A New Account of Britain's Economic Development György Borus

Broadberry, Stephen, Bruce M. S. Campbell, Alexander Klein, Mark Overton, and Bas van Leeuwen. *British Economic Growth, 1270-1870*. Cambridge: CUP, 2015. 461 pages. ISBN 978-1-107-67649-7. Pbk. £25.

British Economic Growth is the collective work of a remarkable international group of economic historians from the London School of Economics, the Queen's University of Belfast, the University of Kent, the University of Exeter, and Utrecht University, respectively. It is an attempt to reconstruct England's and Britain's national income accounts from 1270 to 1870 and to reveal the origins of Britain's modern economic growth.

The book divides into two parts: "Measuring Economic Growth" and "Analysing Economic Growth." Part I describes the methods adopted by the authors as well as the primary and secondary sources that they rely on. GDP (Gross Domestic Product)—a measure of the value of a country's marketbased economic activity—might be estimated in three different ways: via income, expenditure, or output. In this work, GDP is estimated from the output side as the sum of outputs produced in the three main sectors of the economy: agriculture, industry, and services. Since before the nineteenth century governments paid little attention to the gathering of official statistics, all this is far from being an easy task.

As GDP is calculated per head, it is economic growth and the levels of prosperity that the authors are chiefly concerned with, hence they begin by establishing population levels. The two main primary sources economic historians have been able to use to establish estimates of English medieval population are the Domesday Book of 1086 and the poll tax returns of 1377. The pioneering work in this respect is J. C. Russell's British Medieval Population (1948). Chapter 1 provides a critical review of Russell's benchmark estimates as well as of later attempts to establish population trends between the two benchmarks. The datasets of other economic historians are checked, corrected, and augmented with additional material, gained mainly from manorial records, and then the same approach is extended to the period up to 1541. One special difficulty is that the period from the 1450s to 1540 is a "demographic Dark Age" (33), since around 1450 manorial records ended, and it was not until 1538 that Thomas Cromwell, the outstanding Chief Minister to Henry VIII, ordered all Anglican parishes to maintain a register of baptisms, marriages, and burials. Thus, while population estimates for the

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post-1541 era are uncontroversial and unchallenged, there is much uncertainty and debate over those for the medieval period.

The decisive demographic turning point was, of course, in the middle of the fourteenth century, when the Black Death (four successive plague epidemics) reduced the population from around 4.8 million to 2.5 million between 1348 and 1377. Numbers continued to fall until the mid-fifteenth century (1.9 million), and it was not until the 1620s that the medieval peak of 4.8 million was again reached. In the middle of the eighteenth century, the total British population was over 7 million, and by 1870 it had increased to almost 26 million.

Chapter 2 calculates the area of agricultural land in use, both arable and grass. The approach here is retrospective, since from 1866 onwards national agricultural records were collected. These can be used as a starting point to reconstruct land use in 1290. The next chapter provides estimates of output in agriculture, of cropped areas and crop yields and of livestock numbers and livestock yields. The sources of information for the latemedieval period are manorial accounts (which were drawn up by the reeve who managed the demesne), those for the early modern period are probate inventories, while those for the modern period (c. 1700 to 1870) are farm accounts. There is, however, a gap—a "statistical Dark Age" (120)—between 1492 and 1553 as the manorial records come to an end before the probate inventories commence.

Two chapters, focusing on industrial and service-sector production, are based mainly on secondary sources. One establishes the output volumes in the various subsectors (metals and mining, textiles and leather, food processing, building and construction, trade and transport, financial service), while the other estimates real GDP and real GDP per head.

Part II offers a critical reflection on the findings of Part I and discusses how the results compare with those of other studies as well as the theories of eighteenth-century political economists like Thomas Malthuse and Adam Smith. The central argument of the book is that the economic growth process had started much earlier than economists had once thought and that "well before the industrial revolution got under way population and GDP per head were rising together" (247). The authors' conclusion on the origins of the industrial revolution is worth quoting.

Breakthrough to industrial revolution in the early nineteenth century was the last of a succession of achievements by the industrial and service sectors over the previous five centuries.... Each set the economy on a trajectory that consolidated the gains that had gone before and progressively enhanced the structural importance of these two sectors, thereby raising the likelihood that further positive developments would occur. A fitful but nonetheless real process of economic growth starting from a remarkably early date is implicit in these developments. Its cumulative effect was to make the transformative and self-sustaining growth of the industrial revolution possible. (184-85)

In his Essay on the Principle of Population as It Affects the Future Improvement of Society (1798), Thomas Malthuse—a disciple of Adam Smith—warned that if the population of Britain continued to grow there would not be sufficient food for the entire population. He also believed that population growth and real wage rates could only be reversely related and so population growth was bound to lead to serious subsistence crises. This pessimistic view has recently been supported by Gregory Clark. It must be noted, however, that in his study "The Macroeconomic Aggregates for England, 1209-1869" (2010), Clark estimates GDP per head from the income side instead of the output side, and he relies too exclusively on the real-wage-rate evidence. As opposed to Clark, who believes that until the early nineteenth century there was no improvement in income per head, the authors of British Economic Growth argue that "between the early fourteenth century and 1700 GDP per head approximately doubled and it doubled again between 1700 and 1870" (247).

