

NON MATERIAL GOODS AND THE DEBATE ON THE STANDARD OF LIVING IN PRE-INDUSTRIAL

JAIME REIS

European University Institute, Florence

The author wishes to thank Gerben Bakker, Hans Boedeker and Laurence Fontaine for their help. Draft: please do not quote without author's permission

Department of History, European University Institute,
Via Boccaccio 121, 50133 Firenze, Italy
reis@datacomm.iue.it

I

This paper focuses on three aspects of pre-modern European economic history and the possible relationships between them. The first, based on a growing body of recent studies, concerns the long term growth, over the two and a half centuries prior to the Industrial Revolution, experienced by the European economy, or at least by important parts of it. It was an unequal process, in terms of time and space, that had as one of its consequences the emergence, by the 18th century, of significant differences of income per capita that may have shaped the course of industrialisation 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 divisions 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 each one of these three histories reveal similarities that suggest that some interactions between these variables. In particular, they raise two interesting analytic possibilities. One is that human capital, as represented in this paper by the possession of reading and writing skills, may have provided an important contribution to economic growth, in a similar fashion to what has been claimed by some for the 19th and 20th 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 indeed allow us to regard it as a part of the standard of living of Europeans in the pre-industrial era. In the second place, we explore the extent to which this acquisition can serve as a guide in assessing the changes in welfare that might be expected in economies where the resources

available for consumption were slowly but steadily growing over time relative to the population.

The paper consists of four parts, the first of which outlines a scenario for the presumed growth of income per capita in Europe from the 16th to the 18th centuries and presents the standard of living debate that goes with it. The next section maps the rise of human capital during the same period, as far as the existing literature permits, and discusses its principal limits and determinants. The third considers the 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 distinguish the 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 goods that income could buy. The fourth part discusses the implications of this for the question of the standard of living prior to modern industrialisation. It argues that the contribution of human capital was significant, at least for certain social categories, and is best approached through a broader concept of the living standard of the kind represented by the Human Development Index (HDI). This is followed by a conclusion. It must be stressed that the paper is entirely based on secondary sources and constitutes only the initial stage of a research project.

II

The quantification of Europe's macro-economic performance between the 16th and the 18th 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 national product 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 were made available for several countries for periods of two or more centuries. The picture that has emerged from this is one of stagnation or even slight regression over large areas of Western Europe (Iberia, France, Italy and Poland) but also of fairly sustained growth in the Netherlands, Belgium and England (table 1). Rates were far from constant over time and in the economically more dynamic regions they were no more than a couple of decimals of a percentage point for the entire period. On the other hand, if some of the stagnant countries were analysed in a regional framework, more instances of sustained and prolonged growth would emerge – Brabant and Flanders in Belgium or the East in France – and correspondingly regressive cases too. It has been tentatively suggested that, between 1600 and 1800, taken together these nations grew at about 0.1% a year or about 22% *in toto* (Malanima, 1995), a conclusion that although modest nevertheless contradicts a more “stagnationist” perspective on the Early Modern period of the European economy and hints at a “pre-industrial Revolution growth model” for the continent.

table 1**Long term growth of per capita output (constant prices): 17th and 18th centuries**

| <u>Country</u> | <u>Period</u> | <u>Overall growth</u> | <u>Annual rate</u> |
|-------------------------------|---------------|-----------------------|--------------------|
| Belgium (Flanders/Brabant) | 1610-1812 | 32% | 0.14% |
| Italy (North and Center) | 1600-1800 | 0% | 0% |
| Spain (Castille) | 1590-1800 | 7% | 0.03% |
| Holland | 1580-1795 | 38% | 0.15% |
| England | 1570-1750 | 69% | 0.30% |
| Poland | 1580-1820 | -10% | -0.04% |
| France | 1600-1800 | probably 0% | 0% |

Note:Comparable estimates for France have not been made to the best of my knowledge. The inclusion of this economy among the non-growers is based on the sectoral evaluations contained in Braudel and Labrousse (1970-80).

Sources:Blomme, Buyst and van der Wee(1994); Malanima (1994); Yun (1994); van Zanden (1993); Snooks (1994); Topolski and Wyszczewski cited by van Zanden (1997); Braudel and Labrousse (1970-80).

A second type of research has focused instead on the evolution of real wages (ppp deflated) 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 a fairly good match can be obtained between proxy and proxied variables for long periods (Williamson, 1995). The data gathered recently for seventeen major cities reveals noticeable parallels with the findings above (Allen, 1998; Pamuk, 1999). While a gentle upward trend is displayed for the London-Amsterdam region between the early 16th and late 18th centuries¹, stagnation or slow decline characterises the situation in Naples, Antwerp, Florence, Milan, Madrid, Paris and Strasbourg to the West and South. To the East, 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 its absence or even with contraction.

A third approach to be considered here corroborates the outline derived from the earlier research on the GDP by providing a league table for this variable around 1800. This macro-economic outcome at the end of the Ancien Régime shows, not unexpectedly, the leadership of the previously most dynamic and more developed nations – England and the Netherlands – and the second place of two stagnant but still strong economies – Belgium and France – with a per capita income equal to three quarters of that of the leaders. At quite a distance, we find once more a by now peripheral group composed of Iberia, Italy and Poland, with half or less of the income level of the Anglo-Dutch “economic core” (van Zanden, 1998).²

This revision of the long run economic scenario for pre-industrial Europe that allows for some measure of growth is not implausible, when we take into account several findings on productivity and structural change which have recently come to light. This evidence comes from three different areas of research. The most important, given 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 16th to the middle of the 18th centuries it rose in England by 100% and in the Netherlands by 40%, whereas elsewhere it was more or less constant (Allen, 2000). These data are corroborated, in the case of France, using a different measure of productivity – TFP (Hoffman, 1994). This shows a slow improvement in overall agricultural efficiency in the long run, punctuated by periods of regression and strong regional contrasts, very similar to the 10% rise for labour productivity between 1600 and 1750 established by Allen (2000).

The rising trend of urbanisation 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 17th century (de Vries, 1984). This conclusion is founded on the widely recognised 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 urbanisation (van Zanden, 1995).

A third factor that is likely to have contributed to the general 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 would 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 (1974), what drove households to engage to 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 which could only be achieved by means of these greater workloads. At

the same time, in some better-off regions infra-structural 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).

