1 Introduction

This book probes the relationship between a country's international competitiveness and its people's cultural beliefs and practices, with economic growth providing the critical linchpin in this relationship. Although couched as a general proposition for different countries at different times, the book's analysis focuses on China and the United States, the world's current largest economies. It tries to gain a better understanding of how these countries' respective culture is likely to affect their future growth prospects and therefore their respective position in the interstate hierarchy.

Discussions of a culture's influence on a country or group's economic and other kinds of performance (such as academic achievements) can be controversial, even though there has been a long tradition of such scholarship with Max Weber's (1998) work on the Protestant ethic offering perhaps the best-known example. Yet, studies of generally shared cultural traits and their purported effect on national or group achievements have become rarer in recent years, and these studies have often encountered criticisms of racial stereotyping and even racism (e.g., Chua 2011; Chua and Rubenfeld 2014).

Such criticism is in my view undeserved even though perhaps understandable. As someone who has been sharply critical of prevailing scholarly and even popular narratives referring to the power-transition view of international politics and the danger ostensibly presented by such transition (dubbed Thucydides's Trap by Graham Allison 2017), I can see how views that may appear to some as natural and even obvious can strike others as simplistic and even outrageous. This kind of reaction, however, should not prevent us from engaging in an open, honest, and vigorous debate about the validity of those ideas being presented.

To be clear, I view explanations of social, economic, cultural, or political phenomena relying on any single variable with skepticism. Monocausal explanations, including those seeking to explain the

https://doi.org/10.1017/9781009465540.001 Published online by Cambridge University Press

occurrence of wars (such as the account given by so-called Thucydides's Trap), cannot capture the complexity of these phenomena. Thus, for example, there are multiple paths to war, often involving complicated interactions and feedback loops among multiple variables (Levy and Thompson 2010a).

This observation also applies to cultural explanations of economic growth. Moreover, cultural traditions often present diverse and even contradictory features, and they are apt to evolve and change over time. Obviously, not every person who is supposed to belong to a cultural group will necessarily subscribe to all the beliefs and values attributed to this group. Most importantly, these beliefs and values interact with other variables, both shaping and being shaped by other pertinent conditions. Thus, for example, the supposed Confucian values of thrift, hard work, and commitment to education cannot in themselves explain why overseas Chinese in Southeast Asia have prospered but China has been beset by economic backwardness during its century of humiliation at the hands of Western and Japanese imperialists as well as economic underperformance under communism until the reforms introduced by Deng Xiaoping in the late 1970s.

I offer these caveats at the outset, realizing that there are bound to be controversies over explanations on how a country's cultural ethos affects its rise and fall in international relations. As just mentioned, this ethos is not fixed or stagnant. It changes and is hence an important part of the story of changing national competitiveness affecting countries' international ranking.

The debate over whether institution or culture is more decisive in influencing economic growth is sterile. Clearly, both are relevant. Moreover, institutions can influence culture, just as culture can influence institutions. Therefore, there can be a two-way causal relationship between culture and institutions, such that "In the case of China, its collectivist Confucian culture may have been more compatible with an authoritarian political system, and the long-lasting historical institution of imperial civil examinations was probably responsible for China's extraordinary cultural emphasis on education" (Zhu 2021: 166). Confucian culture might have contributed to the relative effectiveness of China's government and its policies, at least so it appears in comparison with other developing countries and former socialist countries.

There are also reciprocal influences and feedback loops between institutions and culture on the one hand and economic development on the other. The world does not operate in neat compartments delineated by academic disciplines. As Ronald Inglehart (1997: 217) notes, "Both societal-level and individual-level evidence suggests that a society's economic and political institutions are shaped by cultural factors as well as economics."

That culture and the economy have a relationship of reciprocal influence should be evident in much of this book's discussion. I endorse the general idea, originally suggested by Max Weber (1998) over a century ago and subsequently by scholars such as David McClelland (1961), that cultural impulses and dispositions play a large role in economic growth as in the case of the Protestant ethic in Europe's economic development. I also subscribe to the view that economic development can in turn influence a society's cultural outlook, such as the shift from materialist to postmaterialist values documented by Ronald Inglehart (1990, 1997, 2004). Indeed, these ideas represent important themes for a major part of this book's argument.

