Wage and Consumption Levels in England and on the Continent in the 1830's

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I

The purpose of this note is to bring to the attention of economic historians, what is apparently a little-known — at least virtually uncited — work containing data on comparative wages and consumption standards in England and several countries of continental Europe in the 1830's. The book referred to is by Jelinger Cookson Symons, *Arts and Artisans at Home and Abroad*, printed in 1839.[1]

These compilations of Symons acquire pertinence for at least two reasons. First, Professor E. J. Hobsbawm's article on « The British Standard of Living 1790-1850 » appearing in 1957 sparked an exchange with Professor R. M. Hartwell.[2] The subsequent controversy on the British standard of living

[1] JELINGER COOKSON SYMONS, *Arts and Artisans at Home and Abroad with Sketches of the Progress of Foreign Manufactures*, Edinburgh: William Tait, 1839, pp. 270 and xii. This book contains twenty-two chapters, only I through VI are dealt with here. A partial listing of other chapters includes: « On the Elements Which Govern Wealth and Wages » (VII), « The Mental and Moral Condition of the Artisans Abroad » (VIII), « Crime, and Physical State of Artisans in Large Cities at Home » (IX), « Prisons » (X), « Organic Remedies for the Evils Under Which the Labouring Classes Suffer » (XIV), « The Progress of the Manufacturing Arts Abroad, as Regards Machinery » (XV), « Two Letters on Economy of British Cotton-Mills » (XIX). ARTHUR BOWLEY, *Wages in the United Kingdom in the Nineteenth Century*, Cambridge University Press, 1900, pp. 14, 63, 101-103 cites Symons. Other than Bowley, *ibid.*, I have not found a reference to Symons' book although Duncan Bythell's *The Handloom Weavers*, Cambridge University Press, 1969, p. 55 contains a passing reference to Symons' role in the handloom inquiry c. 1837.

[2] E. J. HOBSBAWM, « The British Standard of Living 1790-1850 » (plus appendix) and « The Standard of Living during the Industrial Revolution: A Discussion » (postscript plus appendix). *Economic History Review*, 2nd series, X, no. 1, August 1957, pp. 46-48 and XVI, no. 1, August 1963, pp. 119-146, respectively. R. M. HARTWELL, « The Rising Standard of Living in England, 1800-1850 » and « The Standard of Living », *Economic History Review*, 2nd series, XIII, no. 3, April 1961, pp. 347-416 and, XVI, no. 1,

during the Industrial Revolution is well-known. Without reproducing the principal arguments involved, it is sufficient to note that the issues around which the debate was drawn by Hobsbawm in 1957 were (a) mortality and health, (b) unemployment and (c) consumption.[3] Hartwell chose to meet Hobsbawm on the issues drawn over what might be termed micro-evidence, and, additionally, introduced aggregates or macro-data on such things as national income, population, industrial production, etc.[4] It is not the purpose here to take issue with either Hobsbawm or Hartwell over which type of evidence is more appropriate, for that depends upon how one chooses to frame the null hypothesis with respect to the standard of living controversy, i.e., H_1: certain groups were no worse off during the period, or part of the period, known as the Industrial Revolution compared to the earlier period(s) (micro-data); or, H_2: the economy as a whole was no worse off during the period, or part of the period, known as the Industrial Revolution compared to the earlier period(s) (macro-data).

Symons' data are micro in nature dealing with representative consumption bundles and wages for various groups in specific locales. Thus they relate to only a portion of the Hobsbawm-Hartwell controversy. These data are well suited, however, to answer no less an authority than T. S. Ashton's specifications, « We require not a single index but many, each derived from retail prices, each confined to a short run of years, each relating to a single area, perhaps even to a single social or occupational group within an area. »[5]

Second, Professor H.J. Habakkuk's, *British and American Technology in the Nineteenth Century*, placed considerable emphasis on the relative prices of labor and capital in England and America as a determining factor in the apparent technological divergence between the two countries in the early nineteenth century. A derivative of Habakkuk's inquiry has been a considerable interest in the question of relative wages between England and America.[6]

