An Economic History of Europe

This concise and accessible introduction to European economic history focusses on the interplay between the development of institutions and the generation and diffusion of knowledge-based technologies. The author challenges the view that European economic history before the Industrial Revolution was constrained by population growth outstripping available resources. He argues instead that the limiting factor was the knowledge needed for technological progress, but also that Europe was unique in developing a scientific culture and institutions which were the basis for the unprecedented technological progress and economic growth of the nineteenth and twentieth centuries. Simple explanatory concepts are used to explain growth and stagnation as well as the convergence of income over time whilst text boxes, figures, an extensive glossary and online exercises enable students to develop a comprehensive understanding of the subject. This is the only textbook students will need to understand Europe’s unique economic development and its global context.

KARL GUNNAR PERSSON is a professor in the Department of Economics at the University of Copenhagen, where he has been teaching comparative economic history and the history of globalization over the last thirty years. He is the author of Pre-Industrial Economic Growth: Social Organization and Technological Progress in Europe (1988) and Grain Markets in Europe 1500–1900: Integration and Deregulation (1999).
New Approaches to Economic and Social History

Edited for the Economic History Society by
Nigel Goose, University of Hertfordshire
Larry Neal, University of Illinois, Urbana-Champaign

New Approaches to Economic and Social History is an important new textbook series published in association with the Economic History Society. It provides concise but authoritative surveys of major themes and issues in world economic and social history from the post-Roman recovery to the present day. Books in the series are by recognized authorities operating at the cutting edge of their field with an ability to write clearly and succinctly. The series consists principally of single-author works – academically rigorous and groundbreaking – which offer comprehensive, analytical guides at a length and level accessible to advanced school students and undergraduate historians and economists.
An Economic History of Europe
Knowledge, institutions and growth, 600 to the present

KARL GUNNAR PERSSON
# Contents

List of tables  page x
List of figures  xi
List of maps  xiii
List of boxes  xiv
Foreword  xv

## Introduction: What is economic history?  1

Efficiency in the use of resources shapes the wealth of nations  1
Outline of the chapters  4

## 1 The making of Europe  10

1.1 The geo-economic continuity of Europe  10
1.2 Europe trades, therefore it is!  14
1.3 From geo-economics to geo-politics: the European Union  18

## 2 Europe from obscurity to economic recovery  21

2.1 Light in the Dark Ages  21
2.2 Gains from division of labour: Adam Smith revisited  22
2.3 Division of labour is constrained by insufficient demand  24
2.4 Division of labour promotes technological change  26
2.5 After the post-Roman crisis: the economic renaissance of the ninth to fifteenth centuries  28
2.6 Population  29
Contents

2.7 The restoration of a monetary system 30
2.8 Transport and trade routes 31
2.9 Urbanization 32
2.10 Production and technology 36

3 Population, economic growth and resource constraints 42

3.1 Historical trends in population growth 42
3.2 The Malthusian theory of population growth and stagnation 45
3.3 Is the Malthusian theory testable? 47
3.4 The secrets of agricultural progress 49
3.5 Understanding fertility strategies 52
3.6 The demographic transition 54

4 The nature and extent of economic growth in the pre-industrial epoch 60

4.1 Understanding pre-industrial growth 60
4.2 Accounting for pre-industrial productivity growth 62
4.3 Wages and income distribution 67
4.4 When did Europe forge ahead? 68
Appendix: The dual approach to total factor productivity measurement 71

5 Institutions and growth 74

5.1 Institutions and efficiency 74
5.2 The peculiarity of institutional explanations 76
5.3 The characteristics of a modern economy 77
5.4 Market performance in history 79
5.5 The evolution of labour markets: the rise and decline of serfdom 81
5.6 Firms and farms 82
5.7 Co-operatives and hold-up 85
5.8 Contracts, risks and contract enforcement 87
5.9 Asymmetric information, reputation and self-enforcing contracts 89
## Contents