Because culture is the product of a long evolutionary process and represents a country's heritage, I focus on this variable even though I acknowledge the indispensable contributions of institutions and the economy itself to growth. Naturally, culture, institutions, and the economy not only influence each other but are also influenced by other factors such as geography and climate. There is the inevitable chicken-and-egg question about whether culture, institutions, or the economy is causally prior. I engage in cultural explanations in this book because even though cultural norms and practices can be in the first place influenced by geography and climate, they are in my view antecedent to the creation of social and political institutions and the operation of modern economy (e.g., Acemoglu and Robinson 2012; Diamond 2017; Inglehart 1997, 2004; North 1990; Sachs 2003). Again, this is not to argue that these norms and practices are immune from institutional and economic influences. They are not, and coevolution describes best their overtime interactions.

There is by now a large and growing literature on the shifting power balance between China and the United States (e.g., Beckley 2011–2012; Brooks and Wohlforth 2016a, 2016b; Buzan 2004; Chan 2023; Starrs 2013; Tammen et al. 2000). One common feature of these studies is the prognostication of these countries' relative power and therefore their international status in the coming years. This book shares this interest in trying to understand those forces capable of transforming the structure of interstate system. The most important force is in my view domestic economic growth, which is necessary to support and sustain a country's international position. Economic growth, however, is itself driven primarily by a country's capacity to invent and innovate and by its ability to pioneer leading industries that drive its own economy as well as the world economy forward.

The book's agenda therefore reflects a simple premise consisting of two propositions. These propositions suggest that a country's culture affects its economic growth, which in turn buttresses and determines its international standing as indicated by its power relative to its peers. According to this reasoning, shifting power balance at the interstate level is largely a result of states' relative domestic economic performance which is in turn influenced by their respective cultural practices and institutions as well as by their ability to advance the scientific and knowledge frontier.

This framing of the book's agenda reflects a concern with a serious disjuncture in current scholarship. The fields of economic development and international relations have largely remained separate to their mutual detriment. As William Thompson and Leila Zakhirova (2019: 30) have noted, scholarship on "economic development often tends to be too inward-oriented. International relations [scholarship] often does the opposite, neglecting critical internal changes." This book therefore joins several notable past studies (e.g., Gibbon 2000; Gilpin 1981; Kennedy 1987; Modelski 1987a, 1987b; Modelski and Thompson 1996) in attempting to address this "missing link" in the discourse on the rise and fall of great powers.

All three variables (shifting power balance, domestic economic growth, and cultural proclivities) are not fixed. Thus, for example, Protestant Americans have not done as well economically as other groups in recent years. "Today, American Protestants are below average in wealth, and being raised in an Evangelical or fundamentalist Protestant family is correlated with downward economic mobility" (Chua and Rubenfeld 2014: 8), even though in Max Weber's (1998) classic analysis the Protestant ethic had provided the key driver for capitalist development. Recent survey data from cross-national research tend to confirm this pattern characterizing differences among groups living in the same country (in this case, the United States). They show that with their rising level of affluence, people in the advanced Protestant economies have become less achievement oriented. "The

https://doi.org/10.1017/9781009465540.001 Published online by Cambridge University Press

achievement scale correlates negatively with the percentage of Protestants in a given country, meaning that the more the Protestants, the lower the level of achievement motivation" (Lipset and Lenz 2000: 121). This phenomenon teaches us that cultural values are not static and can in fact change significantly over time.

As just remarked, this book tries to link a group-level phenomenon (cultural proclivities) to a national-level outcome (economic growth), and this national-level phenomenon is in turn linked to the international-level outcome of competition among members of a small, elite club of great powers. Cultural dispositions' evolution and national economies' fluctuations make it possible to link them to the rise and fall of great powers throughout history (e.g., Chatterjee 2016, 2021; Chua 2007; Gibbon 2000; Kennedy 1987; Modelski 1987a, 1987b). Naturally, those topics of interest to social scientists, including this book's subject matter, are too complex to be captured by monocausal explanations. Therefore, the two-step analytic argument just presented is not meant to suggest that other factors are irrelevant to a country's economic growth or interstate ranking. As I have already said, these outcomes are usually produced by interactions involving multiple variables. My argument rather highlights the influence of cultural practices and institutions on economic growth, and the importance of economic growth in influencing a country's relative position in the interstate hierarchy.

