CHAPTER 1

Introduction

Weaving Analysis and Narrative

> Australian history is almost always picturesque; indeed, it is so curious and strange, that it is itself the chiefest novelty the country has to offer, and so it pushes the other novelties into second and third place. And it does not read like history, but the most beautiful lies. And all of a fresh new sort, no mouldy old stale ones.
> —Mark Twain[1]

Australians attained the highest incomes in the world by the mid-nineteenth century, only a few decades after European settlement. Despite losing that remarkable position around 1900, they have retained to the present a standard of living that is not appreciably exceeded elsewhere. Few economies have been as successful over so long a period.[2] Some have achieved comparable levels of income only since the Second World War (think of Japan or Italy). Many are currently making good progress in catching up to these levels, though still have some distance to travel (think of South Korea). One has experienced long-term relative decline after having achieved membership into the rich club of nations in the early twentieth century (Argentina). Tragically, many less-developed economies have managed only low or intermittent growth such that they have not even begun to close the gap between their living standards and those of the richest countries. What explains Australia's enviable record of prosperity?

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This inquiry into why Australia is rich adopts a historical approach because the roots of prosperity are embedded in the past: the levels of income observed in the currently rich economies are in every case the result of very long-run processes. Economies do not move rapidly from poverty and backwardness to advanced industrial status and concomitant prosperity despite the achievements of

[1] Twain (1989 [1897]), p. 169.

[2] The richest countries over the last 150 years include, in addition to Australia, the United States and Britain throughout; and the Netherlands, Canada, New Zealand, and Switzerland for much, but not all, of this period. See Prados de la Escosura (2000) for a review of alternative historical estimates of per capita income for the currently rich economies.

some being described as "economic miracles." Even with the impressive growth rates recently recorded in a number of poor countries such as India and China, attaining incomes comparable to the rich countries takes many decades. This is partly because incomes in the rich countries have also been rising: the poor countries must thus catch up with a level of prosperity that is moving ever higher. To illustrate, Japan began its modernization in the second half of the nineteenth century and is regarded as having turned in perhaps the most rapid growth performance among the currently advanced economies. But it was not until the late twentieth century that it attained approximate parity with incomes in the leading economies. And the evidence suggests that the level of economic development in nineteenth-century Japan was already beyond that of many less developed countries today. Or consider the roots of Britain's economic prosperity by 1850 at the end of the first industrial revolution. Historians long ago agreed it was a phase of growth that was evolutionary rather than revolutionary, and have traced its origins to an array of constitutional, social, demographic, scientific, technological, and cultural as well as economic developments stretching back several centuries.[3] Thus the importance given here to historical influences in an explanation of present-day prosperity is not something unique to the case of Australia. Economists increasingly draw on history in their quest to better account for why some countries are rich and others poor.[4]

There is an added reason to look to history to account for Australia's economic prosperity. Unlike Japan and much of Europe, membership in the rich club of nations is not a recent phenomenon. Hence the task set by posing the question "Why is Australia rich?" may be better posed as two questions to be addressed sequentially: Why was Australia so rich by the second half of the nineteenth century? And how has Australia managed to retain its position among the richest group of countries over the subsequent 150 years? Whether the answer to the first question differs from the answer to the second can be established only by historical inquiry.

The need for a historical perspective arises also because any persuasive explanation for Australia's current high-income status must highlight long-established features of its economy and society. In particular, prominence must be accorded certain of its economic and political institutions whose origins, in some cases, stretch back to the beginning of European settlement at the end of the eighteenth century. Since these institutions were adopted—or adapted—largely from British designs, their historical roots are even deeper.

The story of Australia's success in first achieving then maintaining its relatively high levels of economic prosperity over the past two centuries will here be told primarily in terms of the average *levels* of income per capita achieved in successive periods (usually of two or three decades) relative to that attained in

[3] For recent overviews and interpretations, see Allen (2009), Clark (2007), and Mokyr (2009).

