Living Standards in the Past

New Perspectives on Well-Being in Asia and Europe

Edited by

ROBERT C. ALLEN
TOMMY BENGTSSON
and
MARTIN DRIBE

OXFORD UNIVERSITY PRESS
Acknowledgements

This book brings together new evidence concerning living standards in pre-industrial Europe and Asia. Demographic events, health, stature, consumption, and wages are examined in terms of communities and individual households. Comparisons of living standards and well-being are made across social groups, countries, and continents. The diversity of experience within Europe and Asia is emphasized. The contributors include specialists in economics, history, and demography as well as Asian and European studies. The findings shed new light on the controversial question of when the West’s lead in living standards over the rest of the world first emerged. This question has been the focus of a very lively debate involving scholars from economic history, history, and sociology. Some scholars in the tradition of Adam Smith and Robert Malthus argue that the gap in living standards was already large when industrialization started in the West, while others argue that standards of living were similar at that time, and thus, that the gap was a result of industrialization. It is only by providing new and more detailed evidence from many areas of human activity that the issue can be resolved, and this book is, we believe, an important step in this direction.

A workshop in Arvid, Sweden, in August 2000, which brought together the necessary group of specialists, was organized within the activities of the European Science Foundation (ESF) network on ‘Household and community dynamics: a Eurasian approach of mobility’. The European Science Foundation provided financial support for the workshop and the editors wish to express their gratitude to Dr John Smith, the ESF-Scientific Secretary, for his interest and active support of the workshop. Thanks are also due to Mrs Geneviève Schauinger of ESF who helped the organizers with the administration of the workshop. The Bank of Sweden Tercentenary Foundation, the Crafoord Foundation, Lund, Sweden, the Research Programme in Economic Demography, Lund University, the Social Science and Humanities Research Council of Canada and its Team for Advanced Research on Globalization, Education, and Technology also gave generous financial support to the workshop and/or the volume, which we are grateful for.

Finally we would like to express our gratitude to B. A. Madeleine Jarl, Lund University, for her outstanding ability and patience in assisting us in editing this volume. Our sincere thanks also go to Cathy Douglas and Jessica Bean, who assisted us in editing several of the chapters.

Robert C. Allen, Tommy Bengtsson, and Martin Dribe
## Contents

<table>
<thead>
<tr>
<th>List of Contributors</th>
<th>ix</th>
</tr>
</thead>
<tbody>
<tr>
<td>List of Figures</td>
<td>xv</td>
</tr>
<tr>
<td>List of Maps</td>
<td>xviii</td>
</tr>
<tr>
<td>List of Tables</td>
<td>xix</td>
</tr>
</tbody>
</table>

### Introduction

*Robert C. Allen, Tommy Bengtsson, and Martin Dribe*

1 Standards of Living in Eighteenth-Century China: Regional Differences, Temporal Trends, and Incomplete Evidence

*Kenneth Pomeranz*

2 Farm Labour Productivity in Jiangnan, 1620-1850

*Bozhong Li*

3 Wages, Inequality, and Pre-Industrial Growth in Japan, 1727–1894

*Osamu Saito*

4 Agriculture, Labour, and the Standard of Living in Eighteenth-Century India

*Prasannan Parthasarathi*

5 Real Wages in Europe and Asia: A First Look at the Long-Term Patterns

*Robert C. Allen*

6 Sketching the Rise of Real Inequality in Early Modern Europe

*Philip T. Hoffman, David S. Jacks, Patricia A. Levin, and Peter H. Lindert*

7 What Happened to the Standard of Living Before the Industrial Revolution? New Evidence from the Western Part of the Netherlands

*Jan Luiten van Zanden*

8 Economic Growth, Human Capital Formation and Consumption in Western Europe Before 1800

*Jaime Reis*
Contents

9 Health and Nutrition in the Pre-Industrial Era: Insights from a Millennium of Average Heights in Northern Europe
Richard H. Steckel

10 The Burden of Grandeur: Physical and Economic Well-Being of the Russian Population in the Eighteenth Century
Boris Mironov

11 Maternal Mortality as an Indicator of the Standard of Living in Eighteenth- and Nineteenth-Century Slavonia
Eugene A. Hammel and Aaron Gallickson

12 The Standard of Living in Denmark in the Eighteenth and Early Nineteenth Centuries
Hans Chr. Johansen

13 Short-term Demographic Changes in Relation to Economic Fluctuations: The Case of Tuscany During the Pre-Transitional Period
Marco Breschi, Alessio Fornasin, and Giovanna Gomano

14 New Evidence on the Standard of Living in Sweden During the Eighteenth and Nineteenth Centuries: Long-Term Development of the Demographic Response to Short-Term Economic Stress
Tommy Bengtsson and Martin Dribe

15 Individuals and Communities Facing Economic Stress: A Comparison of Two Rural Areas in Nineteenth-Century Belgium
Michel Oris, Mariel Neven, and George Alter

16 Living Standards in Liaoning, 1749–1909: Evidence from Demographic Outcomes
James Z. Lee and Cameron D. Campbell

17 Demographic Responses to Short-Term Economic Stress in Eighteenth- and Nineteenth-Century Rural Japan: Evidence from Two Northeastern Villages
Noriko O. Tswa and Satomi Karasu

Index

List of Contributors

Robert C. Allen is Professor of Economic History at Oxford University and a Fellow of Nuffield College. He received his doctorate from Harvard University. He has written extensively on English agricultural history, international competition in the steel industry, the extinction of whales, the global history of wages and prices, and contemporary policies on education. His articles have won the Cole Prize, the Redlich Prize, and the Explorations Prize. His books include Enclosure and the Yeoman: The Agricultural Development of the South Midlands, 1450–1850 (1992), which was awarded the Rank Prize by the Economic History Association, and, most recently, Farm to Factory: A Re-interpretation of the Soviet Industrial Revolution (2003). Professor Allen is a Fellow of the British Academy and the Royal Society of Canada.

George Alter is Professor of History and Director of the Population Institute for Research and Training at Indiana University. In Family and the Female Life Course (1988) he applied event history methods to the demographic analysis of a historical population. 'Stature in Transition: A Micro-level Study from Nineteenth-century Belgium' (Social Science History 2004), co-authored with Neven and Oris, examines trends and differentials in height as an indicator of childhood experiences during the Industrial Revolution. Alter is co-editor of the second Eurasia Project volume, Prudence and Pressure: Reproduction in Europe and Asia, 1700–1900 (in preparation).


Marco Breschi is Professor of Demography at the University of Udine and the President of the Italian Society of Historical Demography. He has published widely on demographic history and on many related aspects of Italian populations.
Cameron D. Campbell is Associate Professor of Sociology, University of California at Los Angeles. He is the co-author with James Z. Lee of the book *Fate and Fortune in Rural China* (1997), and the co-author with Tommy Bengtsson, James Z. Lee, and other Eurasia project participants of the recently published *Life Under Pressure* (2004).

Martin Drife is Associate Professor of Economic History at Lund University. He received his Ph.D. from Lund University in 2000 and has mainly been working on different aspects of the interaction between population and economy in preindustrial society, as well as on issues related to intergenerational land transmissions. His publications include the books *Leaving Home in a Peasant Society. Economic Fluctuations, Household Dynamics and Youth Migration in Southern Sweden, 1829–1866* (2000) and *Liv och rörelse. Familj och flytningar i 1800-talets svenska bondesamhälle* (2003).

Alessio Fornaías is Research Fellow in Demography at the University of Udine and the Secretary of the Italian Society of Historical Demography. He has published extensively in the field of economic and demographic history, with a specific focus on Italian regional history.

Giovanna Gonano is Researcher of Applied Statistics at the University of Udine. She has focused her interest on the relationship between economy and demography in contemporary and historical societies.

Aaron Gullickson is Ph.D. in Sociology and Demography, University of California, Berkeley, and has a position as Assistant Professor of Sociology at Columbia University. He conducts research in historical demography, and on the biracial Black/White population in the United States. Recent publications include (with E. Hammel and A. Gullickson) ‘Kinship Structures and Survival: Maternal Mortality on the Croatian-Bosnian Border 1750–1898’, *Population Studies* (2004).

Eugene A. Hammel is Professor Emeritus of Demography and Anthropology at the University of California, Berkeley. He has done anthropological field work in Peru, Mexico, Serbia, Montenegro, Greece, California, and New Mexico, and is member of the National Academy of Sciences, and the American Academy of Arts and Sciences. Recent publications include (with E. Smith) *Population Dynamics and Political Stability* (2002); (with Mijana Stevanovic) ‘The Migration of Serbs and Albanians within and between Kosovo and Inner Serbia’, in Brunet, Oris, and Bideau (eds.), *La demographie des minorites* (The Demography of Minorities) (2004); and (with A. Gullickson) ‘Kinship Structures and Survival: Maternal Mortality on the Croatian–Bosnian Border 1750–1898’ (2004). *Population Studies*.

Philip T. Hoffman is Richard and Barbara Rosenberg Professor of History and Social Science at the California Institute of Technology. He has worked on agricultural productivity, financial markets, and the political economy of institutions in Europe, and he is currently engaged in comparative studies of financial crises, military conquest, and long run growth. Recent publications include *Finance, Intermediaries, and Economic Development* (2003), co-edited with Stanley L. Engerman, Jean-Laurent Rosenthal, and Kenneth L. Sokoloff, and *Révolution et évolution: Les marchés du crédit notarié en France, 1780–1840*, Annales HSS 59 (March-April, 2004), co-authored with Gilles Postel-Vinay and Jean-Laurent Rosenthal.

David S. Jacks is currently an Assistant Professor of Economics at Simon Fraser University. His research focuses on global economic history in general and the process of market integration in particular. Works on the integration of commodity markets in early modern Northern Europe and in the nineteenth-century Atlantic economy are forthcoming in the *Journal of European Economic History* and *Explorations in Economic History*.