As already mentioned, cultural explanations of economic performance have a distinguished pedigree even though their popularity has declined in scholarly discourse in recent years. Max Weber's (1998) study of the Protestant ethic producing in his time the superior economic performance of Protestant countries relative to their Catholic counterparts remains the iconic classic of this genre of scholarship. Other scholars, such as David McClelland (1961), have also pointed to national ethos based on a common psychological need to achieve as the main driver behind economic dynamism and achievement. Still others, such as Marion Levy (1954), have shown cultural or social institutions such as primogeniture to be an important factor contrasting China and Japan's early experiences in pursuing economic modernization.

Although not focusing strictly on the relative economic performance of countries, other authors have written persuasively that culture makes a large difference in a society's level of interpersonal trust and its people's feelings of political efficacy. For example, Edward Banfield's (1958) classic study of southern Italy shows its people's

https://doi.org/10.1017/9781009465540.001 Published online by Cambridge University Press

pervasive sense of mistrust of strangers and political institutions, with serious deleterious consequences for that country's social cohesion, political integration, and economic growth. Gabriel Almond and Sidney Verba's (1963) comparative study of the civic culture in five countries (the United States, Germany, Mexico, Italy, and Britain) represents another pioneering work on people's political attitudes, beliefs and values that have a direct causal impact on the health of and the prospects for their respective democratic institutions. More recently, another study of Italy's political culture by Robert Putnam (1993) has also been influential. It again emphasizes the importance of social trust in encouraging economic development and building democracy. Writing as economic historians, David Landes (1999: 517) argues that "culture makes all the difference" in explaining economic development, and Joel Mokyr (2016) points similarly to cultural changes in Europe during 1500–1700 as a precursor to this continent's industrialization led by Britain.

In recent years, many scholars have pointed to East Asia's Confucian heritage as the chief explanation of this region's exceptional economic growth (e.g., Hamilton and Kao 1987; Hofstede and Bond 1988; Kahn 1993; Tu 1996, 2000; Zhu 2021). This tradition's emphasis on education, thrift, and hard work have also been invoked to explain the academic and economic attainments of Asian immigrants and their children in the United States (Chua 2011). Importantly, these elements accounting for socioeconomic success as conventionally defined are not confined to the Chinese and other East Asians with a Confucian heritage. Other groups with these cultural traits, such as people who emigrated to the United States recently from Cuba, India, Iran, Jamaica, Lebanon, and Nigeria, have also outperformed native-born groups in their academic and economic pursuits, even though they do not enjoy the usual socioeconomic advantages that favor established, affluent, white families in these pursuits (Chua and Rubenfeld 2014).

The United States has the world's best medical facilities and personnel, but in addressing the challenges posed by the Covid-19 pandemic it has done much less well than countries with a smaller resource base but a greater political capacity. Even though they represent only 4.2% of the world's population, Americans accounted for 18.8% of all the infection cases and 15.8% of all the fatalities caused by this virus as of February 15, 2022 (www.google.com/search?channel=cus5&client=firefox-b-1-d&q=covid+cases+worldwide).

Francis Fukuyama (2020) suggests that three factors are responsible for this poor performance: leadership, social trust, and policy (or political) capacity. The US political culture as reflected by its relatively low level of social trust is an important part of the explanation for its relatively poor performance in coping with this pandemic. There was widespread skepticism about the efficacy of vaccines to protect against this virus and mistrust of scientific advice and government mandates. As noted by Fukuyama, however, other factors also played a part in the high incidence of infection and death in the United States. Thus, culture alone does not tell the full story. Still, American travelers to East Asia cannot but notice that practically all people there still wear face masks at the time these words were written (March 2023), whereas practically all Americans have given up this practice even when they are in crowded public places.

Chapter 2 reviews the literature connecting cultural proclivities to economic performance. This review also includes studies of the influence of a country's culture on its political order and identity. Karl Wittfogel's (1957) analysis of hydraulic societies provides an example. He argues that large construction projects to control flooding and provide irrigation required a centralized authority and a large bureaucracy to direct and mobilize collective effort, which in turn gave rise to an authoritarian tradition in societies such as China's (a view shared by Landes 1999: 27–28). Confucian culture's hierarchical ordering of social and political relations has led others such as Lucian Pye (1967, 1968; Pye and Pye 1985) to argue that the Chinese (but also other Asians like the Burmese) tend to seek and defer to authority figures. Similarly, according to Richard Solomon (1972), the socialization experiences of the Chinese people, especially their child-rearing practices, dispose them to authoritarian rule. More recently, Samuel Huntington (1996) has written about the clash of civilizations, pointing to the importance of cultural values and religious identities in shaping international relations.

