that anti-American and anti-Chinese polemics were “pernicious” in China-US relations, and that these polemics could “easily spiral into mutual dehumanization and demonization, laying the foundation for violent conflict”. In China, he commented that a “conflictual view” seemed to have gained greater currency, with the US being viewed as “not just arrogant” but also actively seeking “to prevent China from prospering and gaining its rightful place at the top of the world system”. Meanwhile in the US, according to Robert Ross, the policy debate was driven by “diametrically opposed understandings of Chinese intentions”. Gries considered such polarisation to be “potentially disastrous”, with US China bashers oblivious to their impact in China and Chinese nationalists responding with “equally virulent America bashing”.773 Gries took

772 Ibid., xiii-2 and 237-242.
exception to realists like John Mearsheimer who dismissed the impact of perceptions on international politics. He countered that the real “tragedy of world politics” was the failure of scholars and diplomats to recognise the importance of understanding how others viewed the world, “allowing misperceptions and conflicts to fester”.774

Other experts were equally concerned about the influence of the perceptions of human actors on the prospects for competition or cooperation in China-US relations. David Shambaugh commented that neither the US or China seemed “able to grasp complexity in the other”, resulting in “mutual ‘deafness’ and unnecessary arrogance” on both sides. He warned against demonising China.775 Stanley Lubman found this issue to be especially problematic in the US Congress where various interests insisted on “strongly negative views of China that often caricature a complex society and foster unconstructive moralizing”.776 CIA analyst Josh Kerbel found that the policy and intelligence debate in the US over China was marred by “ingrained cognitive biases”. He urged a departure from the “zero-sum perspectives, antagonism, hubris and stridency” that had been the “defining features” of the China debate in the US, and especially the “Red Team/Blue Team” debates that discounted “the potential for differing perspectives and more flexible approaches”.777

Concerns about the future influence of mutually negative perceptions in the China-US relationship led some experts to give increased attention to the origins of strategic mistrust and how it might be alleviated. David Lampton pointed to several factors in the relationship that were creating “a toxic mix that is corrosive to mutual trust and conducive to higher levels of future conflict”.778 A report co-authored by Kenneth Lieberthal and Wang Jisi included an exchange of views about the sources of distrust. On China’s side, Wang said these included the view that the ultimate goal of the US was to “maintain its global hegemony” and to “constrain or even upset China’s rise”. China’s leadership also felt threatened by the US “democracy

775 David Shambaugh, ”'Imagining Demons: The rise of negative imagery in U.S.-China relations,” Journal of Contemporary China 12, no. 35 (2003), 235-237.
778 David M. Lampton, ”Power Constrained: Sources of Mutual Strategic Suspicion in U.S.-China Relations,” NBR Analysis (June 2010).
promotion agenda”. On the US side, Lieberthal claimed that strategic distrust of China was “not the current dominant view” among US decision-makers, but they still saw China’s future as “very undetermined”. The US was concerned about PLA aspirations and suggestions China might be “assuming a more hegemonic approach”, and about China’s economic policies and its one-party system. Lieberthal and Wang agreed there would be “very high costs” if distrust continued to grow “at its current rapid pace”.

10.9 International Futures

The preceding sections of this chapter confirm that a dominant theme in the expert debate about China’s future international impact has been the persistence of a critical uncertainty as to whether its influence will be cooperative and peaceful or competitive and even conflictual. This final section will summarise evolving expert views about this issue.

Among experts outside China the concept of a China Threat took root as its economy prospered during the 1990s, and blossomed following military tensions in the Taiwan Strait. However, several prominent China experts in the US objected to “hype” about a belligerent China, disputed the China Threat concept, and argued that it would be too preoccupied internally to pose a serious threat externally. Many Chinese scholars also objected to allegations that China’s rise would not be peaceful.