Satomi Kurosii is Associate Professor at Keitaku University in Chiba, Japan. She holds a Ph.D. in sociology from the University of Washington with a specialization in family studies. Her recent publications include: ‘Who Leaves Home and Two Northeastern Villages 1716–1870’, in F. van Poppel, M. Oris, and J. Z. Lee (eds.), *The Road to Independence: Leaving Home in Western and Eastern Societies: 16th–20th Centuries* (2004).

James Z. Lee is Professor of History and Sociology, Director of the Center for Chinese Studies, and Research Professor at the Population Studies Center and the Inter-University Consortium for Political and Social Research at the University of Michigan. Recent books include *Fate and Fortune in Rural China* (with Cameron Campbell) (1997), *One Quarter of Humanity* (with Wang Feng) (1999), and *Life Under Pressure* (with Tommy Bengtsson, Cameron Campbell et al.) (2004).

Patricia A. Levin has done postgraduate work in Economics and Mathematics at the University of California–Davis, and has a BA from Stanford University, a Masters Degree from the University of North Carolina, and is currently working as a Certificated Public Accountant.

Bozhong Li is Professor of History, as well as Chair of History Department and Director of the Center for Chinese Economy History Research at Tsinghua.
University (Beijing, China). He is also a Visiting Professor at the University of Michigan (Ann Arbor, US). He has been working on imperial Chinese economic history for three decades and is the author of a body of work. Among his recent books are Agricultural Development in Jiangnan, 1620–1850 (1998) and Jiangnan de zuoqì gongyehua (The Early Industrialization in Jiangnan) (2000).

Peter H. Lindert is a Distinguished Professor of Economics at the University of California—Davis, where he also directs the Agricultural History Center. His books and journal articles have dealt with modern inequality trends, the welfare state, human fertility, international debt crisis, international trade competition, land quality, farm policy, soil history, and other topics. His latest book is Growing Public: Social Spending and Economic Growth since the Eighteenth Century (two volumes, 2004). He has served as the elected President of the Economic History Association.

Boris Mironov is a Professor at St Petersburg State University and the Russian Academy of Sciences. Recent publications are The Social History of Imperial Russia, 1700–1917 (two vols., 2000); ‘New Approaches to Old Problems: The Well-Being of the Population of Russia from 1821 to 1910 as Measured by Physical Stature’, Slavic Review (1999); and ‘Russia: Modern Period’, in Oxford Encyclopedia of Economic History (2003). He is currently preparing a book on the theme Modernization and Well-Being of Russian Population in the Eighteenth through Twentieth Centuries: Anthropometric History.

Muriel Neven is a Research Associate of the Belgian National Funds for Scientific Research attached to the University of Liège. In Individus et familles: les dynamiques d’une société rurale. Le Pays de Herve dans la seconde moitié du XIXe siècle (2003) she describes the challenges faced by rural families during the Industrial Revolution. She has also published in The History of the Family and Continuity and Change, and is currently working on the genetic, social, and economic dimensions of inheritance in nineteenth-century society, both in a vertical (intergenerational transfers) and horizontal (sibling effects) perspective.

Michel Oris is a Professor of Economic History at the University of Geneva. His research is concerned with the economic and demographic history of industrialization in Eastern Belgium and the Canton of Geneva. He is co-editor of two recently published collections When Dad Died. Individuals and Families Coping with Distress in Past Societies (2002) and The Road to Independence. Leaving Home in Western and Eastern Societies, 16th–20th Centuries (2004). Those collections and the contribution in this volume developed from his participation in the Eurasia Project for the Comparative History of Population and the Family (EAP).

Prasannan Parthasarathi is an Associate Professor of History at Boston College. He is the author of The Transition to a Colonial Economy: Weavers, Merchants and Kings in South India (2001) and articles in Past and Present and the Journal of Social History.


Jaime Reis has been Professor of Economic History at the European University Institute, Florence, and Professor and Dean at the Faculty of Economics at the New University of Lisbon. He is currently Senior Fellow of the Instituto de Ciências Sociais, Lisbon University. His latest publications include: ‘How Poor was the Periphery before 1850? The Mediterranean versus Scandinavia’, in Jeffrey Williamson and Sevket Pamuk (eds.), The Mediterranean Response to Globalization before 1950 (2000) and ‘Bank Structures, Gerschenkron and Portugal (pre-1914)’, in Douglas J. Forsyth and Daniel Verdier (eds.), The Origins of National Financial Systems: Alexander Gerschenkron Reconsidered (2003).

Osamu Saito is a Professor at the Institute of Economic Research (IER), Hitotsubashi University, Tokyo, and has been working in economic history and historical demography. He is currently Programme Leader of IER’s Research Unit for Statistical Analysis in Social Sciences. His recent publications include Population and Economy: From Hunger to Modern Economic Growth (2000), co-edited with T. Bengtsson and Emergence of Economic Society in Japan, 1600–1859 (2004, co-editor with A. Hayami and R. P. Toby).

Richard H. Steckel is SBS distinguished Professor of Economics, Anthropology, and History at the Ohio State University. Since the mid-1970s, he has contributed to anthropometric history, an interdisciplinary field that blends subject matter from economics, history, human biology, and medical anthropology. His latest book (co-edited with Jerome Rose) on The Backbone of History: Health and Nutrition in the Western Hemisphere (2002) examines pre-Columbian health over the millennia. He has been the principal investigator on numerous projects funded by the National Science Foundation and is a Research Associate at the National Bureau of Economic Research.

Noriko O. Tsuya is Professor of Economics at Keio University in Tokyo. She holds a Ph.D. in sociology from the University of Chicago with a specialization in demography. Her recent publications include Marriage, Work, and Family Life in Comparative Perspective: Japan, South Korea, and the United States (with Larry L. Bumpass) (2004).
Economic Growth, Human Capital Formation and Consumption in Western Europe Before 1800

JAIME REIS

1. Introduction

This chapter focuses on three aspects of pre-industrial European economic history and the possible relationships between them. The first, based on a growing body of recent studies, concerns the long-term growth experienced by the European economy over the two and a half centuries prior to the Industrial Revolution, or, at least, by important parts of it. It was an unequal process, in terms of time and space, which had as one of its consequences the emergence, by the eighteenth century, of significant differences of income per capita that may have helped to shape the course of industrialization over the next century or so. The second is a correlate of the first and refers to the probable rise in the standard of living over the same period. Once again, it was an uneven evolution, with a very diverse impact on social groups, gender, and the rural/urban divide, as well as on nations and the regions within them. The third aspect has to do with the remarkable increase in human capital that accompanied these other two processes and, especially, the unprecedented rise in literacy that was a part of it. This too was hardly a homogeneous or linear development, either spatially or temporally, and its causes and consequences have yet to be clearly understood.

The maps of these three histories reveal similarities that suggest some interactions between these variables. In particular, they raise two interesting possibilities. One is that human capital may have provided an important contribution to economic growth, in a similar fashion to what has been claimed so often for the nineteenth and twentieth centuries. The other is that human capital in turn may have been causally determined by income and may have come to represent a relevant item in the growing consumption evidenced by Europeans, along with such ‘new’ goods as better and fancier textiles, house furnishings, exotic foodstuffs, and personal adornments. The second of these issues is the one on which we concentrate here.

We do this first of all by asking whether the meaning and purpose of literacy do

The author wishes to thank Gerben Bakker, Hans Boecker, and Laurence Fontaine for their help.
indeed allow us to regard it as a part of the bundle of items that define the standard of living of Europeans in the pre-industrial era. In the second place, we explore the extent to which this acquisition may serve as a guide in assessing the presumable improvement in welfare in the event that the resources available for consumption should have been growing over time relative to the population.

The chapter, which is entirely based on secondary sources, consists of four parts. The first presents evidence in support of a growth in income per capita in Europe from the sixteenth to the eighteenth centuries, and discusses the standard of living debate that goes with it. The next section maps the rise of human capital during the same period and discusses its principal determinants. It also shows that to an important degree human capital functioned as an investment good, the acquisition of which served to enhance the productivity of those who possessed it. The third considers the other uses to which reading and writing could be put in this historical context, with special attention to book ownership and reading for pleasure and edification. The aim is to try and separate that part of human capital which could be viewed as an investment good, because of its economic functionality, from that which might be seen as an end in itself. Only the second can be deemed a direct source of utility and can therefore be included in the basket of consumable goods that income could buy. The fourth part discusses the implications of this for the standard of living question prior to modern industrialization. It tries to show that the contribution of human capital as an immaterial good was in fact significant and justifies a revision of current views regarding the levels of well-being achieved before 1800. This is followed by a conclusion.

2. Long-Term Growth and Standard of Living in Pre-Industrial Europe

The quantification of Europe’s macroeconomic performance between the sixteenth and the eighteenth centuries has attracted considerable interest over the last decade or so. Essentially this can be divided into three types of exercises. In an initial stage, attempts were made to estimate gross domestic product (GDP) per capita at constant prices over long periods, by both direct and indirect methods. Despite the not unexpected problems with data, assumptions, and index numbers, interesting and challenging results for several countries and for periods of two or more centuries have become available as a result. The picture that has emerged from this is not only one of stagnation or even slight regression over some areas of western Europe (Iberia, Italy, and Poland) but also of fairly sustained growth in the Netherlands, Belgium, France, and England (Table 8.1). Rates were far from constant over time and even in the economically more dynamic regions they averaged no more than a couple of decimals of a percentage point over the entire period. It has been tentatively suggested that, between 1600 and 1800, the economy of western Europe grew per capita at about 0.1% a year or about 22% in toto (Malanima 1995), a conclusion that, although modest, nevertheless contradicts a ‘stagnationist’ perspective on the Early Modern period and hints at quite a different ‘pre-Industrial Revolution growth model’ for the continent.1

A second type of research has focused instead on the evolution of real wages (PPP—purchasing power parity—deflated)2 for both skilled and unskilled urban labour. This follows a tradition of evaluating the movement of GDP per capita or of productivity using these indicators when direct information is unavailable. The claim is that over the long run a fairly good match can be obtained between proxy and proxied variables (Williamson 1995). The data gathered recently for seventeen major cities reveal noticeable parallels with the findings above (Allen 1998; Ozmucar and Parmuk 2002). A gentle upward trend is displayed for the London—Amsterdam region between the late sixteenth and late eighteenth centuries,3 and confirms its strong performance as revealed in Table 8.1. Stagnation or slow decline characterizes the situation in Naples, Antwerp, Florence, Milan, Madrid, Paris, and Strasbourg to the west and south. This reveals some discrepancies with the picture presented earlier, for example, Paris and Strasbourg, but otherwise strong parallels with it too. To the east, in a region that has received less attention in this field, the picture of stagnation/decline is similarly visible, in Leipzig, Vienna, Krakow, Warsaw, and Istanbul. The exceptions are Augsburg and Gdansk. The conclusion points again to a probably slight long-run increase in GDP per capita in the aggregate, encompassing both dynamic and stagnant/regressive situations across Europe, as well as periods of growth alternating with stagnation or even with contraction.