[4] Surveys covering many countries and several centuries include Jones (1987), Landes (1998), and Pomeranz (2000).

previous periods, and also compared to the best achieved in other countries at the time. The prosperity attained in any period represents either some improvement over the previous period, some slippage, or stagnation, and our aim is to explain why we observe the outcome we do. Adding the cross-country dimension to our assessment is vital: Australia's economic achievements only have adequate context when compared with those of other countries.

Thus, one aim is that this study contribute to the literature on comparative growth, especially its historical dimension, a literature that has burgeoned in recent years. For their part, economic historians increasingly employ a comparative approach in their research.[5] And growth economists are finding not just that policies that successfully promote growth are proving harder to identify than believed by earlier generations of development economists, but that the reasons for growth—and particularly for its absence—in many cases appear to be related to factors specific to an economy's historical background. A historical case study, wherein the questions are framed such that the findings may readily be integrated with the results from other approaches to the analysis of growth, can thus make a contribution to this pressing policy challenge.

Adopting this approach, it follows that many themes or topics that would deserve attention in a general review of Australian economic history will be passed over lightly, or completely ignored. They will only be addressed insofar as they are relevant to an inquiry into the reasons for the levels of prosperity achieved. Thus no claim is made that this is a comprehensive or balanced account of the historical development of the Australian economy. Instead, my further aim is to provide those Australians who are curious about their own good fortune with an explanation for what surely ranks as one of their country's most remarkable achievements. And although there is a substantial body of writing on many aspects of the history of the economy, as will quickly become clear, no previous writer has adopted the present focus in an extended inquiry into the reasons for Australia's sustained prosperity.

This history is therefore part analysis, part narrative. The balance I strike between the two is intended to ensure the discussion remains accessible to a wider audience. And it is for this reason that I keep the use of technical terms and references to theory to a minimum, and for the most part confine my reporting of historical statistics to a limited number of simple charts.

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The roots of current economic prosperity are not only located in the past, they are also complex. Given this, some explanatory framework is required to identify the key elements in any growth narrative, to determine how much prominence each is assigned, and to relate them to one another. Of course, explaining

[5] The approach is well illustrated by the studies in the recent collection edited by Hatton, O'Rourke, and Taylor (2007).

nearly two centuries of Australian economic prosperity would be less challenging were economists in possession of a theory of economic growth of universal validity—that is, for which there existed robust empirical support across all countries and at all times. They are not. But it is from the growth literature that I derive some of the insights into Australia's experience offered in this book.[6]

In the immediate postwar years, growth theory highlighted investment in physical capital as perhaps the single most important source of variation in *rates* of growth in an economy. Since then, differences in growth rates have also been attributed to differences in rates of human capital accumulation, especially formal education. And the rate of technological change completes this trinity of the sources of growth, which theory assigned a prominent role—the myriad ways in which a given level of output may be achieved with fewer inputs as a consequence of the diffusion of productivity-raising innovations.

There are two reasons why this trinity will not be center stage in this account. First, this is primarily an inquiry into the reasons for Australia's *level* of economic prosperity (conventionally defined as income or GDP per capita). To observe that a high-income country has more highly educated workers, and that they each use more equipment, provides no more than a superficial explanation as to why that country is rich: indeed such evidence is better interpreted as a corollary or a symptom of the level of its prosperity. Rather, it is necessary to ask why we observe so much more physical and human capital per worker in high-income than in low-income countries. That is, a set of more fundamental determinants of growth must be sought to account for the extremely wide variation in the levels of productivity and hence incomes across countries. And to do this, economists now look more deeply into the mechanism of growth—such as to aspects of the endowment (including natural resources, climate, location), institutional quality (the legal system, corruption, political arrangements, property rights), key policies (such as openness to trade, and intervention in markets), and cultural attributes (social norms, religion). I will explore these further in chapter 2 in discussing their relevance to the Australian experience.