Subsequently, and especially following the GFC and the exacerbation of China’s maritime disputes, concerns about an assertive China again became a major preoccupation among Western China experts. Moreover, many of those who had earlier been included to downplay such concerns joined the growing negative consensus. Such negativity was fuelled by visible evidence of China’s growing power, as well as by its apparently more nationalistic and inflexible posture about what it defined as core national interests. One US expert concluded that future China-US relations would likely be based on “coopetition”, combining both cooperation and competition but with competition in the ascendency. However,

foreign experts remained sharply divided about the extent of China’s ambitions and about appropriate responses. Some suggested that the successful management of China-US strategic competition might require greater power-sharing, rather than relying primarily on military rebalancing.

China naturally had a different perspective on many of these issues and its official foreign policy continued to stress peaceful development. It experienced much difficulty, however, in convincing others of its benign intentions. Differences emerged among China’s own international relations specialists about the extent to which it should adhere to its cautious and moderate posture or take advantage of the changing China-US power balance. Those who took the latter view appeared to accept the likelihood of increasingly competitive relations with the US. However, growing numbers of China’s experts have returned to a mainstream and officially-endorsed position that emphasises China’s interdependence with the US and the imperative for cooperation.

In attempting to interpret and forecast China’s strategic intentions, many Western experts went beyond empirical analysis of trends and drew upon international relations theories that they believed had predictive power. They pointed especially to the purported competitive consequences of the security dilemma concept and of power transition theory. Offensive realists argued that the drive for states to maximise their power would inevitably engender an intense security competition. Others disputed such deterministic theories, however, arguing that rival states might well conclude that their interests would be better served by cooperation. Institutionalists and constructivists saw further incentives for cooperation. Eclectics concluded that the major schools of international relations theory could all provide insights and that none should be relied upon exclusively. Chinese scholars often objected to the predictive pretensions of Western international relations theory.

Despite their differences on other issues, there appeared to be a broad consensus among most China experts that the perceptions and strategies of key actors would exercise a powerful influence on the development of China’s international relations. Many emphasised the destructive influence of strategic mistrust between China and the US, and were concerned about the impact of rising nationalism. One scholar, for
example, maintained that China’s future international relations could not be understood properly without consideration of the powerful influence of historical memory and patriotic education. Others drew attention to the damaging consequences of negative polemics and cognitive bias.

Contemporary expert opinion about China’s likely future involvement within the Asia-Pacific region reflects considerable concern among many experts that a more difficult phase may have begun. Many actors in both the US and China appear disposed to discern malign intentions on the part of the other and to believe that the future relationship will be more competitive. Both sides are moving to strengthen their military capabilities. Some experts have voiced fears that a “slide” toward adversarial relationships may already have begun, and have lamented that there is insufficient awareness of the potentially catastrophic global consequences of such a trend. In this context realists could perhaps not be blamed if they were tempted to conclude that their theoretical perspective might be vindicated.

It would be wrong, however, to assume that the majority of Western and Chinese experts, or their governments, have concluded that a future characterised by undiluted competition is inevitable. Quite the contrary, there appears more than ever to be recognition on both sides that although competition will persist its potentially disastrous consequences must be managed, and that in spite of the obstacles cooperation needs to be the principal policy objective. Many prominent experts within and outside China have supported the view that there is still scope for a predominantly cooperative future if there are appropriate attitudinal and policy adjustments on both sides, and that this is certainly preferable to the alternative. In the meantime, however, it is evident that whether China’s future international influence will be mainly cooperative or competitive remains a vital and still unresolved critical uncertainty.
11 EMBRACING UNCERTAINTY

The stated objective of this thesis was to investigate whether an evaluation of expert forecasts of China’s future, and especially of the methods employed, would suggest improved analytical techniques and approaches for this formidable task. Previous chapters have explored the ways in which experts have used these methods. They have also provided a representative sampling of the spectrum of expert judgements about the major forecasting issues, identifying the major proponents and their principal arguments. From this perspective two main conclusions have been drawn, the first of which is that a high level of uncertainty inevitably surrounds most of the issues confronting China. This uncertainty compromises the effectiveness of all of the most commonly used forecasting methods. It also highlights the absurdity of expert judgements that fail to consider the merits of competing arguments.

