KØBENHAVNS UNIVERSITET
INSTITUT FOR ØKONOMISK HISTORIE

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Some methods of measurement

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G. E. C. GADS FORLAG

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AARHUUS STIFTSBOGTRYKKERIL A/S

Preface

This work is identical in its principal features with a paper on one of the Copenhagen University prize-subjects of 1968, for which the author was awarded the University's gold medal. Certain revisions and amendments have been incorporated prior to publication in the present form.

Most of the hitherto unpublished price- and wage-data embodied in this study are culled from the collection of documents bearing upon Danish price history in the safe-keeping of the Institute of Economic History, University of Copenhagen. Without access to this material it would have been impossible to accomplish a study of this kind within a measurable period of time. The material and human resources of the Institute were placed at my disposal while this work was in preparation, and the Institute has now undertaken its publication as one of its series of monographs. For all this, warm thanks are due to Professor Kristof Glamann, Ph. D., Director of the Institute at the time of my researches, and to Professor Svend Aage Hansen, Ph. D., the Institute's present Director.

The demographic section (Chap 10) was compiled with the aid of a card-series embracing all burials in the parish of Helligånd, Copenhagen, from 1730 to 1800, and in the parish of Holmen, Copenhagen, from 1785 to 1787, a total of 10,000 cards transcribed by my father, A. S. Thestrup, from the church registers.

The decision to publish the work in English was influenced by its following so closely (especially in Chapters 7–9) the pattern of Friis and Glamann: A History of Prices and Wages in Denmark 1660–1800, vol. I, 1958. The English translation is by Geoffrey French, B. Sc. (Econ.).

Printing costs have been defrayed by *Statens Humanistiske Forskningsråd* (the Danish National Research Council for the Humanities) and by Krista and Viggo Petersens Foundation. The translating costs

have been met by *Rask-Ørsted Fondet* (the Rask-Ørsted Foundation). Sincere thanks are due to these bodies.

The work in no sense purports to offer a definitive solution to the problem of living standards in Copenhagen in 1730–1800. I do hope, however, that its appearance may stimulate discussion of the issues I have raised and the methods I have employed.

Poul Thestrup

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Frame of study

In confining this study of living standards in Copenhagen to the period 1730–1800, no attempt is being made to characterise these seventy years as an era distinct from those preceding and succeeding it. The time boundaries were determined by the purely practical consideration that most of the historical price-data at the Institute of Economic History, University of Copenhagen, lie within this period. Had it been possible to choose the boundaries more freely, it would have been more natural to take the period extending from the close of the Great Northern War in 1721 to either Denmark's involvement in the Napoleonic Wars in 1807, or to the so-called bankruptcy of the state in 1813. This is not to assert, however, that those years would have formed the best boundaries, but only that the selection of the period 1730–1800 is in no way based upon historical events but upon the availability of material.

Thus, for instance, when it is stated later on that a factor is growing from 1730 until such and such a point in time, this does not mean that the growth began in 1730 but that it has been studied from 1730. Again, it may be that enlargement of the enquiry to cover a longer span of time would have caused some of the phenomena to reveal themselves in a different perspective. For example, rates of growth can only be evaluated by reference to the rates of growth at other points in time or of other phenomena.

Geographically the enquiry is limited to Copenhagen. It constitutes a decidedly narrow view of the 18th century to concern oneself only with living standards in the towns and, within this category, to restrict oneself to Copenhagen, but it would be difficult to employ an index of real wages as a descriptive device for other than urban artisans and workmen. Thus it is not to be thought that in the 18th century there were no rural labourers remunerated in cash, for of course there were. It is simply that it is rather difficult to determine the extent to which a

rural labourer received remuneration in kind, e. g., food or grain, over and above his money-wages. It is also possible that some degree of tolerance was accorded to rural labourers unofficially appropriating for themselves a certain amount of payment in kind. The question whether an urban artisan or labourer received his keep as well as money-wages is a difficult one in regard to certain occupations, while in other cases it is possible to say with a fair degree of certainty that journeymen or day-labourers normally did not receive their keep from their employers. It is therefore natural to concentrate upon such occupations in studying the levels of real wages.

Of the towns, Copenhagen has been selected because it was by far the biggest. It had about the same number of inhabitants as all the other towns of Denmark put together [1]). A very large part of the above-mentioned collection of price-material relates to Copenhagen, and since great importance is attached in this study to the food import figures in the consumption tax ledgers (*konsumtionsregnskaber*), [2]) it was essential to select a city where food production within its walls was small in relation to the quantity of food imported.

The rather narrow geographical and time boundaries of this study were chosen as offering the compensatory possibility of using a variety of methods for depicting the standard of living of the same population, thus enabling the methods to be evaluated by mutual comparison. Again, stress is laid on assessing the margin of error in the various computations so as to determine whether the changes revealed are significant, i. e. whether the change is larger than the margin of error.

1. In 1769: RA Rtk 352.28. In 1787 and 1801: Danmarks Statistik, Folketællingen 1787 (manuscript) and Folketællingen 1801 (manuscript).
2. *Konsumption*, or consumption tax, was a form of commodity tax similar to excise duty.

1. The standard of living. Criteria and methods of description

In studying the standard of living of a society, a variety of factors can be objectively described, e. g., the consumption of some particular commodity. It is a far more difficult task, however, to determine whether a change in one or more of these factors is to be construed as an improvement or a deterioration in the standard of living. There can be no doubt that a change in prices or wages enabling some social class to consume more with its pattern of consumption unaltered signifies a rise in the standard of life, but a change of consumption representing a reduction of the living standard from a modern standpoint was not necessarily so regarded from the standpoint prevailing in the 18th century. The naval victualling scales of 1697 and 1752 reckoned 1 lb of pork as equivalent to 2 lbs of beef[1]), and in the Copenhagen Magistrates' official meat prices, 1 lb of pork was normally priced considerably higher than 1 lb of beef[2]). This appears to imply that the value of the meat was judged by its calorific value, whereas today one would be more inclined to judge it by the protein content. In the present study, modern criteria are applied. In any case these coincide at many points with those of the 18th century: for example, contemporaries too regarded it as a crisis in 1772 when a fairly substantial proportion of the consumption had to be switched from animal to vegetable foodstuffs[3]). Nevertheless the possibility that contemporaries may have viewed changes differently from ourselves must be kept in mind when assessing their impact.

It is appropriate in these introductory remarks to discuss not only

1. H. G. Garde: Efterretninger om den danske og norske sømagt I. 1832, p. 254, and III, 1833, p. 379.
2. Friis and Glamann: A History of Prices and Wages in Denmark, 1660–1800, vol. 1, 1958, pp. 187–191.
3. Cf. p. 58 ff.

criteria of evaluation but also what is actually to be understood by the term living standard, or standard of life, when used in this study.

In 1953 the United Nations Organisation set up an expert committee with members nominated by the UN, the ILO, the UNESCO, the FAO and the WHO. The Committee was given the task of devising international definitions of living standards and methods of measuring them. In the Committee's report of 1954 it was suggested that the standard of life should be internationally defined as comprising the following factors:

1. Health, including demographic conditions
2. Food and nutrition
3. Education, including literacy and skills
4. Conditions of work
5. Employment situation
6. Aggregate consumption and savings
7. Transportation
8. Housing, including household facilities
9. Clothing
10. Recreation and entertainment
11. Social security
12. Human freedoms

In placing the twelve factors in this order of priority, what the Committee had in mind was not the degrees of relative importance to the standard of life but the ease of obtaining quantitative data to elucidate the individual factors [4]).

This group of factors is selected by reference more to international comparability at a given point in time than to the evaluation of developments within a limited field over a period of time. Further, it is questionable whether items 7–12 are capable of being measured in such form as to enable comparisons to be made.

While not adopting any dogmatic stance in relation to the list of factors set forth above, the concept of the standard of life will be illustrated in the present work by reference to the following:

1. Nutrition
2. Real wages
3. Health

4. Report on International Definition and Measurement of Standards and Levels of Living. UN sales number 1954, IV. 5., p. 26 ff.

This is not to be construed as an assertion that these three factors collectively constitute the standard of life, but they do represent a vital part of it nonetheless.

The adoption of three different methods of illustrating the standard of living is predicated upon the view that the evolution of the latter over a period of time is not to be satisfactorily depicted by a single figure-series, since the standard of living for the same social class can be rising in certain respects while falling in others simultaneously. For example, it is easy to imagine a situation in which nutrition is deteriorating to some degree yet at the same time health is improving because of better hygiene and greater medical knowledge. On the other hand it is impossible to conceive of a fundamental worsening of nutritional standards not having an impact on health. In other words, the three factors may be uncorrelated where changes are minor but must be correlated where they are of a fundamental nature. However, health may deteriorate drastically without any accompanying decline in nutrition on the outbreak of an epidemic against which the populace has no antidote.

Computation of the three components of the standard of living is so effected as to avoid as far as possible using the same material in more than one of the three components, so as to prevent any correlation arising from the duplication of an identical error.

In computing each of the three individual components, an effort is made to assess the percentage margin of error, partly to obtain an idea of how big a change a component must exhibit in order to be significant —it must be bigger than the margin of error—partly to see which of the three methods of computation entails the smallest margin of error relative to the volume of evidence, and partly to be able to judge whether the results of the three methods of computation are incompatible.

2. Size and structure of the population of Copenhagen 1730–1800

In certain later chapters, computations will be made involving the size of Copenhagen's population, its social structure and the size of its families. These features will therefore be dealt with now.

Size of population

The population of the capital was counted in 1728 after the fire of Copenhagen and again at the general Danish censuses of 1769, 1787 and 1801. In addition, from 1784 onwards the City Magistrates conducted annual censuses, although not in 1787. The various censuses are of rather uneven value.

The census of 14 December 1728 of the inhabitants of the parts of Copenhagen spared by the fire was reckoned at the time to total 54,392 persons, while a recount gave a figure of 54,363. The difference is of course without significance. The census is difficult to use for determining the size of Copenhagen's population in the 1720s and 1730s, since it was taken at a moment when, it must be assumed, the city had been temporarily abandoned by a proportion of its inhabitants, since about a third of the city's dwellings had been destroyed in the fire. The editor of the census calculates that before the fire the city had about 70,000 inhabitants[1]). This is a rough estimate, however, to which no independent value can be ascribed.

Aksel Lassen has advanced the hypothesis that the census of 1728 indicates the number of inhabitants of Copenhagen at the time of the fire, not after it, i. e. that the census reflects a normal state of affairs, not one in which a proportion of the city's populace had temporarily

1. G. L. Grove: Kjøbenhavns Huse og Indvaanere efter Branden 1728, 1906, p. 33*.

fled from it [2]). It is difficult to perceive how the census has led Aksel Lassen to this conclusion. The fire of Copenhagen took place on 20–23 October 1728 [3]). The census was carried out over a number of days subsequent to 6 November 1728 [4]). The summary drawn up by the municipal authorities is annotated: "With most humble duty, a census and count of the families and unattached persons present at this time in this royal seat of Copenhagen in the quarters of the city spared from the conflagration" [5]). It is known that 436 destitute families were sent away from the city to neighbouring country towns and that 484 paupers who originated from the provinces were sent home by ship before the census was carried out [6]). In addition, a number of people may be supposed to have left the city of their own accord, and it must be presumed that some of the poor will have stayed on the sites of their fire-ravaged dwellings, since they had no chance of finding shelter in the undamaged part of the city. Such persons are not included in the census [7]).

At the census of 1769, the lower ranks of the military were excluded, but their wives and children were counted [8]). The population counted was distributed as follows [9]):

	Males	Females
1. Persons of rank and crown functionaries with wives and children living at home	2,417	2,471
2. Clergy, church officials, teachers and students with wives and children living at home	1,081	406
3. Seafarers and fishermen, including those on authorised voyages, and their wives	866	2,639
4. Seafarers' and fishermen's children living at home	856	1,386
5. Manufacturers and artisans, their journeymen and apprentices, together with wives and children living at home	9,437	7,046
6. Other citizens and inhabitants not included		

2. Aksel Lassen: Fald og fremgang. Træk af befolkningsudviklingen i Danmark 1645–1960, 1965, p. 66 and 274 f.
3. G. L. Grove: Kjøbenhavns Huse og Indvaanere efter Branden 1728, 1906, p. 9*.
4. Op. cit. p. 14*.
5. Op. cit. p. 109.
6. Op. cit. p. 25*.
7. Op. cit. p. 109 ff.
8. Cf. Appendix 1.01.
9. RA Rtk 352.28.

in any of the above-mentioned groups, together with wives and children living at home	10,319	15,798
7. Servants and day-labourers	4,043	8,252
8. Persons resident in the city but travelling abroad with passport excluding seafarers and fishermen	103	39
9. Inmates of almshouses, chronic sick and mentally deranged	897	2,458
Total	30,019	40,495

The surplus of females in groups 3 and 6 is probably attributable to the families of non-reckonable soldiers and sailors being counted here.

In the censuses of 1787 and 1801, no groups were accorded prior exemption. In 1787, 46,132 males and 43,900 females were counted [10]), while in 1801 the figures were 51,642 males and 49,333 females [11]). These two censuses are probably accurate in their broad outlines. At any rate there is no reason to believe the census of 1787 to be any less reliable than that of 1801, which is normally accepted without correction. The argument that population censuses automatically become better the more censuses have been held has no foundation in fact. This can be seen, for example, from the censuses conducted by the Copenhagen Magistrates from 1784 onwards in connection with the city's supply of corn and other foodstuffs.

The Magistrates' figures for 1784 are not implausible, but that there then took place a decline to 81,000 in 1795, and that the population at the end of the century numbered 10,000 fewer than the figure emerging from the census of 1801, is exceedingly unlikely. Even if the two censuses of 1801 were carried out at different times of the year, this is not sufficient to explain the discrepancy; and in that case it is far more probable that the Magistrates counted too few than that the general census counted too many.

The ratio between the numbers of males and females counted in Copenhagen in 1769 was 0.74, while in both 1787 and 1801 it was

10. Danmarks Statistik, Folketællingen 1787 (manuscript).
11. Danmarks Statistik, Folketællingen 1801 (manuscript).

Magistrates' census[12])		General census of population
1784	93,719	
1785	87,023	
1786	87,801	
1787		90,032
1788	86,827	
1789	85,470	
1790	85,965	
1791	84,509	
1792	86,462	
1793	85,771	
1794	86,133	
1795	81,132	
1796	83,604	
1797	84,671	
1798	84,554	
1799	85,214	
1800	87,391	
1801	91,681	100,975
1802	92,886	
1803	95,533	
1804	97,219	
1805	97,230	
1806	97,438	

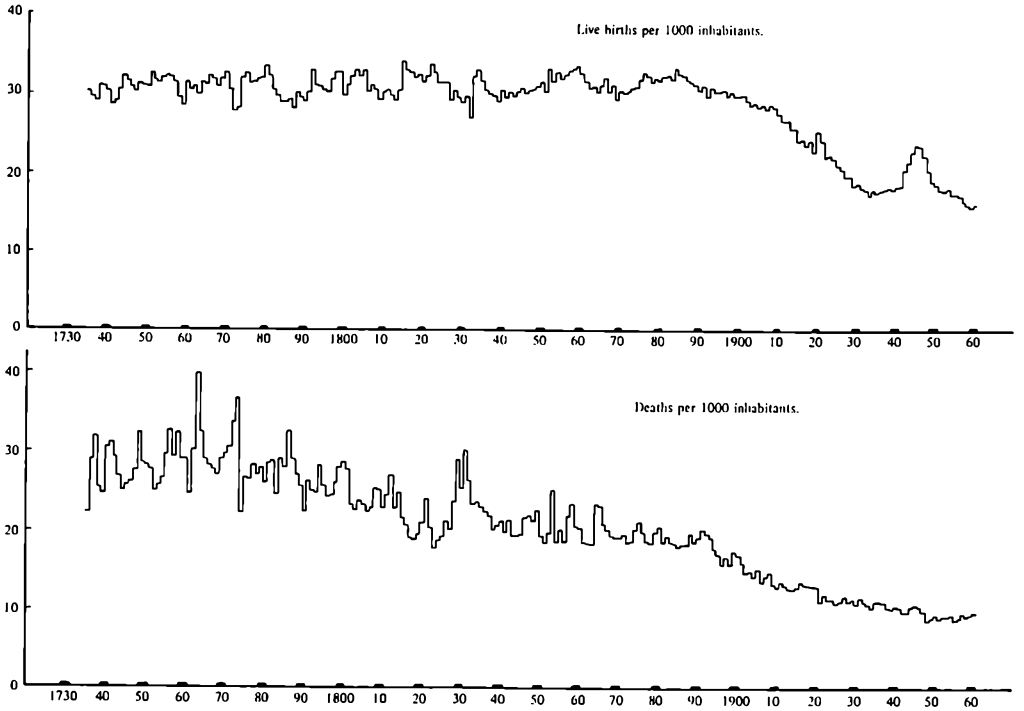
1.05. A correction for uncounted males in 1769 can therefore be made by assuming all females to have been counted in 1769, and the ratio between males and females in 1769 to have been 1.05, just as in 1787 and 1801. This produces a population figure for Copenhagen in 1769 of 83,015 in place of the 70,514 counted [13]).

In order to obtain population figures for Copenhagen in the period between the censuses and back to 1730, interpolation has been effected on the basis of the number of baptisms. This method was employed as early as 1881 by Marcus Rubin when attempting to estimate the population of Copenhagen in 1630–1730 [14]). The method builds on the fact that while the death rate might fluctuate widely from year to year, the birth rate depended only to a minor degree upon external circumstances.

12. Source 1784–1795: Frederik Thaarup: Journal og Haandbog for Kjøbenhavnere I, 1797, p. 159.
Source 1796–1806: Henrich Callisen: Physisk-medizinske Betragtninger over Kiøbenhavn I, 1807, p. 78–79.
13. This method of correcting the census of 1769 is employed by Aksel Lassen: Fald og fremgang. Træk af befolkningsudviklingen i Danmark 1645–1960, 1965, p. 199.
14. Marcus Rubin: Bidrag til Kjøbenhavns Befolkningsstatistik i Hundredåret 1630–1730. (Dansk) Historisk Tidsskrift, ser. 5, vol. 3, 1881–82, p. 487–549.

Fig. 1

Birth and death rates for Denmark as a whole[1]. 1735-1960



[1]) I.e., the Kingdom of Denmark as modified by territorial changes.

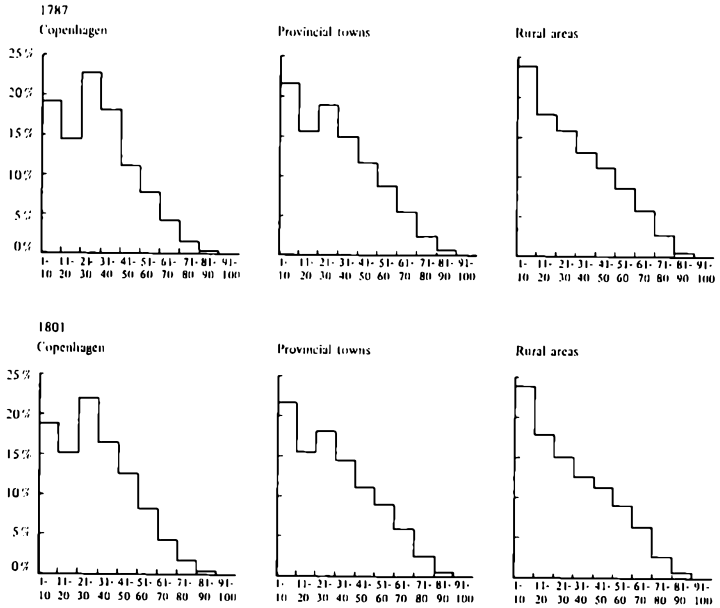
Sources: 1735-99; Adolph Jensen: Befolkningsforhold i de nordiske Lande i det 18. Aarhundrede, Nationaløkonomisk Tidskrift vol. 73. 1935. p. 14.
1800-1960: Statistiske Undersøgelser nr. 19. pp. 16-17 and 55.

Fig. 1 shows the birth and death rates for Denmark in 1735–1960. The figures for the period 1800–1960 are taken from the official statistics, while the 1735–1799 part of the curve shows Adolph Jensen's estimated figures [15]). The latter are derived from an estimate of population numbers for every year from 1735 to 1799 arrived at with the aid of the censuses and the episcopal reports of births and deaths, i. e. baptisms and burials [16]). Adolph Jensen's population estimate for Denmark puts the

15. Adolph Jensen: Befolkningsforhold i de nordiske Lande i det 18. Aarhundrede, Nationaløkonomisk Tidsskrift, 1935, p. 1–63.
16. On the reports of births and deaths cf. p. 106.

Fig. 2

Percentage distribution of population in the Kingdom of Denmark in 10-year groupings at the population censuses of 1787 and 1801.



Persons aged 51 and over constituted:

	In Copenhagen	In the provincial towns	In rural areal
1787	14,0%	17,2%	17,7%
1801	14,9%	18,1%	18,9%
Increase	0,9%	0,9%	1,2%

The difference between the percentage figures in the 11-20 and 21-30 groupings in Copenhagen fell between 1787 and 1801 from 8.3 to 6.8 and in the provincial towns from 3.4 to 2.5. Migration to the towns thus appears to have declined

Source: Danmarks Statistiks Bibliotek: Folketællingen 1787 (Foliehylden 59b) and Folketællingen 1801 (Foliehylden 102).

sum of immigration and emigration at nil. No similar estimate can be made of the Copenhagen population figures, since there was probably a certain level of net immigration into the city, indicated by the age-distribution at 1787 and 1801, cf. fig. 2. It is evident from fig. 1 that the birth rate for Denmark as a whole did not change significantly from 1735 to 1890, while the death rate was much less stable. Something of the same sort will certainly have applied to Copenhagen in 1730–1800.

The lists of births in Copenhagen published in the 18th century in fact show the numbers of baptisms, not the numbers of births, as is

revealed by a comparison with the surviving church registers [17]). The population figures before 1769 and for the years between the censuses are therefore computed by assuming that the average of the baptism rates [18]) that can be established for 1769, 1787 and 1801 were valid for the whole period. In order to avoid excessive significance being attached to fortuitous oscillations in the numbers of baptisms in particular years, in calculating the rates of baptism not only the numbers of baptisms for the three years have been used but also the averages for the three seven-year periods 1766–72 (for the census of 1769), 1784–90 (for the census of 1787) and 1798–1804 (for the census of 1801). The population of Copenhagen in 1730–1800 has then been computed by dividing a seven-year moving average of the numbers of baptisms for Copenhagen by the average rate of baptism, calculated from the three censuses.

The baptism figures for Copenhagen published in the 18th century were not free from error, however. In 1757, Josias Lorch asserted that the figures of births and baptisms at the maternity hospital were missing from the officially published figures [19]). The maternity hospital was founded in 1750 and moved to Frederiks Hospital in 1757 [20]). The numbers of baptisms at the maternity hospital first appear in the contemporaneously published figures from 1767 onwards, where they are recorded under Frederiks Hospital [21]). Before being used to work out the size of population, the figures of baptisms for Copenhagen in 1730–1800 were corrected to allow for the missing numbers from the maternity hospital: this was effected partly with the aid of surviving church registers and partly with figures from the cited work of Josias Lorch [22]). The estimated population figures for Copenhagen in 1730–1800 are to be found in Appendix 1.02.

An idea of the margin of error contained in these estimated population figures can be formed in the following manner:

The population of Denmark as a whole can be estimated with a fair

17. A random sample comparison has been made between the church registers (LA Kbh) and the printed lists. For the archives in which the lists are held, cf. Appendix 1.02.
18. I. e., the number of baptisms per thousand inhabitants.
19. Josias Lorck: Beyträge zu der neuesten Kirchengeschichte, 1757, p. 655.
20. A. Stafeldt: Kjøbenhavns Fødselsstiftelse, Indbydelsesskrift til Kjøbenhavns Universitets Aarsfest til Erindring om Kirkens Reformation, 1887.
21. For the archives where the original printed lists are held, cf. Appendix 1.02.
22. On the correction, cf. Appendix 1.02.

degree of certainty back as far as 1735. The two scholars Adolph Jensen and Aksel Lassen both constructed their estimates with the aid of the population censuses and the episcopal reports of baptisms and burials [23]). Where there is a divergence between their respective estimates, this arises because of disagreement regarding the number of stillbirths counted among the burials and not among the baptisms. The widest gap between the two scholars' population figures, however, is 8 % [24]).