The second reason for paying less attention to the proximate sources of growth is that we are focusing on the very long run—why prosperity has been sustained for nearly two centuries. If this inquiry were limited to a period within which the institutional framework, resource endowments, and other deeper influences could safely be assumed not to change, then it would be appropriate to confine attention to the immediate determinants of growth, in particular those that were amenable to policy. In the short run, fluctuations in the rate of growth of Australia's economy are likely to be influenced most powerfully by such factors as variations in the savings rate, business and consumer sentiment, the rate of immigration, and the expected profitability of new investment. Over the long run, however, many of the influences determining the level of income,

[6] I will have more to say about this literature in chapter 2.

but held constant in most theories of growth, cannot be ignored. They become the items of greatest interest.

One feature of the Australian experience that I therefore accord special significance is the natural-resource base—especially farmland and minerals. This economy is resource abundant in the sense of possessing a high ratio of natural resources relative to its population or labor force. In its early history, the resource sector provided much of the economy's output and was an important source of employment. More striking is that, for all of its history, exports have been dominated by a succession of resource-intensive products beginning with wool and gold. After more than 150 years of sustained high incomes, the comparative advantage of this economy still lies in its natural resources—around 65 percent of current exports are primary products. Australian history therefore offers compelling evidence against the widely held view that resource abundance is a curse not a blessing, and typically associated with corruption, low growth or stagnation, and even failed states.[7]

A second feature emphasized in the interpretation offered here is the quality of the institutional arrangements within which the economy operated. Economists recognize that institutions play a major role in explaining which countries are rich and which are not.[8] Australia is no exception to this generalization. Its sustained economic prosperity cannot be accounted for without giving priority to the role of certain institutions whose contribution has not always been appropriately recognized. In this growth narrative, several roles are emphasized. One is that Australian history yields some vivid illustrations of the importance of institutional flexibility. More than once, as evidence accumulated that an institution was operating in a manner harmful to prosperity, it was either abolished or modified to make it growth promoting. Nineteenth-century examples considered below include the transportation of convicts, the monopolization of grazing land by squatters, and the employment of immigrant, indentured labor on sugar plantations. A recent example is the reform of labor-market institutions that came to be seen as holding back potential productivity gains. The capacity of a society to adapt its institutional arrangements in the face of changed economic conditions, or evidence of the adverse consequences for prosperity of doing nothing, is a key factor explaining why there is such a wide range of income levels across countries.

Another role of institutions in this story is that political (including constitutional) arrangements likely played a key part in sustaining prosperity. One example has been of interest to political historians but less so to economists. The Australian economy has its origins as a component of the British Empire. Whereas the economic costs of imperialism in general have long been debated,

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[7] I will have more to say on the resource-curse hypothesis in the next chapter.

[8] For a survey of the literature on institutions and growth, see Acemoglu, Johnson, and Robinson (2005).

there is no evidence of sustained or serious economic exploitation of Australia by the British. To the contrary, the Australian colonies benefited greatly from their participation as integral components of the world's most dynamic and advanced economy at that time. They had privileged access to the main market for foreign capital, and secured special trading privileges. At the political level, self-government came early and bloodlessly to the small European population in five of the six colonies in the 1850s. They in turn devised first their own constitutions and later a federal constitution for their unification in 1901, and these have served the economy well.

A final role of institutions that is emphasized in what follows is their *interaction* with resource abundance. In recent decades, to be resource rich appears typically to have led to slower growth in developing countries. This is puzzling. In theory, having more resources should raise the level of economic prosperity. Economies that are both resource rich and prosperous are therefore important counterexamples to the prevailing resource-curse hypothesis, and Australia throughout its modern history clearly fits this description. I explain the absence of a resource curse primarily in terms of the quality of some of the country's key institutional arrangements. How they were formed, how well they functioned, and how responsively they evolved in the light of experience or changed circumstances, largely determined whether the natural-resource base would be exploited in a manner that was growth promoting or wasteful of these natural assets. That is, the conditions of access to, the specification of property rights in, and the distribution of rents from the natural-resource endowment are what determined whether the growth effects of resource abundance were positive. Just one example from later discussion is the set of rules under which farming or mining could be conducted on Crown land.