The second main conclusion is that the crucial challenge facing China experts is to find more effective ways to respond to this prevailing uncertainty. The thesis has drawn attention to the many shortcomings of most of the traditional methods and has pointed to ways in which they can be ameliorated. But its principal recommendation is that there is considerable advantage in a forecasting approach that places uncertainty at the forefront and focuses attention on the investigation of a structured framework of critical uncertainties.

11.1 Forecasting Methods and Limitations

All methods for forecasting the futures of nations are necessarily limited by the inescapable fact that these futures are essentially uncertain. Two of the methods discussed in the thesis are central to understanding the sources of this unpredictability. First, the influence of human actors will continue to be one of the most powerful contributors to uncertainty. China’s future direction seems likely to be determined more than almost anything else by the strategies of key actors, both within China and in the countries with which China interacts. Second, unpredictable surprise factors will also inevitably continue to have a major impact, and may to a large extent predetermine the scope for human actors to shape events. Due recognition therefore needs to be given in all forecasts to the often decisive influence of human actions and surprise developments.
Of the remaining forecasting methods, trend analysis is an obvious and fundamental technique. It is readily defensible both in principle and in practice, although there has been much discussion about the perceived inadequacy of forecasts that assume the linear continuation of historical trends. By far the most controversial method, however, has been the application of expert opinion. Individual experts frequently overestimate the level of certainty that is achievable in their analysis and underestimate the scope for alternative outcomes. The chief difficulty in relying on such expert judgement is readily apparent in earlier chapters, especially in Chapter 4. This is that very different and even diametrically opposed opinions were often expressed by rival experts on the same subject. Even more strikingly, a minority of protagonists at both ends of the spectrum considered their extreme and contested opinions about future outcomes to be both certain and inevitable. The mutual incompatibility of these opinions has seriously degraded the value and credibility of the collective endeavours of China experts. They produced forecasting results that were at best mixed and at worst dramatically at variance with actual outcomes. Some forecasts were seriously misleading and even illusionary.

Many experts also relied heavily – and often excessively – on predictive theories and predictive models to help them to discern the future, and attempted to apply these theories and models to bolster the credibility of their forecasts. Predictive theories were most popular in the political, economic, and international relations domains. In virtually all cases, however, the deterministic pretensions of these theories were challenged by other experts. The latter conceded that such theories could sometimes offer useful or even powerful insights but dismissed the fanciful idea that they could be relied upon to predict the future confidently.

Predictive models were employed to forecast aspects of China’s future quantitatively, although they proved to be equally as fallible as predictive theory. Statistical models were used to forecast economic growth and the comparative size of national economies over time, as well as to project energy consumption and carbon emissions. There were many spectacular examples of forecasting failures in these areas – especially the underestimation of China’s GDP growth and of its energy and emissions trends. Few would suggest, however, that these predictive models should be abandoned entirely. When used intelligently and iteratively, and when alternative
modelling assumptions were incorporated, they often provided indispensable guidance for policy- and decision-makers. Nevertheless, there is certainly much room for improvement in modelling techniques – including by considering a wider range of variables, accepting the fallibility of multiple assumptions, and acknowledging a wider margin for error.

Scenario construction offers a potentially promising method to address the shortcomings of other approaches. Its particular merit is that it explicitly accepts the existence of high levels of uncertainty and encourages the consideration of a variety of possible alternative outcomes. It seeks to alert decision-makers to the potential for them to influence those outcomes through their future policies and actions. Scenario construction was often used to good effect by China experts, although it is debatable whether it achieved the level of impact on decision-making that its proponents envisaged. Some scenario exercises were handicapped by an understandable reluctance to assign probabilities to the diverse potential outcomes that were identified. Others were limited by a predisposition toward negative outcomes. However, when used skilfully by knowledgeable experts, scenario constructions sometimes produced useful results that stood the test of time – especially in instances where experts were brave enough to attempt to assign probabilities.