At first sight, an evaluation of the movement in the standard of living during this period 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 in order to make up for the shortfall in real income. A second, more “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 from zero was the marginal utility of leisure 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 argument in favour of a “consumption revolution” which has been claimed to have swept 18th century Europe and to have been present in some places already in the 17th. The improvement and enlargement 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, Spain, Alsace, Tuscany and the Netherlands, all signal a picture of broad material improvement that goes very much against the idea of stagnation or regression in the standard of living.³

The concept of an “industrious revolution” is one way to try and resolve the opposition between these two views by claiming that a loss in leisure and possibly in real wages too was not incompatible with greater welfare. This is possible because during the period in question consumption preferences and utility schedules shifted remarkably in response to the appearance of new products and to the lowering of prices for formerly luxury goods. It suffers, however, from one serious weakness: the bias against the poor and unskilled in the coverage of post mortem inventories, the composition of which is supposed to reveal improvements in material consumption.⁴ A valuable alternative comes therefore from anthropometric history, which has shown for later periods that apparently rising real incomes can coincide historically with a decline in the standard of living, when the latter ‘s meaning is extended beyond the narrow field of real wages and food and durables consumption to include health, physical vigour and development, leisure and general amenity. Evidence on an early modern European “heights puzzle” is unfortunately scarce and consequently does not help resolve our dilemma. A comparable and equally promising approach comes from the field of historical demography. It too is based on a broad prospect of what constitutes the standard of living and goes beyond mere consumption to consider the cumulative effect on people’s well being of their life time’s living conditions in

general. Since it is the subject of several contributions at this conference, no more need be said about this here.

In this paper yet another way of getting a handle on our problem is proposed. It departs from the usual focus on the consumption of material resources and /or its consequences for the human physique and looks at certain immaterial aspects of the question instead. 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 and household 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 commonly not taken into consideration, probably because of the problems of measurement it raises. Like some material assets, during the period in question it conferred status and rank on its possessor and it could also 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, and the possibility of participation in public or community life. Our study is directed to the second of these senses and constitutes 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 aspects proposed by the Human Development Index methodology (Crafts, 1997).

III

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 paper takes a restricted view of the concept, namely 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 ignores therefore that vast part of this stock the acquisition of which did not involve schooling, whether formal or informal, and concerned mastering directly productive skills, e.g. apprenticeship to crafts or learning on the job.⁵ It also means that it leaves out issues pertaining to health and physical vigour.

Historically, the 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 memorisation) 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 in this case of signatures as a proxy, although heavily criticised in the literature is nevertheless widely endorsed and can be justified on several grounds. 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 being considered to reflect not only an ability to read, 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.⁶ The consensus is that before 1850, i.e. before the rise of 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.⁷ The acquisition of this level of literacy therefore presupposes a relatively sustained and prolonged effort of learning, particularly as during these centuries reading and writing were distinct forms of know how that, unlike nowadays, were achieved in separate and successive periods, typically of three years at a time.

If it is perhaps exaggerated to say that between 1500 and 1800 Europe experienced an “educational revolution”, one can at least claim that a profound change in this field took place during these centuries. According to Étienne François (1989), 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, throughout the continent there was a striking change. From a minute familiarity with reading and writing at the beginning of the 16th century, e.g. 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 large regions were not far from the 100% mark.

When considered in the very long run, it is no less impressive that this 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. Few states wished or felt capable of centralising, uniformising, 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, and none that tried succeeded convincingly.⁸ Indeed, to speak of a “system” would be nothing but a misdescription of the educational situation of pre-industrial Europe. A not 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.⁹ 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 16th century Castille, one third of a sample of 800 defendants of the Inquisition were literate but had never attended school (Nalle, 1989).

In the formal sector, the means to learn to read and write (and count, a technique which we ignore 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 argument advanced by this paper two features of early modern educational practices deserve to be stressed here. As mentioned earlier, the decision to impart on oneself or on one's progeny reading and writing skills was essentially a private affair. In some parts of Europe, notably during the 18th century, a state imposed obligation existed to learn to read religious texts and was effectively enforced but it never extended to writing. In 18th century Sweden, the paramount example for this, only a small share of the population was able to sign though virtually all could read, indeed having learned mostly at home (Guttormsson, 1990). In most of the major cities and towns of Europe, orphans or children who were felt to have escaped parental control might be compelled to attend a school and be submitted to an education as a "civilising process", but they were far from the majority (van Deursen, 1991). Typical was what happened in late 17th century France where, despite various royal edicts to the contrary "there was never any likelihood of children being forced to go to school" (Houdaille, 1977:71). 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 19th 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 traditions 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 to an extent that depended on the degree of other support received. In the second half of the 18th century in Paris, 166 schools were for profit while only 80 were charitable but even the latter required some payment from most students, to cover the teacher's salary (Saugnieux, 1986). Fees were extremely variable but rarely insignificant, particularly for that large part of the working population who earned a miserable wage and had an insecure and/or seasonal occupation, or then who were independent producers in the primary sector and highly vulnerable to the contingencies of the weather or of personal health.¹⁰ Indeed, insofar as this can be discussed with any precision, the consensus of the literature is that it was a heavy burden and for many an impossibility. (Houston, 1998; van Deursen, 1991; Larguie, 1987; Nilsson and Svård, 1994).

When we come to look at the literacy map of Europe at the end of the 18th century, what is striking, bearing in mind these and other difficulties, is how far the educational attainment had progressed since the 16th century. To grasp this by quoting national literacy rates expressed by the ability to sign at a time of so much intra-national heterogeneity is a perilous undertaking, but for the end of the Ancien Régime a clear picture emerges nevertheless.¹¹ 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 both 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,

literacy rates fell to significantly lower levels: for males, between 10 and 45% and for females from less than 10 to 20%.¹² This refers to Scandinavia and East Germany and Poland, on the one hand, and Spain, Italy, Portugal and France south of the Geneva-St.Malo line, on the other.

For earlier periods, the data is patchier and less reliable and therefore the long run trends are hard to identify except for a few countries. The 16th century was apparently a time of rapid growth, with male literacy doubling in England and increasing rapidly also in France and Spain. In the second half of the 17th century, these countries had reached similar levels of literacy and had been joined and then overtaken by the Netherlands, whose urban population had experienced a fast increase in literacy from the late 16th century, thereby achieving unrivalled heights in Europe. Growth in England during the sixteen hundreds was also among the fastest – it doubled between 1600 and 1700 (Stephens, 1990). By the 18th century, the paths of these four better known countries were clearly parting. The pace of change in reading and writing skills was slowing down to stagnation in Spain, and in France there was a pronounced deceleration. 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.¹³ 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 16th century expansion, lost its dynamism during the second half of the period. In the meantime, the economically and socially more dynamic regions of the 17th and 18th centuries accelerated and overtook the South, to constitute the core of circa 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. The literature reports a number of factors in this which varied considerably over time and space and, by combining with each other in the most diverse ways, were responsible for the intricacy of the literacy patchwork of the early modern period. In order to grasp the significance of education and literacy in European society at this time, it is useful to examine them at this point.