How was Britain able to escape from Malthusian constraints and achieve rising living standards in the face of rising population from the early eighteenth century onwards? According to the authors, the answer must be sought mainly in structural economic change (the expansion of the industrial and service sectors) and the "industrious revolution":

Since the Reformation there had been fewer public holidays to enjoy and as the economy became more commercialised many employers had imposed a tighter work discipline. Then, from the late seventeenth century, many labourers chose to work harder so as to be able to afford the sugar, tea, tobacco, spirits, calicoes and assorted manufactured goods that trade and industry were beginning to furnish. By working harder in an era of falling daily real wage rates they maintained their household incomes and raised their consumption of material and non-material goods. As a result of this "industrious revolution," it was household incomes that tracked GDP per head not real wage rates. (415) One surprising finding is that in spite of the rising GDP per head the quantity of kilocalories consumed per head remained roughly the same throughout the period under investigation up to the 1850s. This was because of the high price of agricultural products at the end of the eighteenth century and the Corn Laws of 1815, which prevented the import of cheap grain to protect British farmers and landowners against foreign competition. In 1846, when the Corn Laws were repealed, trans-Atlantic shipping costs also started to fall. Thus, "in the 1840s, the imported proportion of kilocalories rose to 14 per cent, then to 24 per cent in the 1850s and 37 per cent in the 1860s, when substantial deliveries of cheap North American grain finally began to drive British food prices down and allow consumers to raise their daily food intake" (418).

The most intriguing part of the entire book puts Britain's economic development into an international context and explains the transformation or "reversal of fortunes" as a result of which England went "from European laggard" to a "European and global leader" (372). The richest countries of the Middle Ages were Italy and Spain, but by 1700 Holland (the United Provinces) and England were both ahead of these two countries. The "reversal of fortunes" started with the Black Death in the middle of the fourteenth century. While in England, Holland, and Italy the reduced populations enjoyed increased incomes per head, Spain suffered from serious problems of underpopulation. With the explorations and geographical discoveries of the late fifteenth century, Italy's economic fortunes also started to wane as the economic center of Europe shifted from the Mediterranean to the North Sea region. Yet another advantage England and Holland enjoyed over their rivals was that in these two countries constitutional and institutional conditions were more favorable. Political checks on rulers ensured that instead of the Crown-as was the case in Spain and Portugalit was the merchant class that was able to exploit the commercial opportunities, and, at the same time, governments adopted measures which furthered economic development. One of the factors that produced high real wage rates in Britain and the Low Countries in the early modern period was "the Northwest European Marriage Pattern" (390): women married later (over 25 on average) and had fewer children. "Smaller family sizes represented a shift from quantity to quality in reproduction since they made possible greater investment in human capital, with better-fed and bettereducated workers commanding a higher wage in the labour market. Societies practising this marriage pattern were therefore characterised by human-as well as physical—capital intensity" (390).

By 1600 Holland had become the wealthiest country in Europe with a GDP per head that was "more than double that of England" (425). Eventually, however, it was Britain, and not Holland, that was able to achieve modern economic growth (when population, GDP, and incomes per head were all rising together) at the time of the Industrial Revolution. The explanation should be sought in the size of Holland, its lack of great energy resources, and the structure of its economy. The Dutch Republic was short of water power and coal, its domestic market was too small, and its wealth derived from trade, shipping, and finance rather than manufacturing. The economy of Holland—together with the great majority of the European economies—stagnated during the seventeenth century. England, however, enjoyed rising GDP per head from the 1650s onwards, and "for the next 150 years no other European economy could rival Britain's dynamism" (426).

British Economic Growth, 1270-1870 is a remarkable achievement, which transforms our understanding of Britain's rise to economic supremacy. Some of its findings will probably be challenged by economic historians, but the neatly argued and convincing central claim that Britain's economy was on a rising trend from the mid-fourteenth century onwards with increases in GDP per head will be difficult to refute. This landmark in British and international economic history is recommended to both experts and all those who are interested in the interrelationships between history and economic development.

University of Debrecen