In summary, several viable forecasting methods were available to China experts. Their validity has been demonstrated, at least in principle. In many instances they produced valuable and influential assessments. None are likely to be abandoned in the future. Some of these methods are essential and even unavoidable. In combination, and when used flexibly and selectively over time, they assisted China experts to anticipate likely or possible futures and prompted others to plan and act accordingly. However, in practice they also exhibited many shortcomings. Experts often placed greater confidence in their efficacy than was justified. All of the methods proved to be fallible. These disappointing results are not surprising given the inherent impossibility of accurately predicting the future, and especially the future of such a hugely dynamic entity as China.
11.2 Experts and Uncertainty

It is evident then that if methods for forecasting China’s future have been problematical, the results of their actual employment by experts to forecast specific major issues have been even more so. It is difficult to generalise about these forecasts without appearing unduly critical of the dedicated efforts of the majority of China experts, or failing to do justice to the complexity of their reasoning. However, it is obvious that their achievements fell well short of their aspirations. Failings ranged from simplistic linear extrapolation to insufficient anticipation of non-linearities, from insufficient depth of empirical research to either conscious or unconscious bias, from excessive certitude about ultimate outcomes to sometimes overcautious even-handedness, and from unwillingness to adjust judgements in the face of persistent contrary information to an apparent aversion to considering the merits of competing arguments.

Apart from the continuing polarisation of pessimistic and optimistic forecasts about China’s overall national prospects, experts also tended to produce opposing and often equally-persuasive arguments on almost all of the specific major issues within each domain. Just as those who held gloomy or confident views about China’s national prospects could not both be right, nor could they when expressing firm but competing views on specific domain-level issues – such as the prospects for authoritarianism or political liberalisation, for national unity or social instability, for economic growth or decline, for environmental progress or failure, and for peace or conflict internationally. Collectively China experts may be able to rationalise or tolerate such ambiguities, but for policy-makers and for the many others who wish simply to be better informed it is very difficult to assess which of the competing expert views are most worthy of consideration.

It would seem logical, given the many obvious imponderables, that experts would see the need to consider future possibilities more even-handedly and to adopt a more balanced and nuanced approach. Instances of this were comparatively rare, however. More frequently, they seemed to prefer to assemble an apparent preponderance of evidence and argument that merely confirmed their particular proclivities or biases. Individual experts appeared resistant to fully investigating and presenting both sides
of an issue, before rushing precipitately to sanguine or alarmist judgements. Some seemed almost to relish gloomy outcomes and were quick to disparage those who saw scope for positive scenarios. These behaviours were typical of the traits of the opinionated and defensive hedgehogs so aptly described by Philip Tetlock. Such experts often focused their energies on “one big thing” on which they built their reputations. They refused to revise their opinions when challenged and declined to admit their forecasting failures.

This was by no means the whole story, however. Many other China experts – including probably a majority of the most experienced and professional China watchers – displayed a much greater respect for uncertainty. They were willing to consider alternative possibilities, and were prepared to adjust or qualify their views over time as new evidence emerged. For many such experts the notion of paying greater attention to inherent uncertainties was very much a matter of preaching to the converted. They often expressed considerable frustration about the sensational analyses of some of their colleagues who they felt tended to discredit their field. Their outlook was much more akin to Tetlock’s foxes who were sceptical about grand theories, more reserved in their forecasts, and willing to adjust their views as circumstances changed.

As indicated in Chapter 5, many of the most discerning China watchers favoured a view of its future that emphasised uncertainty rather than a distinctly negative or positive view. They often drew similar conclusions about the way experts should think and conduct themselves in these circumstances. This led them to make insightful attempts to summarise this distilled wisdom. For example, Josh Kerbel approved Jonathan Spence’s comment that “the more blurred and multifaceted our perceptions of China become, the closer we may be to that most elusive thing: the truth”. Cheng Li insisted that to produce rigorous and insightful assessments students of China had to acquire “the intellectual ability to live with complexity, tolerate ambiguity, and expect uncertainty”. Orville Schell admitted that he didn’t know where things were going in China because they were “always going in opposite directions at the same time”. He thought there was “no understanding the place”