An estimate of the population of the whole of Denmark calculated in exactly the same way as the one above for Copenhagen produces figures whose widest divergences from the population estimates of Adolph Jensen and Aksel Lassen are 5 % and 9.4 % respectively [25]). If therefore the rate of baptism in Copenhagen evolved along the same lines as in Denmark as a whole, there is reason to believe the margin of error of the estimated annual population figures to be under 10 %.

The social structure of Copenhagen

Even though the census after the fire of 1728 was conducted in conditions where it is to be assumed that part of the population of Copenhagen had temporarily fled, the census is still the best known source of the city's social and occupational structure in the first half of the 18th century. If any group is under-represented to a substantial degree it is probably the lower class (cf. p. 15).

When the census was published, the following summary was presented (cf. p. 22) [26]):

As is normally the case with statistics dealing with the occupational distribution of population, the non-actively employed proportion of the population is assigned to the occupation of the breadwinner; again, servants are assigned to the same occupational categories as their employers. In the table, the figures for the army and navy do not include

23. Adolph Jensen: Befolkningsforhold i de nordiske Lande i det 18. Aarhundrede. Nationaløkonomisk Tidskrift 1935, p. 12.
Aksel Lassen: Fald og Fremgang. Træk af befolkningsudviklingen i Danmark 1645–1960, 1965, p. 530.
24. Calculated with the aid of Adolph Jensen: Op. cit. p. 12–15 and Aksel Lassen: Op. cit. p. 530.
25. As note 24.
26. G. L. Grove: Kjøbenhavns Huse og Indvaanere efter Branden i 1728, 1906, p. 49*.

	Members of families	Servants	Total
Professional activities	4176	1943	6119
Agriculture	26	1	27
Handicrafts and industries	14981	1258	16239
Commerce	4423	852	5275
Navigation and fishing	2848	193	3041
Other transport services	513	66	579
Other and unstated occupations	6019	897	6916
Pensioners and rentiers	865	256	1121
Paupers	396	20	416
Jews	282	59	341
Army and navy	13516	773	14289
Total	48045	6318	54363

either military pensioners or servicemen disclosed by the census as simultaneously following another occupation. If these two groups are included, the number of servicemen becomes not 14,289 but 16,629, of whom 8,814 were in the navy and 7,815 in the army. Both aggregate figures, 14,289 and 16,629, include naval artificers [27]).

In some of the groups in handicraft and industrial occupations, a distinction was made between employed and self-employed categories when the census was published (see Appendix 1.03).

This shows that among carpenters and masons there were numerous journeymen to every master, and that most of the men did not reside in their master's dwelling. Journeymen-joiners, on the other hand, were much more likely to reside with their masters. It is absurd for the publisher of the census Grove to count mortar-men as independent; they can best be regarded, like the hodmen, as bricklayer's assistents, although they did receive higher wages than the latter [28]). Journeymen-smiths tended to reside with their masters, although there were eighteen smithies with more than five workers. Bakeries were quite large enterprises. Butchers and brewers had a certain amount of hired help, while distilling was almost entirely a one-man occupation, as were alehouse-keeping and huckstering. Shoemakers and tailors were numerous, and most of the journeymen lived with their masters.

The census of 1769 offers practically no information regarding the

27. Op. cit., p. 39*.
28. P: Københavns kæmnerregnskaber and P: Københavnske kirkeregnskaber. Wages of mortar-men appear in invoices submitted by master-masons.

social structure of Copenhagen. This is the fault of the census form itself: it would have been no help to us even if the primary material had been preserved, since no more information could have been extracted from it than was done at the time (cf. Appendix 1.01). It is a further inconvenience that the lower ranks of the military, as already stated, were excluded from the census.

No category was accorded prior exemption from the censuses of 1787 and 1801, and considerably more information about those counted was collected than in 1769. Thus, in processing the census results it is possible to classify those counted as either in business on their own account or non-independent. The results for Copenhagen are set out in Appendix 1.04 and 1.05.

In processing the censuses of 1787 and 1801 no occupational subdivision was made of the artisan class, but there are in existence lists showing the numbers of masters, journeymen and apprentices in the various crafts at different times during the century [29]). These show that the ratio between the numbers of independent and non-independent workers in the various crafts remained largely as in 1728. There was a certain amount of change, however, in the proportions to which the various occupations were represented in the city. This arose from changes in technology, e. g., there gradually came to be more masons than carpenters, while in the first half of the century it had been the other way round.

In any study of wages it is essential that the remuneration in the occupation under review should not contain non-comparable elements such as board and lodging. It is with this in mind that the handicraft occupations selected for wages study are those of the mason and the carpenter. Unskilled labourers are also studied, since it appears from the censuses of 1787 and 1801 [30]) that a very large proportion of these had their own families and therefore did not, presumably, reside with any employer.

It is difficult to arrive at any real social classification of the city's inhabitants using the censuses of 1787 and 1801, since a number of the groups contain people with rather different incomes. If the lower class is defined as: soldiers, sailors, merchants' and manufacturers' labourers and apprentices, craftsmen's journeymen and apprentices, shipmasters,

29. RA Danske Kancelli, D 124, and Frederik Thaarup: Udførlig Vejledning til det danske Monarkis Statistik II, 1812.
30. See Appendices 1.04 and 1.05.

fishermen and seafarers [31]), farmers, innkeepers [32]), servants, day-labourers, pensioners [33]) and paupers, this suggests a lower class comprising 72.4 % of the population in 1787 and 73.4 % in 1801. If from the lower class thus defined are deducted craftsmen's journeymen and apprentices, fishermen, shipmasters and seafarers, farmers and innkeepers, then those remaining constituted 53.5 % of the population in 1787 and 50.2 % in 1801. The former of the two definitions clearly includes persons who cannot be regarded as lower class; but on the other hand some of the categories not comprised in either of the two definitions must include people who were rather poorly remunerated. For example, the category of civil servants (*civile embedsmænd,* termed *borgerlige embedsmænd* in 1801) is so large that it must also include lower grades than would be termed *embedsmænd* today.

Size of families

About a third of the population counted in 1728 consisted of children. The age-limit of this category is not stated, however [34]). When the census was published, a careful study was made of the sizes of families in the various classes.

The editor Grove writes: "Nearly half of the journeymen residing independently were heads of families. In general these were small households with an average of $3^1/_2$ members each, while the married male masters had over 4 per household, and $3^3/_4$ even with the female servants deducted. Quite naturally the households of widows were even smaller than those of the journeymen, with an average of less than 3 members each. A large proportion of the seamstresses, spinsters and washerwomen either were single women or had insignificant households, so to each of these there was an average of only 2/3 of a dependant" [35]).

Thus, Grove's calculations point to families being rather small, and one receives the same impression from calculations based on the censuses of 1787 and 1801. Appendices 1.06 and 1.07 show these calculations. Column I is the number of married men of 20 years and over per 1,000

31. Shipmasters, fishermen and seafarers are counted as a single group in processing the censuses, making it necessary to include shipmasters here.
32. In 1801: farmers and innkeepers, in 1787: other occupations.
33. Two-thirds of this group consists of females.
34. G. L. Grove: Kjøbenhavns Huse og Indvaanere efter Branden i 1728, 1906 p. 37*.
35. G. L. Grove: Op. cit., p. 44*.

men of 20 years and over. It is apparent that many more of the independent classes of person were married than the non-independent. In 1787, for example, 813 out of 1,000 master craftsmen were married, but only 249 out of 1,000 journeymen. Sailors (probably including naval artificers) were married more than soldiers. The number of married soldiers declined from 1787 to 1801, but the military population of Copenhagen in 1801 does not allow of immediate comparison with the military population in 1787 because of the changed foreign policy situation. But the number of married journeymen-craftsmen rose from 1787 to 1801. At both censuses, a much larger proportion of day-labourers were married than journeymen. Artists' and manufacturers' labourers and apprentices (1787) and manufacturers' labourers and apprentices (1801)—i. e. industrial workers—were also married more commonly than journeymen-craftsmen, but less than day-labourers.

Column II shows the number of children aged 0–9 years in relation to the number of married women aged 0–49. The figures thus produced are naturally higher than those of the average number of children of 0–9 years in wedlock, since the children of widows, widowers and single women are also distributed among the married couples. Buf if the number of children were to be distributed among the total of married women, widows and widowers, the figure produced would be too low for the married couples and too high for the widows and widowers. However, the method of column II is quite misleading in those cases where a class contains a high proportion of widows with children, e. g. the pensioner class, or of widows and unmarried women, e. g. the pauper class. Otherwise it is apparent from column II that independent persons had on average more children than non-independent.

Since only ten-year age-groups have been employed in processing the two censuses, it is impossible to form any estimate of the number of children aged 10 years and over living at home. If the number of children and unmarried young people of 10–19 years is divided by the number of married women aged 0–59 years (column III), then for a number of classes the resultant figure is much too high. For example, in the category of craft journeymen and apprentices, the number of apprentices under 20 years of age is divided by the number of journeymen-marriages, and the result is therefore quite misleading. Since the unmarried women under 20 years of age in most occupational groups are assigned to them only by virtue of being maintained as dependants, the figure of unmarried women of 10–19 years in relation to that of married

women of 0–59 years is recorded in column IV twice over. Thus for example it can be seen that in the case of craft journeymen and apprentices there emerges in this way a figure quite different from that in column III, while the figure produced for day-labourers is not very much different from that in column III. Neither the method of computation in column III nor that in column IV permits of being applied to servants, since unmarried female servants under 20 years of age are here assigned to the class without being maintained as dependants. There were probably male servants under 20 years of age as well, since the result in note 1 to Appendix 1.06 is otherwise difficult to explain.

In broad terms these computations from the censuses of 1787 and 1801 reveal no essential divergence, and the conclusion to be drawn from them must be that, generally speaking, families were rather small. A married journeyman-craftsman or day-labourer on average had 1–2 children at home. This is in excellent accord with Grove's calculation from the 1728 census that a journeyman-craftman's household consisted on average of $3^1/_2$ persons. Since these figures may seem rather low, it should be noted that they reflect not how many children the household produced but how many it contained.

Generally speaking Copenhagen and the provincial towns had fewer children in relation to the number of adults than did rural areas. This is because of the immigration into the cities of persons of about 20–30 years of age, cf. fig. 2, (page 19). As shown in the diagram, the distribution of population in 1801 suggests a lower level of immigration in the years preceding than does that of 1787, which is in close agreement with the estimated population figure for Copenhagen (cf. Appendix 1.02).

3. The pattern of consumption

The average member of the population generally leaves behind him no written traces other than those arising from his contacts with public authorities. Any study of consumption in the 18th century must, therefore, be undertaken by indirect methods, for one cannot expect to find household accounts or similar data for the families of journeymen or labourers. In this study, two methods are used to elucidate the problem of food consumption. The first comprises an enquiry into what people received when they were fed at their places of work or in some institution where they were residing more or less voluntarily; the second invokes the aid of the consumption tax ledgers (*konsumtionsregnskaberne*) in investigating what foodstuffs were consumed by the inhabitants of Copenhagen as a body. The first method suffers from the defect that we do not know to what extent the combination of foods comprised in the ration scales corresponded to what people would have bought had they been able to decide the pattern of their food consumption for themselves. The second method has the disadvantage that to view the aggregate consumption of an entire city involves taking an average of very different types of consumption.

The consumption of food, however, is only a part of a family's consumption. If the present study is one-sided in concentrating upon the consumption of foodstuffs, this is due not only to the fact that the calculations show this item to have accounted for a very substantial proportion of the earnings of the lower classes, but also to the purely practical consideration that from a systematic scrutiny of the consumption tax ledgers it was possible to derive a quantitative statement of changes in the consumption of foodstuffs year by year as prices and supplies varied.

Of course, a more correct result would be obtained by constructing a complete budget and calculating a price index with its aid rather than by the method of the present study, whereby the price index is based upon a budget comprising foodstuffs and fuel only. However, the decision

to allow so much weight to food consumption was influenced by the fact that price movements in 18th century Denmark were of an entirely different order from those occurring in a modern society.

While the prices of handicraft and industrial products rose steadily throughout the period, those of foodstuffs oscillated violenty as a result of changes in the volume of production dictated by natural conditions. In a modern society consumption changes relatively slowly under the influences of supply, prices and rising incomes, but in the 18th century, the same food budget could become 20 or 30 % dearer within a twelvemonth, without any rise in wages; then, a year or two later, prices could fall to their original level again.

In such a situation a price index is an extremely theoretical concept. When the price index shows the budget to have become 20 or 30 % dearer, this is of course correct, but the budget itself has lost relevance because such violent price rises must necessarily entail changes in consumption; put more precisely, prices rose until sufficient people modified their consumption, for higher prices could increase the supply to only a limited extent.

Of course, the problem of a changed pattern of consumption following upon changes in prices is encountered when computing price indices in the Denmark of today as well, but it was of far greater importance in 18th century Copenhagen, when short-term price fluctuations were very much wider. That is why such stress is laid upon the study of the consumption tax ledgers so as to measure the changes in consumption.

By dealing only in terms of food (and to some extent fuel), one important problem is left unresolved. Where did a journeyman or day-labourer and his family live, and how large was his outlay on housing? While it was possible in years of high food prices to delay in some degree the procurement of clothing and footwear, this was not the case, naturally, with housing costs. The problem of the level of rents is absolutely crucial, and since it may be assumed at once that the two great fires of 1728 and 1795 broght higher rents in the years following, there is no reason to believe that the proportion of wages taken by rent was constant throughout the epoch.

In support of the assertion that prices of handicraft and industrial products moved relatively sedately, a series of appendices has been constructed showing the price movements of clothing, footwear, soap and lighting.

In any study of price history a vital problem is whether the prices

recorded at different points in time refer to the same grade of article. This problem is very intractable in the case of textiles, since here the concept of quality embraces not only the width of the material, the thickness of the thread used and the closeness of the weave, but also the colour and pattern. The price data on textiles found in the Copenhagen probate records are useless, since the qualities are incapable of being compared [1]). Instead, a selection has been made of the purchasing transactions of the Royal Danish Navy. These have the advantage that the same commodity is bought for the same purpose over a number of years and in fairly uniform quantities year by year; furthermore, notes as to quality (e. g., width of material) are made on receipt of the goods.

Appendix 1.11 shows the price movement of white or bleached linen shirts purchased in 1728–1800 for prisoners at Christiansø or for seamen. It appears that no fall in prices occurred between 1730 and 1800 apart from the years 1743, and 1794–97, but that prices did go up at intervals. When such a price trend is characterised in the foregoing as "rising steadily" despite the fact that between 1763 and 1764, for example, prices went up from 80 to 88 *skilling* per piece, thereafter remaining constant until 1781, this must be understood in the context of the pricing system of those days. In the appendix the prices are shown in *skilling,* it being most convenient to use *skilling* exclusively for computation purposes, but *skilling* were employed to only a very limited extent as the pricing unit in the 18th century. When a price of the order of magnitude of those in Appendix 1.11 varied, it was by a half or a whole *mark*, i. e. 8 or 16 *skilling.*

Appendix 1.12 shows the prices for Flensburg or Russian sailcloth, which was used as working clothes for naval seamen and artificers. The price shown is for one roll of sailcloth measuring 24 inches by 52 ells. It took $8^1/_3$ ells to make one uniform [2]). In those cases where the material did not maintain the desired width, prices were reduced in proportion to the deficiency, as for example on 23 august 1729:

31 rolls of 24 inches at 4 rix-dollars 48 *sk.* per roll
8 rolls of $23^3/_4$ inches at 4 rix-dollars $43^1/_2$ *sk.* per roll
11 rolls of $23^1/_2$ inches at 4 rix-dollars 39 *sk.* per roll[3])

1. P. Københavnske skrifter.
2. RA Søetaten. Kommissariatskontoret. Indkøb og udlevering. Indtægtsbog på adskillige materialer 1745–49: 30/2 1747.
3. RA Søetaten. Kommissariatskontoret. Indkøb og udlevering. Indtægtsbog på adskillige materialer 1728–31.

If the material was wider than 24 inches, the price was increased in proportion to the surplus [4]). Between 1730 and 1775 only two prices occur, 442 *sk.* per roll in 1730–45 and 480 *sk.* per roll in 1746–75. Even though large consignments are involved here, so that the supplier may therefore have been willing to absorb minor price increases himself in order to retain the contracts, nevertheless this demonstrates an extremely stable price level.

The same body of data contains prices of uniform cloth delivered to the Royal Navy, but this was supplied for preference by the state draperies, and one therefore cannot be certain that market prices were applied.

Appendix 1.13 shows the price movement of shoes bought by the Royal Navy for seamen or for the Christiansø prisoners. At the beginning of the epoch one grade was bought for prisoners and another for seamen. This practice ceased between 1741 and 1746, and from then on there was only one grade. Whether the latter corresponds to one of the grades bought in 1729–41 is impossible to say. The prices are unaltered for a long period of time, then they are changed in multiples of 1/4 *mark*. It may be remarked as a postscript to this price series that boy's shoes bought by the Royal Orphanage (*Vajsenhuset*) in 1777 cost 68 *sk.* per pair (irrespective of size), in 1792 76 *sk.* per pair and in 1798 80 *sk.* per pair [5]).

Appendix 1.14 shows the price movement of boots bought by the Royal Navy. These boots carry such varying descriptions as: waterproof boots, ice-boots, boots for dredger hands, or simply seamen's boots. However, the prices are quite uniform irrespective of the description. In 1729–87 a pair of boots cost 384 *sk.* less $1^1/_3$ % discount, except during 1745–51, when they only cost 320 *sk.* less $1^1/_3$ % discount.

Appendices 1.15–1.17 shows the price movement of lighting materials. The price of certain of these articles oscillates like those of foodstuffs, since the articles are similarly of organic origin.

Appendix 1.15 shows the price of fish-oil for lighting bought by the Royal Navy. The scale of these purchases is quite small. The gross price is the same throughout the period, but because the discounts fluctuate the net price changes. However, this can be interpreted only partially

4. RA Søetaten. Kommissariatskontoret. Indkøb og udlevering. Indtægtsbog på adskillige materialer 1761–1765: 25/6 1761.
5. RA Vajsenhuset, a bundle with diverse appendices containing accounts before the year 1800.

as constituting variations in the price of fish-oil, since a whole range of articles—e. g., paper, ink, white soap, pencils, turpentine, oil and fish-oil—are bought from the same dealer and the discount is allowed in the consolidated annual account for all these goods.

Appendix 1.16 shows the price movement of tallow candles according to the Copenhagen municipal Treasury ledgers *(københavnske kæmnerregnskaber)*. This price series shows prices fluctuating as for foodstuffs, since the price of tallow is dependent upon natural variations in the volume of production. Moulding costs constituted only a limited proportion of the selling price of tallow candles: in 1735, for example, the Royal Navy purchased tallow for candle-moulding at 188 *sk.* per *pund* less $1^1/_3$ % discount, while the cost of moulding was only 17 *sk.* per *pund* less $1^1/_3$ % discount [6]).

Appendix 1.17 shows the price movement of wax candles according to the Copenhagen municipal Treasury ledgers. Although one might expect price fluctuations similar to those for tallow candles, these only occur after 1769, while between 1731 and 1769 the price only changes from 1740 to 1741.

Appendix 1.18 shows the price movement of green soap from 1729 to 1800. Even though the appendix in fact only contain one price series, the latter embraces the three types of price data normally dealt with in price history, since the series comprises purchase prices culled from a ledger, market prices according to price-currents, and official prices fixed by a public authority. The first column shows the Royal Navy's buying prices and the second the Copenhagen market prices. In the years 1770–'79, the Royal Navy's buying price is half a *mark* above the market price, but in the years 1748–69 and 1780–92 the prices coincide. This is because both the price series follow the official rate In the Royal Navy's Receipts Journal *(Søetatens Indtægtsbog)* for sundry materials there is a note relating to the purchase of 1744: "payment to be effected in accordance with the Magistrates' rate as usual"; and in respect of the purchases of 1782 and 1785–89 notes are made of the decrees fixing the official prices. The market price reported, too, followed the decrees. Apparently no official price was fixed in 1795–96, since in those years the market price fluctuated from month to month [7]).

The archives of the Royal Orphanage (*Vajsenhuset*) contain accounts

6. RA Søetaten. Kommissariatskontoret. Indkøb og udlevering. Indtægtsbog på adskillige materialer 1735–37: 4/10 and 25/10 1735.
7. Cf. Appendix 1.18.

for green soap purchased in 1792 and for two more purchases in 1798. One of the purchases of 1798 was effected at the reported market price while the purchase of 1792 took place at 18 *sk.* below and the second 1798 purchase at 12 *sk.* above the reported market price [8]). There is nothing remarkable in the fact that the officially reported market price followed the officially controlled price, but it is worthy of note that the Royal Navy was able to buy at the official price while the prices in the three surviving accounts from the Royal Orphanage exhibit the spread described above.

8. RA Vajsenhuset, a bundle with diverse appendices containing accounts before the year 1800.

4. Institutional fare

The fare provided for inmates of institutions cannot be assumed to be identical with the food consumed by corresponding social groups outside those institutions. However, the diets inside and outside institutions must have certain basic features in common, determined by prices, the supply factor and elementary human needs. It is true that persons outside the institutions did have a free choice of diet to some degree, but for those on the lower rungs of the social ladder this choice was limited by the fact that the necessities of life had to be furnished from a rather modest sum, just as the institutions had to feed large groups as cheaply as possible.

The Victualling of the Navy

In peacetime the fleet was manned by the recruitment of volunteers, which means that the transition to institutional feeding took place voluntarily. When the fleet was at sea, the crews were victualled according to the "victualling scale afloat" (*søspisetakst*); ashore they were supplied with food according to the "victualling scale ashore" (*landspisetakst*). Ashore, also, the seamen were able to use their pay to supplement or vary to some extent the fare comprised in the *landspisetakst,* and they might, too, share the rations they received with their wives and children. But the *søspisetakst* may be regarded as an index of what was thought a suitable diet for a male adult engaged in manual labour and whom it was desired, for military reasons, to maintain at full working efficiency.

Appendix 1.21 shows the Navy's victualling scales afloat for 1680, 1736, 1752 and 1794, and the interim scale for 1802. In terms of calories, the 1736 scale provided about 5640 kcal. per man per day, that of 1752 about 5500 kcal., and the 1796 and 1802 scales about 5000

kcal. [1]). Although these values thus were falling, nevertheless even in 1796 and 1802 the calorie intake assigned to a seaman was considerable. A reasonable calorie intake for a male adult manual worker may be regarded as about 3200 kcal. per day [2]). It may be noted by way of comparison that the victualling scale of the English Navy provided 5500 kcal. per man per day in 1745 but only 2900 in 1811 [3]). The proportions of the calorie intake of the victualling scales afloat derived from animal products were:–

1736	1752	1794	1802
38.5 %	40.0 %	39.5 %	36.5 %

Since in the 18th century, too, calories derived from animal foodstuffs were several times more expensive than calories from vegetable foodstuffs, these percentages may be thought of as representing in some measure the quality of food-rations, measured by value, regarded from the standpoint prevailing in the 18th century. It may be observed, however, that in addition to animal products the scale of 1802 also contained relatively expensive vegetable products such as treacle and prunes. *Brændevin* (Scandinavian gin) is classed as a vegetable product, although its production process entailed such a heavy loss of calories that it corresponded more closely to animal products, which also were produced from vegetable products with a large loss of calories [4]).

The modern physiological approach is to compare calorific values with protein content and vitamin and mineral intakes. Bearing in mind the limited knowledge we have of the quality of comestibles in the 18th

1. Kcal. = kilo-calorie = 1000 gramme-calories. The gramme-calorie is a unit used in physics. Kilo-calories are used in physiology, often being loosely referred to simply as calories.