August 1963, pp. 135-146 (plus appendix), respectively. Other useful evidence on the standard of living would include: J. E Williams, « The British Standard of Living: 1750-1850 » and R. S. Neale, « The Standard of Living 1780-1844: a Regional and Class Study », *Economic History Review*, XIX, no. 3 (December 1966), pp. 581-9 and 590-606; D. J. Oddy, « Working Class Diets in Late Nineteenth-Century Britain », *Economic History Review*, XXIII, no. 2 (August 1970), pp. 314-23; and T. R. Gourvish, « The Cost of Living in Glasgow in the Early Nineteenth Century », *Economic History Review*, XXV, no. 1 (February 1972), pp. 65-80; and M. W. Flinn, « Trends in Real Wages, 1750-1850 », *Economic History Review*, XXVII, No. 3 (August 1974), pp. 395-413.

[3] Hobsbawm (1957), p. 51.

[4] Hartwell (1963), pp. 139-40.

[5] T. S. Ashton, « The Standard of Life of the Workers in England, 1790-1830 », *Journal of Economic History*, Supplement IX, 1949 as reprinted in F. A. Hayek, *Capitalism and the Historians*, University of Chicago Press, 8th ed., 1967, p. 148.

[6] Cf. Peter Temin, « Labor Scarcity and the Problem of American Industrial Efficiency in the 1850's », *Journal of Economic History*, XXVI, September 1966, 277-98; Robert Fogel, « The Specification Problem in Economic History », *Journal of Economic*

While Symons' data do not bear directly on the question of American wage levels, they give a good overview of English wages for various occupational groups in the period from roughly 1836-1839. In addition, there is considerable material on the level of wages on the continent during this period which would be of use to scholars investigating the comparative aspects of English and continental technology along the line of the Habakkuk analysis.

Before moving on to a brief examination of some of Symons' findings on comparative wages and consumption levels in section III and IV, a short discussion of Symons' background and the manner in which he collected his data will be helpful in order that some assessment might be made of the "quality" of his evidence.

II

Jelinger Cookson Symons was thirty years of age when his book *Arts and Artisans at Home and Abroad* was printed.[7] He graduated with a B.A. from Corpus Christi College, Cambridge in 1832; and was appointed as one of the assistant commissioners on the hand-loom inquiry in 1835. Subsequently he held a tithe commissionership to inquire into the state of the mining population in the north of England. By 1843 his researches on the state of the manufacturing populations in Britain and the continent were essentially completed and he was called to the bar at Middle Temple.

In the preface to *Arts and Artisans...* he reveals how the material for his book was gathered, « The researches I have assisted in making under the Hand-loom Commission, and more especially my subsequent mission of inquiry into the relative circumstances of the artisans of France, Belgium, Austria, and Switzerland, aided by the facilities afforded me through the personal and official services of our Ambassadors, have necessarily opened to me a wide and valuable field of observation, affording fruits which I am neither able to comprise, nor willing to confine, within the limits of a Parliamentary Report ». As a member of the Royal Commissions — in addition to the above, he was commissioner (1846) for the inquiry on the state of education in Wales (and after 1848 a permanent inspector of schools) —

History, XXVII, September 1967, 283-308; NATHAN ROSENBERG, « Anglo-American Wage Differences in the 1820's », *Journal of Economic History*, XXVII, June 1967, 221-29; DONALD ADAMS, « Some Evidence on English and American Wage Rates, 1790-1830 », *Journal of Economic History*, XXX, September 1970, 499-520 and ....., « Wage Rates in the Early National Period: Philadelphia, 1785-1830 », *Journal of Economic History*, XXVIII, September 1968, 404-26; and JEFFREY ZABLER, « Further Evidence on American Wage Differentials, 1800-1830 », *Explorations in Economic History*, 10, Fall 1972, 109-17; DONALD ADAMS, « Wages in the Iron Industry: A Comment » and « Reply » by J. ZABLER in *Explorations in Economic History*, 11, Fall 1973, 89-99.