780 Kerbel, "Thinking Straight: Cognitive Bias in the U.S. Debate About China.”
781 Li, "The China Paradox and American Misperceptions.", 27.
without being able to “embrace such contradictions in your head at the same time”. In this he was supported by Beijing-based blogger and keen observer of China’s unfolding scene Bill Bishop, who advised that the “most important skill” for understanding China was to master “cognitive dissonance”. Such thinking was also perhaps what led Michael Oksenberg to conclude that China was “never as good as it appears in its best moments, and never as bad as it appears in its worst moments”. 782 Jonathan Fenby attributed to sinologist Richard Baum the view that in China it was perfectly possible to “come up with an idea in the morning and find all the evidence you need to take the opposite position by the afternoon”. 783

11.3 Critical Uncertainties

The emphasis that many of the world’s most respected China watchers placed on the degree of uncertainty surrounding most important aspects of China’s future development – as evident in Chapter 5 – is striking. This persuaded me that the most constructive starting point for consideration of the domain-level expert debate in the four later chapters of the thesis on political, economic, environmental, and international issues was to treat uncertainty as the central issue and the main analytical focus. In particular, it seemed evident that the best approach was to concentrate this analysis on presenting the contrasting opinions of a representative selection of prominent experts on each of the major issues.

The frequency with which passing references to the term “critical uncertainties” were encountered while investigating the use of scenario construction in Chapter 6 prompted me to use this terminology in the analysis of domain-level uncertainties in Chapters 7 to 10. But it also seemed highly advantageous to extend the scope of this promising concept by concentrating especially on those critical uncertainties that are the most strategic and consequential for China. This approach focuses attention squarely on the decisive influence that the most potent uncertainties will have on future outcomes. As elaborated at the beginning of Chapter 7, the purpose of

783 Cited by Andrew Moody in “Making head and tail about China”, *China Daily European Weekly*, March 30- April 5, 2012. Perhaps the last word on this might be left to Mao Zedong, who in his essay “On Contradiction” observed that contradiction was “present in all processes” and that “the struggle of opposites is ceaseless”. See Mao Zedong, “On Contradiction”, in *Four Essays on Philosophy*, (Peking: Foreign Languages Press, 1968), 72.
articulating these critical uncertainties is to explore systematically the possible answers to essentially open questions about those issues that will have very high impact both for China and for the world. They can best be presented and researched as a hierarchy of domain-specific interrogative questions. These questions – revised as appropriate over time – serve both to identify the major issues under debate and to stimulate balanced and iterative consideration of opposing possibilities.

This approach was amply vindicated by the findings of Chapters 7 to 10. Side-by-side comparison of the judgements of the most influential experts on particular critical uncertainties proved to be a most effective way to expose and test the credibility of alternative outcomes. Especially notable was the conspicuous phenomenon that, rather than one expert viewpoint or another being dominant in the literature, in the case of virtually all of the critical uncertainties examined there was a respectable body of analysis supporting each of the alternative possibilities. With surprising regularity it emerged that there were strong forces arguing the case for both positive and negative outcomes. This showed convincingly the folly of experts who regularly claimed sufficient perspicacity to be able to see above the conflicting evidence and to confidently predict one outcome over another. Such over-confidence proved again and again to be presumptuous and unwarranted. This suggests strongly that experts would be well advised to pursue their research with sufficient diligence to be able to appreciate that in most instances there are in fact, and also in the literature, readily-available competing arguments that are equally-compelling and persuasive.

A further major advantage of an approach that accepts the prevalence of uncertainty is that it empowers a whole new perspective. It emphasises the reality that for the majority of issues both positive and negative outcomes are possible. Rather than creating an intolerable dilemma, this perspective has the potential to persuade experts to see uncertainty as an opportunity. It highlights the achievability of positive or desired outcomes, rather than merely negative and defeatist outcomes. It also highlights the realistic possibility that the odds in favour of positive outcomes may be increased if appropriate responses are adopted – within China, by other countries unilaterally, and through intensified cooperation between China and other countries.
The domain-level analysis of critical uncertainties in Chapters 7 to 10 showed convincingly that in almost all instances a wide spectrum of opinion was present. Experts who took a strong standpoint in their judgements about particular issues were regularly challenged by others who made competing or even opposite judgements. Moreover, the approach taken in these chapters had special value in that it directed attention not only to well-known areas of divergent expert opinion but also to some very important and less publicised forecasting endeavours that have received comparatively little attention.