The overall model that emerges here is one in which practical advantages and disadvantages best explain most of this variance in educational attainment. In view of the fact, already noted above, that the decision to learn to read and write was an essentially private one and involved a material sacrifice, some kind of cost-benefit framework for this is hardly surprising. On the other hand, it should be stressed that to treat the historic actors in question as merely producers and consumers of physical goods would be misleading. Their utility encompassed other dimensions as well and considerations such as status, values regarding the social appropriateness of conduct and the pursuit of power for its own sake cannot be disregarded. Gender divisions, one of the most significant determinants of literacy, help to make point. Everywhere and at all times, women were considerably less literate than men and only rarely did this gap close to any extent. One reason was that in a situation of scarce resource, it made sense to under-educate girls and favour boys instead because the latter were the future heads of households and majority holders of the jobs where this know how was required. But the solution 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, 1988:6). Like the poor, whom many feared might want to leave their lowly station and aspire to something better if they were sent to school (Larguié, 1987), a great deal of female literacy was viewed as unsettling for the natural order of things.¹⁴

A case can be similarly made for the role of literacy in acquiring, consolidating and signalling social status. From early on, in the upper classes everywhere in Europe, i.e. 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, but for many others – all those who were not actively engaged in administering estates or participating in politics, public administration or justice – it was hardly imperative. On the other hand, not to receive an education, probably at a higher level than the simple 3 RRRs, 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. The mass of the population was not alien to such considerations either. Further down the social ladder, for anyone seeking upward mobility, literacy was also a powerful and indispensable tool. In late 17th 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 (Claverias, 1999). Griete Pietersdochter was a poor widow with four illiterate children in 17th 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, one of the main reasons according to Houston (1988) that strongly limited their interest and therefore the spread of literacy during pre-industrial times.

Location had also a powerful role in this matter, for economic reasons but not only. On the supply side, 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 Castille, for instance, the famous Catasto de Enseñada reveals that while only 22% of localities had a teacher, 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 very scarce, whatever the other circumstances (Amalric, 1987). From this point of view, the urban environment was the most favourable of all. It had as a rule not only a higher number of schools per capita and an easier access to them, but 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% more 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.¹⁵ 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 better off compared with the rural population and could therefore more easily afford the acquisition of this know how. And those who were not were eligible for the many more charitable opportunities that were available in the cities and towns, where they 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 locus.¹⁶ 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 (Furet and Ozouf, 1977).

In a recent article, Nilsson, Petersson and Svensson (1999) have identified the need for a more powerful “transactions technology” as a stimulus to the acquisition of literacy among farmers in southern Sweden. Around the turn of the 18th to 19th 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 their successful participation in the then on-going process of land redistribution and enclosure, the legal intricacies of which were hardly minor.¹⁷ As a result, in free holding parishes, the literacy of peasants rose from around 40% to over 80% during the 1780-1820 period and the highest rate was to be found among those who applied for enclosure. Obviously, situations of this kind were not common in earlier periods but the concept of transactions technology finds a useful application in the far more numerous cases of participation in local government by 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 18th century, where at assemblies of heads of households, more than 90% of them signed legal documents, the same happening contemporaneously in Hesse. (Granet-Abisset, 1996; Hofmeister et al, 1998)

The preceding examples illustrate particular ways through which the self-interest of individuals and even of communities might be served by raising literacy standards. Human capital in this form found its most powerful justification, 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 temporal contexts and the evidence that sustains this is anything if not abundant. For the macro-economic perspective, what has been asserted by de Vries and van der Woude (1997: 714) about the 17th century Netherlands can be claimed for most elsewhere in early modern Europe. “ The importance of education to industrialisation 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 16th century, in early Reformation Germany, many towns were promulgating ordinances to foster education, not on

religious grounds, but because it was deemed important for both artisans and tradesmen to learn to read, write and count. (Strauss, 1981) The literacy of craftsmen in 17th century England was “roughly commensurate” with occupational requirements (Cressy, 1981:110) and in France likewise. One clear practical reason, among others, was the growing recourse in retail activities to customer credit during the 18th century and the need to administer effectively an increasingly complex system of “accounts books” in which the appropriate tallies were kept. (Chartier et al, 1976).

The strength of this link finds further 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 17th century. In the towns, they were closely followed by large merchants, financiers, contractors and the like, with also high attainments from early on, and below them by trades people and the “better” crafts. In London, these categories were already in the 60% range by the late 16th century, rose to 70-80% during the next 100 years and were almost universally literate by the middle of the 18th 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). Unskilled manual workers everywhere occupied the lowest position, both in rural and urban settings, with usually very low rates that climbed very slowly, if at all, to appreciable levels and then only in the more “advanced” countries of the European core. At one extreme, we find that 66% of Amsterdam’s “proletarians” could sign their names already by 1700, while in the 23 English parishes studied by Schofield (1973) it was 65% for labourers and servants in 1785-1814. At the other end of the spectrum, peasants and farm workers in Hungary and around Parma reached no higher than a 6 % rate around 1800. (Toth, 1998; Marchesini, 19..)

If a comparable analysis could have been carried out for the ladder of incomes in these various societies, it is not difficult to surmise that it would have borne an equally close resemblance to the hierarchy of human capital too. For one thing, from what we know the typical occupational ladder outlined above had probably the same rough order as that for incomes.¹⁸ For another, even within each occupational class, differences in incomes mattered to the frequency with which reading and writing skills were achieved, particularly in the middle ranges where education was viewed as important but could not be afforded by all. In 18th century Lyon, there was a difference of 20 percentage points in the literary skills of silk workers between their lower and upper halves by earnings. An even more striking illustration is suggested by France at the beginning of the 19th century, where a highly positive correlation existed between, on the one hand, literacy and, on the other, the height of conscripts assumed as a reasonable proxy for per capita real income (Le Roy Ladurie and Demonet, 1980).

IV

One implication of the situation depicted in the preceding section is that a Mincerian approach (Mincer, 1974) seems to provide quite a satisfactory way of analysing the growth and distribution of human capital in early modern Europe. 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 urbanisation 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 second implication is that if this were 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 likened essentially to a producer good, such as tools, animals or land, from which a stream of future earnings could be derived, it would no longer be an end in itself and therefore not an object of consumption, whether durable or not. As Adam Smith (1776, 1976: I, 118-9) put it, in a famous passage, “the difference between the wages of skilled labour and those of common labour, is founded on this principle...”, namely that “the wages of labour vary with the easiness and cheapness, or the difficulty and expense of learning the business”. The question this poses is whether human capital could have had other functions besides, however, and, under certain circumstances, could be considered in fact an article of consumption, to be included in the basket of standard of living goods. In this part of the paper, we try to make a case for this possibility.