A third approach corroborates to some extent the outline of the long-term evolution of per capita GDP shown above by providing a league table for this variable around 1810. This macroeconomic outcome at the end of the Ancien Régime brings to light again the contrast between the most dynamic economies portrayed in Table 8.1—England, the Netherlands, Belgium, and France—and,

---

3. Table 8.1. See the table for details. This table provides a summary of the long-term growth of per capita output (constant prices), and the annual rates of growth for various European countries. The data are based on various sources and methods, and are presented in a tabular format for easy comparison. The table highlights the differences in growth rates across different regions and historical periods.

---

Table 8.1: Long-term growth of per capita output (constant prices), seventeenth and eighteenth centuries

<table>
<thead>
<tr>
<th>Period</th>
<th>Overall growth (%)</th>
<th>Annual rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium (Flanders/Brabant)</td>
<td>1610-1812</td>
<td>32</td>
</tr>
<tr>
<td>Italy (north and centre)</td>
<td>1600-1800</td>
<td>0</td>
</tr>
<tr>
<td>Spain (Castile)</td>
<td>1590-1800</td>
<td>7</td>
</tr>
<tr>
<td>Holland</td>
<td>1580-1795</td>
<td>38</td>
</tr>
<tr>
<td>England</td>
<td>1570-1750</td>
<td>69</td>
</tr>
<tr>
<td>Poland</td>
<td>1580-1820</td>
<td>-10</td>
</tr>
<tr>
<td>France</td>
<td>1600-1800</td>
<td>32</td>
</tr>
</tbody>
</table>

Notes: The one for France is a lower bound estimate. The same source also proposes a growth rate of 0.6% per annum.

Sources: Blomme, Bayst, and van der Wee (1994); Malanima (1994); Yun (1994); van Zanden (1993); Strook (1994); Topolski and Wysczenki cited by van Zanden (Chapter 7, this volume); Marczewski (1961).
at quite a distance, a by now clearly peripheral group composed of Iberia, Italy, and Poland, with roughly half the income level of the Anglo-Dutch 'economic core' (van Zanden 1998). This revision of the long-run economic evolution of pre-industrial Europe, which allows for some measure of growth, is far from implausible, on both theoretical and empirical grounds. The former rests on the severe critique to which the previously and widely accepted 'stagnationist' approach to this question has been subjected (Persson 1988; Grantham 1999). According to these authors, the economics of this period were not locked into a stationary equilibrium from which escape was possible only in the case of some strong exogenous shock. Technological progress was indeed available in most fields of production if the right conditions were met. Perhaps the most important of these was demographic growth, which led to market broadening and to incentives for a greater degree of division of labour and regional specialization. This laid the foundations of slow but steady processes of learning-by-doing as the increase in the repetition of productive operations increased the probability of finding better ways of operating. Technical knowledge was thus increased and, given the right institutions, became cumulative, irreversible, and transferable to future generations.

Recent data on productivity and structural change reinforce this point of view and come from three different areas of research. The most important, the primordial role of agriculture at the time, is the way in which the productivity of labour in this sector mirrored the path of GDP per capita. From the early sixteenth to the late eighteenth centuries it rose in England by 100%, and in the Netherlands by 40%, whereas elsewhere it was more or less constant (Allen 2000). In the case of France and using a different measure of productivity—TFP—a slow improvement in overall agricultural efficiency in the long run can also be shown (Hoffman 1996). This is punctuated by periods of regression and strong regional contrasts, but reveals a variation that is very similar to the 10% rise for labour productivity between 1600 and 1750 established by Allen (2000).

The rising importance of urbanization and its particular intensity in the more dynamic northwest is a second reason for endorsing the growth scenario we are considering, particularly as regards the Netherlands, which achieved a remarkable degree of city development by the seventeenth century (de Vries 1984). This conclusion is founded on the widely recognized fact that productivity at this time was considerably higher and more apt to increase in manufacturing and the services, the two pillars of the urban economy, than in agriculture (van Zanden 1998). It is also borne out by the generally higher per capita incomes associated with life in the towns and the cities, a fact which in turn was responsible, at least in part, for the rising inequality of income distribution in the areas of high urbanization (van Zanden 1995).

A third factor that is likely to have contributed to an upward income trend is the expansion of the labour input relative to the population that was characteristic of this period. This could have originated in several ways. One was the decline of real wages that van Zanden (1999) has pinpointed and which could have driven workers to make a compensatory larger effort in terms of days and hours in employment. An alternative and not contradictory interpretation links this increased collective exertion to the occurrence of an 'Industrious Revolution' in Europe. According to de Vries (1994), what drove households to engage in a greater extent in wage employment, and to a lesser one in domestic duties, was the appearance of new consumption opportunities offered by the market for goods. This stimulated new levels of consumerism that could only be achieved by means of these greater workloads. At the same time, in some better-off regions infrastructural development improved year round transport to such a degree that it reduced seasonality in certain types of activity, with the consequence that the labour force found itself occupied for longer periods in the year than used to happen before (de Vries and van der Woude 1997).

Although the study of the pre-industrial standard of living is still in its early days, at first sight, an evaluation of its movement should not present great difficulties, given the evidence on real wages and GDP per capita adduced above. In fact, agreement on this subject seems somewhat elusive. On the one hand, the evidence marshalled by van Zanden (1999) points in the direction of steadily declining real wages in most parts of Europe, with two negative effects on welfare. The first was a reduction in per capita consumption of better quality foodstuffs, such as animal products. The second was a loss of utility caused by the poorer segments of the community having to work more, as noted above, in order to make up for the shortfall in real income. A contrary, 'optimistic' perspective is based on several arguments. To begin with, the alternative PPP real wage estimate by Allen (1998) brings to light a more ambiguous portrayal of the situation. In some places, wages rose, in others they fell, and in still others they stagnated. In the second place, one may want to question how different the marginal utility of leisure was from zero for the mass of the lowly paid, underemployed, and/or seasonally employed workers, as the 'pessimist' case requires, and therefore whether working more brought a net loss of utility to them. Finally, there is the claim of a 'consumption revolution', which appears to have swept through eighteenth-century Europe and was probably present in some areas already in the seventeenth. The improvement in the standard of living quarters, the growing acquisition of higher quality durables, and the consumption of large amounts of exotic foodstuffs in such diverse places as England, France, Spain, Tuscany, and the Netherlands, all signal a picture of broad material improvement, across all classes and in both city and country, that goes very much against the idea of stagnation or regression in the standard of living. The 'material consumption' approach to this emerging standard of living controversy is not the only methodological possibility but it is probably the most frequently used. This does not mean, however, that it is exempt from serious technical shortcomings. Some of these are common to any attempt to handle the problem. Scarce and unreliable data and ambiguous results that do not lend themselves to unequivocal interpretation are the chief ones here although they are perhaps less problematic in this instance than in the case of the other methodologies at our disposal. Other difficulties are more specific and have to do with its focus on post mortem inventories as the principal source of information.
One distortion this causes is that it leaves out that sizeable fraction of the population that was too poor to be worth recording in this way because they possessed so few durable articles of consumption. Another is that it fails completely to take into account current consumption, thus ignoring the bulk of acquisitions made in the course of a person’s lifetime. As a result, questions pertaining to the life cycle of individuals receive no attention either. Any conclusion drawn therefore can only reflect their welfare status at a very special moment of their existence and yields little knowledge concerning the population as a whole.

From the point of view of this chapter, the main defect of the ‘material consumption’ approach, however, is its exclusive focus on material articles. Although the latter were indisputably the principal source of utility of the pre-industrial population, it is argued below that during this period there was a significant shift in personal expenditure away from material and towards immaterial goods. The centrepiece of this exercise is human capital formation, an indicator that is not usually included in standard of living studies and can be used in two ways. As an item of personal expenditure, it can serve to gauge the economic capacity to acquire, in the same manner in which the presence of mirrors, textiles, or sugar and coffee can. Alternatively, human capital generates a stream of utility of a kind that is not commonly taken into consideration, probably because of the problems of measurement it raises. During the period in question, like some material assets it conferred status and rank on its possessor and it could enhance the productive capacity of its bearer. But it was also a means to the fruition of individual non-material satisfaction such as comes from a greater knowledge and a better understanding of one’s self, an enlarged ability to communicate with others, a richer religious experience, or the possibility of participation in public or community life. The present study is directed at the second of these perspectives. It constitutes therefore a response to the call to widen the discussion on living standards in the past by adding to the conventional purchasing power of private income approach broader aspects such as are proposed by the Human Development Index (HDI) methodology (Crafts 1997).

3. The Rise of Human Capital

The history of human capital in Ancien Régime Europe is a difficult and immense undertaking. In order to render the subject somewhat less unmanageable this chapter takes a restricted view of the concept, in the form of literacy, and uses the capacity of individuals to sign their names on documents such as marriage registers, wills, or other public declarations as its measure. It therefore ignores that vast part of the stock of human capital the acquisition of which did not involve schooling, whether formal or informal, and concerned mastering directly productive skills, for example, apprenticeship to crafts or learning on the job. It also means that it leaves out those aspects of human capital, which are often referred to in the specialized literature and pertain to health and physical vigour.