In the political domain, for example, it became clear from the contending forecasts that there is no real consensus of expert opinion about the longer term prospects for China’s currently well-entrenched authoritarian system. Although in the past the CCP has proved to be sufficiently skilful at adapting the system to the demands of its citizens, many experts raise important questions about its ability to continue to adapt successfully as popular expectations evolve and escalate. Most experts agree that China’s future political direction will be decided primarily by internal forces, and that it is unlikely to duplicate Western-style democracy. But whether continued insistence on its monopoly of political power will allow the CCP to maintain a sufficient level of legitimacy in the face of endemic challenges (such as pervasive corruption and inequality) is considered by many to be more doubtful, even though most would concede that major political instability is unlikely at present given the CCP’s vigilance and counter-measures. Most experts assess that some form of authoritarianism regime will probably continue, but others see potential for greater liberalisation and a surprising number still see at least a long-term prospect for full-blown democracy. These contradictory findings undermine the confidence that can be placed in analyses that imply either that the CCP’s future is secure or that its eventual demise is inevitable.

In the economic domain uncertainty was also shown to be uppermost. It is true that China’s capacity for economic management has been repeatedly underestimated, but whether the regime will continue to perform at the level required is still a major question. Will the leadership succeed in overcoming powerful vested interests in the Party-state as well as in big business, and transition to a new economic model that will deliver somewhat slower but higher-quality growth? Most experts expect at least
mixed success, but a minority foresee a sharp decline in economic growth. There also remains a substantial level of scepticism among outside experts about when – or even whether – China’s GDP will overtake the US, despite that fact that even with slower growth it appears to be rapidly closing the gap. Many economic experts are also surprisingly reluctant to accept the significant arguments in favour of using purchasing power parity rather than fluctuating market exchange rates to compare China’s economy with the US, which would mean that the gap will close even more quickly. But those experts, including in China, who point out that this would still leave its per capita income far below the US, highlight a significant limitation on China’s future capability.

Expert forecasts about prospects in the remaining two environmental and international domains have often been notably pessimistic. Outside China, popular expectations of its future environmental performance are typically low. Its past performance is considered to have been very poor, its current environmental impact is considered to be alarming, and its ability to turn that situation around is regarded very sceptically. This popular assessment is shared – and for good reason – by many experts, who are aware of the reality that China is now by a considerable margin, the largest contributor to global carbon emissions as well as the biggest contributor to the growth of those emissions.

There is comparatively little appreciation, however, of China’s impressive and determined efforts to constrain its emissions and even possibly to cause them to peak within the next one to two decades. Such research is mainly a preoccupation of quantitative forecasters who have devoted their attention to this specialised subject. Popular and even expert perceptions of China’s environmental measures are handicapped by considerable ignorance and inattention. It seems compelling that significantly more attention needs to be paid to further evaluation of the crucial question as to whether China’s environmental counter-measures will have sufficient impact to rein in its still rapidly expanding emissions. In addition, it seems obvious – in the self-interest of all parties – that China’s positive steps to date should be given considerably more encouragement and support by the international community.
In the international domain, current trends are also of great concern. The overwhelming interests of China, the United States and other countries in cooperative future relationships remain at risk of being undermined by a slide toward distrust and rivalry, and even by the possible development of an intense strategic competition with potentially disastrous consequences. Powerful influences are at play that are exacerbated – on all sides – by historical narratives, nationalism, exceptionalism, territorial disputes, military expansion, and perceptions of relative power. This trend may be temporary but even if fences can be mended there is likely still to be considerable room for future misunderstandings, miscalculations and military confrontations that will need skilful management and a new emphasis on improved communications, power-sharing, and alleviation of strategic distrust.

The expert debate about these international uncertainties is intense and prolific, both inside and outside China. Many recognise that both competition and cooperation are likely, and that a delicate balance will be required. Others are distrustful and pessimistic. They are concerned that conflict is a real possibility, whether caused by accident or as a deliberate instrument of policy. At the other end of the spectrum some experts might be considered unduly confident about the prospects for cooperation, even though that path seems by far the most beneficial for the national interests of all concerned. In any case it is clear that uncertainty – and disagreement among experts – is equally characteristic of the international domain as it is of other domains.