The studies mentioned in the above paragraph do not pertain directly to the economic performance of different countries, but they are nevertheless relevant to this performance because political institutions and government policies naturally have cultural roots. Therefore, culture can influence economic performance indirectly by this avenue. Various studies of East Asia's newly industrializing economies (NIEs) have sought to explain their rapid growth (e.g., Amsden 1989; Berger

https://doi.org/10.1017/9781009465540.001 Published online by Cambridge University Press

1988; Chan 1993; Chan and Clark 1992; Deyo 1981, 1987; Gereffi and Wyman 1990; Gold 1986; Haggard 1990; Haggard and Moon 1989; Johnson 1982; Jones and Sakong 1980; Krause 1988; Rabushka 1979; Rodan 1989; Vogel 1979; Wade 1990; Woo-Cumings 1991, 1999; Zhu 2021).

Those political institutions and government policies hypothesized to promote economic growth should be embedded in and compatible with the relevant countries' existing social and cultural norms (Evans 1995). Naturally, institutions and policies facing resistance or headwinds from existing social and cultural norms are more likely to fail than others that have the advantage of these norms working as tailwinds. One is reminded of Joseph Stalin's remark that imposing communism on Poland was like fitting a saddle onto a cow.

In Chapter 2, I also review the evidence on variations of academic and economic success among different ethnic groups living in the United States. It asks why certain immigrant families, such as those with a Confucian heritage, tend to perform better on conventional measures of such success. Of course, overachievement as thus defined is not limited to immigrant communities, as the remarkable socioeconomic attainments by the Mormons and Jews attest. What are the ingredients of these groups' recipe for success? Socioeconomic privilege does not explain their and other ethnic communities' achievements as many of their members had come from poor families with little education and were often refugees fleeing political persecution or economic hardship in their home countries. Not surprisingly, this discussion leads to the conclusion that those societies that have historically tolerated diversity and welcomed immigrants have benefited from their presence, especially from the professional skills and entrepreneurial élan brought by these immigrants.

I argue that many common explanations of East Asian NIEs' economic success should also, in principle, apply to other developing countries whose economies, however, have grown much more slowly or have even declined in some years. For example, low labor cost is a common condition characterizing developing countries in general, and export-led growth is a strategy that can, in theory, be adopted by all countries. They might have encouraged or facilitated the East Asian NIEs' economic development, but they are only the proximate causes for this phenomenon. What are the ultimate causes that enable the East Asian NIEs to take advantage of such conditions or strategies, and thus account for their much better economic performance compared to the rest of the developing world?

The pertinent discussion in Chapter 2 sets the stage to inquire about those traits that separate the East Asian NIEs from other developing countries – and, moreover, those traits that are shared by these NIEs, giving rise to the phenomenon that these fast-growing economies have been clustered geographically in East Asia. At the same time, this chapter asks why, with a few exceptions consisting mostly of resource-rich exporters like Botswana and the United Arab Emirates, the rest of the developing world has not been able to attain similar rates of economic growth. This chapter also engages institutional explanations of economic growth, suggesting that these explanations can be limited and inadequate just as an exclusive reliance on cultural explanations can be unsatisfactory.

In Chapter 3, I turn to a discussion of how economic changes can bring about cultural changes, focusing especially on the transformation of a society due to the replacement of its older generations with materialist values and attitudes by younger cohorts with a postmaterialist orientation. Economic affluence has the effect of encouraging people to assign greater priority to concerns about self-expression, personal liberty, socioeconomic equity, quality of life, and environmental protection relative to emphasizing the pursuit of further economic growth and more material rewards at the expense of these postmaterialist values and attitudes. People in China and the United States show important differences in their tendencies to subscribe to these materialist and postmaterialist views.

Led by Ronald Inglehart (1990, 1997, 2004; Inglehart and Baker 2000; Inglehart et al. 2004; Inglehart and Welzel 2005), survey research in recent decades has produced and compiled systematic data on mass attitudes and values in different countries and at different times. These data demonstrate a process of culture shift whereby young people who grew up during years of economic abundance are likely to hold postmaterialist attitudes and values that emphasize self-expression and personal liberty. In contrast, their older cohorts, especially those who grew up during times of economic hardship or political turmoil, tend to have attitudes and values that place a premium on the pursuit of materialist objectives such as high income and job security.