There appears to be little doubt in fact that reading and writing skills can be likened, for our purposes, to a consumer durable. They were obtained through a market-related activity that had a cost, in order to enjoy a stream of gratification over a more or less prolonged period. Their acquisition was practically free of non-market restrictions, it was part of the standard mechanism whereby consumers allocate scarce resources in order to maximise 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 a social symbolism, this sort of human capital gave access to other forms of utility which could be enjoyed as long as this asset was present and usable.¹⁹ 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: 207) Reading, either for amusement or edification and spiritual uplift, was probably the most common way of using literacy to these ends. For a smaller number, this tool 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. A third and still more restricted but also more sophisticated field of application was the composition of auto-biographic registers, an exercise that became widespread in higher circles mostly from the 17th century but which was not unknown in the humbler strata of society as well in itself (Spufford, 1979; Markussen, 1990; Foisil, 1986).

Potentially, the same literary skills could serve these ends as much as they could have functional uses, and thus to analyse the former it is necessary to find a way of separating the two. Obviously it is extremely difficult to say what part of human capital was a consumer durable and what part was a producer good, and to this must

be added the complexity of creating a proxy that will gauge the personal, non-occupational benefits of being literate. Of the three aspect of immediate satisfaction made possible by literacy that were mentioned above, the consumption of books is the easiest to deal with, as well as probably the one with the greatest impact on people's lives. It is on this that we will now focus.

There is a great deal has been written on the history of the book in early modern Europe and a surprisingly large amount is known about its production, sale, possession and diffusion, not to mention about the types of literature encompassed by this activity. Estimates on the output of such a dispersed industry are naturally less than reliable but our sources all 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 16th century, a total of some 150 to 200 million is admitted and for the 18th century, it may have reached ten times that amount.²⁰ (Houston, 1988; Chartier, 1987) Since the population in the meantime rose by 80%, this affords us an unmistakable sign of a strong upward movement in reading activity during these centuries. This was naturally accompanied by a tremendous intensification in the respective trade. Not only a strong specialisation developed but also a myriad of networks of a regional, national and international scope, which by the 18th century reached from Geneva, Troyes and Amsterdam into the deepest recesses of the countryside. If the average consumption of books went from two per capita and per century in the fifteen hundreds to ten in the seventeen hundreds, one should expect this to be reflected in the statistics on their individual ownership as provided in post-mortem inventories. This is indeed what happens, whether it is among Friesland farmers, where holdings rose from 10 to more than 50% of the families between the 16th and the 18th centuries (de Vries, 1974); Madrid, where they went from 26 to 36% (Cruz and Corbacho, 1999); Alsace, where the rise was from 8 to 20-30% in the course of the seventeen hundreds (Boehler, 1995); or England, "where circumstantial evidence points to an increase in the reading public from the Civil War onward" (Stephens, 1990).

It is hardly at all remarkable that book ownership should not have been distributed at all evenly throughout society, and here we encounter again patterns that resemble those we met while discussing literacy and income and occupation. During the 16th century, libraries were mainly held 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 17th and 18th centuries with respect to other consumer durables. In Paris, for example, the percentage of artisans and trades people possessing 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). Although a desire to emulate one's betters 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 within classes 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) It is tempting to conclude

from all this that human capital, as we have defined it here, was just one more consumer durable in the basket of goods that defined the standard of living and, moreover, that its consumption was related to income and occupational status, as one might have expected. Before endorsing this line of argument, however, it is necessary to deal with several substantive objections.

The first of these counter arguments is to point out that the correspondence between reading and book holding may not have been all that close. One reason is that the ownership of libraries had a token value that contributed to status, this being as true for the humble as it was for the great. It was not uncommon for the former to have a Bible in the house that was never used but was held as a symbol of respectability and religiosity. Another is that 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, this is no surprise and they were often borrowed informally but also from libraries or obtained by hire, two practices which proliferated in 18th century towns and cities. (François, 1989) Overall, neither of these problems can be measured but it is unlikely that they would have had a massive dimension and in any case they would have tended to cancel each other out.

A more serious preoccupation arises out of the fact that reading was not confined to books. An enormous amount of it and a steadily growing one too, focused on “chap books”, “street literature” or “livres bleus”. These were unbound, poorly printed volumes, made out of the cheapest paper and varying in length from a few to as much as 200 pages. Although often “sensational, scurrilous and pornographic”, the majority were serious and often devoted to religious themes. Their numbers cannot be assessed with any precision given that they were distributed to a large extent by peddlers (Fontaine, 1993) and were rarely mentioned in post mortem inventories, presumably because being so cheap, they were deemed to be worthless second hand. Nevertheless, it is agreed that they were both widespread and numerous, as suggested by the fact that one of the fourteen London dealers who handled them in the early 18th century alone had 400,000 copies in stock at one time (...). It seems fair to conclude, however, that blue books reinforce our argument. They raised the per capita level of consumption of reading material, they spread reading habits into segments of society with little access to books and the trend for their consumption moved in the same upward direction in the long term as the better documented one for books.

A third concern is provoked by the awareness that not all books served either spiritual or amusement purposes but were held for the sake of acquiring technical and professional knowledge. Some would not have qualified as a support for an activity that was carried out for its own sake and would therefore have belonged in the category of producer goods instead. But the study of private library inventories is clear on this point. During the 17th and 18th centuries, “technical books” were a minority and only of some importance in the case of the liberal professions, who were themselves a minute fraction of the total of book owners. The higher social ranks kept almost entirely books on religion, history, literature and arts and sciences, while, lower down, those who owned a handful or just a single copy, restricted themselves to spiritual genres, whatever their religious persuasion might be. During the 18th century,

agricultural writings and almanacs that contained such material gained considerable popularity, but it has been argued convincingly that they were hardly read in the countryside by people to whom they might have been useful. Rather, they were consumed by city dwellers in search of bucolic and escapist experiences. (Chartier, 1982-7).

Finally, given the overwhelming prevalence of books with a spiritual content and the oft-proclaimed connection between literacy and religion, it is necessary to verify whether important distortions might not come from this quarter too. Religious affiliation and its shifts over time have long occupied a central place in the historiography of European literacy and were introduced into economic history by two seminal works of the 1960s: those of Lawrence Stone (1964) and Carlo Cipolla (1969). The arguments are well known. The rise of Protestantism drove people in large areas of the continent to a need for a direct knowledge of Holy Scripture for which reading skills were indispensable. The religious pluralism that emerged in the meantime became interwoven with fundamental State interests and the ensuing political competition further boosted both the demand and the supply of literary skills, particularly in Catholic countries. As a result, not only the spread of reading skills surged everywhere but the unevenness with which this happened – with greater intensity in Protestant areas – was responsible for the enduring literacy map of Europe which we find at the dawn of the industrial era.