[7] A good outline of Symons' career may be found in the *Dictionary of National Biography*, XIX, London: Smith, Elder, & Co., 1909, pp. 280-1.

a definite reform orientation or bias might be inferred from his observations.[8] Offsetting Symons' "interest" in improving social and economic conditions is the fact that his observations were drawn from correspondence, in England and in Continental countries, with men who owned the factories and establishments in question. Hence his data on wages and consumption are, if anything, biased in favour of the capitalists' view of the matter. On balance then, while his inferences and deductions may display a liberal bias, the slant of his data and "factual" observations should go in the other direction. In short, Symons' compilations provide evidence to be used with care and discretion, not significantly unlike other materials that confront the economic historian.

That Symons was quite literate and a qualified observer is attested to by the fact that he was editor of the *Law Magazine* from 1843 until 1856. In addition he published sixteen books in his lifetime, many of these dealt with economic topics such as *Outlines of Popular Economy* (1840), *School Economy* (1852), *A Scheme of Direct Taxation* (1853), *The Industrial Capacities of South Wales* (1855) and several more.

III

Wages

The wage data are presented by Symons in a somewhat discursive fashion. Therefore Table 1 was constructed with a view to portraying the wage data in such a way as to facilitate comparisons between countries and common occupational groups across countries. In drawing up Table 1 the detail provided by Symons about wage levels in various regions had to be omitted along with occupations listed for a country that did not reappear in the tabulations for at least one other country. Table 1 is not a comprehensive summary of all the information contained in Symons. Where a range of wage rates is reported for a given occupation the range does contain all the rates reported for the various regions, e.g. the range of rates for common agricultural labor for both winter and summer. The intent in drawing up Table 1 has been to make use of Symons' data to portray wage levels by occupation in each country that are as representative as possible. Most of the wage rates reported in Table 1 may be construed as town wages as opposed to wages paid in the countryside. Agricultural labor is, of course, the exception. For the countries reported on, Symons generally adopted the

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[8] Hobsbawm, 1963, *op. cit.*, pp. 124-5, has noted the possibility that liberal observers and Royal Commissioners had reform orientations that could bias their observations in some measure; he notes, however, with some point that « ... (a reform orientation) no more invalidates the findings of the blue books than Porter's obvious bias in favor of British capitalism invalidates the *Progress of the Nation* », p. 124, parentheses mine.

TABLE 1

WAGES IN ENGLAND AND SEVERAL COUNTRIES ON THE CONTINENT IN THE LATE 1830's AND INDEX OF CONTINENTAL WAGES RELATIVE TO ENGLAND

	England (weekly wages)		Belgium (daily wages)		France (daily wages)		Switzerland (daily wages)		Austria & Prussia (daily wages)	
machine builders, ordinary	26s.—30s.	(100)			8f. (e)	(143)				
machine designers			10f.—15f. (c)							
common labor in the textile trades:										
males	17s.—19s. (a)	(100)	2f.50c.—3f. (d)	(76)	2f.—3f. (f)	(69)	1s.3d.	(42)	1s.8d.	(56)
females	5s.6d.—6s.6d.	(100)			1f.50c.—2f.	(146)	7d.—10d.	(71)	10d.	(83)
children	3s.6d.—4s.	(100)	75c.—1f.	(117)	1f.	(133)			4d.—5d.	(60)
common labor in the iron trades	20s.—30s.	(100)	2f.50c.—6f.	(85)	1f.60c.—2f.	(36)			1s.4d.—1s.6d.	(34)
skilled labor in the iron trades	25s.—40s. (b)	(100)	5f.—10f.	(115)	4f.	(62)				
common labor in agriculture, male	8s.6d.—10s.6d.	(100)	80c.—1f.20c.	(53)	1f.50c.—2f. (g)	(92)	7d.—9d	(42)	5d.—8d.	(34)
iron founder	28s.—30s.	(100)	4f.—5f.	(78)	4f.—5f.	(78)				
whitesmiths	22s.—24s.	(100)			3f.—4f.	(76)			1s.4d.—2s.	(44)
blacksmiths	18s.—22s.	(100)	2f.5c.	(51)	3f.	(75)			1s.6d.—1s.10d.	(50)
carpenters	20s.—25s.	(100)	2f.—3f.	(55)	3f.—3f.50c.	(72)	1s.2d.	(31)	1s.6d.—1s.10d.	(44)
stone masons	18s.—22s.	(100)	2f.5c.	(51)						
tailors	18s.—20s.	(100)	2f.50c.	(66)	4f.	(105)	1s.2d.	(35)	1s.2d.	(37)
compositors	24s.	(100)	3f.	(75)						
sawyers	24s.—28s.	(100)	3f.25c.	(60)						
shoemakers	15s.—18s.	(100)	2f.50c.	(76)	3f.	(91)			1s.2d.	(43)
watchmakers					3f.50c.—5f.					
locksmiths					3f.—3f.50c.					
gunsmiths					3f.50c.—4f.					
simple average of wage indices	(100)		(74)		(91)		(44)		(49)	