Historically, this notion of literacy can have many meanings. It can go all the way from being barely able to read a printed text (often helped by previous memorization) to a capacity to read handwriting and to write one’s own thoughts in a coherent manner. Distinguishing between these gradations is a complex task, which for earlier times is often rendered unviable by a lack of suitable data. The choice here of signatures as a proxy, although heavily criticized in the literature is nevertheless widely endorsed and can be justified on several grounds (Schofield 1973; Hoyler 1998). It is objective, it can be expressed quantitatively and it is fairly homogeneous across space and time, a vital condition for comparative analysis. It has the further merit of reflecting not only an ability to write, which by itself would otherwise be practically impossible to test for, but also a certain manual ability to handle writing materials, even if not necessarily to write in the fullest meaning of the term. The acquisition of this level of literacy therefore presupposed a relatively sustained and prolonged effort of learning, particularly as during these centuries reading and writing were distinct forms of know-how which, unlike nowadays, were achieved in separate and successive periods, typically of three years at a time. The consensus is that before 1850, that is before the rise of officially promoted mass education in Europe, the proportion of those able to sign their names was higher than of those merely able to read but not write, and was lower than those able both to read and to write sentences.

If it is perhaps exaggerated to say that between 1500 and 1800, Europe experienced an ‘educational revolution’, one cannot deny that during these centuries a profound transformation took place nevertheless in this field. According to Étienne (1980), it was ‘one of the most important mutations in the European history of the early modern period’. Although the rhythm of change varied over time and final outcomes were hardly the same everywhere, there was a striking alteration throughout the continent. From a minute familiarity with reading and writing at the beginning of the sixteenth century, for example, in England 10% of males and close to 0% of females (Cressy 1981), levels were reached three hundred years later that were several times higher in all countries, and in some regions were not far from the 100% mark.

Table 8-2 presents a literacy map of Europe at the end of the eighteenth century which renders evident the remarkable progress in educational attainment made since the sixteenth century. Admittedly, the use of national literacy rates as measured by the ability to sign, at a time of so much intra-national heterogeneity, is a perilous undertaking. The picture that emerges for the end of the Ancien Régime is, however, a clear one. The essential facts have been known for some time although fresh research keeps on filling it in with new facts. Around 1800, there was a high literacy core occupying roughly a broad swathe of northwest Europe, where already 60-80% of the male population could read and write, the same being true for somewhat above 40% of the female one. These figures cover the rural and the urban sectors and they refer to present day Belgium, the Netherlands, England and Scotland, Germany, west of the Stralsund–Dresden line, and France, north of the Geneva–St Malo line. Beyond the northern, eastern, and southern edges of this region,
Table 8.2 Literacy rates in Europe c.1800 (% of adults who could sign their name)

<table>
<thead>
<tr>
<th>Italy</th>
<th>Piedmonte</th>
<th>Duchy of Parma</th>
<th>Marche</th>
<th>Hungary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saxon</td>
<td>—</td>
<td>45</td>
<td>17</td>
<td>—</td>
</tr>
<tr>
<td>Hesse</td>
<td>—</td>
<td>44</td>
<td>6</td>
<td>—</td>
</tr>
<tr>
<td>Norway</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>6</td>
</tr>
<tr>
<td>Sweden</td>
<td>—</td>
<td>—</td>
<td>25</td>
<td>—</td>
</tr>
<tr>
<td>Portugal</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>In 1700</td>
<td>—</td>
<td>89</td>
<td>32</td>
<td>6</td>
</tr>
<tr>
<td>England</td>
<td>60</td>
<td>44</td>
<td>17</td>
<td>6</td>
</tr>
<tr>
<td>Scotland</td>
<td>65</td>
<td>37</td>
<td>17</td>
<td>5</td>
</tr>
<tr>
<td>France</td>
<td>48</td>
<td>37</td>
<td>17</td>
<td>5</td>
</tr>
<tr>
<td>N. France</td>
<td>71</td>
<td>37</td>
<td>17</td>
<td>5</td>
</tr>
<tr>
<td>S. France</td>
<td>44</td>
<td>37</td>
<td>17</td>
<td>5</td>
</tr>
<tr>
<td>Belgium</td>
<td>60</td>
<td>37</td>
<td>17</td>
<td>5</td>
</tr>
<tr>
<td>Netherlands</td>
<td>73</td>
<td>51</td>
<td>—</td>
<td>5</td>
</tr>
<tr>
<td>Germany</td>
<td>Saxony</td>
<td>89</td>
<td>32</td>
<td>6</td>
</tr>
<tr>
<td>Hesse</td>
<td>91</td>
<td>44</td>
<td>17</td>
<td>6</td>
</tr>
<tr>
<td>Norway</td>
<td>—</td>
<td>—</td>
<td>25</td>
<td>6</td>
</tr>
<tr>
<td>Sweden</td>
<td>—</td>
<td>—</td>
<td>20</td>
<td>6</td>
</tr>
<tr>
<td>Portugal</td>
<td>—</td>
<td>—</td>
<td>&lt;20</td>
<td>6</td>
</tr>
<tr>
<td>Italy</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>6</td>
</tr>
<tr>
<td>Piedmont</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Duchy of Parma</td>
<td>45</td>
<td>23</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Marche</td>
<td>17</td>
<td>6</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Hungary</td>
<td>—</td>
<td>6</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

- Available for 1700
- For rural population
- For 1848


In England, there was still a growth of 50% over the period 1700–1800 while in the Netherlands, the 1700 level was already so high—at 70%—that further expansion had to be slow. In terms of national literacy levels, there had been a major shift during these three centuries. Southern Europe, which had led the way in the sixteenth-century expansion, lost its dynamism during the second half of the period. In the meantime, the economically and socially more vigorous regions of the seventeenth and eighteenth centuries accelerated and overtook the South, to constitute the core of c.1800 alluded to above. Beneath these national level indicators, enormous differences were present, however, which only become apparent when we narrow our perspective to the level of the region, the town, the village, or the hamlet. A suggestive example comes from Provence, where during the late seventeenth century good literacy scores were attained in the villages of the right bank of the river Durance, while the communities across the water were sunk in illiteracy (Vovelle 1975).

When considered in the very long run, it is no less impressive that this rise in human capital was also very much the result of a spontaneous process, not of one that was exogenously imposed on society by the state or the church. Indeed, most states neither wished nor felt capable of centralizing, uniformizing, regulating, and financing a universal educational system, as was to happen subsequently, during the nineteenth and twentieth centuries. Even less were they inclined to use coercion in order to reduce illiteracy in the sense we are using here, and few that tried succeeded convincingly. Indeed, to speak of a ‘system’ would be nothing but a mis-description of the educational situation of most of pre-industrial Europe. A most insignificant proportion of children learned to read and write in contexts other than the school. The well to do had private tuition in the home, children who were apprenticed to a craftsman were taught by him as a rule (van Deursen 1991) and a small but unknown number were autodidacts. Schools, in one form or another, were thus the principal but by no means the exclusive vehicle for the spread of literacy—for instance, in sixteenth-century Castle, one third of a sample of 800 defendants tried by the Inquisition were literate but had never attended school (Nalle 1989).

In the formal sector, the means to learn to read and write (and also count, a technique that is not considered here) were provided by a large variety of sources in anything but a coherent manner. The state, the church, the lords temporal and spiritual, town and city authorities, pious institutions, such as orphanages and confraternities, local communities, or simply private enterprise, all catered for this need. Equally diverse was the spread across territory and across time of this collective but chaotic effort, with the resulting enormous disparity in the availability of educational resources relative to population. Even at short distances, from one parish to the next, an abyss could separate two neighbouring experiences in this field.

For the arguments advanced by this chapter two features of early modern educational practice deserve to be stressed. As mentioned earlier, the decision to impart reading and writing skills to oneself or to one’s progeny was essentially a private, household affair. In most of the major cities and towns of Europe, orphans,
objective. patting

The preceding remarks strongly

imperative. pating

was what happened in late seventeenth-century France where, despite various royal
effects to the contrary ‘there was never any likelihood of children being forced to go
to school’ (Houdaille 1977). The second feature lies in the fact that the exercise
of this choice faced important constraints. These included the uneven distribution
of schools, the poor quality of many teachers (teacher training only became a reality in
the nineteenth century), the disfavour of the higher spheres of society vis-à-vis
the education of the lower classes, and popular prejudice against the replacement of oral
tradition by written forms of expression. The most important one, however, was
clearly the cost that education entailed for the individual or the family.

Apart from the opportunity cost of keeping a child out of work for several years,
in the majority of cases schooling had to be paid for by its recipients to an extent that
depended on the degree of other support received from the Church, the local
authorities, or private benefactors (Schofield 1973). In the second half of
the eighteenth century in Paris, 168 schools were for profit while only eighty were
charitable but even the latter required some payment from most students, to cover
the teacher’s salary (Saugnieux 1986). Fees were extremely varied but rarely
insignificant, particularly for that large part of the working population who earned
a miserable wage and only had an insecure and/or seasonal occupation; or who were
independent producers in the primary sector and highly vulnerable to the con-
tingencies of the weather, prices, or of personal health.19 Indeed, if as this can be
discussed with any precision, the consensus of the literature is that it was a heavy
burden and for many an economic impossibility.20

The preceding remarks strongly suggest that human capital at this time had two
features that likened it to an investment good. Its acquisition had a cost, which
meant forsaking some present consumption for the sake of future benefit, and, once
acquired, it could perform over a lengthy period, in this case probably a lifetime.

It is possible that the decisive question is whether it also served to generate a stream of
utility over the duration of the investment and for this there is abundant evidence
that indeed it did. This comes from three main areas of human endeavour where it is
clear that pragmatic reasons were instrumental in driving many men and women
across early modern Europe to invest in the capacities that human capital bestowed
upon them.