During the last twenty years, these views have been submitted to a wide ranging critique and no longer carry much weight, even though the data are appealing. One argument presents evidence to the effect that Protestant authorities often were no different from the Catholic ones in considering that the reading of religious texts was important but not for the mass of the lower orders, where it might have unsettling effects.²¹ Another draws attention to the poorly fitting geographic lines of division of faith and literacy in many parts and particularly where Protestants and Catholics lived close by and intermingled (Boehler, 1995). In a recent article, Kuijpers (1997) advances, for the Netherlands, several tests that the classic hypothesis fails to pass too. One is that literacy was higher in Protestant areas because the latter were more urbanised and developed and the underlying casual mechanism was simply socio-economic. Moreover, the difference between the two religious groups could be ascribed in part to social class. Protestants occupied a disproportionate share of the elite, whereas Catholics tended to have relatively more labourers and other lowly occupations among them. Lastly, for purposes of religious practice, literacy meant only reading, and, for many especially from the popular classes, reading by itself was really tantamount to memorising the appropriate texts. Therefore, the greater apparent capacity of the Protestants may have been an overestimate that created a statistical illusion.

From our point of view, the last of these arguments is of special interest given that our definition of human capital includes both reading and writing. None of the Churches deemed the second of these skills as a requirement for a full spiritual life. Moreover, although religious pluralism may have impelled the spread of literacy up to the middle of the 17th century, after that time it was unlikely to have been any more

that a necessary but never a sufficient condition for this. During the ensuing 150 years the religious map changed very little, religious competition abated, and yet everywhere an increasing proportion of the population was able to sign their names. Thus, the link does not seem strong after all. At the same time, it cannot be denied that religious feeling was closely interwoven into the motivations to become acquainted with books. All churches favoured it, whatever side of the great divide they might be on, and much of the educational effort that took place was carried out or sponsored by them. The difference between the faiths lay more in the type of reading they encouraged than in the fact itself, with Protestants requiring the Bible and the psalms, and Catholics favouring the catechism and the lives of the saints and disapproving of a direct biblical knowledge. School work during these centuries was entirely based on religious texts and more time and stress were given over to imbibing their precepts by oral means than in learning how to read them. And as mentioned earlier, when it came to using finally these skills subsequently in private, the aim was very much in order to read religious material, with the churches usually viewing most other prose as morally dangerous objectionable.

The paradox concerning the motivations to acquire literacy does not end here, however. As literacy rates increased in Europe, particularly during the 18th century, a growing part of this seems to have been unrelated to any functional needs for those involved. As education percolated down through society more and more, 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 some degree to the “lower crafts”, to artisans who engaged in a limited amount of commercialisation, and even to small traders and shopkeepers. As regards the first of these categories, this evolution is particularly striking given that they could not have required this acquisition for any practical use at all. Yet in England, for example, their literacy rate rose from circa 10%, at the end of the 16th century, to 20-30%, one hundred years later (Cressy, 1980). During the same period in Amsterdam, it went from 40 to 66 % (in the case of “proletarians”) (Kuijpers, 1997) and, in Lyon, it rose from 20 to 37% for day workers and 20 to 41% for gardeners during the 18th century. (Chartier et al., 1976)²². Interestingly, in Paris, among arrested petty criminals – mainly who stole food – 60% were illiterate in 1730 but by 1785 this was down to an impressive 40% (Roche, 1987).²³

In terms of this paper the paradox may be more apparent than real. For the literate portion of the lower social strata that we have just analysed, the human capital that they built up gradually during this period was equivalent to the consumer durables that were increasingly to be found in their inventories during the Consumer Revolution. Since both types of item competed for the same scarce resources in their expenditure decisions, more human capital could only have become available if there had been a rise in real income, an alteration in expenditure patterns that favoured non-material consumption relative to before, or a combination of both. If real incomes had been stagnant or falling, then changes in values and preferences among the popular classes could still have led to a new or to a higher consumption of spiritual goods. Not inconceivably this could have happened at the expense of material consumption, yet without necessarily implying a lowering in the standard of living. Among the higher strata of society, though human capital generally served its possessor as a producer

good as well, its use for non-material ends could not have been ample all the same, if one is to judge by their relatively abundant pattern of book ownership. In this case what is clearly problematic is the possibility of determining the contributions of human capital respectively to the individual's welfare and to his productivity, a difficulty that does not arise with literate labourers and the like.

All in all, it seems difficult to go against the notion that the analysis of the standard of living is incomplete without proper attention being paid to the place of human capital in it. This does not mean that the level of human capital can serve by retropolation as an indicator of the level of real income. Indeed, the relationship between them is not only not linear but too complex to be modelled to this end. 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, and this is an important step towards rendering it measurable, at least in theory. To do the same for the better off segments is not impossible but may require challenging assumptions in this respect. The following section presents an exploratory effort in this direction.

V

In a justly controversial study, David Mitch (1992) has argued that, during the Industrial Revolution, England was grossly over-educated. Its labour force had a stock of human capital well in excess of what was needed for the jobs performed and its contribution to the epoch's rapid growth was therefore nil. The present study detects a similar though not identical situation in Europe during the latter half of the early modern period. At that time too there was a surplus of human capital in the sense that certain segments of the population were educated without any correspondence to their professional needs. In contrast, as we have seen, the total stock varied to quite an extent in accord with the evolving needs of the economy, and therefore probably made a net positive contribution to any growth there may have been. This is not the issue posed by this paper, however. Unlike Mitch, our aim is to establish what purpose, besides helping to fuel growth, human capital served and the conclusion thus far is that it constituted 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, of course, by how much.

To achieve a result, we begin by treating the capacity to read and write (proxied by the ability to sign) as a costly asset in the portfolio of articles of material consumption that individuals accumulated and enjoyed during their life times – furniture, clothes, etc.. The assessment of this portfolio and its components corresponds, usually though somewhat arbitrarily, to the end of their lives, because that is when they were most frequently inventoried. As is usual in the literature, its total value is employed, after suitable deflation, as a yardstick for gauging the standard of living and, in this case, for appraising the relative importance that human capital had in it. 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 to it a value of zero. Since, however, what we seek to capture with this exercise is the value of the asset's fruition during its owners' lifetime, this solution appears unhelpful. A second one 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 constitutes a relatively simple operation once we have its capital cost. The difficulty this time would lie in estimating the equivalent stream of satisfaction generated by all the other assets in the inventory, an elusive target given that we probably would not know either their current age nor their specific depreciation schedules. Our choice therefore goes to a stock, rather than a flow solution, but one that 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 in doing this is that we shall be comparing articles valued by different methods. On the other hand, this is mitigated by the fact that human capital, in principle, does not depreciate and so it matters 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 18th 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. Data permitting, it is hoped to extend it later to other areas and periods. The historic cost in question aggregates two items: the cost of education and the opportunity cost incurred in 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 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). 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 an average, a total of £ 2.4 for the four year education of our premise and very close to Mitch's (1999) figure of £2.0 for the early 19th century.