   In these as in all subsequent calorie-computations it is assumed that the beef and pork were of very fatty quality. Regarding the conversion factors generally, see Appendix 2.96. However, in respect of the victualling scales afloat, a special calculation is made of the calorific value of *hartbrød* ("hard bread": a kind of bread-biscuit) which was a specially dry variety and therefore had a high calorie-content per unit of weight. The calculation of the calorific value of one *pund* of *hartbrød* is based on the amount of corn used in baking it: cf. Københavns Stadsarkiv: Bagerlauget, Protokol ang. kgl. Maj.s commis og hartbrødsbagning 1709–26, 41, 55; see esp. 24/6–5/9 1741.
2. FAO Nutritional Studies No. 5: Calorie Requirement, Washington, USA 1950, p. 39. For the age-group 16–19, however, the figure is about 3800 kcal.
3. J. C. Drummond and Anne Wilbraham: The Englishman's Food, sec. ed., London 1958, p. 467.
4. On the technology of *brændevin*-distilling, cf. Lars Rumar: Jordbrug og brændevinsbrænding, Erhvervshistorisk Årbog 1966, p. 12 ff.

century, any attempt to estimate the precise vitamin and mineral contents of the food would be beset with far too many imponderables, although it is self-evident that the diet afforded by the victualling scales afloat, consisting of smoked pork, salt beef and no vegetables but a large amount of cereal products, was extremely deficient in vitamins [5]). A computation of the protein content of the diet indicates between 100 and 150 grammes per man per day; which is more than sufficient for a male adult. Of this protein intake, 40–60 grammes consisted of animal protein [6]).

The variations in the proportions of the victualling scales afloat represented by the different groups of commodities are, as Appendix 1.21 indicates, broadly identical with the variations in the consumption of Copenhagen as a whole, which are revealed by the consumption tax ledgers [7]). The cardinal feature is that throughout the period, bread supplies a very large proportion of the calories. Ale provided a high proportion too, but its share was declining. It should be remarked, however, that the quantity of ale in the victualling scales afloat up to 1752 inclusive does not allow of immediate comparison with the quantities for 1794 and 1802, for two distinct grades of ale are involved inasmuch as the ale is described as ship's ale (*skibsøl*) until 1752 and as 4-dollar ale (*4 dalersøl*) in 1794 and 1802. The fact that two grades are involved is evident from the victualling scale of 1794, in which it is stated that if ship's ale is issued in place of 4-dollar ale, the quantity issued is to be doubled [8]). In 1794, if 4-dollar ale is replaced by ship's ale, the issue is 17 *potter* of ship's ale weekly per man, compared with 17.25 *potter* in 1752 and 20 *potter* in 1680 [9]). It should be noticed in regard to the reduction of the ale allowance that while the victualling scale afloat of 1680 did not include *brændevin,* those of 1736 and 1752 included 0.250 *pot* and those of 1794 and 1802 0.437 *pot.*

In the scales of 1736, 1752, 1794 and 1802 the quantities of beef and pork remain constant. The scale of 1680 contained less pork and

5. The victualling scales afloat do not state directly that the pork was smoked and the beef salted, but this is apparent from the ships' fitting-out journals; cf. RA, Søetaten: 3. departement, Udgiftsbog for landkosten (sic!) 1784–94, e. g., 5/5 and 14/5 1784.
6. Cf. Rich. Ege: Fødevare- og ernæringstabeller, 1963, skema A (USA Nutrition Board 1958).
7. Cf. chap. 5.
8. Cf. Appendix 1.21, note 6.
9. The quantity of ship's ale was reduced to 17.25 *potter* as early as 1711, when the victualling scale afloat was revised: cf. Kristof Glamann: Bryggeriets historie i Danmark, 1962, p. 11.

beef but considerably more Bergen fish (*Bergensfisk*). It may be noted, finally, that prunes and treacle first appear in the victualling scales in 1802.

Although the quantities of victuals taken on during a vessel's fitting-out might comply with the requirements of the victualling scale afloat, as the voyage proceeded they could deteriorate in quality to the point where the diet became less satisfying—if indeed they were not already at this point when supplied. The crew had only limited opportunities to make complaint, however. For example, in the naval articles of war of the year 1700: "No one, whether an officer or common seaman, shall, for the purpose of reforming or disparaging the conditions and regulations in force, proclaim in what manner a vessel's discipline, feeding and working may be elsewhere conducted", on pain of being put in irons for eight days, lashing on the body, or death [10]). However, some bounds were set on what might be fed to the seamen; according to the naval articles of war of 1752 bread was inedible "when the pieces are so small that they cannot be bitten, but are crumbs" [11]).

The diet in hospitals and orphanages

The foundation in 1757 of the Frederik hospital gave Copenhagen its first hospital in the modern meaning of the word. Even though the hospital's first victualling scale is not drawn up with sufficient precision to enable a calorie computation to be made from it, it does show what was regarded as a sound diet from a medical standpoint (cf. Appendix 1.22). The diet contained 125 grammes daily of beef without bone in soup with a variety of vegetables, and in addition one *pund* of bread, as well as butter and three *potter* of ale at 8 *mark* per *tønde*. The latter was the middle of the three grades of ale [12]).

In the military orphanage and rest home known as *Frederiks plejehus,* too, much reliance was placed on vegetables shortly after its foundation. For the year 1766 there is a summary of the aggregate expenditure on comestibles classified by commodities, cf. Appendix 1.23. At that time the institution only took the orphan children of soldiers, but later on it

10. Siøe-Artikler og Krigs-Rets Instruction, hvorefter Wi Friderick den Fjerde etc., 1700, § 32.
11. Kong Friedrich den Femtes Søe-Krigs-Artikels-Brev, 1752, § 319.
12. Cf. Kristof Glamann: Bryggeriets historie i Danmark, 1962, bilag B.

also accepted aged ex-soldiers and their wives [13]). In 1766, 35 % of expenditure was accounted for by animal products: meat, fish, butter, fat, cheese, eggs and milk; 31 % by bread; 21½% by meal, ale and other cereal products; 7 % by turnips, cabbage and other vegetables. The remaining 4½% went on treacle, sugar, salt, tea and spices.

In 1773, the feeding arrangements at this institution (now re-named *Christians plejehus*) are described in the following terms: "Meals are served here three times a day at long tables in two large halls. In the morning tea with milk is given and a piece of bread therewith; at midday a good meal of soup with meat and bread; in the evening bread and butter or bread and dripping with ale. The food left over from midday is usually warmed up and given to the children in the evening. It is found most convenient not to have the meals fixed for every day in the week but rather to vary the diet each day according to the time of year, viz. to have in summer many greenstuffs and garden herbs, peas with pork, cabbage with meat, potatoes, broths, porridge, gruel etc." [14]). This is a glossy picture painted by the institution's board of management, but the distribution of purchases in 1766 as between the different commodity-groups does nevertheless indicate quite a judicious variety of fare, even if one cannot tell what amounts people received.

13. Underretning om det til gamle Soldaters, Soldaterenkers, samt Fader- og Moderløse Soldaterbørns Pleye og Opdragelse allernaadigst oprettede Christians Pleye-Hus i Kiøbenhavn, 1773, p. 16.
14. Op. cit. p. 32 f.

5. The consumption tax ledgers as a source of the level of consumption in Copenhagen 1730–1800

The customs duty and consumption tax were among the most important revenues of the Danish state in the 18th century, and for this reason comprehensive ledgers were maintained at the customs and consumption tax offices [1]). Only a few of the ledgers have survived, and while the importance of the customs and consumption tax ledgers in forming an idea of the condition of the public finances in the 18th century cannot be doubted, it is an open question to what extent they are usable for assessing the volume of consumption.

In Copenhagen, consumption tax was paid at the city gates on imported foodstuffs and certain raw materials, at the custom house on such merchandise when imported by sea, and in the form of the milling dues in the city itself when grain was milled or ground [2]).

1. There is a statement of the proceeds of the Copenhagen customs tolls and consumption taxes in each year of the records discussed in note 2. Further, the records for 1780 contain a statement covering the years 1721–57. The years 1754–80 are covered by a statement in RA Mallingiana: Told og konsumption København. On the importance of the customs and consumption tax revenues to the public finances, see Hans Chr. Johansen: Dansk økonomisk politik i årene efter 1784, vol. 1, 1968, p. 87 ff.
2. On the consumption tax levy generally see Helge Nilsen and Victor Thalbitzer: Skatter og skatteforvaltning i ældre tider, 1948, p. 13 ff, and L. V. Birck: Told og Accise, 1920, p. 128 ff.

   The Copenhagen consumption tax ledgers are with the customs ledgers in the series: RA GenToldkamm: Reviderede regnskaber; København; Antegnelser, ekstrakter m. v. These ledgers have been scrutinised for the period 1730–1800. A year is usually covered by a single bundle, but there may be several bundles and volumes in years, where the customs and consumption tax books themselves are preserved. In the subsequent text dealing with the Copenhagen consumption tax ledgers and in the appendices with the initial digits 2.1–2.7, all the information is culled from this series of records, and within the series from the year to which the information relates. Notes are only made if, for example, information about 1782 is found under the year 1783 etc., or if information from sources other than the above-mentioned series of records is included.

At each of Copenhagen's four gates there was a consumption tax office. Here a consumption tax book was maintained in which an entry was made for each individual passing through the gate with taxable articles, recording the quantities of the various commodities and the amount paid in consumption tax. Since goods were recorded not by categories but in succession as they passed the gate, there were no running totals of the quantities of the various commodities passing the gate in a given period of time, but at the end of the year an abstract was worked out and entered in the last volume of the consumption tax books for the relevant year. The abstract comprised an alphabetical list of the different commodities with details of the quantities imported and the corresponding sums of consumption tax, and a summary showing the total of these sums.

Goods in transit through the city passed free of charge, but checks were made to ensure that they really did go through. If upon entry goods were not declared for re-export, consumption tax had to be paid on the import, but the tax could be refunded upon re-export, though only if the quantities involved exceeded certain minimum levels. Irrespective of whether the merchandise was re-exported by sea or by land, repayment of consumption tax was effected at the custom house against certification that it had actually been removed. The quantities of goods recorded in the gate abstracts agree with the sums paid in to the exchequer. The quantities of goods in the gate abstracts are thus gross imports. This system was changed from 1 January 1796 onwards. After that time the refund of consumption tax in the case of overland re-exports was effected at the gate through which the goods were re-exported, and from 1797 onwards abstracts for re-exports through the North Gate have survived in addition to the normal import abstracts. It is evident from these that re-exports distributed themselves among the commodity-groups in roughly the same manner as for imports. Reckoned according to the sums paid in consumption tax, re-exports through the gates represented the following percentages of imports through the gates [3]):

1796	4.55 %
1797	5.20 %
1798	5.51 %

3. Cf. the records mentioned in note 2 p. 38 and Ordinances of 31/12 1700, 26/11 1768, 15/10 1778 and 1/2 1797, and RA GenToldkamm. VA II, p. 271, Københavns Told- og konsumtionskontor, kopibøger 1795, nr. 1719.

1799	6.27 %
1800	6.17 %

If foodstuffs were imported into the city by sea, they were liable to consumption taxes at the custom house, where, as well as the customs ledgers, consumption tax ledgers were kept as at the gates. In the abstracts of imported goods liable to consumption tax drawn up at the custom house at the end of the year, there is no record of the amount of consumption tax paid on the goods. Therefore there is no immediate indication as to whether the quantities of goods recorded in the abstracts are the net or the gross import. An estimate has therefore been made of how much the consumption tax would amount to on those quantities of goods recorded in the custom house abstract for the year 1769. That year was selected because in the previous year a new consumption tax ordinance was promulgated with a complete tariff [4]). The calculation produced a sum very close to the consumption tax on imported goods before deduction of refunded consumption tax on re-exports, which means that the abstract from the custom house consumption tax ledgers for 1769 shows the gross imports for that year. The same is probably true of the other years in the period 1730–69 where the custom house abstracts have survived, since in those cases the same practice will have been followed at the custom house as at the gates. As has been said, consumption tax refunded on overland re-exports before 1796 was paid out at the custom house. In the period 1730–69 the aggregate consumption tax refunded annually on re-exports by land and sea was 2–4 % of the aggregate consumption tax paid upon imports by land and sea.

In the case of unmilled rye, wheat and barley no consumption tax was paid on imports via the gates or by the sea. To offset this it was compulsory for all milling to take place at the public mills, and a fee had to be paid that was dependent upon the purpose for which the grain was being milled. It was cheaper to have grain milled for use as bread than for distilling, and therefore there were regulations to the effect that bakers could not simultaneously be distillers, and so on [5]). Before grain was milled, consumption tax notes had to be obtained from the milling-consumption tax office (*Maleværket*). A double set of consumption tax ledgers was kept at the milling consumption tax office, and from each

4. Ordinance of 26/11 1768.
5. Ordinances of 31/12 1700, 17/5 1762, 26/11 1768, 15/10 1778 and 1/2 1797.

set an abstract was drawn up at the end of the year showing the quantities of the different sorts of grain milled for the various purposes. If milled grain was imported through the gates or by the sea, the same amount was paid in import consumption tax as would otherwise have been paid in milling consumption tax.

Only a very few of the consumption tax books from the gate offices, the custom house and the milling consumption tax office have survived, but when the consumption tax books themselves were destroyed the back pages containing the abstracts were very often torn out and preserved. A series can be constructed for imports via the four gates, viz. the Christianshavn Gate and the West, North and East Gates, covering the period 1730–1800, since only a very few abstracts are lacking. The West Gate abstracts have the most gaps, but only in one case are the abstracts for two successive years missing. Of the custom house abstracts for 1730–69, only 1730 is missing, but there are no complete abstracts from the period 1770–1800 [6]). Nevertheless certain means exist for forming an idea of the imports via the custom house in the latter period, since information about imports of the most important commodity-groups during some of the years is available in a number of places. The following are the sources used:

1774	Imports and exports of grain and peas[7])
1779, 1782 and 1783	Imports and exports of the most important foodstuffs[8])
1787–89	Imports of grain[9])
1792–1802	Imports of grain[10])
1795	Imports and exports of grain[11])
Sept. 1801–July 1804	Monthly statements of grain imports and exports[12])

6. However, for some years in the period 1788–1800 the milling consumption tax figures have had to be taken from an account of corn-milling found in RA GenToldkamm (VA II, p. 278), »Beregninger over de i København formalede samt ind- og udførte kornvarer«. In those years where milling figures exist both in this account and in the surviving milling consumption tax office summaries, they are in close agreement.
7. GA GenToldkamm: rev. regnsk; København; antegnelser, ekstrakter m. v. 1775.
8. RA GenToldkamm: rev. regnsk.; København; antegnelser, ekstrakter m. v. 1782–83.
9. RA GenToldkamm: rev. regnsk.: København: antegnelser, ekstrakter m. v. 1789.
10. RA Mallingiana, Handel 1.
11. RA Mallingiana, Handel IV E.
12. RA GenToldkamm (VA II, p. 278), Beregninger over de i København formalede samt ind- og udførte kornvarer.

1805	Monthly statements of grain imports and exports[13])
1805	Incomplete series of weekly statements of imports and exports of animal products via the Copenhagen custom house[13])

Using these sources, an estimate has been made of food imports by the sea in 1770–1800. That it has been possible to do this with a fair degree of reliability is primarily because it is only the net imports of animal products and milled grain passing through the custom house that need to be looked at. Unmilled grain, as already stated, was free of consumption tax upon import, but became liable on being milled. The sources listed tend to suggest that imports by the sea held a fairly constant level, while imports through the gates were rising. The estimated value of imports by the sea, expressed in calories, represented about 25 % of the aggregate tax-liable and tax-exempt consumption registered in Copenhagen [14]) in 1770, but fell to about 21 % in the 1790s. If the margin of error of the estimated imports via the custom house is put at 40 %, this makes a margin of error for aggregate consumption according to the consumption tax ledgers of between 10.0 % and 8.4 % in the period 1770–1800.

The appendices with initial digits 2.1 to 2.7 have been constructed using the abstracts of the gate ledgers for 1730–1800 and the custom house abstracts for 1730–1769. For the period 1730–69, aggregate imports, both by land and by sea, have been totalled up. For the period 1770–1800, the totals embrace only imports by land, since the estimates of imports via the custom house are not included in these appendices. In all cases the import figures are gross, at was stated on p. 40. For years where the abstracts are missing, figures are derived by linear interpolation. Interpolated figures are indicated by square brackets. Square brackets are also used where more than 10 % of the totals are derived from interpolated figures.

After establishing series for the consumption registered in the consumption tax ledgers, the principal problem is what sort of proportion the consumption of foodstuffs on which consumption tax was paid bore to total consumption of foodstuffs. The consumption tax ledgers were established chiefly for the purpose of preventing consumption tax of-

13. RA GenToldkamm (VA II, p. 276), Fortegnelse over de ind- og udførte korn- og fedevarer fra Københavns og Bornholms toldsteder 1805.
14. On tax-free consumption in Copenhagen cf. p. 43.

ficials from defrauding the state, and the commodity abstracts are a by-product of these ledgers. It is possible that the construction of commodity abstracts too was required primarily for control purposes and only secondarily in order to obtain figures of the movement of goods. When the proceeds of consumption tax fluctuated, the Customs Department (*Generaltoldkammeret*) was able to see with the aid of the commodity abstracts what changes in imports of merchandise had caused the changes in the consumption tax yield and to judge whether they were likely ones or whether the changed yield was attributable to fraud on the part of the consumption tax officials.

The precision of the link between the commodity abstracts and the consumption tax ledgers means that certain of the figures in the abstracts are rather misleading as import figures, since there were occasions when no consumption tax was payable on an imported commodity; for example, the quantity of imported wood-fuel according to the custom house consumption tax abstracts does not represent the total imports by sea but only that portion arriving from inland sources, since foreign wood-fuel was exempt from consumption tax. The custom house abstracts record only the import of so-and-so much wood-fuel, and there is no indication that this figure refers only to the proportion of imports liable to consumption tax [15]). In the following cases it has been established that the commodities were not liable to consumption tax and therefore went unrecorded in the normal abstracts [16]).

1. The following categories were exempt from consumption tax upon milling:

   1.1 Milling of grain destined for export by companies privileged by charter, e. g. The Iceland Company.
   1.2 Milling of rye for the army garrison's bread.
   1.3 Milling of grain for victualling the fleet and for supply to naval seamen and artificers as shore rations.

2. The following were exempt from consumption tax on import:

15. That the custom house summaries only cover imports of wood-fuel from inland may be confirmed by comparing them with a list in RA Gentoldkamm: rev. regnsk.; København; antegnelser, ekstrakter m. v. 1769 A. This list was compiled by the Customs Department in 1770 and shows the total imports of wood-fuel, distinguishing between supplies from abroad and supplies from inland. The list was constructed from both the consumption tax books and the port books.
16. The basis for this consists of the sources cited in appendices 2.81–2.82 and the ordinances of 31/12 1700, 17/5 1762, 26/11 1768, 15/10 1778 and 1/2 1797.

2.1 Foodstuffs imported for victualling purposes or for export by chartered companies.
2.2 Commodities from Iceland, Finnmark, Greenland and the Faroe islands.
2.3 Peas for the navy.

Since the object of this study is to enquire into consumption in Copenhagen, it is an advantage that commodities imported or milled for the purpose of being exported by the chartered companies are not included in the abstracts and therefore do not figure in the computations of the city's aggregate consumption undertaken in this work. It has been possible to determine the annual quantities of tax-free milled rye for the Copenhagen garrison, cf. Appendix 2.81. On the other hand no attempt has been made to ascertain any figures for free-milled grain supplied to naval vessels, since such grain was not consumed in Copenhagen, although figures have been worked out, with the aid of the naval ledgers, for free-milled rye and malt supplied to naval seamen and artificers as shore rations, cf. Appendix 2.82. Butter, pork and beef consumed by the navy as shore rations and as victuals for its ships appear not to have been tax-free since no free-import orders for these commodities for the navy are to be found in the books in which the Treasury, (*Rentekammeret*), and after 1760 the Customs Department, (*Generaltoldkammeret*) registered such orders. In these books there are free-import orders for the chartered companies and free-milling orders for milled rye for the city garrison and for the victualling of naval vessels [17]). Further, the navy's contracts with purveyors of butter, pork and beef do not indicate any exemption from consumption tax to have been conferred upon the import of these commodities [18]). Thus it is probable that butter, pork and beef for the victualling of naval vessels and as shore rations for naval seamen and artificers are contained within the ordinary consumption tax ledgers and therefore in the abstracts on which appendices 2.1–2.7 are based. However, the proportion of the navy's consumption of beef, pork and butter used for victualling ships and not as shore rations was relatively small, since on average seamen were only actually afloat for about a tenth of the year [19]). The navy's consumption of tax-free imported peas is shown in Appendix 2.82.

17. See the archives referred to in Appendix 2.81 column 3.
18. RA Søetaten Kommissariatskontoret, Kontraktkopibøger. E. g., 27/12 1792.
19. This is evident from the malt-ledgers and (later) malt-money ledgers. Seamen

Commodities imported by the chartered companies from Iceland, Finnmark, Greenland and the Faroes in 1730–50 are specially recorded in the abstracts of the custom house consumption tax ledgers. No consumption tax being paid on the import of these commodities, it follows that there was no tax refund on re-export; therefore re-export of these commodities is not registered in the consumption tax ledgers at all. All the commodity abstracts of the custom house customs ledgers for the year 1750 are extant. These show that there was quite an extensive re-export of dried fish, while Icelandic mutton more usually remained in Copenhagen. Even though the meat situation in 1750 was still rather tight such a comparatively short time after the cattle plague outbreak of 1746 (cf. e. g. Appendix 2.311), and the consumption of Icelandic mutton may therefore have been larger than normal, the difference between gross imports and re-exports in 1750 has been used as a basis for calculating the calorific value of imports of consumption tax-free mutton and dried fish for the whole period, since no better information is to be found [20]).

Food produced inside the city walls was not recorded in the consumption tax ledgers either. Probably its most important feature consisted of the large number of distillery cows. To some extent the numbers were known, since under the municipal cleansing system owners had to declare to the cleansing department how many cows they had and were then required to cart away a certain quantity of dung per cow each year, being checked by the cleansing department as having done so [21]). The figures for the following years are all that survive in the cleansing department's archives:

1766	30/3	922 cows
	27/4	896 cows
	25/5	875 cows
	22/6	874 cows

received malt or malt-money only when they were ashore, since at sea they were supplied with ale instead. There is only a small decline in the amount of malt or malt-money distributed in the periods when ships were being sent out. Source: 1730–37: RA Søetaten, 2. divisions mønsterskriver, mønsterskriverens konsumptionsbog (containing tax-exemption notes issued for the free-milling of malt). 1739–1800: RA Søetaten, bogholderkontoret, søetatens hovedbøger (showing amounts of malt-money in the monthly victualling accounts).

20. RA GenToldkamm: rev. regnsk.; København; antegnelser, ekstrakter m. v. 1750.
21. Henrich Callisen: Physisk-medizinske Betragtninger over Kiøbenhavn, I, 1807, p. 231. This makes reference to edict A § 2 of 8/5 1788.

1779	1/9	795 cows
	1/10	796 cows
	1/11	797 cows[22])

In 1803, Begtrup wrote that the numbers of cows in Copenhagen had been:

1798	1,738 cows
1799	1,795 cows
1801	1,710 cows

Some of the cows were owned by brewers, bakers or millers, but many of them belonged to distillers. A cow fed on distillery waste could yield 12–24 *potter* of milk a day. The cows were not raised in the city but were brought in shortly before calving [23]).

The declaration of a cow to the cleansing department brought upon its owner a liability to cart away a wagon-load of cow-dung every third week [24]), control being exercised by a "cleansing note" drawn from the cleansing department and given up at the Gate through which the dung was driven away [25]). It is to be assumed that some owners will have omitted to declare their cows, since the fine involved was only 2 *mark* [26]). The fine was forfeited to the informer [27]). Thus, for example, taking a figure of 1,000 cows in Copenhagen in the 1760s and 1770s and applying the average of Begtrup's figures for the milk yield of a distillery cow, the annual milk production in the city comes out at about 6.57×10^6 *potter* or 48,300 barrels (*tønder*). This must be viewed in context with imports of milk into the city in the 1760s and 1770s amounting to between 13,000 and 25,000 barrels [28]). Taking a figure of about 2,000 cows in Copenhagen at the close of the century, and applying Begtrup's figure of milk yield, annual production would be about 96,600 barrels, while annual imports of milk in the 1790s were between 38,000 and 47,000 barrels [29]). The nutritive value of

22. Københavns Stadsarkiv: Renovationskontoret, an unsorted, unregistered bundle.
23. Gr. Begtrup: Beskrivelse af Agerdyrkningens Tilstand i Sjælland og Møen, II, 1803, p. 400.
24. Henrich Callisen: Physisk-medizinske Betragtninger over Kiøbenhavn, I, 1807, p. 232. Reference to edict of 14/2 1765.
25. Op. cit., p. 231. Reference to edict of 19/3 1788.
26. Op. cit., p. 231. Reference to edict A § 4 of 8/5 1788.
27. Op. cit., p. 226. Reference to edict of 7/5 1777, § 33.
28. Cf. Appendix 2.36. Imports of milk by sea in the 1770s were probably insignificant, cf. the figures for the 1760s. The figure of 13,000 *td* is for the cattle-plague year of 1763.
29. Cf. Appendix 2.36. It is assumed that imports of milk by sea were negligible.

milk in the 18th century is a topic on which it is very difficult to pronounce. Henrich Callisen, a physician, declared in 1807 that milk both from the city and from the country was diluted with water when it was sold [30]). If the calorie content of milk in the 18th century is assumed to have been equal to that of modern Danish standard milk, then imports of milk in the 1760s and 1770s according to the consumption tax ledgers constituted between 1.8 % and 2.8 % of the quantity of calories consumed according to the consumption tax ledgers, while in the 1790s it constituted between 4.2 % and 4.3 %. Since the city's milk production as estimated above was about twice as large as imports both in the 1760s, 1770s and 1790s, it follows that to the aggregate amount of calories according to the consumption tax ledgers must be added 4–6 % in the 1760s and 1770s and about 8–9 % in the 1790s to represent milk produced within the city. Since the number of cows probably grew more or less in proportion to distilling, it is unlikely that there were any more cows in the city before the 1760s [31]). Since cows were not raised in the city but were imported shortly before calving [32]), the cows themselves are thus recorded in the consumption tax ledgers.