Source: Jelinger C. Symons, *Arts and Artisans at Home and Abrad, passim.*

Note: Conversions, in approximate terms to American currency c. 1840, are: the penny sterling, (d.) equal to two cents; the shilling (s.) will be 24 cents, and the pound sterling (L.) will be $4.80. The franc (fr.) is nearly 20 cents, the centime (cent.) or 1/100 franc equals two mills. The florin, (fl.) is roughly 40 sents, and the kreutzen (kr.) is 1/60 of the florin or about 2/3 of a cent.

(a) Leeds
(b) Sheffield
(c) English engineers at John Cockerill's Seraing works
(d) Ghent, weavers earn 12f.—20f. weekly at Verviers
(e) a « master founder at the forge Janon (Vienne) »
(f) Bocard's mills at Guebwillers, the average payment for artisans is stated to be 1f.90c. in the Southern provinces and 2f.26c. in the Northern
(g) near Havre

rule of thumb that town wages for a given occupation commanded a 10% premium over those paid in the countryside.

By computing a simple index of wages for each occupation by country, relative to the English wage level we find that the level of the English wage in general is more than double that for Switzerland and Austria-Prussia. Further the general level of English wages is about one-third greater than that for Belgium, a comparison which probably understates the English advantage since many observations for Belgium were drawn from the wages paid at John Cockerill's Seraing works. The English advantage relative to the general level wage in France is something of the order of 10%. Seven of the occupations in the French index were Paris wages, and the 8 franc daily wage included in the category of the ordinary machine builder was for a « master founder at the forge of Janon », which may be a bit suspect as a representative wage for ordinary machine builders in France. If this observation is omitted in the computation of the general index of French wages relative to England then the resulting general index is 86 as against the 91 reported in Table 1, which would put the general level of wages in England about 15% above the level in France.

If we take a simple arithmetic average of the wage for each occupation, using mid-points where a range of rates is reported in Table 1 and group the occupations in categories of skilled and unskilled labor (using the grouping employed in Table 2 and including male agricultural labor in the unskilled group), the ratio of skilled to unskilled wages for each country may be computed. For England the ratio of skilled to unskilled wages is 1.90; Belgium 1.86 (or 1.46 excluding English engineers); France 2.30 (or 2.07 excluding machine buliders); Switzerland 1.34; and Austria-Prussia 1.52. These data, whatever their limitations, do not show a significant difference in the cost of skilled relative to unskilled labor when England's position is compared with that of Belgium and France. The relative skilled-unskilled differentials between England and Switzerland and Austria-Prussia point to a relative cheapness of skilled labor in these latter countries. This general point will be returned to shortly after reviewing the wage structure within each country.