To summarise, the diversity of expert opinion revealed in Chapters 7 to 10 confirms the major benefits to be expected from an analytical framework based on the balanced assessment of these critical uncertainties. This means relying less exclusively on individual expert opinion and much more on consideration of the diverse opinions of different experts. This framework for analysis accepts realistically that on most major issues the trend of future developments is undetermined. Most of the issues still hang in the balance and can be influenced in one direction or another, especially by alternative strategies and human interventions in both China and other countries.
These conclusions lead to another, namely that a more *collective* approach to expert analysis of critical uncertainties is warranted. Efforts to bring experts together to synthesise different viewpoints, while respecting individual judgements, would permit a more integrated approach for the evaluation of disparate expert forecasts. This approach could usefully include periodic Delphi-like exercises to attempt to identify areas of expert consensus or dissensus on key issues. A more *institutionalised* approach in support of such collective endeavours also seems likely be beneficial. It is possible to envisage, for example, the establishment of new research centres (or virtual centres) dedicated to iterative and structured research about China’s future, based on a developing framework of critical uncertainties. There are currently few examples of academic or other public institutions that devote their attention primary to such macro-level research on possible national futures – either for China or for other key countries.

Without claiming that the approach recommended in this thesis for the investigation of critical uncertainties is the *only* right and proper way forward for studies of China’s future, I believe it has shown convincingly that this approach nonetheless offers a positive and effective way forward. At the least the findings presented lead overwhelmingly to the conclusion that an approach that willingly embraces the essential uncertainty of critical future outcomes in China is bound to be greatly superior to reliance primarily on the extremes of individual expert opinion.

**11.4 Beyond Dominance and Collapse**

Accepting and respecting the reality of major and continuing uncertainty about China’s future prospects has several advantages. First, it offers a way to transcend a simplistic, sterile, divisive, and unproductive optimist-pessimist debate. Both optimistic and pessimistic scenarios are, in their extreme forms, equally questionable. The possibility that China might become dominant in its own region and even in the world, or that its multiple challenges might cause it to collapse, are both difficult to dismiss completely. Both are essentially plausible if based on generous assumptions. But mixed outcomes seem much more likely. Most of the more extreme pessimistic or optimistic scenarios would require a rare combination of uniformly negative or uniformly positive influences. They appear equally unlikely to eventuate.
With regard to pessimistic scenarios, most would need to assume serious mismanagement and that expected counter-measures would prove ineffective. However, the incentive to adopt effective counter-measures would be enhanced, or accelerated, by the fact that both dominance and collapse would have very negative consequence for both China and the world. The idea that China will have the inclination and ability to achieve complete dominance, even in its own region let alone globally, seems far-fetched. It seems more likely that such dominance would be widely and probably successfully resisted if it went too far – in much the same way that the dominance of the United States, even as a unipolar superpower, has been widely resisted. China’s dominance – whether politically, economically, culturally, or militarily – would arouse vigorous opposing forces and coalitions. It would also be completely contrary to China’s repeatedly declared intention to eschew hegemony, foster peaceful international relationships, and avoid interfering in the internal affairs of other countries.

What then of the prospects for China’s collapse, another equally unappealing and destabilising outcome? Just as complete dominance seems inherently improbable, complete collapse is also a very questionable concept. The views of pessimists who keep alive such prospects are admittedly difficult to dismiss completely. The possibility of political collapse certainly cannot be ruled out. After all it has happened elsewhere, including in the case of the Soviet Union. But China’s leadership appears very conscious of that scenario and determined to avoid its repetition. Given the apparent strength of their position and achievements and the vigilance of the internal security apparatus, we should perhaps not be too quick to anticipate the regime’s early demise. Experience elsewhere has shown that change if it comes may come precipitately, but total collapse still seems unlikely. More probable could be a temporary economic slowdown, followed possibly by longer-term stagnation or even decline. But wholesale economic collapse seems likely to be averted if even only partly-effective corrective measures were taken.