The first of these was the role of literacy in acquiring, consolidating, and sign-
alling social status. From early on, in the upper classes everywhere in Europe,
that is, excluding all those in trade or manual occupations, reading and writing
skills were virtually universal. Yet how ‘necessary’, in practice, was this to the
English gentry or to the members of the ‘three robes’ in France? For some it
would have been very important for the exercise of their occupations, but for many
others—all those who were not actively engaged in administering estates, participat-
ing in politics, public administration, military activity, or justice—it was hardly
imperative. On the other hand, not to receive an education, probably at a higher level

than the simple three Rs, would have been unthinkable, so much had it become a
mark of social distinction, apart from the fact that anyone in these strata was liable
to be called upon to undertake such tasks at any moment (Quénéhat 1977). The mass
of the population was not alien, however, to such considerations either. Further
down the social ladder, for anyone seeking upward mobility, literacy could be a
powerful and indispensable tool. In late seventeenth-century rural Catalonia, for
example, rich peasants who sought to rise socially, left the traditional hearth to go
and live in the town and had their children educated.21 The same goes for Griete
Pietensdochter, a poor widow with four illiterate children in seventeenth-century
Amsterdam. Her second husband was also of humble origin but was able to become
rich and rose to high officialdom in the city. The offspring of this later marriage
were sent to school and became literate (de Vries and van der Woude 1997).

The counter-proof is constituted by that great majority of Europeans who had no
realistic hope of ever changing their position in life. According to Houston (1988),
this was one of the main reasons that strongly limited their interest in education and
therefore the spread of literacy during pre-industrial times.

A second motivation for acquiring literacy is illustrated by a recent article by
Nilsson, Pettersson, and Svensson (1999), who have identified the need for a more
powerful ‘transactions technology’ among farmers in southern Sweden. Around the
turn of the eighteenth to the nineteenth centuries, it became increasingly important
for them to be able not only to sign their names clearly but also to be able to
apprehend the meaning of legal charters, leases, titles of ownership, and so on. On
this depended the successful participation in the then on-going process of land
redistribution and enclosure, the legal intricacies of which were hardly minor.22 As
a result, during the 1780–1820 period, in freetholding parishes, the literacy of pe-
asants rose from around 40% to over 80% and the highest rate was to be found among
those who applied for enclosure.23 Obviously, situations of this kind were not so
common in earlier periods but the concept of a ‘transactions technology’ finds a
useful application in the far more numerous cases of participation in local gov-
ernance by the members of the ‘popular classes’. Thus, it is interesting to note that in
several well-known instances of low-income mountainous regions, where literacy
was unexpectedly high for a rural milieu, an active involvement in a very open and
democratic conduct of local affairs was prevalent. This was so, for instance, in the
Alps near Briançon during the eighteenth century, where at assemblies of heads of
households, more than 90% of them signed legal documents, the same happening
temporaneously in Hesse (Granet–Abisset 1996; Hofmister et al. 1998).

The preceding examples illustrate some of the ways in which the self-interest
of individuals and even of communities might be served by raising literacy stand-
ards. Human capital in this form found its most powerful motivation, however, in
its day-to-day usefulness for the exercise of professional occupations and in this
sense was strongly determined by development and economic growth. Both points
have been forcefully made in a variety of national and chronological contexts and the
evidence that sustains this is nothing less than abundant. For the macroeconomic
perspective, what has been asserted by de Vries and van der Woude (1997) about
seventeenth-century Netherlands can be claimed for almost anywhere in early modern Europe. The importance of education to industrialization remains unclear and contested but its importance to the development of a differentiated, complex commercial economy needs no further rehearsal here. From a micro point of view, the conclusion is the same. Already in the sixteenth century, in early Reformation Germany, many towns were promulgating ordinances to foster education, not on religious grounds, but because it was deemed important that both artisans and tradesmen learn to read, write, and count (Gawthrop and Strauss 1984). The same functionality was present in seventeenth-century England where the literacy of craftsmen was deemed ‘roughly commensurate with occupational requirements’ (Cressy 1981) and in France it was the same. Besides a rise over time in the proportion of the labour force engaged in occupations that called for reading and writing skills, an upward drift in literacy was also occurring driven by the increased requirement in this respect within many occupations themselves. This could arise in a variety of ways. One of them was the expanding recourse, in retail activities, to customer credit, particularly during the eighteenth century, and the consequent need among small traders and shopkeepers to administer effectively an increasingly complex system of ‘accounts books’ in which the appropriate tallies were kept (Chartier et al. 1976). Another was the rise in the cultural level of the clientele itself which created a greater demand for sophistication on the part of suppliers too, a phenomenon that was particularly visible in the ‘higher trades’, such as cabinet makers, tailors, and tailors (Quéniard 1977). Finally, the educational needs associated with the greater complexity of certain tasks themselves have been suggested as being on the rise (Houston 1988). The strength of the link between literacy and productivity finds support in the large literature that describes the socio-economic stratification of literacy among males during the period. The picture varies little from country to country or even from region to region. At the top of the pyramid, where one encounters the nobility, the high administration and professionals such as doctors, pharmacists, and lawyers, the ability to sign (and probably much else as well) was practically universal by the seventeenth century. In the towns, they were closely followed by large merchants, financiers, contractors, and the like, also with high attainments from early on, and at a distance by people in trade and in the ‘better’ crafts. In London, of the last two categories the first one was already in the 60% range by the late sixteenth century, rose to 70–80% during the next 100 years and was almost universally literate by the middle of the eighteenth century. Meanwhile, in provincial England they progressed at a more gradual pace: 40%, 50–60%, and 70% respectively. The lower crafts followed a parallel path but further down the scale (Cressy 1980). In a rural setting, the better-off farmers, whether landed or tenant and in whichever country, also formed a cultural elite endowed with reasonably higher and rising educational achievement. On the other hand, unskilled manual workers occupied the lowest positions, both in rural and in urban settings, usually with very low rates, which over time climbed slowly, if at all, and then only in the more ‘advanced’ countries of the European core. At one extreme of this spectrum, we find that 66% of Amsterdam’s ‘proletarians’ could sign their names already by 1700, while in the twenty-three English parishes studied by Schofield (1973) the figure was 65% for labourers and servants in 1785–1814. At the other end, peasants and farm workers in Hungary and around Parma reached no higher than a 6% rate around 1800 (Marchesini 1983; Toth 1998).

A further demonstration of the importance of the practical benefits of human capital in determining whether to acquire it lies in the role played by gender in its distribution throughout society. Everywhere in Europe and at all times until well into the nineteenth century, women were considerably less literate than men and only rarely did this gap close much. Moreover, when literate their ability in reading and writing tended to be of a lower standard than that of men in the same socio-economic stratum (Grevet 1985). One reason was that in a situation of scarcity of resources, it made sense to undereducate girls and favour boys instead because the latter were the future heads of households and holders of the jobs where this know-how was required. This is confirmed by the fact that women tended to be relatively more literate where they were business associates of their husbands or were in business for their own account, as was frequently the case of widows. It was thus not enough that they were their wives, a situation in which their ignorance would be freely allowed to reflect their lowly social status (Quéniard 1977). This outcome was also a non-economic response to the prevalent code of values. For as long as women, in early modern society, occupied a subordinate position within the family and the community it would have to be so since ‘the overriding aim was to offer an education appropriate to a person’s established place in society’ (Houston 1988). Like the poor, whom many feared might want to leave their lowly station and aspire to something better if they were sent to school (Larquén 1987), a greater extent of female literacy was viewed by many as unsettling for the natural order of things. Finally, it must be noted that although demand side factors played the major role in determining the pattern of the spread of literacy, supply side elements also shaped this outcome, and some of them clearly associated with the evolution of real income per capita too. Location was one of them. The unequal density of the population and better or worse communications made an enormous difference to the provision and cost of schooling and therefore to the chances of escaping illiteracy. In northern Castile, for instance, the famous Catasto de Ensenada (1754) reveals that only 22% of localities had a teacher and about as many again were within reach of a school. In other words, in the other half, the possibility to learn to read and write was virtually nil, whatever the other circumstances (Amalric 1987). From this point of view, the urban environment was the most favourable of all. As a rule it had not only a higher number of schools per capita and an easier access to them, but it was where there were better teachers and where the authorities inspected them more regularly and thoroughly (Compère 1995). But this was not the only reason why towns and cities had literacy rates that tended to be at least 20% higher than in the countryside. The daily life of early modern towns was permeated by the written word to an extent undreamed of in rural parts, as a result of the more frequent contact with the law, the authorities and the frequency of the circulation of printed information.
They contained the highest proportion of individuals engaged in occupations—crafts, trade, and other services—for which at least an elementary education was essential, not to mention the fact that they concentrated the majority of the highly educated who served in the Church, the administration, and the professions. On average, their inhabitants were more prosperous when compared with the rural population and could therefore more easily afford the acquisition of this know-how. And those who were not well off were eligible for the many charitable opportunities that were available in the cities and towns, where their wealthy founders tended to live. Finally, it was among urban dwellers that the small degree of upward mobility that was possible in pre-industrial times had its principal focus. Taking the upper classes as a role model entailed copying their cultural traits and the first step was schooling and the achievement of literacy. Being physically and socially closer to them in the cities made this still more likely to happen (Furet and Ozouf 1977).

4. Human Capital as an Article of Consumption

A Mincerian approach (Mincer 1974) thus appears to provide quite a satisfactory way of analysing the growth and distribution of human capital in early modern Europe. To a great extent, human capital gave individuals a positive return on the resources expended to achieve it and they responded by acquiring it when the conditions warranted it. As the economy developed—and in particular underwent extensive urbanization and the expansion of the services and manufacturing—opportunities for making literacy economically advantageous rose too, and reading and writing skills spread throughout society at the appropriate levels. A similar effect was brought on by the growth of the state and the gradual replacement of traditional norms by the written law, both of which raised the premium on this 'transactions technology'.

A second implication of the situation depicted in the preceding section is that if this had been the whole story, then human capital would have no place in an enquiry into the standard of living, particularly one that was based on examining the stock of wealth of individuals over time. If it were found to be essentially like a producer good, such as tools, animals, or land, from which a stream of future earnings could be derived, and nothing else, it would no longer be an end in itself and therefore not an object of consumption, whether durable or not. In this case, it would be unsuitable as an indicator of consumption standards since the reason for which it was acquired was to produce more efficiently and/or to produce more. The question this poses is whether human capital could indeed have had any other functions besides. In other words, could it be considered in fact as an article of consumption to be included in the basket of standard of living goods? In this part of the chapter, we try to make a case for this possibility.