Table 2 shows the wage structure for each country where wage differentials are calculated as the index for each reported occupation relative to the wage rate for male common labor in agriculture. Holding aside the categories ordinary machine builder and machine designer for the moment and taking a simple unweighted arithmetic average of the differentials for the occupations grouped according to the designation skilled and unskilled, we see that in England the average index of skilled labor relative to common labor in agriculture is 245, while for unskilled labor, similarly computed, it is 136. The remainder of the skilled-unskilled intra-country wage indices for Beligum, France, Switzerland and Austria-Prussia are: (331, 263), (209, 101), (174, 146), and (270, 198), respectively. If in addition to the deletion of ordinary

TABLE 2

INDEX OF WAGE DIFFERENCES WITHIN COUNTRIES
(wage of male agricultural labor = 100)

	England	Belgium	France	Switzerland	Austria & Prussia
Common labor in agriculture, male	100	100	100	100	100
Skilled:					
machine builders, ordinary	295		457		
machine designers		1250			
skilled labor in the iron trades	342	750	229		
iron founders	305	450	257		
whitesmiths	242		200		307
blacksmiths	210	205	171		307
carpenters	237	250	186	174	307
stone masons	211	205			
tailors	200	250	229	174	215
compositors	253	300			
sawyers	274	325			
shoemakers	174	250	171		215
watchmakers			243		
locksmiths			186		
gunsmiths			214		
Unskilled:					
common labor in textiles:					
male	189	275	143	186	307
female	63		100	106	154
children	39	88	57		69
common labor in the iron trades	263	425	103		261

Source: same as Table 1

machine builders and machine designers, we further exclude skilled labor in the iron trades and iron founders from the comparison between England and Belgium, the general level of the remainder of the skilled labor occupations, relative to the index of male agricultural labor, is 225 in England and 257 in Belgium.

What emerges from this limited excursion into the question of intra-country wage differentials in the 1830's is the absence of any clear-cut pattern of skilled-unskilled differentials in terms of the degree of industrialization in each country. Viewing this experience in light of that portion of the Habakkuk thesis on the effects of the relative scarcity of skilled compared to unskilled labor on the capital intensity of the production process, we can tentatively conclude that Habakkuk's conjecture is not borne out by the evidence presented thus far. Since England was the first to industrialize we might presume that the capital intensity of production in England would be greater than that for France or Belgium in the late 1830's and certainly greater than that found in either Switzerland or Austria-Prussia. However, the relative scarcity of skilled relative to unskilled labor in each

country, as measured by the intra-country indices of Table 2, would not support the general interpretation that skilled labor was relatively less expensive in England than on the continent. If, in fact, the relative cheapness of skilled labor is an inducement to mechanize we would expect, on Habakkukian grounds, that Switzerland and France should be more mechanized, and therefore capital-intensive, than England in the late 1830's, other things equal.

For purposes of comparison let us put England in the place of the relatively more mechanized (capital-intensive) country *vis à vis* the continental countries. According to the portion of the Habakkuk thesis taken up here, the relative cheapness of skilled relative to unskilled labor is a inducement to mechanize. Since the relative price of skilled labor was not lower in England than for the continental countries as a whole, while at the same time England was more "mechanized", it would appear that the relative differentials between skilled and unskilled labor as measured in Table 2 do not correspond to the varying pattern of mechanization or capital intensity between countries.

This conclusion is similar to the findings of Nathan Rosenberg in comparing the relative levels of skilled wages in England and the United States in the 1820's. « Nevertheless, it is clear that Allen's data do not show a significant over-all difference in the wage differentials between skilled and unskilled labor ».[9] Rosenberg also found that the wage level for machine makers relative to common labor was much lower in the U.S. than in England and concluded: « Perhaps the large difference between the two countries in the wages of skilled machine makers is an important part of the answer to the question which Habakkuk posed early in his book: "If it paid American entrepreneurs to replace expensive American labor by machines made by expensive American labor, why did it not pay English entrepreneurs to replace the cheaper English labor by machines made with that cheaper labor?" ».[10] When England's position relative to Belgium and France is viewed with respect to the cost of ordinary machine builders and machine designers it can be seen from Table 2 that ordinary machine builders were relatively and absolutely cheaper in England than France, and further that Belgium had to pay a tremendous premium for its machine designers (English engineers), something on the order of 12.5 times the wages of male agricultural labor. Here is a rather striking confirmation of Rosenberg's point that it may well be differences in the relative price and supplies of special categories of labor, such as machine makers and designers, rather than in broad categories such as "skilled" and "unskilled" labor which deserve attention in inquiries dealing with the economic incentives for mechanization.