6 Knowledge, technology transfer and convergence  
6.1 Industrial Revolution, Industrious Revolution and Industrial Enlightenment  92  
6.2 Science and entrepreneurship  99  
6.3 The impact of new knowledge: brains replace muscles  100  
6.4 The lasting impact of nineteenth-century discoveries and twentieth-century accomplishments  107  
6.5 Technology transfer and catch-up  110  
6.5.1 Why was Germany a late industrial nation … and why did it grow faster than Britain once it started to grow?  117  
6.5.2 Human and capital investment  118  
6.5.3 Research and Development  120  
6.5.4 Industrial relations  120  
6.6 Convergence in the long run: three stories  121

7 Money, credit and banking  
7.1 The origins of money  129  
7.2 The revival of the monetary system in Europe: coins and bills of exchange  131  
7.3 Usury and interest rates in the long run  135  
7.4 The emergence of paper money  136  
7.5 What do banks do?  140  
7.6 The impact of banks on economic growth  142  
7.7 Banks versus stock markets  147  
Appendix: The bill of exchange further explored  151

8 Trade, tariffs and growth  
by Karl Gunnar Persson and Paul Sharp  
8.1 The comparative advantage argument for free trade and its consequences  154  
8.2 Trade patterns in history: the difference between nineteenth and twentieth-century trade  156  
8.3 Trade policy and growth  158
Contents

11 Inequality among and within nations: past, present, future  206

11.1 Why is there inequality?  206
11.2 Measuring inequality  207
11.3 Gender inequality  212
11.4 World income distribution  214
11.5 Towards a broader concept of welfare  216
11.6 Speculations about future trends in income inequality  217

12 Globalization and its challenge to Europe  221

12.1 Globalization and the law of one price  221
12.2 What drives globalization?  224
12.3 The phases of globalization  226
   12.3.1 Capital markets  226
   12.3.2 Commodity markets  230
   12.3.3 Labour markets  232
12.4 Globalization backlash: three cases  234
   12.4.1 Trade openness and migration  234
   12.4.2 The retreat from the world economy  235
   12.4.3 The tale of the twin farm protests  237
Appendix: Freight rates and globalization  239

Glossary by Karl Gunnar Persson and Marc P. B. Klemp  242
Index  250
Tables

1.1 Intra-European trade and trade with ROW (Rest of the World), in 2005. Percentage of total trade  
2.1 Increasing division of labour as measured by number of occupations  
3.1 Number of live births per married woman, age at marriage and survival chances of children, 1650–1950  
4.1 Total factor productivity in French agriculture, 1522–1789. Per cent per year  
6.1 TFP growth and new and old estimates of national product growth in Britain during the Industrial Revolution. Per cent per year  
10.1 GDP per capita in the USA, Russia and Eastern Europe relative to Western Europe 1950–90. Western Europe = 1  
10.2 The uses of local and central government spending in Europe in 2005. Percentage of total
Figures

1. The impact of distance and border effects on trade  
2.1 Mutual gains from specialization  
2.2 Virtuous and vicious processes in technological progress/regress  
2.3 Urbanization in Europe and China: urban population as a percentage of total population  
2.4 An approximation of metal production in the northern hemisphere as revealed by lead emissions found in the Greenland ice cap  
3.1 European population 400 BCE to 2000 CE. Millions  
3.2 Malthus graphically speaking  
3.3 Real farm wages in England and fluctuations in northern hemisphere temperature, 1560–1880  
3.4 Old and new total fertility regimes relative to a population growth isopoint of 0.1–0.4 percent per year  
3.5 Fertility and mortality in the demographic transition  
4.1 Malthusian and Smithian forces in economic growth  
4.2 Silver, grain and real wages in Britain, China and India, 1550–1850. Wages as a percentage of English wages  
6.1 Patent applications per year in various European nations, 1860–1916. Per 1000 inhabitants  
6.2 Annual rate of growth of GDP per capita 1870–1914 and GDP per head in 1870. Constant 1990 $  
6.3 Annual rate of growth of GDP per capita 1914–50 and GDP per head in 1914. Constant 1990 $  
6.4 Annual rate of growth of GDP per capita 1950–75 and GDP per head in 1950. Constant 1990 $  
6.5 Log GDP per capita 1860–2000 in Argentina, Scandinavia and the USA. 1990 $  
6.6 Log GDP per capita 1860–2000 in Germany, Ireland, Czechoslovakia and Italy. 1990 $  
6.7 Log GDP per capita 1860–2000 in France, Spain and United Kingdom. 1990 $
List of figures