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, that an early, low opportunity cost one, from 6 or 7 to 10 or 11 years. We further suppose that children, if not in school, would have been easily employable, a situation that is less convincing. We lack direct information on likely rates of pay and have therefore taken, as a conservative guess, a proportion of one fifth of an adult male unskilled worker's yearly wage as the solution.²⁴ Between 1700 and 1750, this was about £20 a year (Mitchell, 1988) and therefore the opportunity cost of achieving proficiency in

reading and writing would have been something like £16. The full historic cost of being literate in early 18th century England thus amounted to altogether £18.4. A similar exercise using French contemporary data from the Champagne region yields a figure of 78.5 livres.²⁵

Having quantified the value of human capital, the next step is to place this in context, the most appropriate one being naturally the global stock of wealth owned by the people under consideration. In early 18th 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 (Weatherill, 1988). These included all goods and chattels but the mean average of their household goods alone, the reality on which the standard of living discussion has focussed mostly, was far lower – respectively £5 and £8. For France, the contrast between household wealth and the capital cost of literacy is less sharp though based on scant information that is only available for nearby Alsace. There, the inventories of rural labourers were worth between 318 and 522 livres and their household possessions between 67 and 73 livres (Boehler, 1995). Whichever measure we adopt for comparison, the conclusion must be that human capital represented a valuable asset in the lives of a great many of the humblest people in these two societies. One may also add that even quite a bit higher up the social hierarchy it would still have had a not insignificant weight, though this is a matter for future work. 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 to some extent may be faulted and our quantification stands to be corrected, although lower bound result, arguably the substance of our inference is not affected by this. The fact remains that taking human capital into consideration in this way is liable to affect the traditional calculation of standard of living levels to a substantial degree.

VI

In Economic History, human capital is usually treated as an enhancement of the capacity to produce. In this paper, we explore ways of perceiving it instead 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, that is invested in so as to increase productivity, and thus is irrelevant to any evaluation of the standard of living that employs levels of 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 16th and the 18th 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 still at a very tentative stage, the result suggests that the welfare gains thus obtained from human capital are surprisingly large and may contribute to a needed clarification of the standard of living debate.

REFERENCES

Robert C. Allen (2000), 'Economic Structure and Agricultural Productivity in Europe, 1300-1800', European Economic History Review, 4, 1-26.

Robert C. Allen (1998), 'The Great Divergence: Wages and Prices in Europe from the Middle Ages to the First World War', University of British Columbia, Department of Economics Discussion Paper N° 98-12.

Jean Amalric (1987), 'Un Réseau d'Enseignement Élémentaire au XVIIIème Siècle: Les Maîtres d'Écoles dans les Campagnes de Burgos et de Santander', in De l'Alphabétisation aux Circuits du Livre en Espagne XVIè-XIXè Siècles (Paris, Éditions du CNRS).

Bartolomé Benassar (1983), 'Les Résistances Mentales' in Jean-Pierre Amalric et al., Aux Origines du Retard Économique de l'Espagne XVIè-XIXè Siècles (Paris, Éditions du CNRS).

Jan Blomme and Herman van der Wee (1994), 'The Belgian Economy in a Long Term Historical Perspective: Economic Development in Flanders and Brabant, 1500-1812' in Angus Maddison and Herman van der Wee (eds.), Economic Growth and Structural Change. Comparative Approaches over the Long Run (Milan, Bocconi University).

Jean-Michel Boehler (1995), Une Société Rurale en Milieu Rhénan: La Paysannerie de la Plaine d'Alsace (1648-1789) (Strasbourg, Presses Universitaires de Strasbourg).

Fernand Braudel and Ernest Labrousse (1970-80) Histoire Économique et Sociale de la France (Paris, Presses Universitaires de France).

John Brewer and Roy Porter (eds) (1993), Consumption and the World of Goods (London, Routledge).

Roger Chartier (1987), Lectures et Lecteurs dans la France de l'Ancien Régime (Paris, Seuil).

Roger Chartier (1985-7), 'Les Pratiques de l'Écrit,' in Philippe Ariès and Georges Duby (eds), Histoire de la Vie Privée (Paris, Seuil).

Roger Chartier, Marie Madeleine Compère and Dominique Julia (1976), L'Éducation en France du XVIe au XVIIIe Siècle (Paris, Société d'Édition d'Enseignement Supérieur).

Carlo M. Cipolla (1969), Literacy and Development in the West (Harmondsworth: Penguin).

Belen Moreno Claverias (1999), ... (unpublished paper, EUI).

Marie-Madeleine Compère (1995), L'Histoire de l'Éducation en Europe: Essai Comparatif sur la Façon dont elle s'Écrit (Paris, Institut National de Recherche Pédagogique)

N. R. F. Crafts (1997), 'The Human Development Index and Changes in the Standards of Living: Some Historical Comparisons,' European Economic History Review, 1, 299-322.

David Cressy (1980), Literacy and the Social Order. Reading and Writing in Tudor and Stuart England (Cambridge, Cambridge University Press).

David Cressy (1981), 'Levels of Illiteracy in England, 1530-1730' in Harvey J. Graff (ed.) Literacy and Social Development in the West: A Reader (Cambridge, Cambridge University Press).

Jesus Cruz and Juan Carlos Sola Corbacho (1999), 'El Mercado Madrileño y la Industrialización en España durante los Siglos XVIII-XIX', in J. Torras and B. Yun, Consumo, Condiciones de Vida y Comercialización. Cataluña y Castilla, Siglos XVII-XIX (?), Junta de Castilla y León).

A. Th. Van Deursen (1991), Plain Lives in a Golden Age. Popular Culture, Religion and Society in Seventeenth Century Holland (Cambridge, Cambridge University Press).

Madeleine Foisil (1986), 'L'Écriture du For Privé' in Philippe Ariès and Georges Duby (eds), Histoire de la Vie Privée (Paris, Seuil).

Antonio Viñao Fraga (1990), 'The History of Literacy in Spain: Evolution, Traits and Questions', History of Education Quarterly, 30, pp.573-99.

Étienne François (1989), 'Lire et Écrire en France et en Allemagne au temps de la Révolution', in Helmut Berding, Étienne François and Hans-Peter Ullmann (eds), La Révolution, la France et l'Allemagne: Deux modèles Opposés de Changement Social? (Paris, Maison des Sciences de l'Homme).

Richard Gawthrop and Gerald Strauss (1984), 'Protestantism and Literacy in Early Modern Germany', Past and Present, 104, pp. 11-55.

J. E. Gelabert (1987), 'Niveaux d'Alphabétisation en Galice (1635-1900)' in De l'Alphabétisation aux Circuits du Livre en Espagne XVIè-XIXè Siècles (Paris, Éditions du CNRS).