In fact, there is every reason to accept that reading and writing skills, for our purposes, can also be likened to a consumer durable that would be appropriate for inclusion in this basket. On the one hand, they were obtained by means of a market-related activity—education—that had a cost, and in order to enjoy a stream of gratification over a more or less prolonged period. Their acquisition was practically free of non-market restrictions and was therefore part of the standard mechanism whereby consumers allocate scarce resources to different ends in order to maximize their utility, an essential premise of the standard of living discussion. Although in itself not a form of direct satisfaction, except insofar as it could have had some kind of social symbolism that could be enjoyable in itself, human capital gave access to other forms of gratification which could be enjoyed as long as this asset was present and usable. These forms belonged to 'the non-material side of life, such as reading, religion, family life, friends, gossip, and games [which] were deeply valued and thus, in some sense, necessary' (Weatherill 1993). Reading, either for amusement or edification and spiritual uplift, was probably the most common way of using literacy in this way. For a smaller number, literacy was also the indispensable vehicle whereby personal correspondence could take place and thus the barrier of distance, to which all oral communication is subject, could be overcome. According to Jacques-Louis Ménestrel, a Parisian artisan of the late eighteenth century, writing was 'a way of keeping up contacts, giving news of himself, receiving money, and announcing his return when he was away from home' (Roche 1982). A third and still more restricted, but also more sophisticated field of application was the composition of autobiographic registers. This exercise became widespread in higher circles mostly from the seventeenth century but was not unknown to the humbler strata of society (Spufford 1979; Fossil 1986; Markussen 1990).

Potentially, the same literary skills could serve these 'consumption' ends as much as they could have 'functional' uses, and thus to analyse their respective importance it is necessary to find a way of separating them in their effects. Obviously, it is extremely difficult to say what part of an individual's human capital was a consumer durable and what part was a producer good. Even if this could be achieved, however, the problem still would remain of creating a proxy that would help gauge the extent of the personal, non-occupational benefits of being literate. Of the three aspects of immediate satisfaction made possible by literacy, which were mentioned above, the consumption of reading matter is not only the easiest to deal with, but also probably the one with the greatest impact on people's lives. This renders it an attractive approach through which to establish how those who were literate could make use of this capacity and what its value was to them, apart from other uses it might have. Since reading became closely connected during the period considered with the printed word, it is to the latter that we now turn our attention.

A great deal has been written on the history of the book in early modern Europe, and as a result a lot is known about its production, sale, possession, and diffusion, not to mention the types of literature encompassed by this activity. Estimates of the output of such a dispersed and complex industry are naturally less than reliable but all sources concur in that the number of copies produced reached remarkably high figures early on and expanded at a notable pace throughout the period considered. For the entire sixteenth century, a total of some 150 to 200 million copies is
likely and for the eighteenth century, it may have reached ten times that amount (Chartier 1987; Houston 1988). Since the population rose in the meantime by 80%, this affords an unmistakable sign of a strong upward movement in individual book-ownership during these centuries. This was naturally accompanied by a tremendous intensification in the respective trade, both fixed and itinerant. Not only a strong specialization developed but also a myriad of networks of a regional, national, and international scope which, by the eighteenth century, spread from Geneva, Troyes, Venice, Avignon, and Amsterdam into the deepest recesses of the countryside (Dooley 1996; Mello 2000). The average consumption of books went from two per capita and per century in the 1500s to ten in the 1700s, an evolution one should expect to see reflected in the statistics regarding book ownership derived from post-mortem inventories. This is indeed what happens, whether it is among Friesland farmers, where the proportion of the deceased with books increased from 10% to more than 50% of the families between the sixteenth and the eighteenth century (de Vries 1974); Madrid, where it went from 26% to 36% (Cruz and Corbacho 1999); Alsace, an essentially peasant society, where the rise was from 8% to 20-30% in the course of the 1700s (Boehler 1995); or England, 'where circumstantial evidence points to an increase in the reading public from the Civil War onward' (Stephens 1990).

Books were never cheap during these centuries and it should come as no surprise that their possession could not have been distributed at all evenly throughout society. Here we encounter again patterns that resemble those we considered while discussing literacy in conjunction with income and occupation. During the sixteenth century, libraries were mainly owned by the upper strata and the clergy, while in the popular classes book-owning families would not have exceeded 10% of the total and the number of items belonging to each one was tiny. But like the 'consumption revolution', there was a 'book revolution' in Europe too, which translated into a 'trickle down effect' through society that is reminiscent of what happened during the seventeenth and eighteenth centuries with respect to other consumer durables. In Paris, for example, the percentage of artisans and trades people with more than 10 books rose to 16.5% in 1700 and to 35% in 1780, and a similar movement is reported for the nine cities of western France where post-mortem inventories have been analysed (Chartier 1987; Fairchilds 1993). Although a desire to emulate one's better and rise above one's equals may have been at the root of such a trend, as has been claimed for material consumption in general, there is evidence that increases in real income were also responsible. The very high rank order correlation between classes of income and of book-holding families in England between 1675 and 1725 suggests this possibility strongly (Weatherill 1988; Shammas 1993). In Kimpenerwaard, a rich rural district of the Netherlands, overall book-holding rose from 45% to 76% of families between the seventeenth and the eighteenth centuries but the 'middle class' always had more than the peasants and within each class the better-off always owned more than the poorer elements (Kamermans 1999). These and other similar findings make it tempting to conclude that book ownership may have mirrored the use of literacy for non-functional purposes and would therefore enable us to determine the extent to which human capital served as a vehicle for immaterial consumption, independently of the other uses it might have. Unfortunately, there are several reasons why this link cannot be established.

The first point to make in this connection is that little solid evidence has been adduced to show what the direct correspondence between literacy and book ownership may have been in the early modern period. On the other hand, it is clear that not all who read books owned them, and not all books were read at all or were read for mere gratification. Many seventeenth- and eighteenth-century library inventories reveal the presence of 'technical books', on law, pharmacy, medicine, agronomy, and other practical subjects which would hardly qualify them for the 'spiritual' uses that we are looking for here (Chartier 1985-7). Indeed, it has been claimed that 'the private ownership of books was clearly oriented towards the practical needs of men, their profession, and the interests to which the latter gave rise' (Bödeker 1995). Books of this kind were really like producer goods, acquired to enhance their owners' productivity or gain, and generally not for reading for pleasure. They should not form part of any standard of living assessment exercise. Another aspect is that having a library for many also had a token value that contributed to status, this being as true for the humble as it was for the great. Among the former, it was not uncommon to have a Bible in the house that was probably never used but was held as a symbol of respectability and religiosity, and sometimes even for curative purposes. Lastly, books might not be consumed only or even at all by their owners but by somebody else and indeed by several readers successively. At a time when they were expensive items, it should come as no surprise that they were often borrowed informally but also from libraries or obtained by hire, two practices which proliferated in eighteenth-century towns and cities (François 1989; Braïd 1995).

A more serious preoccupation arises out of the fact that reading was not confined to books alone. An enormous amount of it and a steadily growing one too, focused on 'chap books', 'street literature', 'romances de cordel', or 'livres bleus', as they were variously designated across Europe, as well as newspapers, fly sheets, and other ephemeral publications. The first of these categories is particularly important for the present context given their abundance and widespread dissemination throughout society. They were unbound, poorly printed volumes, made out of the cheapest paper and varying in length from a few to as many as 200 pages. Although often 'sensational, scurrilous and pornographic' (Stephens 1990), the majority were serious and often devoted to religious, technical, and educational themes (Mandrou 1974; Hébrard 1996). They were traded over vast distances and handled through complex networks of wholesalers and chapmen. Their numbers cannot be assessed with any precision given that they were distributed to a large extent by peddlers and that they were rarely if ever mentioned in post-mortem inventories. Being very cheap, they were probably deemed to be worthless second hand and therefore not to be registered, but their frailty also ensured that they left little trace amongst the possessions of the deceased. Nonetheless, historians agree that they were a major source of reading satisfaction. In early eighteenth-century London, for example, just one of the fourteen London dealers who dealt in them had 400,000 copies in
stock on the occasion of his death (Chartier 1987). In Turin, the print run in almanacks alone for one year came to 230,000, at a time (1783) when the population of the city and its territory was slightly over 300,000 (Braida 1995). In Lisbon, meanwhile, it was commented that the circulation of ‘cordel’ literature was ‘abundant’ (Lisboa 1998).

While we may assume that for the many who had books, literacy was important because it was an indispensable means to deriving enjoyment through their consumption for its own sake, an even greater number were going to the trouble and expense of acquiring the means to read and yet owned none. What makes this even more of a paradox, however, is the fact this second group also lacked any clear functional reason, of the kind we examined in the preceding section, for making an investment in this capacity. Indeed, as literacy rates rose in Europe, particularly during the eighteenth century, a growing share of this seems to have been unrelated to any practical purpose for those involved. Many who did not need it for their productive activities came to participate in the process. This is particularly obvious with unskilled labourers but also applies to a lesser degree to the ‘lower crafts’, to artisans who engaged in a very limited amount of direct commercialization, and even to small traders and shopkeepers some of whom would not have been literate before. This evolution is particularly striking as regards the first of these categories given that they could not have required this acquisition for any practical use at all.

Yet in England, for example, the literacy rate in this stratum rose from about 10%, at the end of the sixteenth century, to 20–30%, one hundred years later (Cressy 1980) and to 41% by the middle of the eighteenth century (Scholfield 1973). During the same period, in Amsterdam, it went from 40% to 66% (in the group of ‘proletarian’ workers) (Kuiljers 1997) and, in Lyon, it rose from 20% to 37% for day workers and from 20% to 41% for gardeners during the eighteenth century, while in Provence the share of the literate among unskilled rural labour rose from 4% to 8% in the course of the eighteenth century (Vovelle 1975; Chartier et al. 1976). Interestingly, in Paris, among arrested petty criminals—who mainly stole food—60% were illiterate in 1730 but by 1783 this was down, impressively, to 40% (Roche 1987).