7.1 Spontaneous evolution of wheat as money when there is no coincidence of wants 130
7.2 Payment systems reduce cost and risk over time 150
7.3 The bill of exchange 152
8.1 The infant-industry argument for protection 159
8.2 The first free-trade era in Europe 162
9.1 The (Obstfeld–Taylor) open economy trilemma: pick two policy goals, only two but any two 174
10.1 Unemployment paves the way for Adolf Hitler 189
10.2 Net welfare state balance of a typical household over its life cycle 201
11.1 Gini distributions in economies from 10,000 BCE to the present 208
11.2 The actual Gini coefficient as a share of the maximum Gini over time 210
11.3 HDI and GDP per head, 1870–2000 217
12.1 Globalization means a stronger inverse link between domestic production costs and employment 223
12.2 Real domestic (USA rail) and transatlantic freight rates, 1850–1990 (1884 = 1) 225
12.3 Nominal interest rate differentials between USA and UK on similar assets, 1870–2000 229
12.4 Price convergence between the UK and USA 1800–1975. Price of wheat in UK relative to price in Chicago and New York 231
12.5 Openness and labour standards in 1913 236
12.6 Freight rate reductions extend the frontier and increase price and income for non-frontier farmers 240
## Maps

1.1 The Roman Empire around 200 CE  
1.2 The Carolingian Empire around 850 CE  
1.3 The European Union 2010  
2.1 Merchant communications in the early centuries of European revival

<table>
<thead>
<tr>
<th>Map</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>The Roman Empire around 200 CE</td>
<td>11</td>
</tr>
<tr>
<td>1.2</td>
<td>The Carolingian Empire around 850 CE</td>
<td>12</td>
</tr>
<tr>
<td>1.3</td>
<td>The European Union 2010</td>
<td>13</td>
</tr>
<tr>
<td>2.1</td>
<td>Merchant communications in the early centuries of European revival</td>
<td>33</td>
</tr>
</tbody>
</table>
Boxes

2.1 Income levels and division of labour in the pre-industrial era  page 28
3.1 Some basic demographic concepts  46
3.2 An example of increasing productivity: more grain from less land  51
4.1 Total factor productivity growth in pre-plague English agriculture  63
4.2 Urbanization means higher labour productivity  65
5.1 Why sharecropping reduces work and output  88
7.1 What banks do  140
7.2 The anatomy of financial crises  142
8.1 The European trade regimes  167
9.1 Example: Why was the gold standard a fixed exchange rate system?  176
9.2 Exchange rate systems  183
10.1 Growth disasters and the Great Depression  190
This book evolved over the years from the lectures I have given and give to my students at the Department of Economics in Copenhagen. I have, however, attempted to write a book for a wider audience who are searching for a very concise introduction to European economic history which is in tune with recent research. I make use of a few basic and simple economic tools which turn out to be very effective in the interpretation of history. The book offers a panoramic view rather than close-ups. However, the analytical framework will be useful in further studies of the specialized literature. For readers with little background knowledge in economics I provide a glossary defining key concepts, which are marked by italics and an asterisk, for example *barter*. Economic ideas demanding more attention are explained in the text or in appendices.

This is a work of synthesis, but it attempts to give challenging and new insights. I am indebted to generations of economic historians as well as to a great many of my contemporaries. That normally shows itself in endless footnotes, which not only interrupt the narrative flow but also drown the general historical trends amidst all the details. Instead, I have chosen to end each chapter with a selective list of references which is also a suggestion for further reading. Authors I am particularly influenced by are referred to in the main text.

A large number of colleagues have guided me. Cormac O’Gràda has as usual been a very stimulating critic and Paul Sharp has not only saved me from embarrassing grammatical errors but is also the co-author of two chapters. I would also like to thank Carl-Johan Dalgaard, Bodil Ejrnæs, Giovanni Federico, Christian Groth, Tim Guinnane, Ingrid Henriksen, Derek Keene, Markus Lampe, Barbro Nedstam and Jacob Weisdorf for helpful comments and suggestions.

Mette Bjarnholt was my research assistant during the initial phase of the project and Marc Klemp and Mekdim D. Regassa in the final stage and they have all been enthusiastic and good to have around.