Regarding other domestic animals, Callisen cites three edicts to the effect that: Pigs were not to run loose in yards or be kept in sties in Copenhagen [33]); pigs were not to run loose in the streets, even in the Copenhagen suburbs [34]); and butchers could only keep pigs in their yards for one night [35]). It is doubtful whether it can be concluded from this that pigs were not kept in the city. Sheep and goats were kept in any case [36]), and poultry were also permitted [37]). Fishing from the city must also be counted in its internal production, since fresh fish imported from the sea was exempt from consumption tax. This did not apply to fresh herring, however [38]). These quantities of foodstuffs thus do not figure in the consumption tax ledgers, and it has been impossible to formulate any quantitative expression for them. On the other hand

30. Henrich Callisen: Physisk-medizinske Betragtninger over Kiøbenhavn, I, 1807, p. 405.
31. Cf. appendices 2.14.
32. Cf. p. 46.
33. Op. cit., p. 234. Reference to edict of 26/11 1709.
34. Op. cit., p. 234. Reference to edict of 18/11 1778.
35. Op. cit., p. 234. Reference to edict of 3/8 1787.
36. Op. cit., p. 229. Reference to edict of 22/8 1791.
37. Op. cit., p. 229. Reference to edicts of 23/6 1766 and 7/5 1777.
38. Ordinances of 31/12 1700, 29/2 1732, 17/5 1762, 26/11 1768, 15/10 1778: from 1/2 1797 fresh herring was also free of consumption tax.

Copenhagen's internal production of foodstuffs was certainly the lowest of any Danish city in relation to its imports, since the area within the walls was already quite densely built up in the 18th century.

Over and above the quantities of goods recorded in the consumption tax ledgers, of course, smuggling took place whenever it was possible and profitable. In the "general confiscation ledgers" relating to customs tolls and consumption taxes on "contraband articles" exceeding four rix-dollars in value, textiles, spirits and tobacco predominate [39]); but doubtless foodstuffs were smuggled as well. The many wagon-loads of hay and wood-fuel probably also contained one or two hams or a side of pork now and then. Much of the imports registred, however, were in the form of animals on the hoof, and to smuggle a whole cow at least must have required the connivance of the consumption tax officials. However, it is very difficult to form any real idea of the scope of smuggling. Probably the best conclusion to be drawn about consumption from import figures in the consumption tax ledgers is that when re-exports, tax-free imports and production inside the city have been allowed for, the figures show the minimum quantities consumed.

Scrutiny of the consumption tax ledgers discloses no clear cases of fraud on the part of the consumption tax officials, but it does reveal irregularities in the construction of the abstracts. At the West Gate in 1763–66 and the Christianshavn Gate in 1795–97, the year-to-year fluctuations of the import figures for a range of commodities are remarkably small. To construct the abstracts, all the commodities had to be reckoned up from several hundred pages in the consumption books. It was a formidable task, and in the years above-mentioned it appears to have been dodged by the simple device of taking a copy of the commodity abstract for the previous year altering the figures a little. This is not the case with the import figures for cows and oxen. This seems to be because in the case of cows and oxen a daily record of the number imported had to be entered in a list in the back of the consumption tax book, which made it easy to tot up these lists at the close of the year and enter the total in the abstract. In drawing up the probably falsified abstracts the tax officials also varied some of the import figures somewhat in relation to the preceding year in order to get the total sum of money represented by the consumption tax amounts in the commodity

39. RA GenToldkamm: rev. regnsk.; København; Antegnelser, ekstrakter m. v., Almindelige konfiskationsregnskaber e. g. 1760.

abstract to agree with the total sums handed over to the Exchequer during the course of the year.

The problem now is whether these probably faked commodity abstracts were concocted only in order to evade the tedious job of drawing up correct ones or whether they represented an attempt to cover up fraud. The revenue at the two gates in the above-mentioned and surrounding years show the following fluctuations:

West Gate[40])		Christianshavn Gate[41])	
	Rd. : sk.		Rd. : sk.
1758	42225 : 42½	1789	5589 : 58
1759	42280 : 25	1790	5415 : 74
1760	41131 : 32	1791	5334 : 49
1761	46031 : 07	1792	5278 : 33
1762	46716 : 12½	1793	5602 : 08
1763	35695 : 38½	1794	5188 : 53
1764	33222 : 32½	1795	5894 : 81
1765	36915 : 78	1796	5528 : 18
1766	37505 : 39	1797	6068 : 81
1767	38731 : 92	1798	6110 : 67
1768	34691 : 39	1799	5575 : 68
1769	32839 : 50½	1800	5026 : 54
1770	34107 : 02½	1801	4552 : 81
1771	29216 : 36	1802	5089 : 65

At the Christianshavn Gate, the revenue for 1795–97 is no lower than for the surrounding years; there is therefore no reason to believe that the apparently falsified commodity abstracts conceal any fraud. At the West Gate, the revenue for 1763–66 was lower than in the preceding years and also lower than in 1767, but on average higher than in 1768–70. Revenue was low in 1771 as well, but in this case crop failure and the outbreak of cattle plague must be taken into account. However, the fall from 1762 to 1763 can be coupled with the outbreak of cattle plague in 1762; for example, Appendix 2.36 shows that not only were milk imports via the West Gate down in 1763 compared with 1761 and 1762, but that this was also the case with milk imports through the Christianshavn and North Gates, where there is no ground for believing that the abstracts for these years are falsified.

In the light of these considerations it is impossible to say for certain whether the probably falsified commodity abstracts for the West Gate

40. RA GenToldkamm: rev. regnsk.; København; Antegnelser, ekstrakter m. v. 1779.
41. Do. 1802 B.

do conceal fraud, since the variations in revenue can be well explained without considering fraud as a factor. Since, as already stated, the important figures for imported cows and oxen are quite likely correct, it has been felt most convenient to use the figures from the abstracts for these years as well, since there would be no advantage in replacing them with an interpolation.

In the years 1783–91, there are errors in the annual statements of the milling consumption tax office, since there are inconsistencies between the amounts of consumption tax handed over to the Exchequer by that office and the amounts indicated by the quantities of grain recorded as having been milled [42]). It is the milling totals that seem to be wrong, while the amounts of tax handed over appear to agree with the amounts levied, since in five out of six erroneous accounts discovered, larger sums are handed over to the Exchequer by the consumption tax office than the quantities of grain milled would indicate. The sums handed over to the Exchequer by the consumption tax office in these years, moreover, appear reasonable in relation to the sums handed over in the preceding and succeeding years, while in at least one instance the quantities stated to have been milled are manifestly absurd (cf. below).

In 1783, about 7,500 rix-dollars more was handed over than the quantities of milled grain recorded would indicate; the disparity can be attributed to the quantity of rye recorded for milling being too low [43]).

In 1784 about 64,000 rix-dollars less was handed over than the recorded quantities of milled grain recorded would indicate; the dispartiy probably arises from over-recording of wheat for distilling [44]).

In 1785 about 20,000 rix-dollars more was handed over than the recorded quantities of milled grain would indicate; the disparity seems to be ascribable at least in part to under-recording of the quantity of rye milled [45]). A volume of milled rye as small as 21,296 barrels would have signalled a catastrophe for the lower orders of the Copenhagen population, and there was no such situation in 1785 [46]).

The ledgers of the milling consumption tax office for 1786, 1788 and 1789 are only partially preserved, and it is impossible to determine

42. This can be seen from a comparison of the ledgers with the rates of consumption tax according to the ordinance of 15/10 1778.
43. Cf. Appendix 2.1111.
44. Cf. Appendix 2.142.
45. Cf. Appendix 2.1111.
46. Cf. Appendix 2.1111 and Hans Chr. Johansen: Dansk økonomisk politik i årene efter 1784, vol. 1., 1968, p. 312 ff.

whether the sums handed over and the recorded quantities of milled grain agree.

In 1787, the sum handed over is only 1,800 rix-dollars larger than that indicated by the recorded quantities of grain, and in 1790 it is only 1,100 rix-dollars larger.

In 1791 about 76,000 rix-dollars more are handed over than are indicated by the recorded quantities of grain; the disparity is probably attributable to the figure of wheat for distilling being too low [47]).

In estimating the calorific and protein values of consumption in Copenhagen according to the consumption tax ledgers (cf. Chapter 6), the quantities milled as shown by the figures in the milling consumption tax office ledgers are also employed for the years 1783–91, though excluding 1785. In respect of 1783, 1787 and 1790 it may be argued in justification that the size of the discrepancy between the two amounts indicates the error to be of no significance. In the years 1784 and 1791, the discrepancy between paid-in and computed consumption tax is wide, but this is thought to be due to errors in the number of barrels of wheat for distilling, and the consumption of spirits is not included in the estimated calorific and protein values. The figure of rye for milling in 1785 is of great importance since rye constituted a large part of total consumption, and manifestly absurd. In calculating calorific and protein values it has been replaced by the mean figure between the previous and following years.

In the years before and after 1783–91, either the ledgers are in agreement or else the disagreements are negligible.

The best index of the overall reliability of the commodity abstracts is that substantial changes in the import figures from one year to the next normally occur at all four Gates alike [48]).

47. Cf. Appendix 2.142.
48. See for example the vicissitudes of the herring in appendix 2.74.

6. Levels of food consumption in Copenhagen 1730–1800 estimated from the consumption tax ledgers

In the consumption tax ledgers, consumption is recorded in a variety of different units: head of oxen, barrels of beef, barrels of rye, pigs, chickens etc. For an overall evaluation, these units require to be converted to modern measures. Appendix 2.96 shows the conversion factors for all the important commodities featuring in the commodity abstracts, found here in the appendices with initial digits 2.1–2.8. There is a considerable margin of error in some of these conversion factors, but others are less dubious.

In converting from units of weight to calorific values and protein content, modern tables are used. Allowance is made in this for the fact that for some commodities purchased weight is not the same as usable weight [1]). It is to be presumed in the case of beef and pork that in the 18th century these were of very fat quality, i. e. rather high in calorific value but low in protein. This would be regarded today as a poor grade of meat, but whether it would have been so regarded in the 18th century is a moot point [2]).

For each year a calculation is made of the calorific value and protein content of the consumption registered in the consumption tax ledgers plus the registered tax-free consumption. There is one exception, however. No attempt has been made to calculate calorific values of spirit consumption from the number of barrels of grain milled for distilling. So as to form some idea of the significance of this factor for the computed calorific value, a rough calculation has been made for the 1790s, when the production of spirits per head of population was at its highest level in the period here being studied (cf. apendices 2.14, especially 2.141 and 2.142). According to M. L. Nathanson, a barrel of grain yielded about 60 *potter* of *brændevin* around the year 1800 [3]), which would

1. Richard Ege: Fødevare- og ernæringstabeller, 1963.
2. Cf. p. 11.
3. M. L. Nathanson: Danmarks National- og Stats Huusholdning, 1836, p. 584.

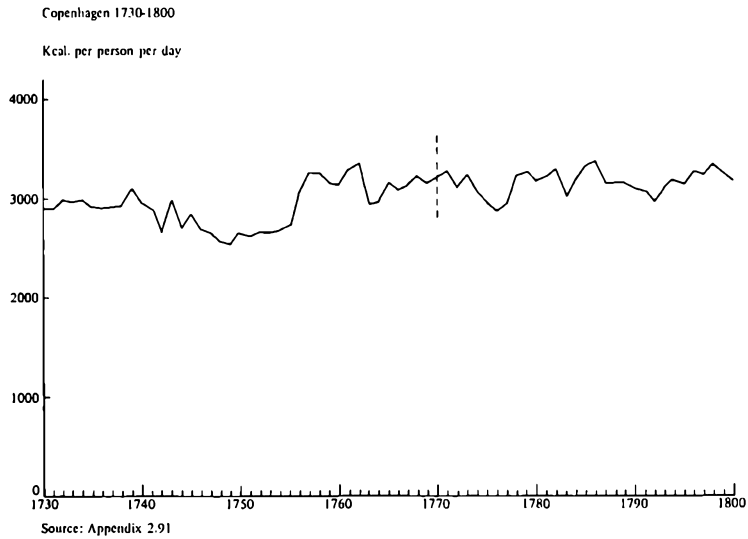
mean that the amount of grain milled for distilling in the 1790s produced about 5,000,000 *potter* of spirits (cf. appendices 2.14). Even assuming this entire quantity to have been consumed within the city, the average annual consumption still works out at only 50 *potter* per head or about 205 kcal. per person per day [4]). However, this figure is no more than the theoretical maximum calorie-increment per head of population ascribable to spirits, for some of the *brændevin* produced in Copenhagen was exported [5]).

As regards ale consumption, no account is taken in the calorie computation of the fact that a certain amount of ale was not consumed direct but was put in the mash as an "additive" during distilling. In 1802 the quantity was put at about 90,000 barrels [6]), while in 1820 C. A. Brøndum declared that there was one barrel of additive to every two barrels of wheat [7]); based on the amounts of wheat milled for distilling in the 1790s, this gives a figure of about 140,000 barrels of ale [8]). Assuming a brewing ratio for the ale brewed in the 1790s of 14 barrels of ale from every 4 barrels of malt, as indicated by the brewers ordinances [9]), about 210,000 barrels of ale per annum were brewed in the 1790s. If in 1790 about half the ale was actually used for distilling, then this means about 140 kcal. per person per day less than if all of it was drunk as ale. From these rough figures it appears that the understatement from excluding the calories yielded by spirits and the overstatement from assuming that all the ale was drunk as ale were about the same, viz., between 100 and 200 kcal. per day in the 1790s; and since the technology of distilling remained substantially unchanged in the period 1730–1800 [10]), the two figures must have moved more or less in unison up to the 1790s.

After the calorie and protein yields have been worked out from each year's consumption as registered in the consumption tax ledgers, the

4. The spirit content is here assumed to have been half that of modern aquavit, cf. Lars Rumar: Jordbrug og brændevinsbrænding I, Erhvervshistorisk Årbog 1966, p. 20 f., and Gær- og Spiritusindustriens Historie i Danmark, 1931, p. 397.
5. M. L. Nathanson: Danmarks National- og Stats Huusholdning, 1836, p. 584.
6. H. Muus and Rasmus Nyerup: Om Øl og Ølbrygning samt om Bryggerlauget i Kjøbenhavn, 1802, p. 18.
7. Chr. A. Brøndum: Kort Underviisning i Kunsten at brænde Brændeviin, 1820, p. 39.
8. Cf. Appendix 2.142.
9. Kristof Glamann: Bryggeriets Historie i Danmark, 1962, Appendix B.
10. Lars Rumar: Jordbrug og brændevinsbrænding I, Erhvervshistorisk Årbog 1966, p. 12 ff.

Fig. 3



figures are converted to calories per person per day by means of the population figures arrived at in Chapter 2. Fig. 3 shows the result. The vertical dotted line is to indicate a distinction between the two periods 1730–69 and 1770–1800 consisting in different respective margins of error, there being, as already stated, no systematic series of import figures for seaward imports 1770–1800.

The margin of error in the estimated daily calorie intake per head can be discovered as follows: If the margin of error is assumed to be 10 % when converting quantities of grain from measure of capacity to weight measure and 25 % when converting from head of livestock to weight of meat, and if interpolated and estimated figures are assumed to have a 40 % margin of error, then, taking into account the ratio between the consumption of the various foodstuffs, the margin of error of the calorie figures is between 10.7 % and 12.7 % in 1730–69 (except for 1730, 1732–34, 1737, 1739, 1743 and 1762, when interpolations are made on a large scale) and between 17.7 % and 21.6 % in 1770–1800 (except for 1777, 1779, 1783, 1785, 1792, 1794–95 and 1797, when there are again large-scale interpolations). In addition there is the margin of error in the estimated population figures, which we

have put at 10 %. Thus the margin of error in the height of the calorie curve in fig. 3 becomes (cf. appendix 2.95):

between 20.7 % and 22.7 % in 1730–69
between 27.7 % and 31.6 % in 1770–1800

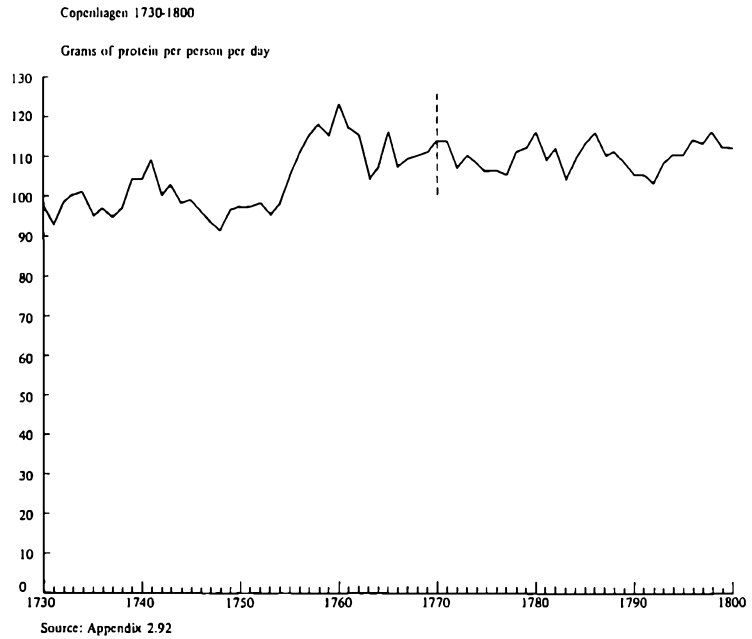
This, however, is the margin of error *in the curve height,* but since a substantial part of the margin of error originates from the conversion factors, it follows that in judging whether a change from one year to the next is significant the margin of error is considerably smaller, since there is no reason to believe that the conversion factors changed from year to year. The margin of error in the estimated population figures, too, are only of minor importance when it is changes from year to year in the daily calorie intake per head that are being examined. On the other hand the margin of error from figures derived by estimation and linear interpolation, in instances where figure-data from a consumption tax-point are missing, will operate with full force. If the years above-mentioned for which large-scale interpolations have been made are excluded, the margin of error from interpolation for the period 1730–1769 is only about 1.5 %, arrived at by ascribing a margin of error of 40 % to the interpolated figures and 0 % to the non-interpolated ones. By a similar process a margin of error between about 8.0 % and 10.5 % is arrived at for the period 1770–1800, excluding the years above-mentioned for which large-scale interpolations have been made. This is called the margin of error *in the curve shape* (cf. appendix 2.95).

With the above-computed margin of error in its height, and ignoring the years mentioned above for which large-scale interpolations have been made, the curve shows an available calorie intake per person per day of:

1730–42	about 2,900–3,100	±	650 kcal.
1746–54	about 2,600–2,700	±	600 kcal.
1757–69	about 3,100–3,300	±	725 kcal.
1770–1800	about 2,900–3,300	±	1,025 kcal.

It is evident from the margin of error indicated that between the beginning and end of the period considerable changes of level may have taken place. Over shorter periods of time, as pointed out above, a much smal-

Fig. 4



ler margin of error can be assumed. Thus it is very probable that in the period 1746–54 the amount of calories available per person was smaller than in the preceding and succeding periods. This is presumably because of the reduction of herds resulting from the cattle plague at the end of 1745 and in the years following [11]). The recrudescence of the plague in 1763 is also clearly reflected in fig. 3 [12]).

The levels of grams of protein per person per day match those of calorie intake quite well (cf. fig. 4).

The indicated calorie and protein values per person per day are averages for the whole population, adults and children, male and female, rich and poor. They must be viewed in context with the needs of a society characterised by the age- and sex-structure of Copenhagen in the 18th century. A computation of the average daily calorie requirement per head according to the criteria established by the FAO for a climate

11. H. P. Kristensen: Kvægpesten paa Sjælland i det 18. Aarhundrede. Fra Arkiv og Museum, 4, 1909–11, p. 257 ff. Cf. also Appendix 2.36.
12. H. P. Kristensen: Loc. cit., p. 286. Cf. also Appendix 2.36.

similar to Denmark's and based on the sex- and age-structure of Copenhagen at the two censuses of 1787 and 1801 produces the following figures [13]):

1787 2,363 kcal. per person per day
1801 2,355 kcal. per person per day

In view of the margin of error in the average daily intake per head computed from the figures of consumption registered, the possibility cannot be excluded that the average daily calorie intake some years *may* have been less than 2,350 kcal. But unregistered consumption must be added to the registered: foodstuffs produced inside the city, the fresh fish supply, smuggled articles, clandestine milling and grinding, e. g. of oats, which is relatively easy to grind under primitive conditions. The investigations of the previous chapter suggest a figure for such non-registered consumption amounting to at least 10 % of that for registered consumption, implying that the amount of calories available per person per day is unlikely to have been less than 2,350 kcal. Only in the period 1746–54 is it really possible to believe the average intake to have been less than 2,350 kcal. and even here it is more likely to have been bigger.

In regard to daily protein intake, Richard Ege follows the United States Nutrition Board's 1958 figures of 100 grams for a boy aged 13–15 years, 70 grams for an adult male, 80 grams for girls aged 13–15 years and 58 grams for adult females [14]). Thus, protein intake would have sufficed to cover the requirement (cf. fig. 4).

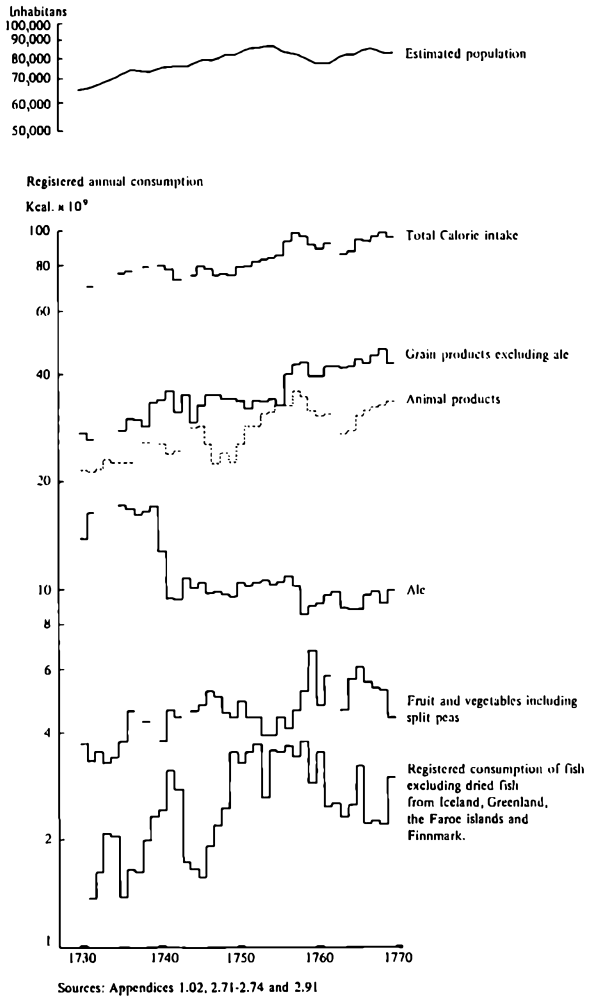
The trouble with these figures of average daily intake per head is that we do not know how the intake was divided between the social classes. The not very numerous upper class proper [15]), however, would have had to account for a vast number of calories for the rest of the population to have been living on the verge of starvation.