As countries such as China and the United States are at different phases of economic development, their people tend to show different levels of support for materialist and postmaterialist concerns. China, being an economic latecomer and at an earlier stage of economic development, has a larger portion of its people expressing materialist interests than the United States. In educating their children, Chinese parents tend to emphasize more the virtues of thrift, hard work, and self-discipline. They and their children are also more likely to attribute differences in personal performance, such as a student's test scores, to work ethic, whereas, in contrast, Americans tend to explain these differences in terms of people's natural talent. Given the different distribution of materialist and postmaterialist attitudes and values among societies, we would expect their respective prospects for economic growth to vary at least in the short to medium term. Chapter 3 reviews the available evidence pertaining to culture shift over time and across countries, and it discusses the political and economic implications of this shift.

Naturally, when people in a country hold sharply different attitudes and values about God, family, country, and other matters, these differences are likely to affect its politics. These differences affect and indeed define people's self-identities, which can be even more politically potent and salient than their perceptions of their economic self-interests. The British people's vote to leave the European Union appears to present such an example. As I wrote these words, French protesters were marching against their government's decision to delay their retirement age from 62 to 64. In contrast, my acquaintances in China, Hong Kong, and Taiwan were making changes in their lives and careers because they wanted to continue working beyond the government's mandate to retire by the age of 65.

The "culture war" that has divided US politics presents another instance of cultural differences. Political conflicts over issues such as the legality of school prayer, appropriateness of academic curriculum (such as the teaching of so-called critical race theory), access to abortion, and transgender and gay rights reflect people's self-identities more than their economic self-interests. Whether admission to prestigious universities in the United States should be based only on academic attainment or whether these decisions should include the goals of diversity and inclusiveness shows another sociopolitical disagreement related to the political and cultural divisions separating Americans with different emphases on materialist and postmaterialist attitudes and values. Compared to the United States, there is less controversy in China over such issues, because China is dominated by a much larger majority with a materialist inclination.

People in East Asia share many similar values and attitudes. As a result, China, Japan, and South Korea consistently cluster together to present a separate, distinct group of countries in multivariate factor analyses undertaken by Inglehart and his colleagues. Thus, those values and attitudes associated with high socioeconomic achievements by ethnic or religious groups living in the United States are also found at the level of cross-national patterns in the World Values Surveys. This correspondence or convergence of evidence is significant, and it provides a more compelling explanation, one based on their shared cultural heritage, of the economic growth and dynamism shared by different East Asian economies in recent decades.

In Chapter 3, I also attend to various common explanations of China's rapid economic development, and I show why most of them are unsatisfactory. By a process of elimination, cultural explanation again seems to offer the most compelling account although it too is not without flaws. This explanation has an advantage of helping us to understand not only China's economic development but also that of its East Asian neighbors. Other explanations, such as those based on institutions, have a more difficult time in accounting for this regional phenomenon because the relevant economies have featured a variety of institutions.

The discussion in Chapter 4 turns to the question of why great powers in the past have risen and fallen. Although multiple factors have surely played their respective part in this phenomenon, I emphasize especially a country's ability to grow and sustain its economy. Paul Kennedy (1987: 439) notes, ". . . all of the major shifts in the world's *military-power* balances have followed alterations in the *productive* balances; and further . . . the rising and falling of the various empires and states in the international system has been confirmed by the outcomes of the major Great Power wars, where victory has always gone to the side with the greatest material resources" (emphases in original).

Rafael Reuveny and William Thompson (1999) have examined extended longitudinal data (1801–1992) for the United States, seeking to identify the sources and bases of its strength as the system leader in the modern era. Their model includes four variables: the US rate of growth in the leading sectors or industries of the pertinent time period (e.g., cotton and iron; railroads; steel, chemicals, and electricity; motor vehicles and electronics; and aerospace and information technology for successive technological and industrial eras); the US share of the global aggregate production in the leading sectors or industries; the US capability for global reach as measured by its naval strength; and finally the US level of military preparation as indicated by its military personnel as a percentage of total population. The first two variables just mentioned form an economic block, and the last two variables form a military block. In line with Kennedy's argument, the economic block influences the military block more than vice versa. In other words, technological innovation and a dynamic economy based on pioneering industries provide the wherewithal for global reach, military mobilization, and world leadership.