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9 ROSENBERG, « Anglo-American Wage Differences . . . », p. 226.
10 *Ibid.*, pp. 228-9.

IV

Consumption Standards

Symons' book contains a number of interesting comments on consumption standards and the conditions of life, individually and comparatively, in the countries surveyed. An example of the sort of information Symons' offers may prove instructive. In light of the Hartwell-Hobsbawn standard of living controversy, which turned in part on the consumption of meat by the working classes, Symons' views on the matter of how large meat loomed in the diet of the working class is of interest:

> The food of the working classes, not only of Belgium, but of all countries of the Continent, consists of vegetables; meat is not the food of the working classes, either of Belgium or of any other country. It is the relish used with food. The Italian eats maccaroni; the staple food of the French and Germans is bread or cabbage; of the Irish, potatoes (and the consumption of potatoes, as a main article of sustenance, is by no means confined to the United Kingdom, but is rapidly spreading over the Continent). It is a beautiful fiction to describe John Bull as eating beef. If "John Bull" means two-thirds of the population, John Bull is living on vegetable diet; and not above one-third of him is nourished by meat.
>
> Symons (p. 27-8)

He was lavish in his praise of the standard of living among the Swiss artisan families, « I am, moreover, impressed with a confident belief that the working classes of northern Switzerland enjoy a greater amont of physical comfort, and of mental cultivation, than the working classes of any other European community ».[11] Most revealing, however, is his comparison of the weekly budget for an English family of five that would be necessary to equal the standard of living of an « average family of Swiss artisan peasants ».

> I confidently believe, that it would require 30/- per week in England, in the neighbourhood of any country town, to put a man, his wife, and three children (two of whom shall be above 15 years of age), in the same condition, and in all physical respects, on a footing with the average of Swiss artisan peasants having the same family. This statement requires a little explanation. I assume that an English family thus circumstanced, where provisions were of the average price in England, might be supposed to expend their 30/- somewhat thus:
>
> | | |
> |---|---|
> | Rent of cottage of 4 rooms, per week | 1/6 |
> | Bread, 26 lb. weight | 5/- |
> | Bacon, 8 lb. at 9d. | 6/- |
> | Coal, 2 cwt., or other fuel, year through | 2/6 |
> | Potatoes, or other vegetables, 1 bushel | 2/- |
> | Beer, 14 quarts, 8d. per gallon | 2/4 |
> | Tea or coffee, 2 oz. at 5/ | 0/8 |

[11] Symons, p. 71.

Sugar, 1½ lb. at 8d. per lb.	1/-
Butter, 1½ lb. at 1/2 per lb.	1/9
Cheese, 1 lb.	0/9
Milk, 3 quarts	0/6
Soap, 1 lb.	0/7
Candles, 1 lb.	0/8
Tobacco, 1 oz.	0/3
Man's clothing (one suit, 2 pair shoes and stockings, per year)	1/6
Woman's do. (two suits per year)	1/-
Three children (do. each per year)	1/6
Club	0/6
Sundries	0/6
	30/-

Of course, the value of these articles will vary in different parts of England; but I believe the amount of comforts and necessaries to be purchased for 30/ a week, will, on the average, be found to tally with the above statement.

Symons (p. 70)

Given the wage data of Table 1 for England in the 1830's it would appear, according to Symons, that only the families of the most highly-paid skilled workers could afford the level of living attributed to Swiss artisan peasants; provided that the only income was derived from, presumably, the male adult head of the household in the English case. Symons is not explicit on whether or not the entire Swiss artisan family contributed to this weekly budget standard. Hence care should be used not to interpret the above results as showing that the Swiss artisan peasants were unambiguously better off than the typical English family — since, the level of labor effort per family between the two countries is not known.[12]

In order to obtain a more comprehensive overview of the comparative prices of commodities which entered the "consumption bundle" of the working