As well as shedding light on the state of nutrition, the commodity abstracts in the consumption tax ledgers can also be employed to show how consumption swung from one category of foodstuffs to another under the impact of changes in supply and prices. Fig. 5 shows the intake of calories in 1730–69 distributed by categories. Those years for which

13. Basis of calculation: FAO Nutritional Studies No. 5, Calorie Requirements, Washington 1950, p. 39, and Appendices 1.04 and 1.05.
14. Richard Ege: Fødevare- og ernæringstabeller, 1963, Skema A.
15. Cf. chapter 2, p. 21 ff.

Fig. 5

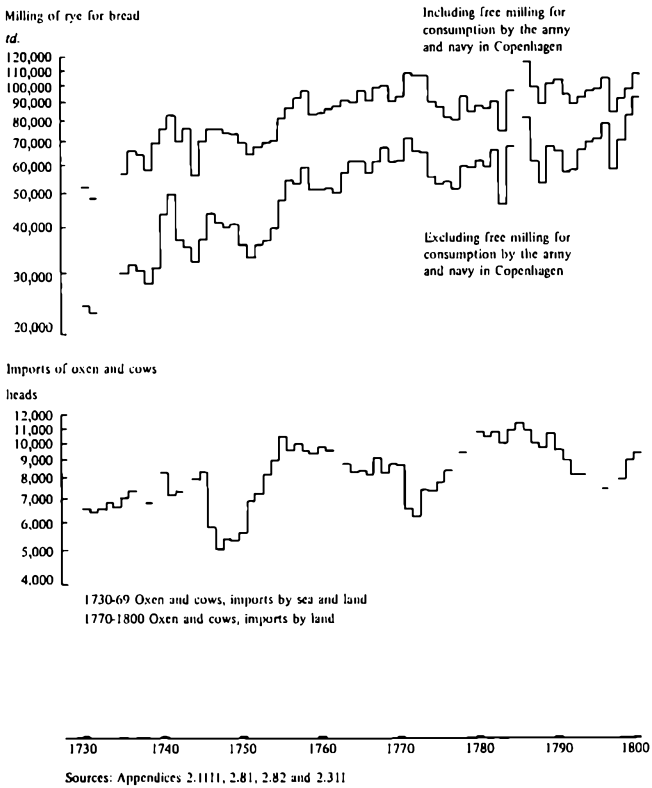
Registered consumption in Copenhagen 1730-69



Sources: Appendices 1.02, 2.71-2.74 and 2.91

there are significant interpolations are excluded from this diagram. The most important sources of calories were grain products, including ale, and animal producas, while fruit and vegetables were of no particular importance, even if split peas are counted in the latter category. The fish category in the diagram does not include dried fish imported from

Fig. 6



Sources: Appendices 2.1111, 2.81, 2.82 and 2.311

Iceland, Greenland, the Faroes and Finnmark. The only fresh fish included is herring, and only the proportion of fresh fish imports brought in overland, since the imports recorded in the abstracts as arriving by sea are stated in boatloads and therefore cannot be converted to calorific values. All other fresh fish was exempt from consumption tax.

It is evident from the diagram that grain products, including ale, were a very important source of calories, even though ale consumption was declining. The fall in the amount of calories contributed by ale in 1740–41, however, is partly attributable to the abolition of the seamen's malt ration at the end of 1739 [16]); but the fall was about twice as big as the calorific value that the seamen's malt ration would have produced when

16. Kristof Glamann: Bryggeriets Historie i Danmark, 1962, p. 156 ff.

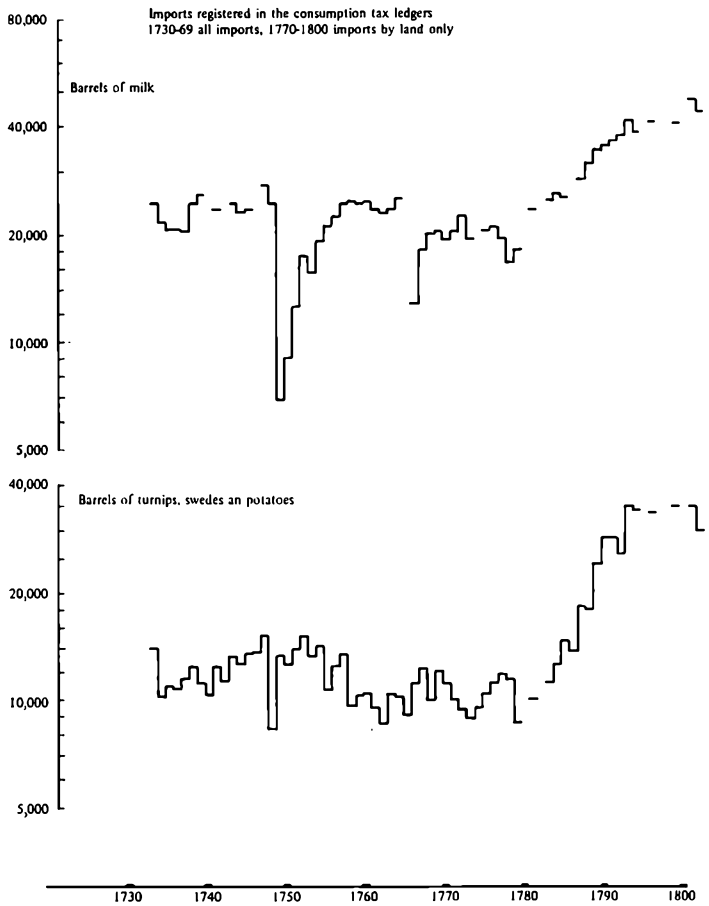
brewed into ale. The amount of calories from animal products was also large. It is worth noticing the variations in the curve for grain products as compared with that for animal products. It can be seen that when the cattle plague caused a fall in imports of animal products in and after 1746, consumption of grain products rose to offset it. The same thing occured in the bad year of 1741 [17]) and in 1762–64, when the cattle plague returned, Fig. 6 reflects the same phenomenon. It shows the milling of rye and the import of cows and oxen. In 1730–69 the import figures for cows and oxen refer to both landward and seaward imports, while in 1770–1800 the figures are for landward imports only. However, the seaward import of cows and oxen in the years prior to 1769 was not of major significance in relation to total imports [18]), and it is known that in 1782 and 1783 seaward imports of oxen amounted to 88 and 150 head respectively [19]), which is also negligible compared with imports overland [20]). In 1805 the seaward import of oxen was about 50 head [21]). Landward imports of cows and oxen in 1770–1800 therefore appear to be very nearly coterminous with total imports. Fig. 6 shows the high consumption of rye in the bad year of 1741 and during the cattle plague, and also the rise in consumption in the late 1750s. The bad years of 1771–73 are characterised by very high rye consumption, while the number of imported oxen is low in these years. Declining imports of cows and oxen towards the close of the century must be viewed in context with sharply rising imports of beef (cf. Appendix 2.34).

Thus, it is clear from the foregoing that in those years when animal foodstuffs were not available in the normal quantities, the people of Copenhagen transferred their food consumption to grain products, so that even in the years of harvest failure such as 1771–72 there could occur an expansion of vegetable food consumption if the supply of animal foodstuffs failed. Therefore it is evident that even when grain products were increasing in price [22]), their consumption could well be simultaneously rising, for grain products still gave the cheapest calories.

The purpose of fig. 7 is to illustrate the possibilities of the material

17. On conditions in 1741 cf.: Kristof Glamann: Op. cit., p. 163.
18. Cf. Appendix 2.311.
19. RA GenToldkamm: rev. regnsk.; København; Antegnelser, ekstrakter m. v. 1783.
20. Cf. Appendix 2.311.
21. RA GenToldkamm (VA II, p. 276), Fortegnelse over de ind- og udførte korn- og fedevarer fra København og Bornholms toldsteder 1805.
22. Cf. Friis and Glamann: A History of Prices and Wages in Denmark 1660–1800, vol. I, 1958, p. 157 and p. 217.

Fig. 7



Sources: Appendices 2.36 and 2.22

in the appendices with initial digits 2.1–2.7. The diagram shows the imports of milk and of turnips, swedes and potatoes. The three outbreaks of cattle plague and the growth of dairying in Zealand in the last two decades of the century can be seen reflected in the curve for milk imports. Imports of turnips and swedes swing up and down until about 1780, when the potato appears in quantities. After that imports are trebled in ten years. That this is in fact occasioned by the arrival of the potato can be seen from Appendix 2.22.

7. Index of food and fuel prices in Copenhagen 1730–1799

The researches into consumption in Copenhagen undertaken for the purposes of this study open the following possibilities for selecting a budget from which to compute an index of retail food prices:

1. The construction of a food budget based on the diet provided in one or more institutions.

2. The use of the Royal Danish Navy's victualling scale afloat as a budget.

3. The use of the consumption registered in the consumption tax ledgers as a budget.

Regarding method 1: Most of the institutions for which victualling scales or account-books survive were places where people did not reside of their own free will, or did so only for want of something better: poorhouses or hospitals. The inmates of institutions had to take what was given them, and it therefore cannot automatically be assumed that their diet was representative of that of very large groups outside those institutions, even though it was true that the institutional diet, like that of people in general, had to be selected from the products that were available at a reasonable price.

Regarding method 2: An advantage of using the Royal Danish Navy's victualling scale afloat as a food budget is that the persons fed on it had enlisted voluntarily. However, only a relatively small part of their service as enlisted seamen was spent at sea being fed according to the victualling scale afloat [1]), so it is difficult to determine whether the seamen really appreciated this diet or whether the victualling scale afloat was one of the drawbacks to be accepted when enlisting as a seaman.

Regarding method 3: Using the consumption recorded in the consumption tax ledgers as a price-index budget presents the disadvantage that it refers to the whole city, rich and poor, day-labourers and great

1. Cf. page 44.

merchants. In deciding nevertheless to use the consumption registered in the consumption tax ledgers as the price budget, regard is had to the fact that even though the consumption does relate to different social classes, by embracing the consumption of the whole city it still offers the advantage that its representativeness cannot be called into question. There is therefore no chance of having selected the pattern of consumption of a small social group, as one might risk doing by taking an institutional victualling scale as a budget. Even if there were articles that escaped the consumption tax ledgers, wether legally or illegally, the computed calorie-intake per person per day is nevertheless so credible that quantities of goods not registered in the consumption tax ledgers cannot have been of such an order of magnitude as to alter fundamentally the picture therefrom derived.

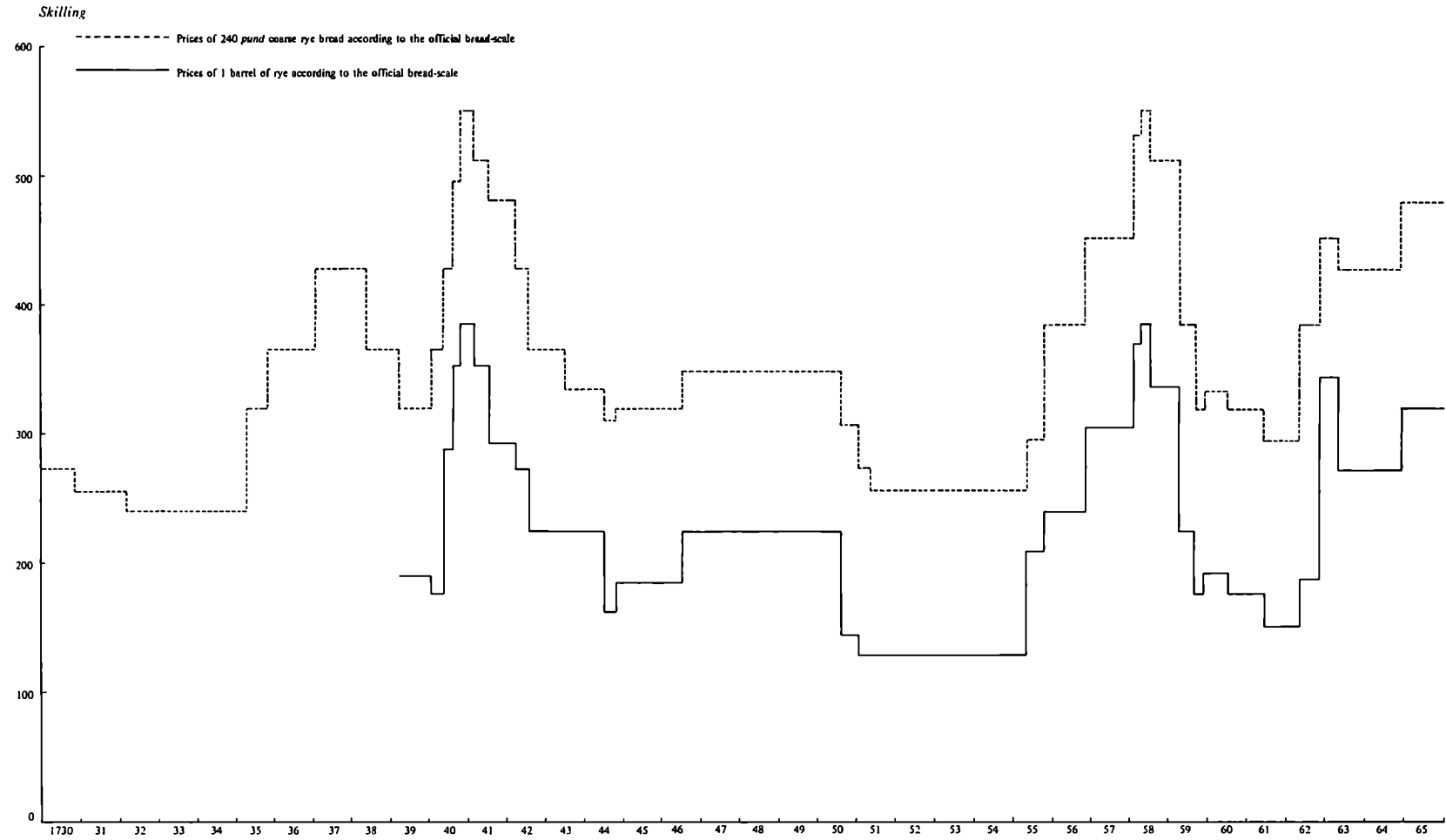
The prices used in the price index are the Magistrate's official rates for bread, ale, beef and pork, and the Copenhagen market prices as they appear in the price-currents [2]). In cases where the market price quotations include more than one price, the average figure is used. It is of course possible that the two prices refer to different qualities, but very often the quotations consist by turns of two prices, e. g. 224–240 *sk.* per barrel, and then only one price, e. g. 240 *sk.* per barrel. Therefore there is probably no question of a systematic differentiation between a number of qualities.

Since the Magistrates' rates for bread, ale, beef and pork are used as prices in computing the price index, the question must be examined whether it is reasonable to assume that prices in the city really conformed to these rates. The cases of rye bread, pork and beef will be studied.

Figure 8 shows the price of 1 barrel of rye according to the price assessments employed when fixing the official price of bread, and also the price of 240 *pund* of coarse rye bread according to the official rate [3]). The unit of 240 *pund* is chosen because when the system of official bread prices was modified in 1776 it was laid down that one barrel of rye, when milled and baked, should yield 240 *pund* of bread [4]). The gap between the two curves thus indicates the gross profit made from baking 240 *pund* of coarse rye bread from 1 barrel of rye. From this gross profit should be deducted consumption tax, milling, baking, and the pro-

2. Friis and Glamann: A History of Prices and Wages in Denmark 1660–1800, vol. I, 1958, p. 143 ff and 207 ff.
3. Friis and Glamann: Op. cit. p. 152 f.
4. Friis and Glamann: Op. cit. p. 145.

Fig. 8


Skilling
Prices of 240 pund coarse rye bread according to the official bread-scale
Prices of 1 barrel of rye according to the official bread-scale
600
500
400
300
200
100
0
1730
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
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52
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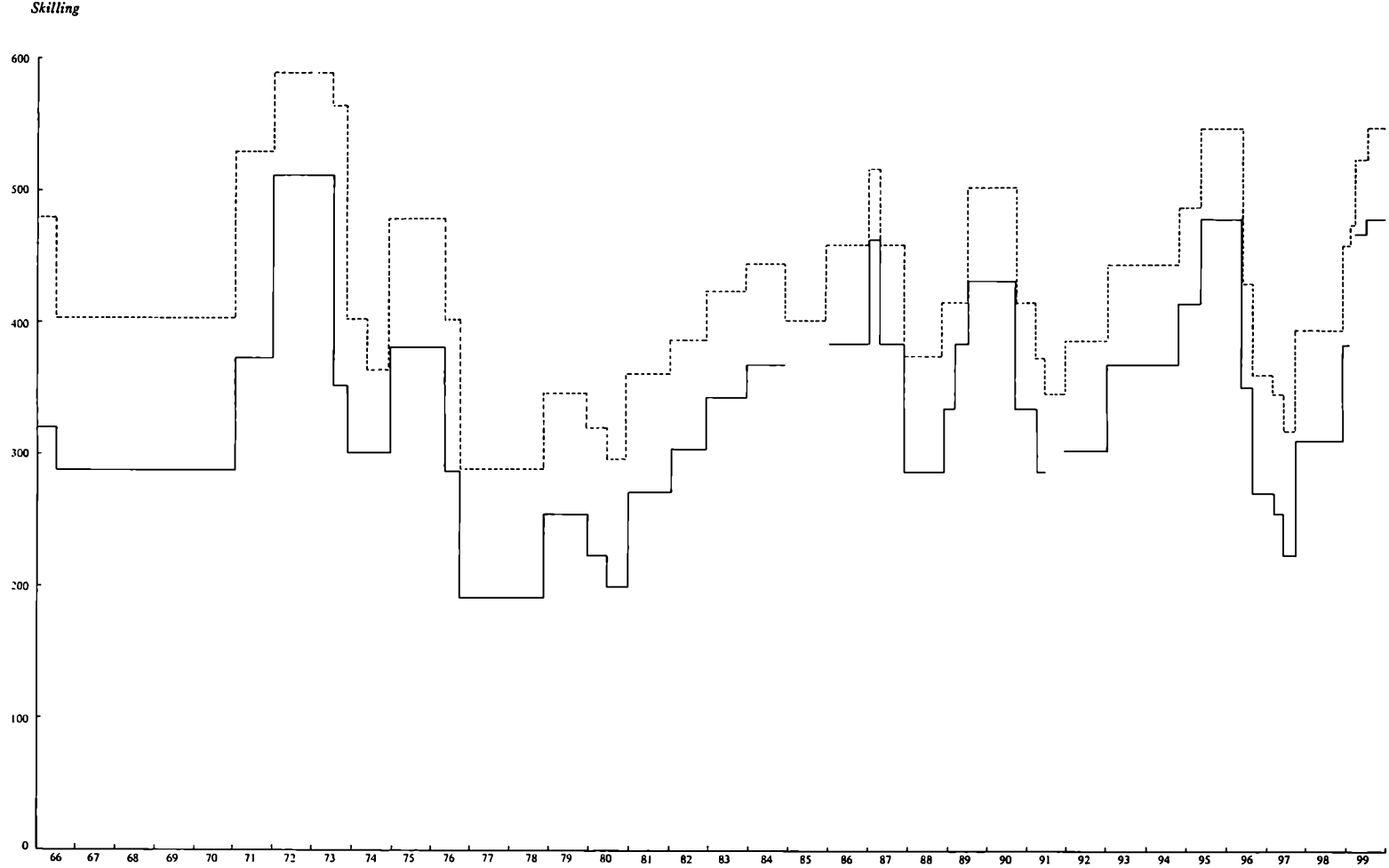
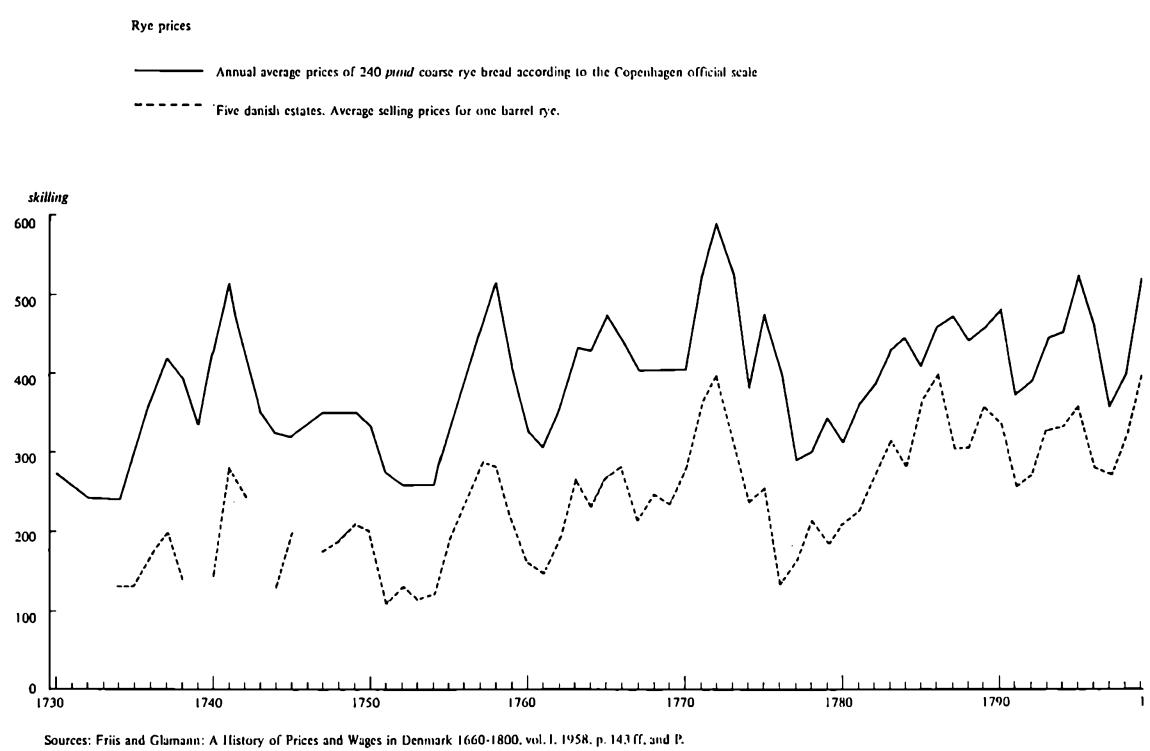
62
63
64
65

Fig. 8 (continued)



Source: Friis and Glamann: A History of Prices and Wages in Denmark, 1660-1800, vol. I, 1958, p. 143 ff.

Fig. 9



Sources: Friis and Glamann: A History of Prices and Wages in Denmark 1660-1800, vol. I, 1958, p. 143 ff. and P.

fit of the miller and baker. The diagram reveals that the gross profit thus computed declines. Consumption tax during the whole period was 32 *sk.* per barrel of rye made into bread [5]). This implies either that the amount appropriated for milling, baking and the profit per barrel of rye declined, or alternatively that the quality of rye was improved so that one barrel of rye yielded more bread. If no improvement of the quality of rye did take place, and the gross profit according to the official prices therefore declined as substantially as the figures show, it is improbable that the bakers really did conform to the official bread price in the last 15 years of the century.