Excessively optimistic scenarios that see China’s rapid rise continuing uninterrupted also require a questionable array of assumptions to be realised. Some experts, including increasingly in China, appear to assume or be hopeful that its power will continue to grow until it becomes the number one country not only economically but
also in a combination of other measures. But such optimism is offset by the growing number of others who argue persuasively that such ascendency would need to assume that China will be able to successfully address a lengthy and daunting list of vulnerabilities. Many of these experts see these vulnerabilities as so challenging that they must eventually drag down China’s performance.784

No matter how eager experts are to produce forecasts about China that polarise in one direction or the other, uncertainty will continue to reign. Acceptance of uncertainty may seem to equate to self-defeating and intolerable fence-sitting, and indeed there is always likely to be some value in a vigorous debate based on competing viewpoints. But uncertainty, where it is real, is not without advantages. In a situation where outcomes are not predetermined there may be vitally important opportunities for appropriate intervention to shape events in new and positive directions.

Rather than concentrating attention on the competing claims of equally-problematic optimist/dominance and pessimist/collapse scenarios, a more credible and useful approach might be to construct two new scenarios by amalgamating, first, the potentially positive and, second, the potentially negative developments that might conceivably arise from the unfolding of the critical uncertainties examined above in each of China’s four domains. This would make it possible, for illustrative purposes, to paint either a very positive or a very negative portrait of China’s overall future.

In a positive future China might allow the steady growth of political liberalisation at a pace consistent with internal stability, overcome vested interests and transition to a more equitable and durable economic model, accept fully the imperative of sustainable environmental development and act with courage and determination to accelerate the emergence of a low carbon economy, and successfully contain excessively nationalist influences to re dedicate itself to a strategy centred on peaceful development and harmonious international relationships. In a negative future, at the other extreme, we might see a combination of a stubbornly authoritarian power that resists internal political reform, a declining economy unable to transition to a more

784 In addition to sources cited in Chapter 5, see Timothy Beardsley, Stumbling Giant: The Threats to China’s Future (New Haven, CT: Yale University Press, 2013), 434-435.
viable development model, uncontrolled growth that overwhelms efforts to achieve environmental sustainability, and an imperious and xenophobic regime determined to pursue an expanding international agenda of inflexible core interests.

These polarised alternative outcomes are caricatures of two of the most extreme of China’s possible futures, but neither is completely implausible. They serve to illustrate not just the frequently cited negative possibilities but also – and much more importantly – the scope for a combination of positive outcomes that would be enormously beneficial not just for China but for the world. This set of positive outcomes – many of which are already reflected in China’s official policy formulations – is likely moreover to be eminently achievable if China and other countries are able to envision their feasibility and vigorously encourage their realisation. In this equation, a critical influence will be the behaviour of the various national and sub-national actors within both China and other countries. Negative perceptions breed negative outcomes whereas constructive and positive perceptions, and a willingness to foster their actualisation, are likely to increase the chances of positive outcomes. In short, with skilful management and accommodation on all sides there seems no good reason to be unduly pessimistic about China’s national development and international engagement, especially if appropriate attention is paid to embracing and shaping the essential uncertainty of future circumstances.

In such an environment China experts will have a major and continuing role to play in alerting decision-makers and the public to potentially positive, as well as negative, outcomes. Experts can assist to identify not only likely futures but also normative futures that are not so much likely as desirable. It may be useful to think in terms of default futures that arise from perceptions that the future is determined by fate or destiny, and created futures that can be promoted by proactive strategies that see destiny as a product of choice and human intervention. Default futures are likely to be realised when only one potential future is considered, while created futures may be realised by being mindful that alternative and more beneficial futures are achievable.

It is difficult to foresee how China’s – and the world’s – pressing economic, environmental and security problems can be addressed without such a reorientation
of thinking. This is especially so given that the problems of the twenty-first century seem very likely to be considerably more challenging than those of the twentieth. In this current century it is increasingly persuasive that interdependence between countries is an inescapable fact, and that the ability of both experts and policy-makers to manage and exploit the continuing uncertainties of this interdependent environment will be decisive.
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