António Camões Gouveia (1998), "Educação e Aprendizagens. Formas de Poder na Paideia do Portugal Moderno", Ler História, 35, pp....

Anne-Marie Granet-Abisset (1996), 'Entre Auto-Didaxie et Scolarisation. Les Alpes Briançonnaises', Histoire de l'Éducation, 81, pp.111-41.

Loften Guttormssen (1990), 'The Development of Popular Religious Literacy in the 17th and 18th Centuries', Scandinavian Journal of History, ...

S. Hart (1976) Geschrift en Getal : Een Keuze Uit de Demografisch-,Economisch-en Sociaal-Historische Studien Opgrond van Amsterdamse en Zaanse Archivalia 1600-1800 (Dordrecht,..).

Philip T. Hoffman (1996), Growth in a Traditional Society Growth: The French Countryside 1450-1815 (Princeton, Princeton University Press).

Andrea Hofmeister et al.(1998), 'Elementary Education, Schools and the Demands of Everyday Life: North West Germany in 1800', Central European History, 31, 329-84.

Jean Houdaille (1977), 'Les Signatures au Mariage de 1740 à 1829', Population, 32, pp.65-90.

Robert Allan Houston (1988), Literacy in Early Modern Europe: Culture and Education, 1500-1800 (London, Longman).

John Komlos (1989), Nutrition and Economic Development in the Eighteenth Century Habsburg Monarchy (Princeton, Princeton University Press).

Erika Kuijpers (1997), 'Lezen en schrijven. Onderzoek naar het Alfabetiseringsniveau inb zeventiende eeuw Amsterdam' , Tijdschrift voor Sociale Geschiedenis, 23, pp. 490-522.

A.Bartoli Langeli and X. Toscani (eds) (1991) Istruzione,Alfabetismo, Scrittura: Saggi di Storia dell'Alfabetizzazione in Italia (Sec. XV-XIX) (Milano, Angeli).

Claude Larguie (1987), 'L'Alphabétisation des Madrileños dans la Seconde Moitié du XVII^{ème} Siècle: Stagnation ou Évolution?', in De l'Alphabétisation aux Circuits du Livre en Espagne, XVI^{ème}-XIX^{ème} Siècles (Paris, Centre National de la Recherche Scientifique).

Emmanuel Le Roy Ladurie and Michel Demonet (1980), 'Alphabétisation et Stature: Un Tableau Comparé,' Annales E. S. C., 35, pp. 1329-32.

Peter H. Lindert and Jeffrey G. Williamson (1982), 'Revising England's Social Tables, 1688-1812', Explorations in Economic History, 19, pp.

Angus Maddison and Herman van der Wee (eds.) (1994), Economic Growth and Structural Change. Comparative Approaches over the Long Run (Milan, Bocconi University).

Paolo Malanima (1994), Il Lusso dei Contadini. Consumi e Industri nelle Campagne della Toscane del Sei e Settecento (Bologn, Il Mulino).

Paolo Malanima (1994), 'Italian Economic Experience: Output and Income, 1600-1800', in Angus Maddison and Herman van der Wee (eds.), Economic Growth and Structural Change. Comparative Approaches over the Long Run (Milan, Bocconi University).

Paolo Malanima (1995), Economia Preindustriale. Mille Anni: Dal IX al XVIII Secolo (Milano, Mondadori).

Daniele Marchesini (19..), 'Sposi e Scolari. Sottoscrizioni Matrimoniali e Alfabetismo tra Sette e Ottocento'...

Ingrid Markussen (199?), 'The Development of Writing Ability in the Nordic Countries in the Eighteenth and Nineteenth Centuries', Scandinavian Journal of History, ...

Jacob Mincer (1974), Schooling, Experience and Earnings (New York, National Bureau of Economic Research).

David F. Mitch (1992), The Rise of Popular Literacy in Victorian England: The Influence of Private Choice and Public Policy (Philadelphia, University of Pennsylvania Press).

David Mitch (1999) 'The Role of Education and Skill in the British Industrial Revolution' in Joel Mokyr (ed.) The British Industrial Revolution : An Economic Perspective (Boulder, Co: Westview Press).

Brian Redman Mitchell (1988), British Historical Statistics (Cambridge: Cambridge University Press).

John Money (1993), 'Teaching in the Market Place,' in John Brewer and Roy Porter (eds), Consumption and the World of Goods (London, Routledge).

Sara T. Nalle (1989), 'Literacy and Culture in Early Modern Castille', Past and Present, 125, pp. 65-96.

Anders Nilsson (1997), 'What do Literacy Rates in the 19th Century Really Signify? New Light on an Old Problem from Unique Swedish Data', unpublished paper presented at the XXII Meeting of the Social Science History Association, Washington D.C.

Anders Nilsson, Lars Pettersen and Patrick Svensson (1999), 'Agrarian Transition and Literacy: The Case of Nineteenth Century Sweden', European Review of Economic History, 3, pp.79-96.

Anders Nilsson and Birgitta Svård (1994), 'Writing Ability and Agrarian Change in Early 19th Century Rural Scania' Scandinavia Journal of History, 19, pp.251-74.

Sevket Pamuk (1999), 'Eastern Mediterranean Prices and Wages within a European Framework, 1470 to 1914', paper delivered at the III Congress of the European Historical Economics Society, Lisbon.

Geoffrey Parker (1980), 'An Educational Revolution? The Growth of Literacy and Schooling in Early Modern Europe', Tijdschrift voor Geschiedenis, 93, pp. 210-22.

Jaime Reis (2000), 'How Poor was the Periphery before 1850? The Mediterranean vs. Scandinavia', in Sevket Pamuk and Jeffrey G. Williamson (eds.), The Mediterranean Response to Globalization before 1950 (London, Routledge).

Daniel Roche (1987), The People of Paris. An Essay in Popular Culture in the 18th Century (Leamington Spa, Berg).

Joseph Ruwet and Yves Wellemans (1978), L'Analphabétisme en Belgique (XVIII^{ème}-XIX^{ème} Siècles) (Louvain, Bibliothèque de l'Université).

Michael Sanderson (1991), Education, Economic Change and Society in England 1780-1870 (London: Macmillan).

Joel Sagnieux (1986), Les Mots et les Livres. Études d'Histoire Culturelle (Lyon, Presses Universitaires de Lyon).

R. S. Schofield (1973), 'Dimensions of Illiteracy, 1750-1850', Explorations in Economic History, 10, pp. 437-54.

Anton J. Schuurman and Lorena S. Walsh (eds.) (1994), Material Culture: Consumption, Life-style, standard of living, 1500-1900 (Milan, Bocconi University).

Adam Smith (1776,1976), An Inquiry into the Nature and Causes of the Wealth of Nations (edited by R. H. Campbell, A. S. Skinner, W. B. Todd) (Oxford, Clarendon Press).