12 That Symons' comparison does not rest on explicit wage and price data can be inferred from the following:

> I am loth to speak of the wages of Switzerland. The pecuniary amount of wages is at all times a fallacious index to the real condition of the labourers. In Switzerland it is peculiarly so, owing to the very great subdivision of land, and the intermixture of agricultural and artisan occupations, a vast number of the working classes producing a portion of their own subsistence.
>
> This and other peculiarities render the money-wages of the Swiss artisans so inadequate a criterion of their eminently happy and prosperous condition, that I cannot too strongly caution my readers against making the former a measure of the latter. (Symons, pp. 59-60)

Additionally, since many branches of manufacture in Switzerland and large portions of Germany and Austria were conducted under the *Wanderschaft* systems, explicit wage and price comparisons by occupation and region would be difficult to interpret.

classes, Table 3 has been constructed from the price data Symons offers. The commodities listed in Table 3 are not representative of all commodities consumed by the working classes. This incompleteness is troublesome for purposes of making standard of living comparisons. Presumably the fact that such items as sugar, butter, tea, tobacco, etc. may enter the consumption bundle of the artisans of one country and not those of another is in itself an important criterion to employ in comparing consumption standards across countries or over time. Unfortunately, Symons is silent on this matter.

Taking a simple arithmetic average of the prices of all commodities listed in Table 3, for each country, and using English prices as the base set equal to 100, we obtain "general price indices". This simple average of the commodity price indices reveal that, for the commodities surveyed, Belgium and France were not markedly lower than England in "cost of living". Moreover, the relatively high cost of coal in France and high cost of rent in Belgium may provide the clue as to why the "cost of living" in these countries was not lower. For Switzerland and Austria-Prussia there is a notable reduction in the cost of living compared to England. In drawing up Table 3, the unit costs of a commodity were calculated on the basis of comparable units of physical or volumetric measure. In the case of rent, however, it is doubtful that strict comparability has been, or could, be, achieved. Hence, the usual cautionary word is in order.

Symons also attempted to pull together these various wage and commodity price data in order to form some notion of the average level of wages and compare them against an implicit price index: « As a general proportion (subject, however, to large variations) we may perhaps assume that in

TABLE 3

PRICES OF SELECTED COMMODITIES IN ENGLAND AND SEVERAL CONTINENTAL COUNTRIES IN THE LATE 1830's; AND INDEX OF CONTINENTAL PRICES RELATIVE TO ENGLAND

	England		Belgium		France		Switzerland		Austria & Prussia	
best beef, lb.	6d.	(100)					4 1/2d.	(75)		
coarse beef, lb.	3 1/2d.	(100)	40c.	(114)	50c.	(143)	2 1/2d.	(71)	2 2/3d.—3d.	(81)
potatoes, 100 lb.	1s.4 2/3d.	(100)	1f.50c.—2f.40c.	(117)			9 1/2d.	(57)		
pork, lb.	6d.	(100)			60c.	(100)			4d.	(67)
cheese, lb.	7d.—9d.	(100)			70c.	(88)				
bread, wheat, lb.	2 1/3d.	(100)	16c.	(69)	18c.—20c.	(81)	1 3/4d.	(75)	1 2/5d.	(60)
bread, common, lb.			14c.		15c.		1d.		1 1/6d.	
beer, imperial quart	2d.	(100)	15c.	(75)						
milk, imperial quart	2d.	(100)					3/4d.—1 1/4d.	(50)		
coal, 100 lb.	6 1/3d.	(100)			1f.10c.—1f.35c.	(192)				
rent	1s.6d. (a)	(100)	2f.50c. (b)	(139)	1f.40c.—2f.40c. (c)	(106)				
simple average of price price indices			(103), including rent (94), excluding rent		(118), including coal (104), excluding coal		(66)		(69)	

Source: same as Table 1

(a) 4 room cottage per week
(b) « for a family of six »
(c) 2 or 3 rooms, Lyon

Switzerland 1/- will go as far for a working man as 1/3 here; in France, Belgium, Rhenish Prussia, as far as 1/4 here; in Austria and many parts of Prussia as far as 1/5 here; and in Wurtemberg; parts of Austria, some of the Duchies, and Bohemia, as far as 1/8 or 1/10 here; always comparing towns with towns, and country with country; agricultural with agricultural districts, and manufacturing districts with manufacturing districts ».[13]