In this account of the Australian economy's sustained prosperity, I also emphasize the manner in which its policy-makers responded to the major economic shocks—positive and negative—that have punctuated its history. Sometimes the shocks originated within the resource sector, such as with the discovery of gold. As noted, a favorable shock of this type need not necessarily underpin prosperity if appropriate institutions are lacking. On other occasions the shocks were negative and arose from elsewhere—the First World War, the interwar collapse of the world economy, or the oil price hikes of the 1970s. Then the critical issue is how well existing institutions coped with stress and adversity, and what policies were put in place in response to the deterioration in the economic environment. Chance events of short duration have on occasion shaped the trajectory of the economy over much longer periods. In general we will observe an economy resilient to shocks, together with policy choices made in their aftermath that were appropriate to sustaining prosperity.

One major shock to the economy widely believed to have had profound long-run implications was the depression of the 1890s. It appeared then that resource-based prosperity had faltered, and that the openness of the economy had heightened its vulnerability to destabilizing global forces. Some historians identify a fundamental shift in economic and social policies as the eventual response. The new strategy for economic growth was designed to reduce the dependence of the economy on its resources sector and on imports, thereby reducing the exposure of the community to economic fluctuations emanating from abroad. Implementing these policies required the creation of new economic institutions, especially in the labor market. The consequence was a strategy of industrialization behind rising levels of protection that was pursued for half a century. Though influential, this interpretation will be shown to require modification.

This book does not, however, simplify what is a complex history of growth to an explanation focusing solely on the interactions between resource abundance, the quality of institutions, and the development policies adopted in response to major economic shocks. Other hypotheses, themes, and conjectures feature in the narrative, countering any tendency to the overly reductionist approach to historical explanation that can follow uncritical adherence to the suggestions of any single and parsimonious theory. To illustrate with an example appropriate in a history of the so-called lucky country, due recognition is given to the role of chance.

Two other elements of the approach adopted in this inquiry warrant early mention. I do not believe a persuasive account of Australia's economic growth can be conducted as if this growth were sui generis. It is vital not to miss that which only comes into focus on looking in the mirror provided by experience elsewhere. Obviously, in its entirety the Australian story is unique. But examining the experience of other economies greatly assists thinking about many features of the Australian case. My choice of comparator will vary according to the issue and period. Until recent decades it will most often be made by consulting some aspects of the history of the other settler economies of Canada, Argentina, New Zealand, and the United States (especially its western regions). Australia has more in common with the geography, factor endowment, and patterns of demographic and economic development in these countries than it has with those observed in Britain, Continental Europe, or Japan. For recent decades comparisons with a wider set of countries and with OECD averages are often more appropriate.

I also make use of counterfactuals as devices to aid thinking about what actually happened. This approach to historical research has limitations, and will not be formally developed in relation to any issue. But posing a plausible counterfactual in order critically to assess the significance of an event or policy can be a useful thought experiment. And one way counterfactuals can be made especially apt is by drawing on comparative experience. If relevant conditions are roughly comparable in another economy, it is likely a counterfactual assessment of some aspect of Australian experience can be more persuasive and better illuminate what actually occurred.

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To provide context for what follows, I first set out the evidence of economic prosperity (chapter 2). This covers the entire era of European settlement, and includes comparisons with the performance of selected other countries. Particular attention is paid to alternative measures of prosperity, their relationships to one another, and their limitations. As a first step toward the explanation of this evidence, I briefly review existing suggestions as to what are likely the most important determinants of Australia's levels of productivity and living standards. There are several literatures of relevance here, especially those on Australian history, comparative economic history, and growth economics—both theoretical and empirical.