Woodruff D. Smith (1984), 'The Function of Commercial Centers in the Modernization of European Capitalism: Amsterdam as an Information Exchange in the Seventeenth Century', Journal of Economic History, XLIV, pp. 985-1005.

Graeme Donald Snooks (1994), Was the industrial revolution necessary? (London, Routledge).

Margaret Spufford (1979), 'First Steps in Literacy: The Reading and Writing Experiences of the Humblest Seventeenth Century Spiritual Autobiographies,' Social History, 4, pp. 407-35.

W. B. Stephens (1990), 'Literacy in England, Scotland and Wales, 1500-1900', History of Education Quarterly, 30, pp. 545-72.

Lawrence Stone (1964), 'The Educational Revolution in England , 1560-1640', Past and Present, 28, pp....

Gyorgy Toth (1998), 'Peasant Literacy in Hungary in the Seventeenth-Nineteenth Centuries', unpublished paper presented at the International Economic History Congress, Madrid 1998.

Jan de Vries (1984), European Urbanization, 1500-1800 (Cambridge, Mass., Harvard University Press).

Jan de Vries (1994), 'The Industrial Revolution and the Industrious Revolution', Journal of Economic History, 54, pp.249-70.

Jan de Vries and Ad van der Woude (1997), The First Modern Economy. Success, Failure and Perseverance of the Dutch Economy, 1500-1815 (Cambridge, Cambridge University Press).

Lorna Weatherill (1988), Consumer Behaviour and Material Culture in Britain, 1660-1760 (London : Routledge).

Lorna Weatherill (1993), 'The Meaning of Consumer Behaviour in Late Seventeenth and Early Eighteenth England', in John Brewer and Roy Porter (eds), Consumption and the World of Goods (London, Routledge).

Jeffrey G. Williamson (1995), 'The Evolution of Global Labour Markets since 1830: Background, Evidence and Hypotheses', Explorations in Economic History, 32, pp. 141-97.

Bartolomé Yun (1994), 'Proposals to Quantify Long Term Performance in the Kingdom of Castille, 1550-1800', Angus Maddison and Herman van der Wee (eds.), Economic Growth and Structural Change. Comparative Approaches over the Long Run (Milan, Bocconi University).

J. Torras and B. Yun, Consumo, Condiciones de Vida y Comercializacion. Cataluña y Castilla, Siglos XVII-XIX (? , Junta de Castilla y Leon).

J. L. Van Zanden (1993), The Rise and Decline of Holland's Economy (Manchester, Manchester University Press).

J. L. Van Zanden (1995), 'The Beginning of the Kuznets Curve: Western Europe during the Early Modern Period', Economic History Review, 48, pp. 643-64.

J. L. Van Zanden (1998), 'An Experiment in Measurement of the Wealth of Nations. International Disparities in Agricultural and GDP per Capita at about 1810', in Bart van Ark, Erik Buyst and Jan Luyten van Zanden, Historical Benchmark Comparisons of Output and Productivity (Seville, Fundacion Fomento de la Historia Economica)

J. L. Van Zanden (1999), 'Wages and the Standard of Living in Europe, 1500-1800', European Economic History Review, 3, 175-98.

NOTAS:

- ¹ This is confirmed by de Vries (1974) for the 16th and 17th centuries.
- ² We have added Portugal and Italy to van Zanden's collection of countries by extrapolating back to 1800 their relative position of 1850, as given in Reis (2000). This exercise, if extended, would place Sweden and Denmark on a par with France and Belgium.
- ³ Brewer and Porter (1993), Weatherill (1988), Torras and Yun (1999), Malanima (1994), Boehler (1995) provide some examples.
- ⁴ For a fuller critique, see Introduction in Yun and Torras (1999).
- ⁵ 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).
- ⁶ 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) and Saugnieux (1986).
- ⁷ Notwithstanding, the correlation between signing and being able to copy a phrase was low in nineteenth century Denmark, according to Markussen (1990).
- ⁸ For a general warning to avoid transposing educational models from the nineteenth century to earlier times, see Compère (1995).
- ⁹ In the Alpes near Briançon. where autodidactic arrangements were common, by 1800 93% of males could sign. See Granet-Abisset (1996).
- ¹⁰ In the Netherlands, de Vries and van der Woude (1997) estimate that half the 17th century population of Amsterdam was under these conditions but in other places it was probably more.
- ¹¹ There are few reliable national estimates, the most famous being the French one by Maggiolo (Furet and Ozouf, 1977). Most of the data used here is culled from more or less local studies and extrapolated, at some risk, to national levels.
- ¹² 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.
- ¹³ There is a vast range of literature on these countries. The most useful proved to be Gelabert (1987), Benassar (1983) and Viñao Fraga (1990) for Spain; Houdaille (1977), Davis (1981) and Furet and Ozouf (1977) for France; Hart (1976) and Kuijppers (1997) for the Netherlands; Gouveia (1998) for Portugal; Marchesini (1982) for Italy; and Sandersen (1991) for England.
- ¹⁴ Cases are cited of women who, owing to early widowhood, ran craft shops and businesses or farms, but 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).
- ¹⁵ Amsterdam, one of the most literate cities of 17th century Europe, owed much of its prosperity to its role as an "information exchange" where widespread literacy was obviously crucial. (Smith, 1984)
- ¹⁶ But in rural society, opportunities existed too, as David Cressy (198: 110) has noted, and literacy was a component of it too.
- ¹⁷ Literacy was also becoming instrumental for them by allowing easier access to credit and to the burgeoning market for their produce.
- ¹⁸ Evidence for this is found in de Vries and van der Woude (1997; Ringrose (1983), for Madrid; and Lindert and Williamson (1982), for England.
- ¹⁹ People can learn to read and write and later, for lack of use, forget these skills, a not unusual occurrence in this period, as related by several authors.
- ²⁰ The number of titles published in Europe during the 18th century was 3 million. In Germany alone, output was between 2 and 5 million a year. (Houston, 1988)

-
- ²¹ For these and other criticisms, see Parker (1980), Cressy (1981), Gawthorp and Strauss (1984), François (1989), van Deursen (1991) and Spufford (...).
- ²² These figures are confirmed by several regional studies in the second volume of Furet and Ozouf (1977).
- ²³ It is tempting to suppose that the growing availability during the seventeenth century of “blue books”, the only reading matter that was affordable to such people, may have had something to do with this “downward percolation” effect. Their spread also 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.
- ²⁴ This is based on the example of the urban Netherlands in the 17th century, where a child might earn 40 guilders a year, while poor workers’ earnings were 200 and a family’s total income was 300. (van Deursen, 1991)
- ²⁵ This is based on statistics in Chartier et al, (1976).