In aggregate, when differences in price levels were taken into account, Symons held that the working classes of England were at least one sixth better off than the working classes of the continent. He goes on to note:

> The factory work-people are decidedly the best paid in England, in comparison with the same class abroad. The wages in the Lancashire factories average as I have stated 10/6 per week per head. Those in France, Switzerland, Austria and Belgium, vary from 6 fr. to 9 fr., averaging 7 fr. 50 cent. = 6/3! — a sum which will, in the districts in question, be equivalent in exchangeable or real value to 8/4; so that cotton-factory work-people of Lancashire have 26 per cent., or a quarter, more wages than the same class abroad. The disparity is *less* in all other branches of industry; and the difference, with scarcely an exception, will be found to *decrease* in each branch of industry, in the same proportion in which that branch is unfortified by combinations at home; the journeymen carpenters, tailors, shoemakers, differing in a lesser degree, the agricultural wages differing very little, and the hand-loom weavers being somewhat higher abroad.
>
> Symons (p. 84)

After noting that the price of food in Belgium and France relative to England stands in the ratio of 3 to 4, Symons offers the following comparison of real wages, by broad occupational class, showing the weekly real wage difference in favor of the English working class in the late 1830's.

Classes of Labourers	In France and Belgium, Average Weekly Wages (*Fr. cent.*)	In England Average Weekly Wages	Difference in favour of England, after adding one third for greater cost of food
1st Class of Mechanics	15 —12/6	20/	3/4
2d do. do.	10 80— 9/	14/	2/
Farm Labourers	7 80— 6/6	10/	1/4
Spinning Factory do. men, women, and children	7 50— 6/6	10/6	2/2

Symons (p. 85)

As a check on Symons' calculation, the general wage indices reported at the bottom of Table 1 are divided by the average price indices of Table 3 in order to obtain a proxy for the real wage by country. The results are as follows: England 100; Belgium 72 including rent and 79 excluding rent; France 88 including coal, and 77 excluding coal; Switzerland 67 and Austria-

[13] SYMONS, p. 83.

Prussia 71. In other words, the detailed wage and commodity price data provided by Symons tend to show that the "real wage" in England was from 27 to 38 percent greater than that in Belgium, 14 to 30 percent greater than in France, 49 per cent larger than in Switzerland, and 41 per cent greater than in Austria-Prussia. These comparisons between England and Belgium and France are extremely sensitive to the inclusion or exclusion of the price of coal and rent in the average commodity price index; and serve to point up that Symons own comparisons, based on relative food costs, may be a misleading guide to comparative real wages between England and the continental countries.

Viewing these results in terms of the standard of living debate several possibilities present themselves. The "real wage" in England as computed above, while not an infallible guide to the standard of living for the entire population of a country because we do not know the occupational distribution of the labor force nor the participation or employment rates, varies from 14 to 49 per cent greater than the countries of the continent. In the late 1830's then the margin in favor of England appears to be very large. If the standard of living of the English population had been declining during the 1830's, these data would suggest that either the standard of living had been declining in the countries of the continent as well, or that at the outset of the period of decline in England the "real wage" advantage enjoyed by England must have been even larger on the assumption that real wages were not declining in the Continental countries throughout the 1830's. In the former case the possibility that the causes of declining economic activity were general in nature, a cyclical downturn, cannot be ruled out. A cyclical peak was recorded in England in 1836, and perhaps contemporary concern over declining living standards in the latter part of the 1830's was voiced with reference to the cyclical upturn ending in 1836. Following this line of reasoning, if a decline in living standards or the real wage did occur in England its causes may well be found simply in the cyclical nature of economic activity rather than in any inherent tendencies in the process of industrialization. If, on the other hand, the margin of the real wage in England was even greater at the beginning of the 1830's than toward the end, an unbelievably high level of prosperity in England relative to the continental countries must have obtained. These are implications or tentative hypotheses that may be drawn from the Symons' data, but no more than that.

Beyond this, for the detail and richness of his data and for the vivid descriptions employed by Jelinger Cookson Symons, I recommend *Arts and Artisans at Home and Abroad* to the attention of economic historians.