Put in a different way, the United States' position as the world's leader has been buttressed and sustained by its capacity for technological innovation and its strong economy. Although naval prowess and military mobilization also matter as supporting pillars for US preeminence, they are less important than technological innovation and economic growth that provide their backing. Moreover, the whole is more important than the parts, which is to say that US power has reflected a coherent and tight structure with mutually supporting elements. As described by other observers of the structural power of the United States (e.g., Chan 2023; Strange 1987), this ensemble makes it difficult for other countries to resist its influence or to challenge its preponderant position. Thus, Reuveny and Thompson (1999: 570) conclude, "A very tight coevolutionary pattern is found to characterize the economic growth-systemic leadership-military mobilization experience of the United States, thereby underlining the constraints of structural change."

One can also postulate a reverse process to the one just described. As stagnation and decline set in, a country's economic resources face increasing pressure coming from its domestic needs and foreign missions. This process is apt to become more acute over time, and it may thus compound the various challenges resulting in an acceleration of economic decline. A country facing these challenges will have to confront difficult choices such as whether to retrench and reduce its foreign commitments lest it commits the error of imperial overstretch (Kennedy 1987; MacDonald and Parent 2011, 2018a, 2018b). This latter concept refers to an imperial power's overtime decline because it

https://doi.org/10.1017/9781009465540.001 Published online by Cambridge University Press

took on more and more foreign missions beyond its available resources to fulfill these missions, leading eventually to its exhaustion and even collapse.

Wars of conquest may add to national strength, but they may also sap a country's energy, deplete its resources, engender domestic opposition, and distract government officials' attention from pressing imperatives to undertake economic and political reform. When a country takes on more foreign commitments than its available resources can afford, it runs the risk of imperial overstretch which can in turn accelerate its decline both at home and abroad (Kennedy 1987). A far safer and more reliable way to secure upward mobility in the interstate system is for a country to improve and grow its economy. A vibrant domestic economy supports and sustains a country's robust policy abroad, including providing it with the wherewithal to maintain a strong military establishment.

Significantly, the rise and fall of great powers in the past have always been associated with the outcomes of wars or conquests. For instance, the United States and the USSR became the dominant powers on the world stage after World War II had reshuffled the interstate pecking order. In earlier eras, Portugal, the Netherlands, Britain, and other imperial and colonial powers including Russia, France, Japan, and the United States joined the club of great powers in part by winning foreign wars and acquiring overseas territories (such as the Spanish-American War that led to the annexation of Guam and Puerto Rico and the colonization of the Philippines by the United States). Significantly, China's rise since the late 1970s presents the first time in modern history that an emergent power has reached the front ranks of interstate hierarchy due exclusively to the growth and expansion of its domestic economy.

Economic growth can buttress and enhance a country's foreign position, and, conversely, economic stagnation and decline can enfeeble it and weaken its global position. Moreover, and as implied already, there can be a reciprocal causal relationship between a country's domestic economic performance and foreign position. Whereas a strong domestic economy provides the most important source of strength when dealing with foreign competitors, a failure to adjust a country's foreign profile (or its self-perception of its proper role and position in the interstate system) according to its available resources can hurt its prospects for domestic growth. The existing literature on the guns-versus-butter trade-off warns us that expenditures intended to support or sustain a country's international status and position (such as its military spending and its commitments to defend foreign allies) can come at the expense of its welfare programs as well as its level of savings, investment, and human capital necessary to promote future economic growth (e.g., Chan and Mintz 1992; Russett 1969, 1970).

Researchers of international relations and especially those who study power shifts in these relations have looked at different indicators of national power. There is a considerable body of studies debating about how to define and measure this variable (e.g., Baldwin 1979, 2016; Beckley 2018; Boudon and Bourricaud 1989; Chan 2023; Cline 2002; Hart 1976; Kugler and Arbetman 1989; Merritt and Zinnes 1988, 1989; Nye 1990, 2002, 2004; Rauch 2017; Shifrinson and Beckley 2012–2013; Singer et al. 1968; Snider 1987; Strange 1987; Taber 1989; Tellis 2015; Wrong 1995). However, despite specific differences that distinguish their views, there is a general agreement among scholars that gross domestic product (GDP) is the single best quantitative measure of national strength. The growth of GDP is in turn influenced by a country's labor productivity, its investment in physical assets and human capital, and its capacity to innovate and advance the scientific and technological frontier.