The issue this raises is whether this expanded willingness to invest in human capital on the part of the poorer layers of society can be taken as a part of the consumer revolution and therefore reinforces the message of the latter as regards the pre-industrial standard of living debate. Since human capital was necessarily formed at the expense of material consumption, such a conclusion seems unavoidable. The question which remains is to grasp what can have motivated the shift in the allocation of resources towards more widespread literacy among the many who stood to gain so little or even nothing from it in purely practical terms. Several factors may have shaped this situation. Furet and Ozouf (1977) have argued that emulation of the higher orders provided some of the motivation, just as it did with the consumption revolution in general, and that the lower strata pushed their offspring towards literacy as part of an imitative process. Houston (1988) has added that ‘higher wages for labourers might encourage investment not only in consumer durables but also in education’, suggesting a high income-elasticity of demand for this group. At the same time, it is tempting to think that the growing availability and increasing penetration of rural markets, during the 1700s, by the ‘blue book’ business, the only reading matter that was affordable to such people, had something to do with this ‘downward percolation’ effect. From originally having had an urban and more affluent readership in the sixteenth and seventeenth centuries, in the eighteenth century blue books became rural, ‘plebeian’, and truly popular, thanks to the thrust of ‘colportage’ and rising literacy (Botrel 1996). By 1730, they were said to have invaded the provinces in France and were known by heart throughout the countryside. By the first half of the nineteenth century, their readership in this country had become entirely rural (Lyons 1997), as such that strengthens our argument that the poorer classes were using their new-found literacy to read, even though their inventories show far fewer families with books than families where literacy was present.

All in all, it seems difficult to go against the notion that the analysis of the standard of living must be incomplete if proper attention is not paid to the place of human capital in it. This does not mean that the level of human capital can simply serve, by retropolation, as an indicator of the level of real income, although the latter clearly influenced the rate at which the former was formed. Indeed, the relationship between them is too complex to be modelled in such a manner. On the other hand, in the case of the unskilled and the barely skilled, human capital as an end in itself can be clearly distinguished, since it had no other purpose. This allows us to take an important step towards rendering it measurable so that it can meaningfully be included among the stock of durables used in order to evaluate how well-off people were in early modern Europe. The following section presents an exploratory effort in this direction.

5. Implications for the Standard of Living

In a controversial study, David Mitch (1992) has argued that, during the nineteenth century, England was grossly over-educated. The stock of human capital was well in excess of what was called for by the jobs performed, and its contribution to the epoch’s rapid economic growth was therefore small. This enormous literacy surplus was due to two circumstances: a steady expansion of educational facilities and a rising demand for reading and writing skills as a form of consumption by an increasing well-off society. Put in other words, the average product of human capital investment was positive and quite significant but at the margin, it may have been much smaller as a result of the complementary, non-investment role it had in society.

The present study detects a similar though not identical pattern in Europe during the latter half of the early modern period. At this time too, there was a surplus of human capital in the sense that certain segments of the population were educated without correspondence to their professional needs. In contrast, as we saw above, the total stock of human capital varied to quite a large extent in consonance with the
evolving requirements of the economy. This suggests two inferences. One is that the contribution of human capital to any growth there may have been will, in all likelihood, have been significant. The other is that, in this case, the literacy surplus was probably still quite small although it was on a long-term upward trend. Our interest lies in the second of these issues, that is, the extent of the acquisition of human capital as a form of immaterial wealth that individuals procured in order to enhance their spiritual well-being in particular and their welfare in general. The next question is whether this can be quantified and, if so, with what result.

To achieve this, we begin by treating the capacity to read and write (proxied by the ability to sign) as a costly asset in the portfolio of consumption durables that individuals accumulated and enjoyed during their lifetimes—furniture, clothing, ornaments, etc. The assessment of this portfolio and its components corresponds, somewhat arbitrarily, to the end of their lives because that is when they were usually inventoried. As is common in the literature, the total value thus obtained is employed, after suitable deflation, as a yardstick for gauging the standard of living and the relative weight of the items contained in this basket of more or less durable goods (Schuurman and Walsh 1994). In the present case, it serves for appraising the relative importance that human capital had in the overall picture. The first problem then is to put a monetary figure on human capital and this can be done in one of three ways.

Unlike most consumer durables, which would have had some sort of second-hand use and therefore a potential market price, human capital disappears with its possessor. In this perspective, the correct approach would be to attribute a value of zero to the little that is lost. However, what we seek to capture with this exercise is the value of the asset’s fruition during its owner’s lifetime, this solution appears unhelpful. A second way is to value the stream of utility over a given period by a conventional measure such as the asset’s rental value, using normal depreciation and discount rates. Given that human capital can be assumed to suffer no depreciation—it might indeed appreciate with use—this should constitute a relatively simple operation once we have its capital cost. The difficulty this time lies in estimating the equivalent stream of satisfaction generated by all the other assets in the inventory, an elusive target given that in many cases we would not know, either their current age or their depreciation schedules. The third option is a stock, rather than a flow solution, and it is this we follow here. It consists in taking the historic cost of human capital and confronting it with the current market value of the material assets in the portfolio. The disadvantage of doing this is that we shall be comparing articles valued by different methods. This is mitigated, however, by the fact that human capital, in principle, does not depreciate and so it matters little when it is appraised. Furthermore, once it is acquired, it cannot be transacted, which means in effect that there is no other practical way of pricing it.

The present estimate refers to early eighteenth-century England and France, two cases for which reasonable data exist with respect to all the required parameters and where a consumption revolution is supposed to have been in full swing. The historic cost in question aggregates two items: the cost of education and the opportunity cost incurred by withdrawing the learner from the labour market. As regards the former, contemporary observers noted that normally it took three years to learn to read and, following that, another three years to learn to write (van Deursen 1991), though there are numerous instances on record of gifted individuals who required only a few months for either (Spufford 1979). Since we are considering only those who could sign their names but could not necessarily write any more than that, we assume that the second part of their education was limited to an additional year. This gives us a lower bound estimate. At mid-century, in Birmingham, a low cost elementary school charged pupils 3-5 shillings each per quarter (Money 1993), that is, taking the lower value, a total of £2.4 for the four year education of our prototype and very close to Mitch’s (1999) figure of £2.0 for the early nineteenth century. In France, monthly fees varied between 3 and 4 sols for tuition in reading and between 4 and 6 sols for learning to write (Houdaille 1977; Grevet 1987). On an assumption of ten months a year of schooling, this would entail a global cost of elementary literacy of an order of 6.5 to 9 livres tournois. Since Chartier et al. (1976) put a figure of 13 livres on this, we adopt for the present exercise an intermediate estimate of 9 livres.37

Putting a value on the labour time lost in the process is a good deal more hazardous and depends on several not easily specifiable factors. To begin with, there was a wide range of possible ages over which education could be acquired. We assume here, again for the sake of a lower bound estimate, an early, low opportunity cost range, from 6 or 7 to 10 or 11 years. In the second place, there is the vexed question of the role of child labour in the pre-industrial European economy, on which views are divergent while little hard evidence is available to help sort them out. In proto-industrial areas, children were far more sought after for paid employment but in the majority of situations, which were agrarian based, occupational opportunities for them were scarce. Boys and girls became farm servants usually at thirteen or fourteen years of age but smaller children helped in the family and were unlikely to be hired for any significant task or length of time. Around 1800 in England, Horrell and Humphries (1995) have established a participation rate in agriculture for the under tens of only 15%, a state of affairs which is confirmed by Cunningham (1990).

The problem is compounded by a dearth of information on wage rates, which are available only for adults. As an upper bound limit, we take a child’s wage to have been one-fifth of that of an adult (Spufford 1985; van Deursen 1991) and assume an average annual occupation rate for them of 15%, in other words, 45 days of employment. The lower bound limit is given by a situation of full unemployment and hence zero income. Between 1700 and 1750, an unskilled male rural worker in early eighteenth-century England earned about £20 a year (Mitchell 1988), and therefore the opportunity cost of achieving proficiency in reading and writing would have been something like £2.4 at the most and, at the least, nothing. The full historic cost of being literate in this context thus amounted altogether to between £2.4 and £4.8. A similar exercise for France adopts the same assumptions regarding time of work and child/adult wage ratios. In the early eighteenth century, the remuneration would constitute...
for unskilled labour in the countryside varied between 10 and 15 sols per day (Mortenou 1972; Chartier et al. 1976; Baehrel 1988) and if we take 12.5 sols as representative, the opportunity cost of a child acquiring literacy would come to 22.5 livres and the full cost, including schooling, to between 9 and 31.5 livres. Having quantified the value of human capital, the next step is to place this in context, the most appropriate one being naturally the stock of wealth owned by the people under consideration. In early eighteenth-century England, rural labourers left estates worth on average £16, while slightly up the social ladder, for husbandmen and small farmers, the figure was double this amount (Weetherill 1988). This included all goods and chattels but the average value of household goods alone, the reality on which the standard of living discussion focuses, was far lower—respectively £5 and £8.38. The implication is that even at the lowest end of the estimated range the cost of acquiring the most basic sort of literacy was substantial in terms of the domestic economy of the social strata in question—somewhere in the region of 50% of the accumulated material wealth of individuals at the end of their lives. For France, the contrast between household wealth and the capital cost of literacy is less sharp but still implies a recasting of the standard of living evaluation based exclusively on material goods. The inventories of rural labourers that have been examined for this period were characteristically below 500 livres, and their household possessions did not exceed 100 livres in total so that here too it can be said that human capital represented a valuable asset in the lives of a great many of the humblest people who acquired it (Baulant 1975; Waro-Desjardins 1993; Boekholt 1995).

