The Great Escape – An Economic History of the Emergence of the Modern World

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Chapter 1: The Questions of Economic History

1. Material Living Standards

Much has changed for society since people first practiced settled agriculture in south west Asia around 8,000 BC. Our innovative forbears of the fertile crescent lived in crude huts, scratched the earth with wooden hoes, ate their bread and porridge from stone dishes or crude earthenware, and cut with obsidian knives. By 1800 in a city such as London the middle classes written about by Jane Austen read daily papers relaying events from around the world while they sat in factory produced cottons at coal fires, sipping tea sweetened with West Indian sugar from Wedgewood’s mass produced fine porcelain. At dinner or in the public houses they might drink beer from the new steam-powered breweries. They worried about such niceties of social convention as who could make introductions to whom, who was a suitable marriage partner, and who could be addressed by first name. Many derived their income from savings portfolios that might include government debt, a government life annuity, East India Company bonds, Bank of England shares, mortgages of land or houses, those land and houses themselves, turnpike securities, and shares in the new canals.

There is thus no doubt there was an enormous increase in the sophistication of the production technology and the economic institutions of society between 8,000 BC and 1800 AD. Remarkably, though, there is no reason to believe that the welfare of the average person in any society in 1800 had improved one iota on that of his or her forbears in 8,000 BC, or even indeed in 100,000 BC. To a first approximation the path of world income per capita between 10,000 BC and 2,000 AD is best represented by figure 1 (where income in 1800 is set as 1).

The seeming paradox this presents is lessened when we consider that Jane Austen was writing about a small group of upper class people within English society. The circulation of The Times in London in 1795 in the richest city in the world with a population of nearly one million people was still only 4,800. In Sense and Sensibility Austen has one of her characters note of a young man that £300 a year is “Comfortable as a bachelor” but “it cannot enable him to marry” (p. 284). The mass of laborers in England in 1810 had an annual income of £36 or less per year. All societies had their privileged elites, but we shall see that for the bulk of people conditions were not any better in 1800 than 600 years before.

The first task of this book is to explain why technological advance only resulted in better material living conditions after 1800. What we shall see in chapter 2 is that the crucial factor was the rate of technological advance. As long as it remained very slow there could be no improvement in material living conditions, even while there was quite significant improvement in technology. This resulted in a sharp break sometime after 1800, for some countries only.

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1 See Singh (1974).
2 In chapter – below we consider how we know material living standards in the pre-documentary past.
between two fundamentally different economic systems, which followed different laws. The earlier system I have dubbed the Malthusian economy, after Thomas Malthus, the English Parson, who in his 1798 *Principle of Population* made the first steps towards understanding the logic of this economy. Malthus’s insights were elaborated by writers such as Ricardo and Mill into the system called Classical Political Economy in the early nineteenth century. Ironically this was just at the point where the system they were describing was ending with the increased rate of technological advance. In chapter 2 we also explore the logic of this system: what created rich and poor societies, the role of technology, resources, fertility, and mortality. The living standards of people were completely independent of the level of technology and capital accumulation of the society. Instead they depended crucially on just two things - the birth rate and the death rate. Technology and capital determined only how dense the population was.\(^4\)

In chapter 3 I apply the Malthusian logic to explaining the history of living standards in Europe before 1800. Chapter 4 looks at living standards in the rest of the pre-industrial world.

Chapter 5 looks at how we escaped the Malthusian trap and considers the determination of income per capita in the modern world where since the Industrial Revolution technological advance has been persistent and rapid. I show how we can determine the role of capital, resources and technology in creating growing material output per person, and in explaining the current wide differences in incomes per capita between countries. Since 1700 sustained

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\(^4\) Though we shall see below that some people have argued that the growth of population beyond a certain density was crucial in allowing gains from trade and specialization.
technical progress and capital accumulation have largely determined the standard of living. Rich and poor societies are distinguished by their ability to achieve economies with high levels of efficiency and high levels of capital accumulation. Thus material incomes per capita in the USA are about fourteen times those of India. The wealth of the US is explained by the greater efficiency of production processes in the US, and by the larger amounts of capital per person in the US. The US uses more advanced production techniques than in India in some areas. But even where it employs similar techniques these are used at a much higher level of efficiency in the US. In the cotton textile industry in 1980 for example using the same machines a US worker produced about 10 times the amount of output per hour as an Indian worker. Similarly the greater material wealth of Americans now compared to 100 years ago can be largely traced to advances in production techniques over these years.

2. The Determinants of Technological Progress

This leads naturally to the great question of economic history. Why did the rate of productivity growth increase markedly sometime around 1800 in the Industrial Revolution? And why did this increase occur only in a small group of economies that have been the dynamos of technological advance for the world economy since then?

We consider two approaches to this problem. The first relies on institutions as the barrier to economic growth. Pre-industrial societies, it is argued, had institutions that failed to deliver incentives to individuals that encouraged them to pursue technological advance. People themselves are assumed to always be essentially the same in their rationality and motivation. It was the incentives that constrained them that changed. The problem that arises here is whether institutions can be regarded as an exogenous (external) constraints that get imposed on societies. If instead institutions tend to adapt under economic pressures towards those that maximise the value of output in a society then they will not be able to explain the long period of slow technological advance in the pre-industrial era.

We shall thus explore the role of institutions in pre-industrial society. Did religious institutions, for example, such as the Catholicism in Europe, or Islam in the Middle East, restrict the economic life of their societies in such a way as to make rapid technological progress impossible?

The second approach asks whether it is people themselves who changed. Do individuals have the same motivations and rationality in all societies, or are these motivations and rationalities themselves a product of social conditioning, so that the way people think or act is crucially dependent on the society they happen to be born in? Is the rise of the Western world a historical accident due to the evolution of a peculiar culture and rationality, and was the decline of India and China (in economic terms) in the nineteenth century again the product of the cultural evolution of these societies?