Fig. 9 attempts to determine whether this conclusion should be attributed to grain prices being over-stated in relation to their general actual

5. Ordinances of 31/12 1700, 29/2 1732, 17/5 1762, 26/11 1768, 15/10 1778 and 1/2 1797.

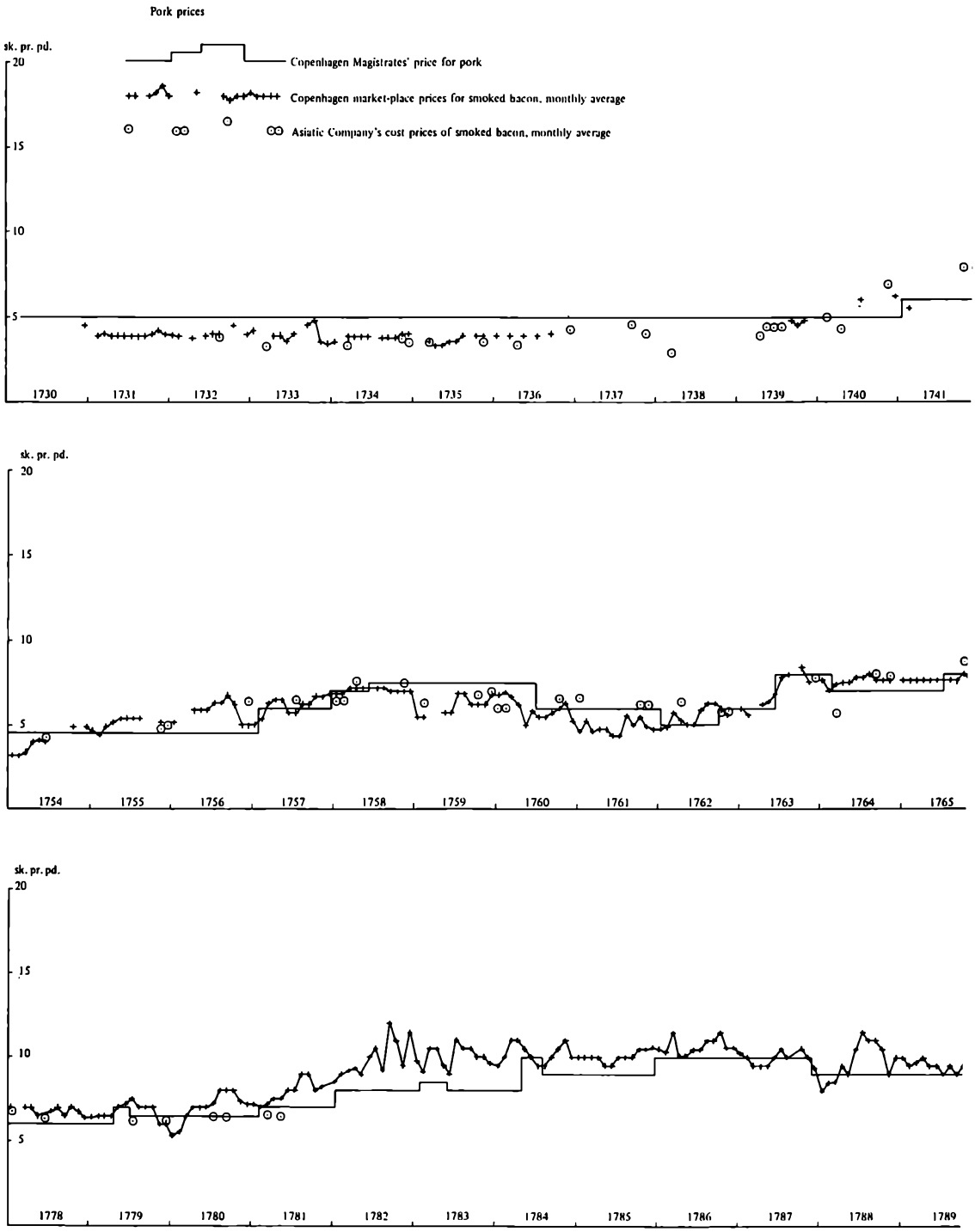
level, when the official price of bread was being fixed in the last part of the century. The figure shows the annual average price of 240 *pund* coarse rye bread according to the official rate [6]) and the annual averages of the selling prices of five landed estates [7]). The conclusion from studying this figure is the same as from fig. 8: either the quality of rye was improving, so that towards the close of the century a greater poundage of rye bread could be baked from one barrel of rye than was possible in the 1730s, or else the gross profit according to the official prices was squeezed so much that bakers are unlikely to have conformed to the official bread price. Bearing in mind the broad development of Danish agriculture in the late 18th century, an improvement in the quality of rye cannot be excluded.

Fig. 10 shows the Magistrates' scale of pork prices [8]) and the prices of bacon as indicated by the market-place prices quoted in Copenhagen [9]) and the Asiatic Company's buying prices for bacon [10]). The diagram shows that while the Magistrates' scale was higher than the market-place price and the Asiatic Company's buying price at the beginning of the period, it gradually became normal, especially in periods of high price levels, for market-place prices and the Asiatic Company's buying price to exceed the official scale. This suggests that in periods of high prices the Magistrates' tried to use the official scales to hold down the price of pork, "the only meat of the peasant, the soldier, the mariner and the labouring class" [11]), but that they did not entirely succeed in this.

In the case of beef, a comparison between the prices received by the merchant Niels Ryberg for salt beef delivered to the navy in 1765–1800 and the Magistrates' scales for fresh beef shows that Ryberg's prices per *pund* were normally lower than the official price, but that in years of high price levels, Ryberg's price were higher than the official price [12]).

6. Friis and Glamann: A History of Prices and Wages in Denmark 1660–1800, vol. I, 1958, p. 155 ff.
7. P. Godsregnskaber: (Fiurendal, Sorø Akademi, Tåsinge, Støvringgård og Erholm-Søndergård).
8. Friis and Glamann: A History of Prices and Wages in Denmark 1660–1800, vol. I, 1958, p. 188 ff.
9. Friis and Glamann: Op. cit. p. 261 ff.
10. P. Asiatisk Kompagni.
11. A. Falkenskiold: Afhandling om Svineavlen i Danmark, 1804, p. 2.
12. Aa. Rasch: Niels Ryberg, 1964, p. 383. A comparison with Friis and Glamann: Op. cit. p. 189 ff. shows it is the Magistrates' scale for fresh beef with which Aa. Rasch compares Niels Ryberg's prices.

Fig. 10


Pork prices
sk. pr. pd.
20
15
10
5
Copenhagen Magistrates' price for pork
Copenhagen market-place prices for smoked bacon, monthly average
Asiatic Company's cost prices of smoked bacon, monthly average
1730
1731
1732
1733
1734
1735
1736
1737
1738
1739
1740
1741
sk. pr. pd.
20
15
10
5
1754
1755
1756
1757
1758
1759
1760
1761
1762
1763
1764
1765
sk. pr. pd.
20
15
10
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1778
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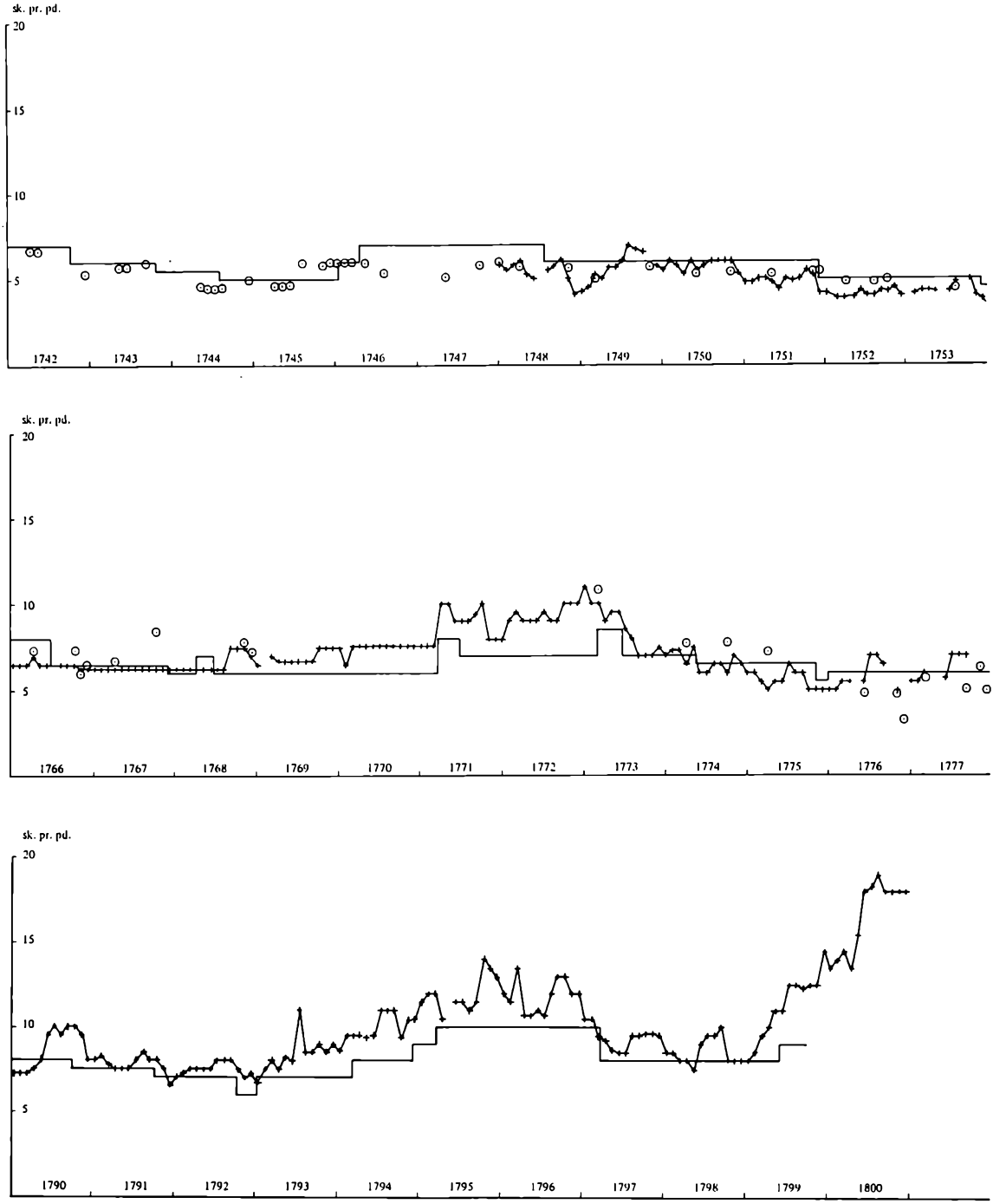
1788
1789

Fig. 10 (continued)



Source: Friis and Glamann: A History of Prices and Wages in Denmark, 1660-1800, vol. I, 1958 p. 172 ff, 261 ff and P.

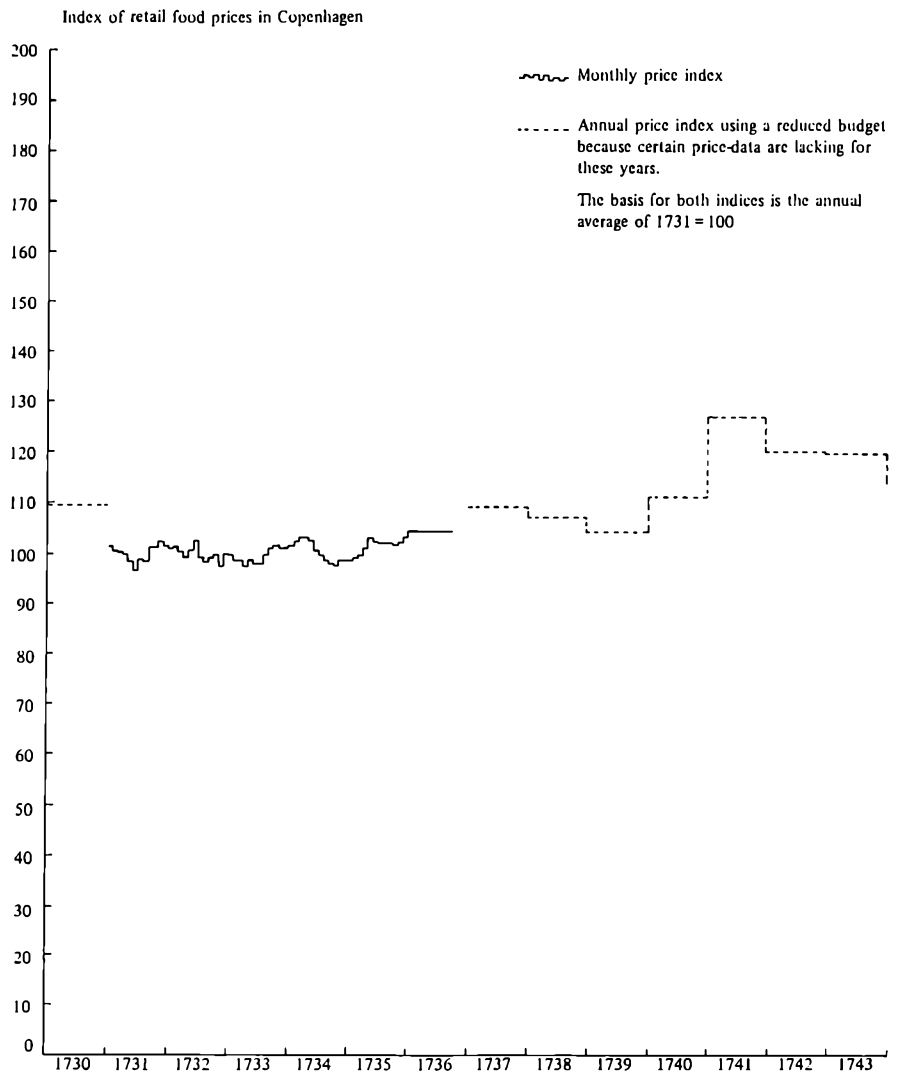
Thus, the broad impression gained is that, with the aid of the official scales, the Magistrates' did seek in some degree to damp down retail prices, especially in years of exceptionally high prices. The degree of success achieved by the Magistrates' price policy is impossible to ascertain conclusively from the data so far collected on 18th century Danish price movements, but it must be regarded as quite probable that the estimated index-figures based on the Magistrates' scales for bread, beef, pork and ale understate the fluctuations of prices, inasmuch as in periods of real dearth prices were rather higher than the index-figure indicates; on the other hand the pork prices in fig. 10 suggest that in periods of lower prices such as 1791–93 and 1797–98, the Magistrates' scales were quite close to the actual price level.

During the period under review the price of ale was fixed according to various systems, since sometimes the quality was allowed to vary while the price was kept constant and at other times the quality was kept constant while the price varied. In order to establish a price series that refers throughout the period to the same quality of ale, the average price of ale brewed from one barrel of malt has been calculated in respect of the various price fixings. From this calculation a price series is obtained, also varying through the period 1755–1800, in which the price of the poorest grade of ale is kept constant by a government subsidy [13]).

The *per capita* consumption according to the consumption tax ledgers of 1731 (cf. Appendix 3.1) has been used to calculate index prices. No success having been achieved in obtaining price data for turnips and swedes, for kale, or for red and white cabbage, these items have had to be excluded from the budget. Moreover, in 1730 and 1737–47 it has been necessary to exclude barley meal, split peas, butter, cheese, eggs and fish. Of these, only butter is of vital importance to the result. For the periods 1731–36 and 1748–1800 an index figure has been calculated for each month of the year, while in 1730 and 1737–47 (where a reduced budget is employed) a single annual value only has been calculated, cf. fig. 11. Both in the complete budget and in the reduced budget the base is the annual average of the commodity prices in 1731. In the conversion to an index the margin of error in the population estimate for 1731, which enters into the *per capita* consumption figure for 1731, is removed. Fig. 11 has been drawn to show how widely prices could fluctuate over a relatively few months. In 1771 the price

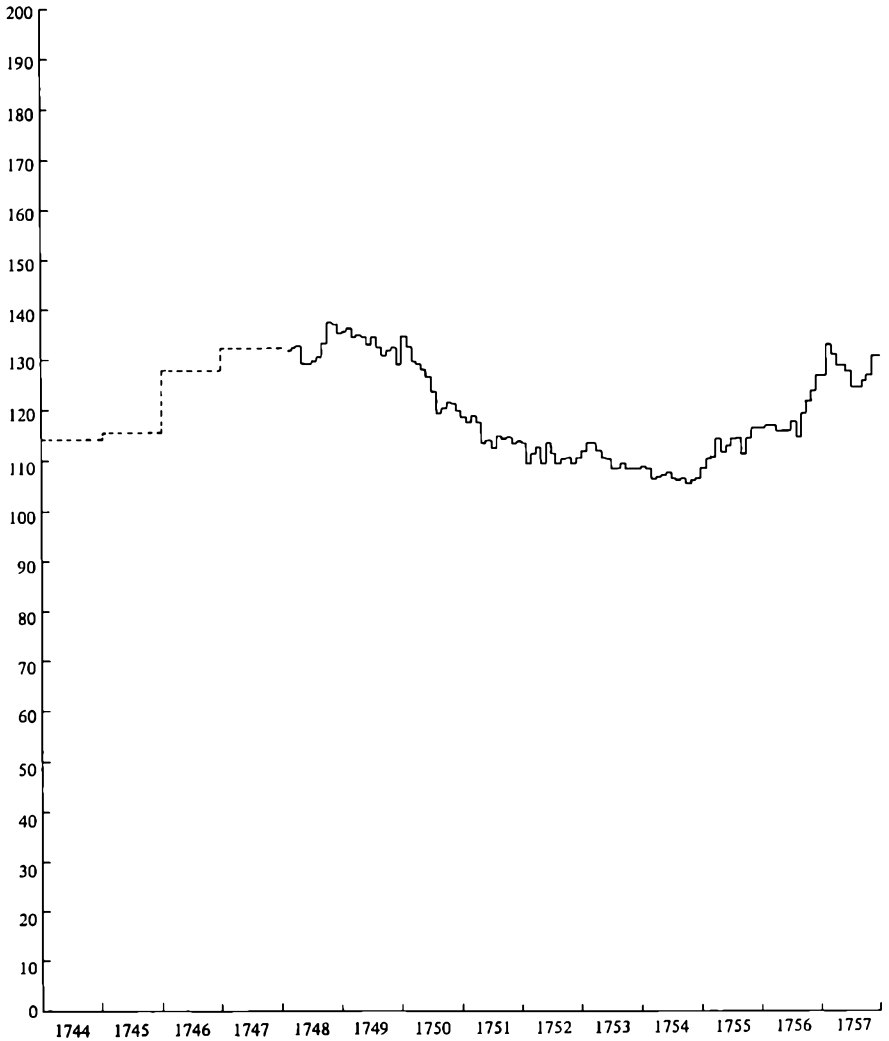
13. Kristof Glamann: Bryggeriets historie i Danmark, 1962, p. 180 f.

Fig. 11 (continued on pp. 72–75)



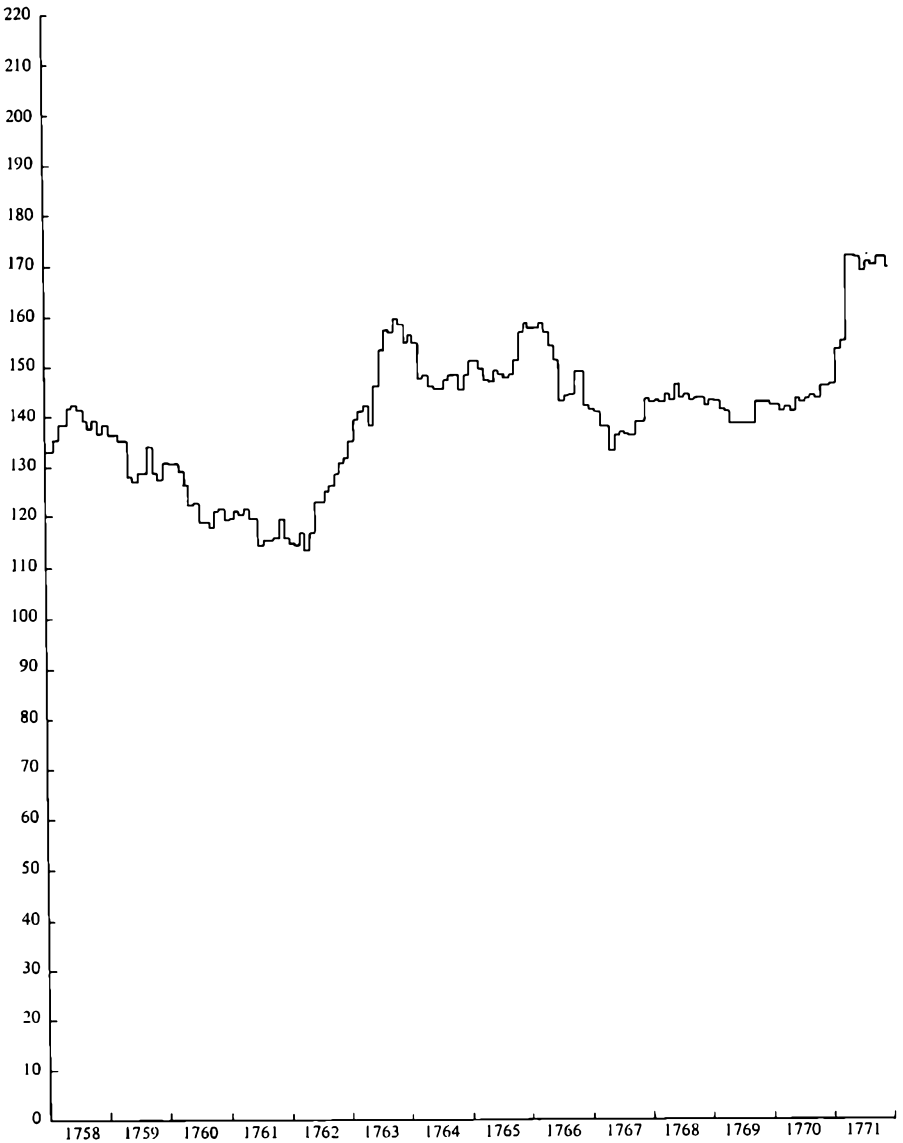
index rose from 145.8 to 170.7 between January and April. It is clear that in a price movement of this sort, a price index expresses what a particular budget will cost in a particular year but does not reveal anything about the sum actually expended upon consumption in that

Fig. 11 (continued)



year, since such a price movement necessarily brought in its wake a shift of consumption from animal to vegetable calories, as is demonstrated in the previous chapter in respect of 1771–72.