There is consensus among social scientists about the validity of the above generalization. One may, however, question whether labor productivity, a proclivity to invest, and a capacity to innovate should be taken as a given rather than treated as variables whose origins should be investigated. Put in other words, are the factors just mentioned only the proximate causes of economic growth, for which the ultimate causes deserve to be investigated more thoroughly? What can incline a society to work harder, save and invest more, and engage in successful innovation? Why do some societies exhibit these tendencies more than others? Although economic growth may beget more economic growth, there is a limit to treating this phenomenon endogenously. Technologies inevitably diffuse, and competitors catch up. What exogenous factors can make a difference? We know from history that countries that used to command an impressive innovative capacity and a dynamic economy have subsequently suffered prolonged stagnation and even sharp decline. For instance, China during the Southern Song dynasty was the world's economic and technological leader, but in the subsequent centuries it was overtaken by other countries. Similarly, the

Netherlands lost its leadership position to Britain, and Britain in turn lost it to the United States.

The relevant questions about power shifts in the interstate system concern the relative performance of a country's economy and the relative effectiveness of its foreign policy. It is not just about how fast a country's economy is growing that matters but rather how this growth compares with its peers and competitors. Naturally, states at different stages of development tend to grow at different average rates or speeds. Those that start from a low base and enjoy the so-called advantage of being backward (Gerschenkron 1966) should be able to expand their economy at a faster rate, everything else being equal. Those cultural proclivities mentioned earlier can contribute further to facilitating or hampering this rate of change beyond that which reflects mathematical or economic considerations (mathematical because everything else being equal, it is more difficult to maintain a high growth rate when an economy's size, the denominator for calculating this rate, becomes larger). Naturally, a comparative perspective is also necessary when evaluating the relative effectiveness of a country's domestic and foreign policies. These policies can be expected to encounter resistance and even countervailing efforts from another country.

Thus, international competition is about relative gain or comparative performance (Grieco 1988; Powell 1991). Moreover, and as also alluded to earlier, in this competition a country's own prevailing practices and existing institutions can be a source of self-inflicted injuries that hamper growth and diminish its foreign influence. Athens's leader Pericles warned his compatriots "not to extend your empire at the same time as you are fighting the war and not to add self-imposed dangers, for I am more afraid of our own mistakes than the strategy of our opponents" (Kagan 1969: 192). This is another theme that both Chapters 3 and 4 will address.

A country can try to increase its economic output by increasing the necessary input without, however, necessarily raising the effectiveness of its throughput. In other words, economic growth can be achieved by adding more human labor and raw material to a production process without increasing its efficiency or productivity. Paul Krugman (1994) and Alwyn Young (2003) have questioned the true nature of East Asian economies' growth based on this reasoning, and Daron Acemoglu and James Robinson (2012) have also interpreted in this light Joseph Stalin's expansion of the USSR's economy based on the mobilization of collective efforts and massive amount of resources. They conclude that "… [the USSR's] growth without creative destruction and without broad-based technological innovation was not sustainable and came to an abrupt end" (Acemoglu and Robinson 2012: 94). This assessment can also serve as a warning about China's economic future. This pessimistic outlook, however, is contradicted by Tian Zhu (2021: 77–78) who argues that China's productivity has in fact increased significantly over the years, so that this factor has contributed about 40% of its economic growth heretofore.

Chapter 5 follows up on this idea about the contribution of science and technology to economic growth. There is a strong, positive relationship between this growth and a country's capacity to invent and innovate in the long run, even though in the short run these two variables may not be correlated, such as for Japan during the 1990s (Posen 2002). Britain had two economic spurts that kept it at the top of the interstate hierarchy (Modelski and Thompson 1996). How well positioned are China and the United States in competing for leadership in the next generation of science and technology in fields such as artificial intelligence, genetic engineering, robotics, and electric vehicles? In this competition, institutions matter as much as culture. The cultivation of human capital, the protection of intellectual property, and an environment conducive to creativity are all important factors contributing to success in this competition. Moreover, a country's ability to harness cheap, reliable, and abundant sources of energy and to combine this energy with new ways of making and doing things will be critical in this contest (Thompson and Zakhirova 2019). Research universities, business corporations, capital markets, and the government all have a role to play in this undertaking, and their successful collaboration is important to promote scientific discovery and technological advances leading to greater productivity and consumer welfare (Gordon 2002). Chapter 5 discusses China's innovation capacity and reviews its recent progress relative to its own past and relative to the United States. It concludes that China has made significant advances in recent decades but still cannot match the United States in basic research at the scientific and technological frontier.

Finally, Chapter 6 summarizes this book's main arguments and conclusions, and it draws from them several pertinent implications for policy and theory.