

CHAPTER 1

Growth, Decay and Structural Change

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Summary

We attempt to show the historically unique situation in which mankind now finds itself, which forces are working and what may be expected in the future. These general considerations are then used to study economic development up to the year 2000. The driving forces are identified and their development explained by a latent variable called “degree of economic activity”. This chapter provides the philosophical background for the understanding of the following chapters.

1.1. Introduction: The Background of the Bonn–IIASA Research Project

We are lucky and privileged to live in an extraordinary period of the 2 million or so years of the history of man. Mankind experienced only two real revolutions of its way of life in its history. The first happened about 4000 to 6000 years ago when mankind succeeded in taming domestic animals, growing corn, and invented spinning, weaving, pottery, smelting and casting copper, bronze and iron, wheeled vehicles and sailing boats. This was accomplished at different places, but in the short span of about 2000 years. It took some 1000 years for this knowledge to spread from its places of origin over the world. This first agricultural and artisan revolution radically changed the way of life of mankind. Instead of living in small nomadic tribes, gathering food and hunting, man settled in permanent houses, cities came into being, large empires developed, writing, reading, calculating, and all kinds of cultural activities emerged. The size of the world population increased by a factor of six between 4000 and 2000 B.C.

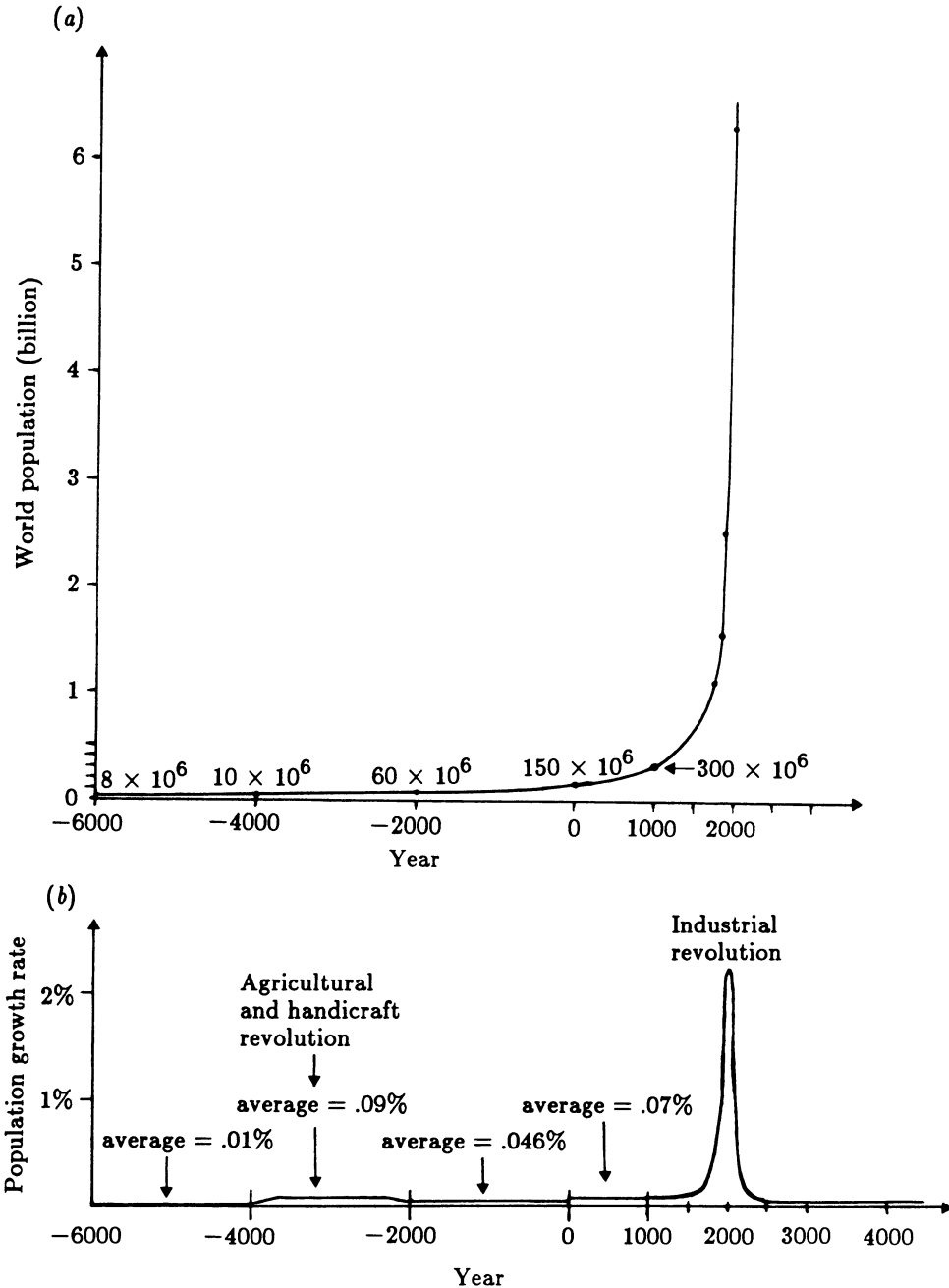


Figure 1.1. World population. Sources for (a): (1) W. Fucks, *Über die Zahl der Menschen, die bisher gelebt haben*, Z.f.d. ges. St. W. 107 (1951), pp. 440–450. (2) Carr-Saunders, *World Population*, Oxford (1936), Tab. 8, p. 42. (3) UN, *Demographic Yearbook* (1959), Tab. 2, p. 127. (4) UN, *The Future Growth of World Population*, New York (1958), p. 23. Sources for (b): (1) See above. (2) Forecasts from R. Freeman and B. Berelson, *The Human Population*, *Scientific American* (Sept. 1974), pp. 36–37.