2 The Global Strategic-Transition Model

The global strategic transition (GST) is the process by which an increasing number of societies are drawn into the vortex of dynamic interaction between the world’s most economically advanced nations. It is generated by the global unfolding of the prevailing technological paradigm. This unfolding process is neither inevitable nor smooth, a reality reflected in the fluctuating fortunes of the world economy throughout the history of civilization. The twentieth century, for example, has witnessed the Great Depression of the 1930s, the ‘golden age’ of the 1950s and 1960s, and slower, more uneven growth during the past twenty-five years punctuated by strategic crises such as those in East Asia at the close of the twentieth century. And as the dynamics of the global strategic core has waxed and waned, so has the economic development of the rest of the world. The attempt to model the GST in this chapter is based on my dynamic-strategy theory developed in a recent series of books (Snooks 1996; 1997a; 1998b), and explored further in Parts IV and V of this book. Underlying this process of global development are a set of dynamic laws (Snooks 1998a) that are introduced in later chapters. The existence of laws, however, does not imply historical inevitability because individuals and societies can and do act irrationally.

2.1 THE UNFOLDING TECHNOLOGICAL PARADIGM

There have been four technological paradigms in human history – the pre-palaeolithic (scavenging), palaeolithic (hunting), neolithic (agriculture), and modern (industrial) (Figure 2.1). In each historical era the technological revolution began in a narrowly defined region – a dynamic hot spot – and subsequently spread to the rest of the known world. The Palaeolithic Revolution, which emerged in East Africa about 1.6 million years ago, took about 1.2 million years to spread around the globe; the Neolithic Revolution (Old World), which first appeared in the Jordan Valley about 11 000 years ago, took only 3000 years to extend to the rest of the known world;1 and the Industrial Revolution, which began in Britain about 200 years ago, is still spreading around the globe but should be completed sometime during the twenty-first century (Snooks 1996: ch. 12). Clearly the GST is accelerating with the emergence of each new technological paradigm.
Fig. 2.1 Great technological paradigm shifts, last 2 million years

Figure 2.1, which illustrates these technological paradigm shifts, is designed to show two things: the stepped profile of potential real GDP per capita at the global level made possible by the three paradigm shifts (heavy line); and the more gradual increase in actual real GDP per capita (broken line). As can be seen, potential GDP per capita increases relatively steeply – becoming steeper as we approach the present – but it is then stationary for much longer periods of time that diminish geometrically in length. On the other hand, actual GDP per capita increases only gradually to the potential ceiling tracing out a more wave-like development path. This catching-up process between actual and potential GDP per capita is an outcome of the global strategic transition, involving a highly competitive strategic core whose dynamic vortex gradually draws the strategic fringe into its orbit. This is an outcome of the voracious appetite of the strategic core for the underutilized natural and human resources of the strategic fringe. These resources are accessed by dynamic strategies specific to each technological paradigm – the family-multiplication strategy in the palaeolithic, conquest or commerce in the neolithic, and technological change in the modern. It is these strategies that have driven each technological paradigm.

This is not a smooth linear process. There are long periods when actual income approaches the potential ceiling, and other periods when it moves