The results of our estimations are of the roughest kind and the only claim that can be safely made on their behalf is that they provide us with an order of magnitude for the importance of a critical and increasingly significant immaterial good in people’s lives. One finding this points to is that if human capital is treated on par with material consumer durables then the level of welfare in the eighteenth century for the mass of the population has to be revised upward relative to earlier centuries. A second is that the spread of literacy during the 1700s, in particular for those on the lowest rungs of the social ladder, clearly indicates an improvement in terms of the broadly defined standard of living that has been proposed above. Not only is the notion of a consumer revolution hereby reinforced but also it becomes clear that, in fact, this process reached much further down, into the realm of the poor and “un-inventoried”, whose welfare status on the whole has escaped the scrutiny of the historian. Finally, it should be noted that human capital also enriched men and women in other reaches of society, and, among the better-off, it seems likely that this immaterial good would have had a higher value for the inventory since their schooling was better. It seems likely, however, that in the case of the humble, the weight this represented in total wealth would have been greater, a fact that suggests a further possible revision—the gap between the rich and the poor may have been less than has been thought until now.

What is more remarkable, though, is that this numerous group of poor literates spent their resources to obtain this capacity, knowing full well that they were not investing in a producer good. For them, this human capital could serve practically only as an end in itself to generate a stream of welfare of a wholly immaterial nature. Although our assumptions may be faulted to some extent and our quantification, albeit a lower bound result, stands to be corrected, arguably the substance of our inference is not affected. The fact remains that taking human capital into consideration in this way is advisable and liable to affect the traditional calculation of standard of living levels to a substantial degree.

6. Conclusions

In economic history, human capital is usually treated as an enhancement of the capacity to produce. In this chapter, we explore ways of perceiving it also as a capacity to enjoy. As a result, it is argued that human capital should be integrated into the standard of living debate, in this case in the framework of pre-industrial Europe. In order to make this a manageable exercise, human capital is limited here to formal cognitive skills—reading and writing—and attention is focused on its two basic uses. On the one hand, it is like a producer good, which is invested in so as to increase productivity, and thus is irrelevant to any evaluation of the standard of living that employs levels of durable material consumption as the yardstick. On the other hand, it is the immaterial means to various forms of non-physical gratification, one of which—exemplified here by book reading for its own sake—is examined in some detail. The picture that emerges shows that between the sixteenth and the eighteenth centuries an enormous rise in literacy took place and represented a deliberate allocation of resources by individuals who in this way sought to augment this form of satisfaction. To this extent, there was an increase in welfare and this has to be factored into the traditional modes of assessing the long-term movement in the standard of living. In a short and more technical section, we propose a way of quantifying such increments, at least for certain social strata. Although this is a very tentative approach, the result suggests that the welfare gains obtained from human capital could be relatively large and may contribute to a needed clarification of the standard of living debate in pre-industrial times.

Notes

1. Maddison (2001) describes per capita growth between 1000 and 1820 in western Europe as a fairly steady process but “a slow crawl”, at a rate of 0.14% a year.

2. There are two ways of deflating the nominal wage series of the different regions/countries available in order to render them comparable in real terms. Exchange rates is one of them but has been considered by most of the current literature as apt to produce distortions given that they do not reflect differences in prices of non-tradeable goods and are affected by capital movements. The alternative is to use purchasing power parity adjustment (PPP). This involves establishing the cost at local prices in these places of a common basket of consumer goods and using the resulting indices to deflate nominal wages. The intuition is...
that this exercise shows how much the nominal wage will buy in a given place compared to what it does in another taken as the reference.
3. A picture confirmed by de Vries (1994) for the sixteenth and seventeenth centuries.
4. We have added Portugal and Italy to van Zanden’s collection of countries by extrapolating back to 1810 their relative position of 1850, as given in Reis (2000). This exercise, if extended to Scandinavia, would place Sweden and Denmark on a par with France and Belgium.

5. Clark and Van Der Wre (1998) cast doubt on this argument by claiming that work loads were already so high in the Middle Ages that they could not have increased much in the seventeenth or eighteenth centuries.


7. For a full critique, see the Introduction in Torras and Yun (1999).

8. All of them are illustrated in the present volume. Anthropometric history has proved valuable for later periods but as yet very little information on heights is available for the early modern period. The demographic approach is similarly helpful but is better at bringing to light major shifts in welfare than at portraying the gradual evolution over time that the ‘material consumption’ approach can offer. Real wages are best in this respect but as they are used to estimate GDP per capita too, they do not allow us to contrast this result with its impact on the standard of living. The first two have the advantage of extending the concept of the standard of living beyond the narrow field of real wages, food, and durables consumption to include health, physical vigour, leisure, and general amenity.

9. This does not mean that professional skills and literacy could not be learned at the same time and indeed often were. For examples of this, see Spufford (1979).

10. There is a large discussion about the meaning and usefulness of signatures for the history of literacy. For some references, see Houston (1988), Parker (1980), Stephens (1990), Quénin (1977), and Saugnieux (1986).

11. Notwithstanding, the correlation between signing and being able to copy a phrase was low in nineteenth-century Denmark, according to Markussen (1990). Greve (1987) notes that, in the Pas-de-Calais, towards 1800 there was a 20 percentage point difference between the proportion of males who could sign the marriage register and males who were considered ‘literate’ by official enquirers.

12. There are few reliable national estimates, the most famous being the French one by Magliolas (Furet and Ozouf 1977). Most of the data used here are called from more or less local studies and extrapolated, at some risk, to national levels.

13. For an early identification of these historical literacy regions, see Chartier (1985–7). It revises Cipolla’s (1969) classic analysis thanks to the enormous flow of new information produced during the 1970s and 1980s.

14. There is a vast range of literature on these countries. The most useful proved to be Gelbert (1987), Benassar (1983), and Vilao Fraga (1990) for Spain; Houdaille (1977) and Furet and Ozouf (1977) for France; Hart (1976) and Knijppers (1997) for the Netherlands; Gouveia (1998), Magalhães (1994), and Marquithas (2000) for Portugal; Magliolas (Furet and Ozouf 1977). Most of the data used here are called from more or less local studies and extrapolated, at some risk, to national levels.

15. For a general warning to avoid transposing educational models from the nineteenth century to earlier times, see COPLE (1995).

16. The exception occurred in parts of Prussia and in Sweden during the eighteenth century, where the Pietist movement was taken over by the state and a centralized system of education was organized. The aim was religious—the universal acquisition of a reading ability that would permit a direct reasonable knowledge of some of the Bible and of the Catechism, but also read the Bible and the Catechism was also a way to evangelize them the Christian religion.

17. In the Alpes, near Briançon, where autodidactic arrangements were common, by 1800 93% of males could sign. See Granet–Abissat (1996), and Vouelle (1975).

18. On the other hand, in some Dutch provinces, parents were penalized if they failed to send their children to school (Spufford 1995).

19. In the Netherlands, de Vries and van der Woude (1997) estimate that half the seventeenth-century population of Amsterdam was under these conditions but in other places it was probably more. See the scenarios outlined for French eighteenth-century workers and the vulnerability induced in them by price changes in Morin (1972).


21. Moreno Claverías (1999). I am grateful to the author of the text for allowing me to use this chapter of her Ph.D. thesis on ‘Pautas de consumo en la Cataluña de los siglos XVII y XVIII’. The same point is made for Provence by Vouelle (1975), who notes that the ménagères concerned themselves with becoming literate when they entered the ranks of the propriétaires.

22. Literacy was also becoming instrumental for them by allowing easier access to credit and to the burgeoning market for their produce.

23. At the other end of Europe, Magalhães (1994) has noted that the increase in the volume of legal documents pertaining to land and wealth in Portuguese rural society was having a similar effect.


25. Cases are cited of women who, owing to early widowhood, ran craft shops and businesses or farms, although this was not the norm. Artisans, liberal professionals, shopkeepers, and the like were supposed to be men. In 1742, only 14% of taxable households in Amsterdam were headed by women (de Vries and van der Woude 1997).

26. Amsterdam, one of the most literate cities of seventeenth-century Europe, owed much of its prosperity to its role as an ‘information exchange’ where widespread literacy was obviously crucial (Smith 1984).

27. But in rural society, opportunities existed too, as David Cressy (1980) has noted, and literacy was a component of it.

28. People can learn to read and write but later, for lack of use, may forget these skills, a not unusual occurrence in this period, as related by several authors.

29. Religious purposes, in particular, have long been associated with literacy in the early modern period, a link that has been the subject of a vast outpouring of publications. Works with a spiritual content of whatever persuasion certainly were the most common form of book until the late eighteenth century both in terms of production and in libraries, but a considerable body of recent writing has cast doubts on religious factionalism as a long-term force driving the spread of literacy or of book reading. See Parker (1980), Cressy (1981), Gwthorpe and Strauss (1984), François (1989), and van Deuren (1991), and Spufford (1995).

30. According to Nicolas and Nicolas (1992), ‘although literacy is considered a consumption good today, during the early industrial revolution literacy was an investment good, the attainment of which was an investment decision by the family household’. Our view, on the contrary, is that at this time and earlier both forms co-existed, often in the same person.
31. The number of different titles published in Europe during the eighteenth century was 3 million. In Germany alone, output was between 2 and 5 million copies a year (Houston 1988).

32. According to Braida (1995), the distribution circuit is the best way of understanding at what sort of public a particular type of publication was directed. In Italy, for example, agricultural almanacs might appear to be suited to a peasant readership but could not have been so, in fact, as they were sold in bookshops and not by peddlers.

33. In eighteenth-century France typically one sold about one-twentieth of the price of an inexpensive book (Chartier 1987). In England and the Netherlands, their price was around a fourth or a fifth of the daily wage of an unskilled labourer (Spafford 1985).

34. These figures are confirmed by several regional studies in the second volume of Furet and Ozouf (1977).

35. Several authors have noted, for instance, the coincidence between periods of prosperity or poverty, on the one hand, and the acceleration or retardation of the spread of literacy, on the other. See Greveit (1985), Houston (1985), Nicolas and Nicolas (1992).

36. In late eighteenth-century Kilmarnock fees for instruction in reading and writing were three shillings per quarter (Houston 1985).

37. One livre tournois was the equivalent of 20 sous or sols.

38. This is less though not a great deal less than what is indicated by Shmam (1993), who puts the ratio of durables to total wealth at around 50%.

References