I then take up the historical narrative, beginning with an assessment of the Aboriginal contribution to the economy constructed by the first European settlers at the end of the eighteenth century and beginning of the nineteenth. The British military, convict workforce, and British government financial outlays laid the early foundations of a tiny local economy at the outer margins of a vast imperial project (chapter 3). From the 1820s Australia's prosperity rested, initially, on the productivity of its labor force—convicts, emancipists, and free immigrants—and the occupation and exploratory utilization of a large area of natural grassland primarily for the production and export of wool (chapter 4). This geographical settlement and pastoral development occurred in a rapidly evolving institutional setting. Both in the economic and political spheres, institutional innovation and adaptation appears successfully to have underpinned the attainment of quite high incomes per capita even before the discovery of gold.

The gold rushes beginning in the 1850s brought not only a diversification of the economic basis of prosperity beyond that provided by the wool industry, but coincided with the de facto political independence of five of the Australian colonies through their attainment of responsible government from Britain. Critical to the maintenance and extension of prosperity during these turbulent years was the way in which the shock to the economy of the gold discoveries was mediated by the evolving economic and political institutions. The gold rushes were no flash in the pan. Gold continued to be important to prosperity for several decades, while a resumption of the expansion of the wool industry was matched by the development of other branches of agriculture (chapter 5). This is the period in which Australia came to record the world's highest income levels.

After 1890, however, these very high levels of relative prosperity were not sustained. Negative shocks from internal imbalance, external factors, and drought wrought havoc with the economy for more than a decade (chapter 6). Against this background of a major threat to prosperity, important changes occurred in the institutional framework with the federation of the Australian colonies in 1901. Though some recovery in economic fortunes occurred before the outbreak of war, it was short-lived. The First World War seriously disrupted the economy, and was to be but the first of a succession of adverse external influences on national prosperity lasting a quarter of a century (chapter 7). The breakdown of the international economic order beginning in the 1920s and culminating in the world depression of the 1930s posed major challenges to Australia. The principal policy response to this sequence of negative shocks was to promote industrialization behind rising levels of protection and accompanied by more centralized and regulated modes of wage determination.

The Second World War imparted a more favorable shock to the economy than the First. And the postwar international economic environment was much more conducive to raising incomes than it had been after 1919 (chapter 8). In the 1950s, prosperity was further underpinned by the Korean War wool boom, and by an intensification of the process of import substituting industrialization. But by the late 1960s and early 1970s, the higher level of prosperity attained during this second "golden age" was threatened. Pressures for a significant restructuring in the economy arose from a boom in mineral production, the onset of Asian industrialization, and a spike in world energy prices. These forces eventually led to the adoption of more outward-oriented policies with respect to trade and capital flows and a more market-oriented approach to the regulation of the domestic economy—policies more akin to those pursued in the nineteenth century (chapter 9). In pursuit of enhanced levels of prosperity, the policy reforms during the 1980s and 1990s were numerous and significant, requiring the abolition or adaptation of some key economic institutions. The improved productivity and incomes characterizing the 1990s have been attributed in part to this restructuring of the economy resulting from the shifts in domestic policies. But this most recent golden era has also resulted from a very traditional source of Australian prosperity—a boom in the natural resource sector driven by a combination of rising international demand for commodities, and the discovery of further significant mineral deposits and energy reserves.

When reflecting on why Australia was, and remains, so rich, two recurring themes are central (chapter 10). First, the *interactions* between the principal determinants of growth have been more important to the outcomes than the role of any one factor—such as investment, institutions, or resources.[9] And second, it is precisely due to the *shifting* basis of its prosperity that Australia has managed to sustain its status as a rich economy over so long a period and despite numerous negative shocks. Within the resources sector, the shifts have been

[9] This is not to deny the considerable value of single-themed interpretations. In advocating the significance of the chosen factor or influence, they thereby facilitate an assessment of its importance relative to other factors or influences.

between farming and mining; within each of these among a range of foodstuffs, fibers, minerals, and energy sources. And for part of the twentieth century, when commodity-based prosperity proved elusive, manufacturing played a supporting role. Therefore at the core of our story lies a policy and institutional adaptability in the face of markedly changed economic conditions that ensured enhanced living standards for a rapidly expanding population over most of the past two centuries.