Fig. 11 (continued)



It is apparent from the figure that over and above the individual price fluctuations, the general trend is a rising one. For the inhabitants of 18th century Copenhagen, price fluctuations were certainly a far more

Fig. 11 (continued)

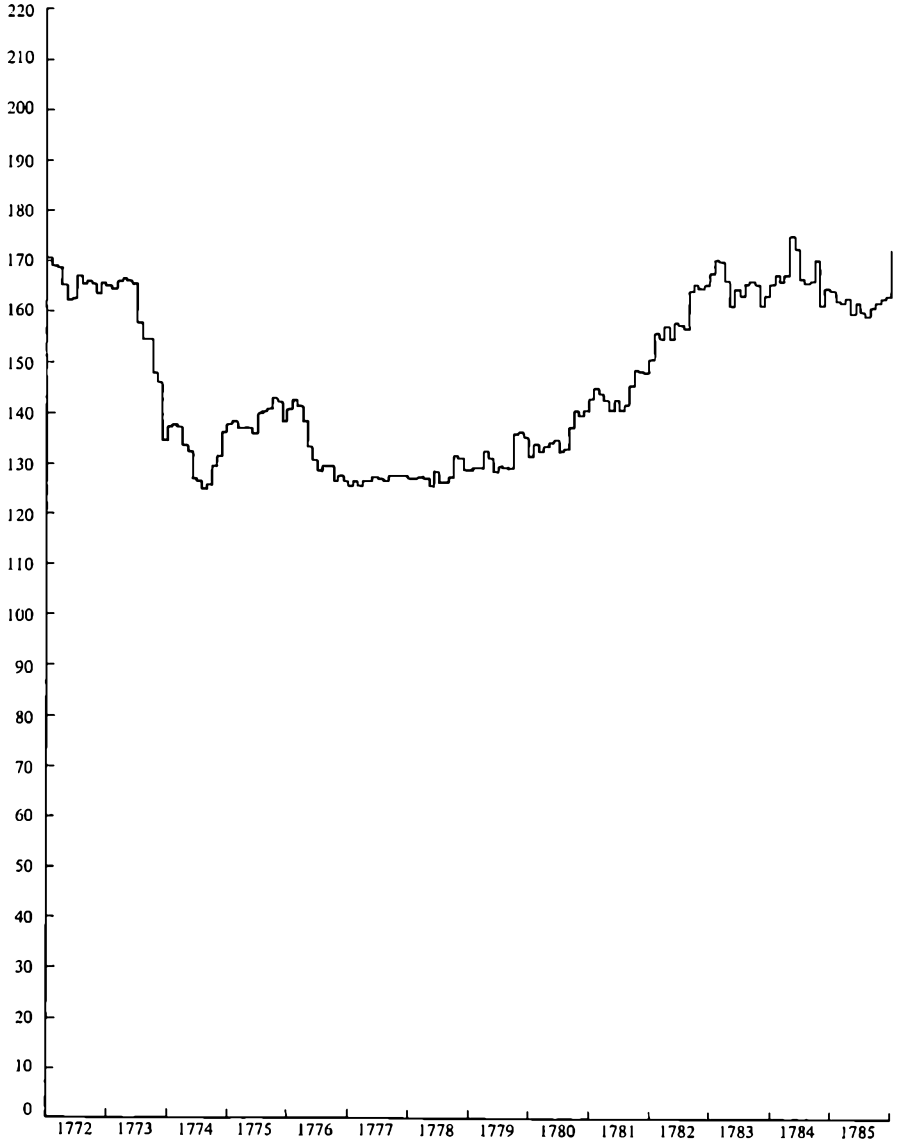
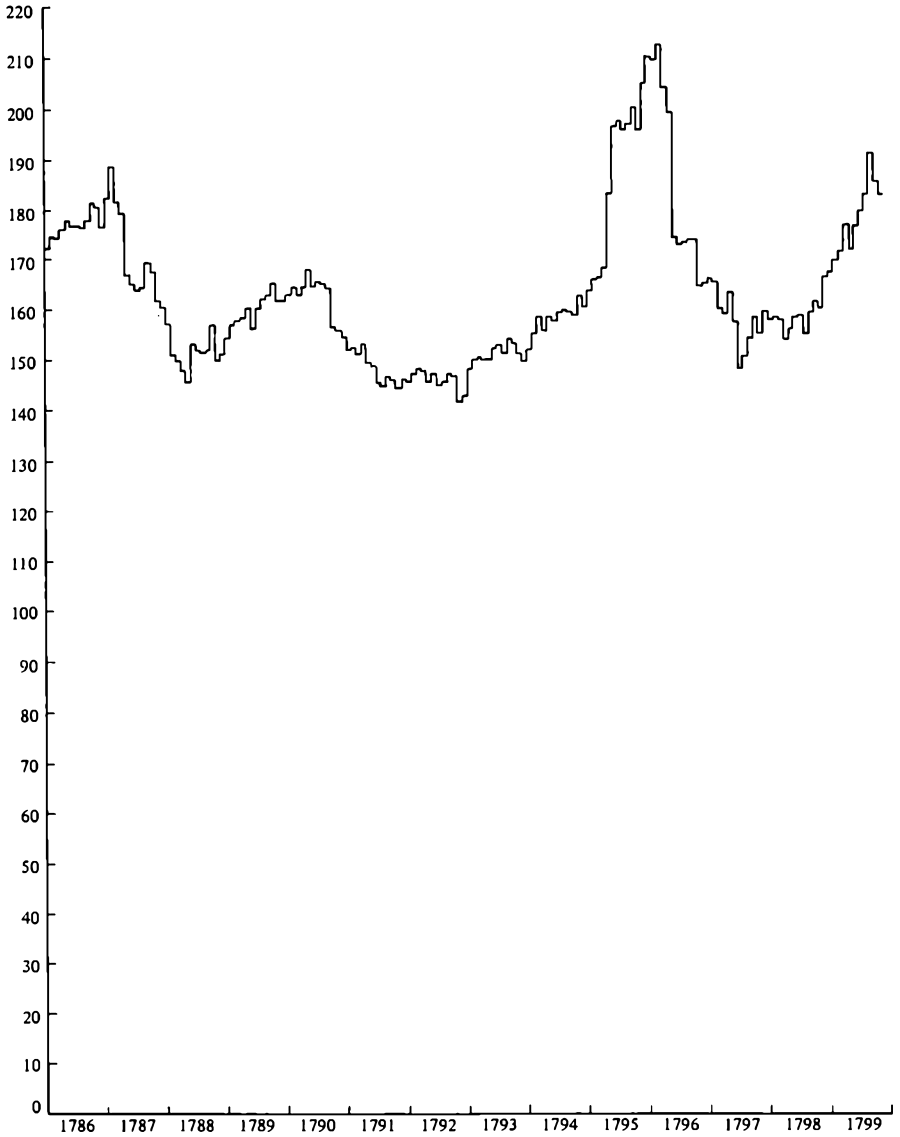
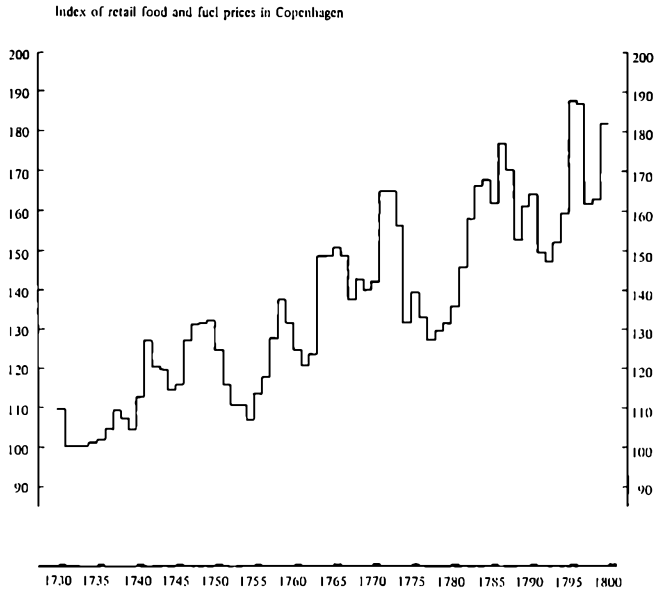


Fig. 11 (continued)



Source: C. F. page 62 ff

Fig. 12



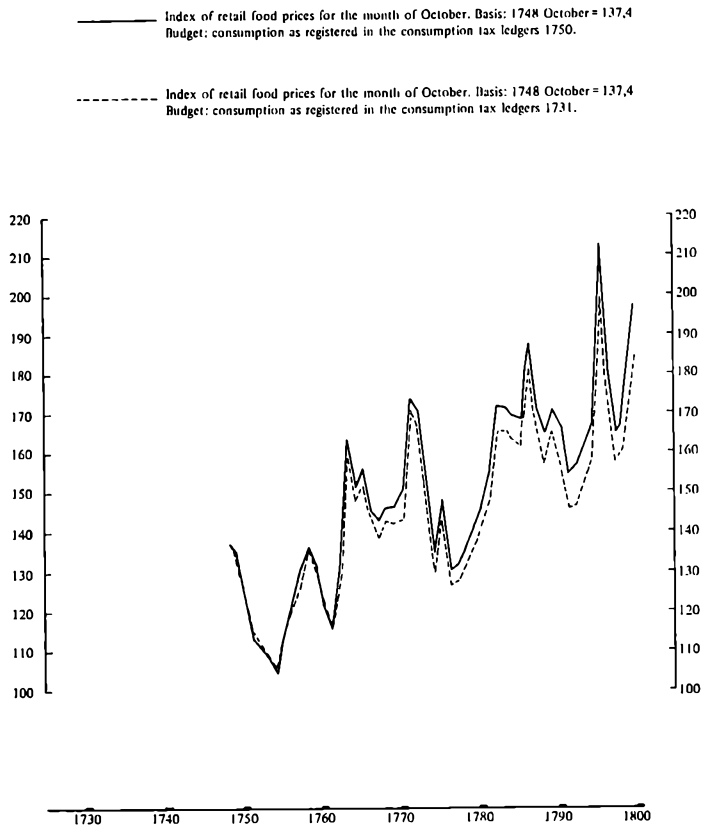
Source: Appendix 3.2

dominant phenomenon than the slowly rising long-term trend into which the fluctuations resolved themselves.

For the period 1760–69 there is a record of imports of wood-fuel into Copenhagen. This record is compiled in terms of fathoms and wagon-loads. If three loads are taken to equal one fathom, as Frederik Thaarup suggests [14]), this shows an average annual *per capita* fuel consumption for 1760–69 of 0.18 fathoms. Imports of peat figure in the consumption tax ledgers [15]), but as no continuous price-series for peat spanning the period 1730–1800 has come to light, one load of peat is reckoned as roughly equivalent to one load of wood-fuel since according to the Copenhagen market prices of 1759–1800, in which both kinds of fuel are recorded, the price of a load of peat was about the same as that of a load of wood-fuel [16]). If the average annual *per capita* imports of

14. Frederik Thaarup: Journal og Haandbog for Kjøbenhavnere, I, 1797, p. 346.
15. RA GenToldkamm: rev. regnsk.; København; Antegnelser, ekstrakter m. v. 1760–69.
16. Friis and Glamann: A History of Prices and Wages in Denmark 1660–1800, vol. I, 1958, p. 322 ff.

Fig. 13



Source: C. F. page 78

peat of 1760–69 are converted in accordance with this ratio and the one previously mentioned for the conversion of loads of wood-fuel to fathoms, the final result is an average annual *per capita* fuel consumption of 0.20 fathoms. As there are no continuous price-series for wood-fuel among the Copenhagen market prices, the purchase price of wood-fuel according to the Copenhagen municipal treasury ledgers is used instead. Appendix 3.03 shows the annual average of the price index computed in respect of the *per capita* consumption of food 1731, with an addition for the *per capita* consumption of fuel computed as described above. The movements of the two price indices are in essentials the same. The index

based on both food and fuel is shown in fig. 12. The figure rises from 100 in 1731 to about 182 in 1799, which may be regarded as quite a moderate inflation. However, it must constantly be remembered that the short time fluctuations are of such dimensions relative to the overall trend as to have had a crucial impact on living standards, and that it is therefore not enough to concentrate attention on the long-term trend alone.

With price fluctuations such as these, trends in consumption cannot be expected to proceed at an even pace, and the previous chapter has shown also that the ratio of animal to vegetable calories oscillated with the prices.

As a means of illustrating the trend pertaining to other patterns of consumption than that employed for 1731, a price index has been computed for the annual *per capita* pattern of consumption registered in the consumption tax ledgers of 1750 (cf. Appendix 3.1). In this pattern, the consumption of bread was larger and that of beef was smaller, on account of the cattle plague, the consumption of pork was about the same and the consumption of fish larger. This pattern of consumption is a cheaper one in absolute terms [17]), but the price movement for such a budget emerges as about the same as for budgets according to the consumption registered in the consumption tax ledgers for 1731. This is shown by fig. 13, which incorporates, firstly, the index price values for the month of October according to the budget of 1731 and, secondly, the index price values for the month of October according to the budget of 1750. The index for the budget of 1750 is so constructed that the value for October 1748 is made equal to that of October 1748 according to the budget of 1731. The movement of the two budgets when converted to indices is very similar.

17. E. g.:
October 1748 budget 1731 2353 *sk. per capita per annum*
budget 1750 2038 *sk. per capita per annum*
October 1749 budget 1731 2262 *sk. per capita per annum*
budget 1750 2004 *sk. per capita per annum*

8. The movements of wages 1730–1800

The movement of wages in certain occupations is described here. Selection of these occupations was influenced by the need for them to be of the sort either where the wages were paid entirely in cash or where payments in kind (victualling, accommodation, clothing etc.) were precisely defined. The following are the groups selected:

1. Workmen paid directly by the Copenhagen magistrates. Wages were paid wholly in cash.

2. Weavers at the Cotton Factory. Remuneration was in the form of piece-rate wages plus free accommodation.

3. Journeymen-carpenters and masons, mortar-men and hodmen. These journeymen did not live with the masters as in other crafts because of the very large number of journeymen in relation to masters [1]). The only known payment in kind to these workmen consisted of the journeymen-carpenter's traditional right to chippings—i. e., waste timber—which they used as fuel. Carpenters were repeatedly being forbidden to receive chippings, or chipping-money in lieu, but without any apparent effect [2]).

4. Naval seamen and artificers. A large proportion of the remuneration was in kind, but this was precisely defined.

The remuneration of workmen

The Copenhagen municipal treasury ledgers contain quite detailed information about the remuneration for workmen's labour. Work in sand- and gravel-pits, road-mending, drain-clearing, garden-work etc. – all these are mentioned [3]). The wages entered in the ledger probably do cor-

1. Cf. p. 22 and C. Nyrop: Kjøbenhavns Murer- og Stenhuggerlav, 1907, p. 167 and p. 231, and C. Nyrop: Kjøbenhavns Tømmerlav, 1887, p. 115 f.
2. C. Nyrop: Kjøbenhavns Tømmerlav, 1887, p. 95 and 146.
3. P. Københavns kæmnerregnskaber.

respond to what was paid out to the workmen, since it appears from the expenditure vouchers that the magistrates did not employ contractors but instead had their own factor of works, who superintended the operations and paid out the wages. Since both labour-wages and factor's fees are recorded in the expenditure vouchers, it may be presumed that the wages stated were paid to the workmen without any deduction [4]). The Copenhagen municipal treasury ledgers contain also records relating to the remuneration of masons' hodmen, but these consist of invoices from master masons, and the wages stated are presumably inclusive of the master's emolument. I have therefore kept them separate from the wage-records referred to above.

Appendix 4.01 indicate the number of days for which day-wages of 14 *sk.* are paid, the number of days for which 16 *sk.* are paid, and so on, as recorded in the surviving vouchers. It appears that for the major part of the epoch there were in practice only one or two wage rates and that these remained unaltered for long periods of time. It is not to be inferred from this that the annual wage was constant during those periods when wage rates were constant, firstly of course because of the problem of seasonal unemployment, which will be dealt with later, but secondly because there also were variations in the application of wage rates, bringing about variations of the annual wage of individual workmen. As a contribution to the destruction of the myth that wages remained totally unchanged for long periods in the 18th century [5]), the wages paid out according to the municipal treasury ledgers during the years 1730–1800 are specified precisely below:

1730: The vouchers have not survived.

1731–32: 16 *sk.* a day was paid throughout the year.

1733: 16 *sk.* was paid in spring and summer, but only 14 *sk.* from 18 October. There are also, however, isolated cases in the spring of 1733 where 14 *sk.* a day was paid.

1734: 14 *sk.* a day was paid as late as 4 April, but at least from May onwards 16 *sk.* a day was paid.

1735: The vouchers have not survived.

1736–49: 16 *sk.* a day was paid in both summer and winter, but only a very few working days can be checked from October to April.

1750: The normal day-wage in both summer and winter was 16 *sk.*

4. Cf. Kbh. Stadsarkiv, Bilag til Kæmnerregnskaberne, e. g., 1797.
5. Cf. e. g. Hans Chr. Johansen: Dansk økonomisk politik i årene efter 1784, vol. 1, p. 318, 1968.

a day, but some workmen received 20 *sk.* This appears from a note on the expenditure voucher: "On account of the heavy labour . . ., and the great amount of labour incurred by those building at Amalienborg Plads, 4 *sk.* daily was added for every man, in order that they should continue at the work."

1751: A number of workmen were paid 20 *sk.* in summer and 16 *sk.* in winter, while others received 16 *sk.* a day in both summer and winter.

1752: Some received 16 *sk.* throughout the year, while others received 20, 24, 28 or 32 *sk.* at least during part of the year.

1753: 24 *sk.* a day was paid in the summer period 1 April–28. September and 20 sk. a day before 31 March and after 1 October.

1754: Wage rates in general were similar to those of 1753, but some workmen received 20 *sk.* in both summer and winter.

1755–59: Some workmen received 24 *sk.* a day in April/May-September and 20 *sk.* in winter, while others got 20 *sk.* a day throughout the year. The respective durations of the summer and winter seasons could vary from one year to another. In 1756 the winter day-wage (20 *sk.* a day) was paid from 20 September onwards.

1760: No case can be discovered of 20 *sk.* a day being paid in the summer of this year. The summer day-wage for all workmen was 24 *sk.* and the winter wage was 20 *sk.* a day.

1761: Workmen on road-mending received 20 *sk.* a day throughout the year, while workmen at the gravel-pits had 24 *sk.* a day in the summer.

1762: Information is very sparse.

1763–71: 24 *sk.* a day was paid in the summer, i. e. April/May–September/October, and 20 *sk.* a day in the winter. However, workmen clearing drains received 20 *sk.* throughout the year in 1763–68.

1772: As for 1771, except that certain roadmenders received 24 *sk.* from October to December.

1773–78: As for 1763–71.

1779–80: As for 1763–71, but certain road-menders received 24–28 *sk.* a day from October to December.

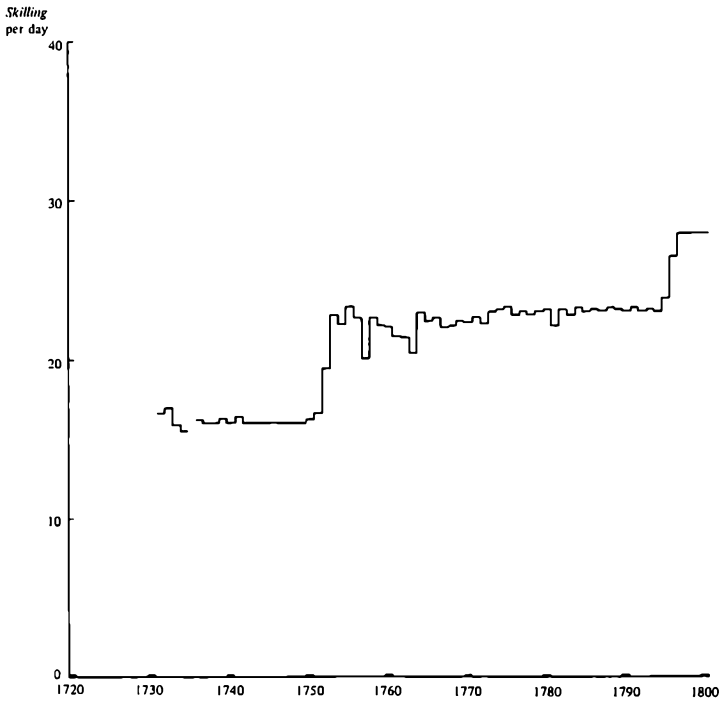
1781–94: All workmen received 20 *sk.* from October to March and 24 *sk.* from Aprii to September. This included workmen on drainage clearance.

1795: Up to 31 March all workmen received 20 *sk.* and thereafter 24 *sk.* a day, i. e. all received 24 *sk.* a day in the winter of 1795–96.

1796: 24 *sk.* a day was paid from 1 January to 31 March and from

Fig. 14

Day-wages of workmen, Copenhagen municipal treasury ledgers. Average of wages paid out.



Source: Appendix 4.02

1 October to 31 December; 28 *sk.* a day was paid from 1 April to 30 September.

1797: From 1 January to 30 December 28 *sk.* a day was paid in the sandpits.

1798–1800: Information is sparse.

From all this it is evident that while wage rates might be unaltered from year to year, there could nevertheless be changes in the periods to which the rates were applied and in the groups receiving the various rates. The figures in Appendix 4.01 have therefore been used as a basis from which to calculate annual averages of the day-wages paid in 1731–1800, cf. Appendix 4.02. It should be observed, however, that the basis of calculation for 1798–1800 is different from that for the rest of the

period as the wages for workmen in sandpits and on road-mending are missing for these years. The rise to 28 *sk.* a day, however, had already taken place by 1797, when these groups still do figure in the calculation (cf. Appendix 4.01). The figures from Appendix 4.02 are represented graphically in fig. 14.

Weavers at the Royal Chartered Cotton Manufactory

The Royal Chartered Cotton Manufactory (*Det Kongelige privilegerede Bomuldsmanufaktur*) came into being in 1779; its foundation was financed by the state. In 1782 the business was transferred to a private joint stock company, but in 1788 the state had to redeem the shares and take over the management. In 1795 the factory was sold to The Corporation of Silk and Cloth Dealers (*Silke- og Klædekræmmerlauget*). Books relating to the weavers at the cotton factory have survived for the period 1782–95. The men were paid on piece rates and recieved their wages about once a week. At intervals an accounting between the factory and the weavers would be drawn up but without any settlement taking place, since weavers as a rule owed money to the factory [6]). Appendix 4.03 show how much was paid out annually to ten different workmen from 1782–95; nine of these lived in the factory, and may therefore be presumed not to have had any real secondary occupation. It is possible, however, that one or more of the weavers may have been soldiers at the same time. The reason for deciding to set out here the amounts *per annum* paid out to the weavers rather than the amounts *per annum* that they earned, is that from the viewpoint of the standard of living it makes no difference whether money spent was borrowed or earned; the volume of consumption is the essential point.

There are certain cases where it appears from the labour journals that a journeyman did no weaving for several months, but it is possible that in this period he may have been transfered to some other department of the factory (cf. Appendix 4.03, Johan Lydig and Johan Chr. Jeninger). The nature of the archive material, however, is such that one cannot be certain of finding workmen recorded in other departments of the factory if they were on transfer there, so that the annual amounts stated may be too low in some instances.

6. P. Industrilønninger. The account that follows of the Cotton Manufactory and its labour force is based upon a manuscript prepared by Professor Kristof Glamann.

The ten weavers to whom appendix 4.03 relate are selected among those whose affairs can be followed over lenghtly periods in the ledgers. Probably, therefore, they are relatively skilled workers with whom we are dealing. Weight is lent to this by a letter from the Board of Trade (*Kommercekollegiet*) to the management of the Cotton Manufactory dated 8 February 1786, after the piece rate had been reduced. This declares that "a journey-man of moderate skill who works zealously can earn about 130–150 rix-dollars annually and in addition enjoy free lodging and bedding, free warmth during the hours of labour, exemption from the poll-tax (*kopskatten*) and free attendance in case of illness" [7]). Since the Board of Trade's figures are probably on the high side it is indicative of their proficiency that three of the ten weavers earned over 150 rix-dollars in 1787 and five others more than 120 rix-dollars, while one of the ten (Josef Lydig) stopped weaving during that year and so cannot be counted.

Figs. 15 and 16 have been produced from Appendix 4.03. Data on the amounts that the workmen were paid in 1782 relate only to the latter part of the year; therefore, in order to make the 1782 amounts comparable with those of 1783, a calculation has been made of how much the workmen would have earned in 1782 had they received the same amount per week during that part of the year for which information is lacking as during that part for which records exist. This is shown by dotted lines in fig. 15. In considering these diagrams it must also be kept clearly in mind that a workman's first and last year at the factory would normally not be complete calendar years. It is apparent from the diagrams that the amounts earned by most workmen were greatest in 1784 or 1785 and fell off thereafter.

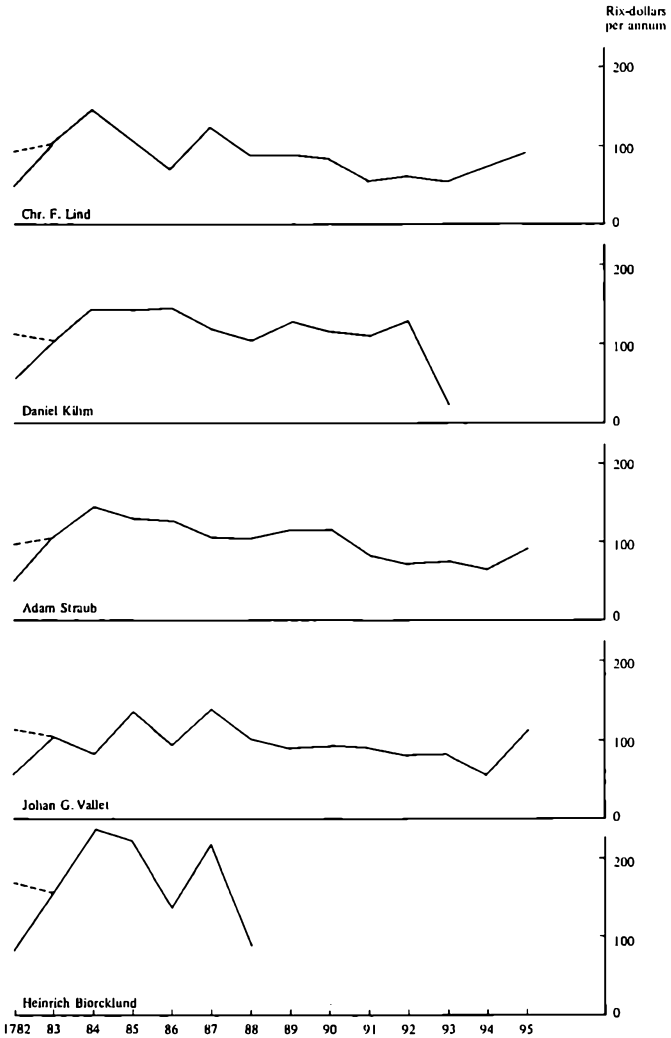
Wages of building artisans and their labourers

In the Copenhagen municipal treasury ledgers, the Copenhagen ecclesiastical ledgers (*københavnske kirkeregnskaber*) and the Copenhagen probate records (*københavnske skifter*), there is a large mass of data on the wages of journeymen-carpenters, journeymen-masons, mortar-men and hodmen [8]). In nearly all cases these wage-data occur in the form of invoices from master craftsmen for labour services rendered, which means that the day-wages stated consist of the amount paid out to the

7. Cf. p. 83, note 6.
8. P. Københavnske kæmnerregnskaber, Københavnske kirkeregnskaber and Københavnske skifter.

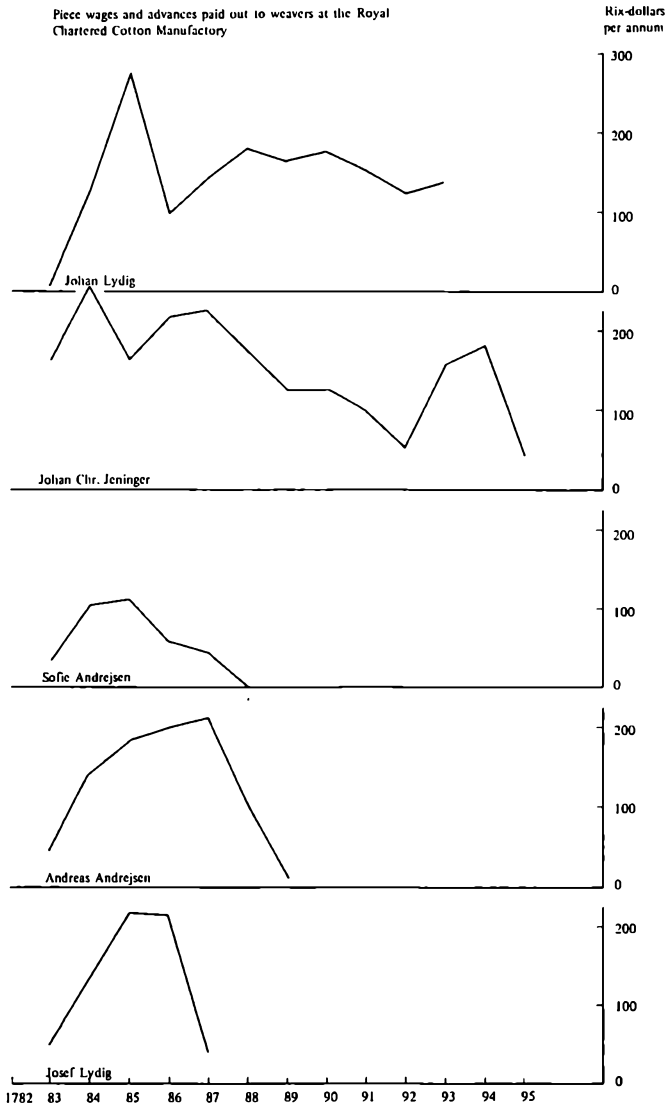
Fig. 15

Piece wages and advances paid out to weavers at the Royal Chartered Cotton Manufactory.



Source: Appendix 4.03

Fig. 16



Source: Appendix 4.03

workman plus the master's emolument. In the Copenhagen probate records is a series of data on true wages in the form of settlements of contracts between one or more journeymen and a deceased master's estate or between a master and a deceased journeyman's estate.

For part of the period under review, the true wage of hodmen and mortar-men inclusive of master's emolument was the same in both summer and winter, but at other times the wage rate differed between the two seasons; for carpenters and masons throughout the period, the day-wage varied from summer to winter, but the duration of the winter season was not the same for both. Therefore it is not possible simply to compare the summer day-wage or the winter day-wage of the different categories of building worker. Instead, the fiction has been devised that all were in employment throughout the year, and on this basis an average day-wage has been calculated for each year having regard to the level of summer and winter wages and the duration of the winter period. Even though this is a fiction there will nevertheless have been a quite large *difference* in winter unemployment for the above-mentioned groups, before the average day-wages are shifted substantially in relation to one another.

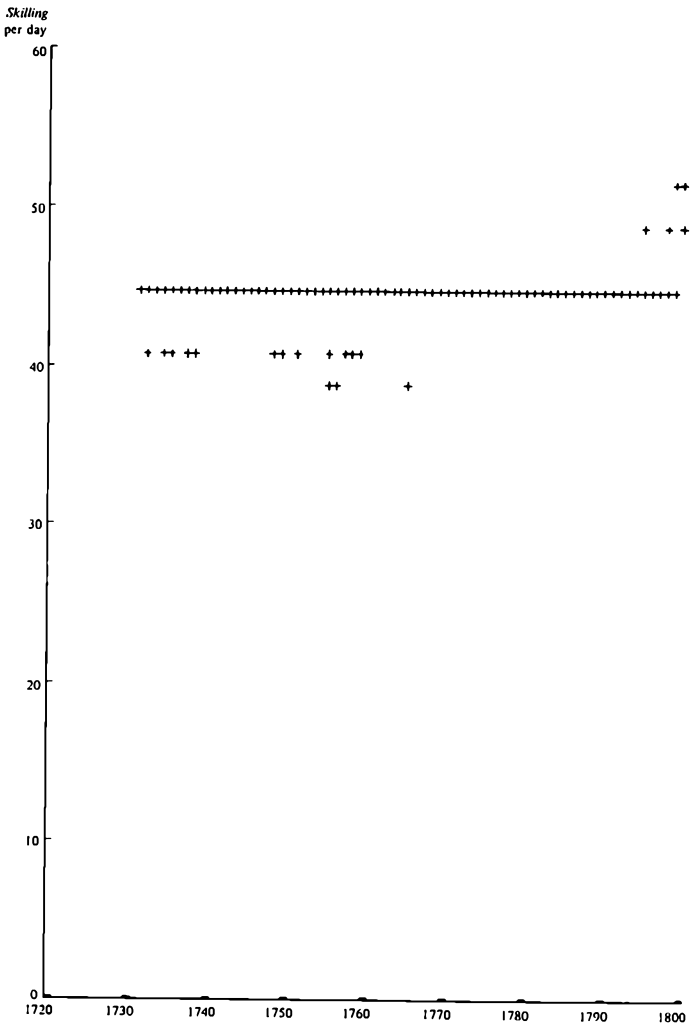
Journeymen-carpenters

Fig. 17 shows the average day-wage, including the masters emolument, for journeymen-carpenters according to the Copenhagen municipal treasury ledgers and the ledgers of the three Copenhagen churches: *St. Petri, Garnisons* and *Frederiks tyske Kirke* [9]). Throughout the period under review journeymen-carpenters generally received summer day-wages from 22 February to 29 September and winter day-wages from 30 September to 21 February. Certain instances can be cited, however, where these dates were overstepped by some days in one or the other direction. The existence of a summer day-wage, inclusive of master's emolument, of 48 *sk.* and a winter one of 40 *sk.* has been ascertained in every year from 1731 to 1799; this is represented in the figure by the horizontal line. However, this rate of remuneration was not the only one in force: in 1755, for example, three levels are found for carpenter's day-wages plus master's emolument, viz. 32 *sk.* in winter and 40 *sk.* in summer, 36 *sk.* in winter and 44 *sk.* in summer, and 40 *sk.* in winter and 48 *sk.* in summer. These are represented by the three average day-

9. P. Frederiks tyske Kirke is the present Christians Kirke at Christianshavn.

Fig. 17

Journeymen-carpenters, average day-wage inclusive of master's remuneration according to the Copenhagen municipal treasury ledgers and the Copenhagen church ledgers.



Source: P

wage rates for 1755 shown in fig. 17. The latter figure reveals that day-wages inclusive of master's emolument below 48 *sk.* in summer and 40 *sk.* in winter are only to be found before 1770; that inclusive wage-rates above 48 *sk.* in summer and 40 *sk.* in winter appear for the first time

in 1795; and that a peak was reached in 1796, when reconstruction following the fire of 1795 had got well under way. In 1796, however, 48–40 *sk.* was regurlarly understood to be the normal day-wage even if the wage plus master's emolument had by then risen. Thus, master carpenter Wahl was paid 48 *sk.* a day in summer and 40 *sk.* in winter for work at *Frederiks tyske Kirke* in 1796—but with the proviso that every working day should count as a day and a half [10]). This is tantamount to an increase of 50 %, even though the 48–40 *sk.* system was formally maintained. However, there were also cases in 1796 where masters apparently received only 48 *sk.* per working day in summer and 40 *sk.* in winter.

In assembling these wage data no account has been taken of piece wages, as they are incapable of comparison in practical terms.

Information about journeymen's wages—i. e., that proportion of the gross remuneration received by journeymen—is limited. The Copenhagen probate records show that in 1756–57, J. P. Wisborg's journeymen received 32 *sk.* for their labour in summer and 24 *sk.* in winter [11]). If the master invoiced 48 and 40 *sk.* respectively, this represents a master's emolument of 16 *sk.* a day. This agrees with what is shown in two probated estates of 1789 and 1795 [12]). However, it would be unsafe exclusively on this basis to regard 16 *sk.* as the normal master's emolument for carpentry work.

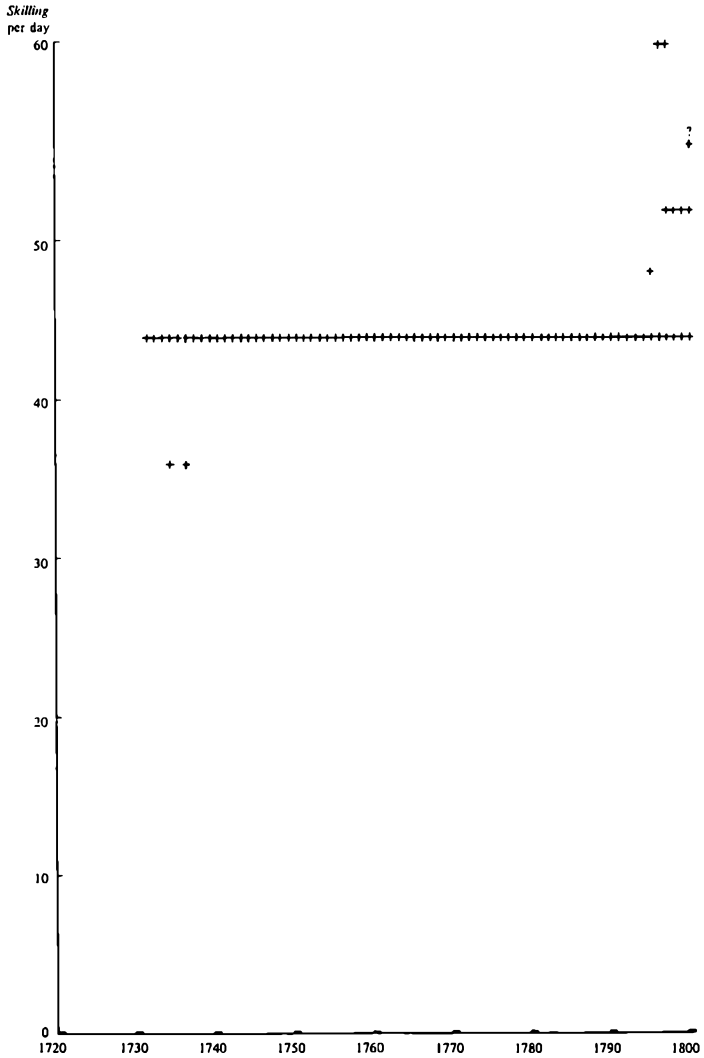
Journeymen-masons

Fig. 18 shows the average day-wage, inclusive of master's emolument, of journeymen-masons. The sources are the same as for journeymen-carpenters. Throughout the period under review, journeymen-masons received summer day-wages from Easter until 29 September [13]). In computing the average day-wage fot the individual years, no account is taken of the movement of the Easter date; instead, the mean Easter position is used in each year's calculation. It is also the case, that in those years when Easter fell late, there are instances of summer wages being paid one or more weeks before Easter, while in some of the years

10. P. Københavns kirkeregnskaber, Frederiks tyske Kirke, 1796.
11. P. Københavnske skifter, tømrersvend, egentlig dagløn.
12. P. Edit Rasmussen's manuscript concerning journeymen's wages and master's emoluments, dated 1949.
13. The dates have been ascertained from a scrutiny of P. Københavns kæmnerregnskaber and P. Københavnske kirkeregnskaber, cf. C. Nyrop: Kjøbenhavns Tømmerlav (sic!), 1887, p. 165.

Fig. 18

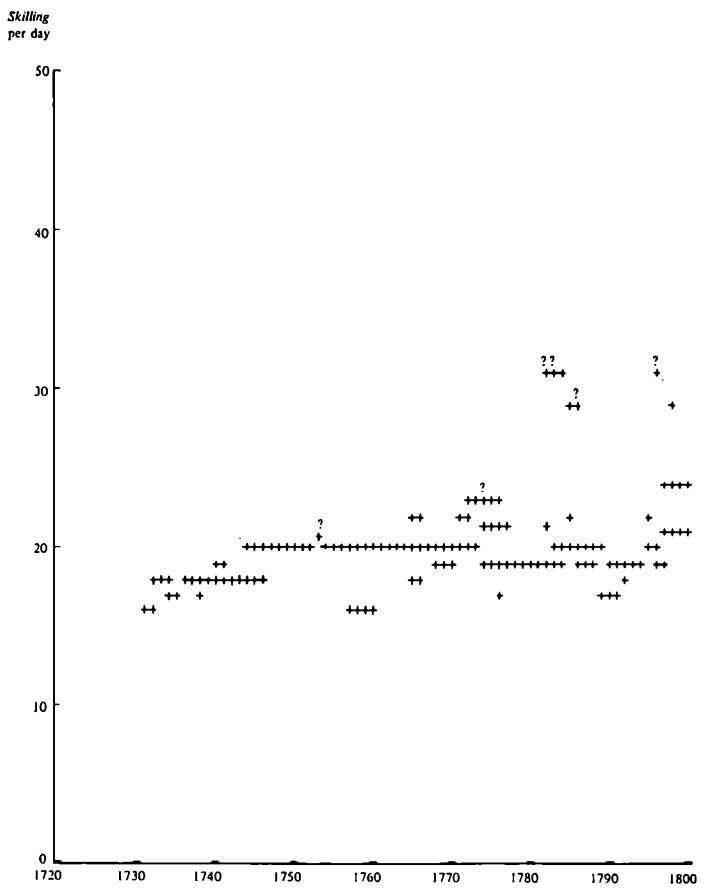
Journeymen-masons, average day-wages inclusive of master's remuneration according to the Copenhagen munipal treasury ledgers and the Copenhagen church ledgers.



Source: P

Fig. 19

Hodmen, average day-wages inclusive of master's remuneration according to the Copenhagen municipal treasury ledgers and the Copenhagen church ledgers



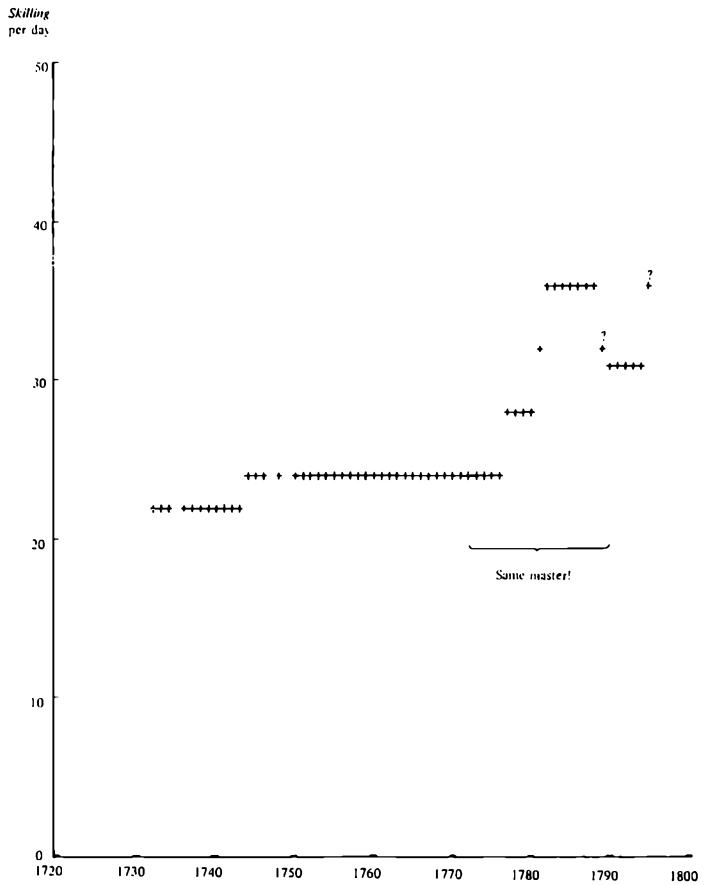
Source: P

when Easter fell early, on the other hand, winter wages would continue for a time after Easter. The general rule, however, is that Easter marks the changeover from winter to summer day-wages.

As with journeymen-carpenters, the most common summer and winter day-wages for journeymen-masons, inclusive of master's emolument, were 48 and 40 *sk.* respectively. At the beginning of the period, however, there were occasional instances of lower wages and after 1795

Fig. 20

Mortar-men, average day-wages including master's remuneration according to the Copenhagen municipal treasury ledgers and the Copenhagen church ledgers.



Source: P

a number of higher. The true journeyman-wage is revealed in nine estates probated during the period 1759–1801. In all these cases 40 *sk.* is paid in summer and 32 in winter [14]). Since in all likelihood the corresponding wage inclusive of masters emolument was 48 and 40 *sk.*, this produces a master's emolument of only 8 *sk.* a day, or half the

14. P. Københavnske skifter, murersvend, egentlig svendeløn.

estimated master's emolument for carpentry work, even though day-wages inclusive of master's emolument were similar in the two trades. It must be stressed, however, that the material used to determine the true day-wages of journeymen-carpenters is exeedingly meagre.

Hodmen and mortar-men

Figs. 19 and 20 show the average day-wages, inclusive of master's emolument, of mason's hodmen and mortar-men. It is apparent that different wage levels for hodmen, inclusive of master's emolument, could prevail simultaneously. This is attributable to variations in wages-plus-emoluments as between one master and another. Therefore no conclusions can be drawn from any of the changes year to year in fig. 19, since they are often only due to the figures having originated from different masters. However, the values in fig. 19 show a generally rising curve.

Mortar-men's wages inclusive of master's emolument (fig. 20) exhibit the widest variations of all the wage rates here discussed. The curve starts at a level a little higher than the rates for hodmen but thereafter rises much more steeply, Moreover, the figures for 1773–1789, when the widest variations occur, all originate from the same master, so that there is no possibility of the changes being due to different masters charging different prices. Neither for hodmen nor for mortar-men has any material been found to shed light on the topic of true day-wages and master's emoluments.

Figs. 17–20 have been drawn on the same scale for purposes of comparison, although this has resulted in figs. 17–18 presenting a less effective appearance.

Unemployment and annual wages

On any labour market, unemployment is normally understood as consisting of three types:

1. Seasonal unemployment, determined by the weather or by seasonal market fluctuations;
2. Cyclical unemployment, determined by fluctuations in general economic activity;
3. Technological unemployment, determined by changed production methods.

This distinction between different kinds of unemployment is of significance in any critical evaluation of the unemployment situation in 18th

century Copenhagen, since it is necessary to discriminate between seasonal unemployment and the two other types.

In the Copenhagen municipal treasury ledgers for the period 1731–89, only one summer day-wage for building labour, inclusive of master's emolument, is to be found in the invoices of master masons: 48 *sk.* and only one winter day-wage, inclusive of master's emolument: 40 *sk.* Therefore, in the limited number of cases where the season of work is not stated unequivocally, all the days of 48 *sk.* can be classed as summer days and all those at 40 *sk.* as winter days. When the respective numbers of summer and winter days are grouped by decades, the following is the result[15]):

1731–39	520¾	summer days
	337	winter days
1740–49	744¼	summer days
	303½	winter days
1750–59	780	summer days
	402½	winter days
1760–69	538½	summer days
	316½	winter days
1770–79	2,172¾	summer days
	1,084½	winter days
1780–89	5,178¾	summer days
	1,801	winter days

Since journeymen-masons received summer wages from Easter to Michaelmas (29/9) [16]), full employment in summer and winter would bring an average ratio of 1:1.04 between the numbers of summer and winter days. Calculation of the ratios between the numbers of summer and winter days in the above examples produces the following:

1731–39	1 : 0.65
1740–49	1 : 0.41
1750–59	1 : 0.52
1760–69	1 : 0.59
1770–79	1 : 0.50
1780–89	1 : 0.35

The average of these six ratios is 1:0.48.

15. Basis of calculation: P: Københavns kæmnerregnskaber.
16. Cf. p. 89.

It follows that if the building work paid for from the Copenhagen municipal treasury was distributed over the year in the same way as building work generally in Copenhagen, then journeymen-masons had employment on only about half as many winter days as summer days; and since the year contained nearly as many summer days as winter days, this means that if it was customary for journeymen-masons to have work during the whole summer half-year, equally it was customary for them to be without employment for about half the winter half-year.

If the number of possible working days in the year is reckoned at 300 [17]), and if it is assumed that a journeyman-mason was out of work on half the winter days, then a summer day-wage excluding master's emolument of 40 *sk.* and a winter day-wage excluding master's emolument of 32 *sk.* would give an annual wage of 87½ rix-dollars.

A similar calculation applied to the Copenhagen municipal treasury ledgers in respect of summer and winter day-wages paid out for carpentry work gives [18]):

	Summer days	Winter days	Summer days : winter days
1731–39	1,735¼	736	1 : 0.42
1740–49	2,515½	1,088½	1 : 0.43
1750–59	2,733½	1,340	1 : 0.49
1760–69	3,186½	1,705	1 : 0.54
1770–79	2,860	1,291	1 : 0.45
1780–89	7,176½	2,033½	1 : 0.28

The average of the six ratios is 1:0.42. For carpenters, the summer period lasted from 22/2 to 29/9 [19]). Employment all the year round would give a ratio between summer and winter days of 1:0.72. Thus the figures cited above are indicative of winter unemployment. A calculation based on the suppositions that the ratio of employed summer days to employed winter days in the municipal treasury ledgers was of general application and that journeymen-carpenters had employment throughout the summer season suggests that journeymen-carpenters were employed on 82 % of the working days of the year. It is less probable, however,

17. 365 days less Sundays and Holy-days. The number of working days for the carpenters of the navy was 295 per annum until 1784 and 304 thereafter. Sources as for Appendix 4.12.
18. Basis of calculation: P. Københavns kæmnerregnskaber.
19. Cf. p. 87.

that this suppositions applied to carpenters than to masons, since the summer season for carpenters was from 22 February to 29 September, as stated above, while for masons it was from Easter to 29 September.

Thus, the conclusion to be drawn from these studies of the summer and winter employment figures in the Copenhagen municipal treasury ledgers is that if these figures are representative, journeymen-masons were employed on not more than 75% of the working days of the year and journeymen-carpenters on not more than 82 %, but that the former figure is more probably accurate than the latter.

It is clear that from figure-series such as those above no conclusions can be drawn about cyclical or technological unemployment, since the business activities of the municipal authorities will not necessarily have fluctuated in harmony with general business activity in the city.

Where workmen appointed under the Magistrates are concerned, it is possible for certain years to see the variation in the numbers employed month by month. In 1797, for example, it can be seen how the number of employees in the Copenhagen Magistates' sandpit was substantially lowered in the winter [20]). If it be assumed that workmen in Copenhagen were employed on 3/4 of the 300 working days of the year at the average day-wage paid to workmen under the municipal authorities, then an annual wage is arrived at amounting in 1731–52 to about 38 rix-dollars, in 1753–95 to about 50–55 rix-dollars, in 1796 to about 62 rix-dollars and in 1797–1800 to about $65^1/_2$ rix-dollars.

Wages of naval seamen and artificers

The navy seems to have been the largest employer of labour in Copenhagen in the 18th century. Naval artificers, like seamen, were enlisted on contract for several years, so that there was no question of seasonal lay-offs. However, the manning strength could be modified substantially from one year to another by either recruiting new seamen and artificers or refraining from renewing the contracts of the old. It has not been possible to ascertain the manning strengths with complete accuracy, since the numbers shown in the pay regulations are only budget figures. But for some years it is possible to discover the numbers of shore rations month by month and thereby form a good idea of the manning strength. Of the artificers, something under a hundred smiths and quartermasters

20. Københavns Stadsarkiv. Bilag til kæmnerregnskaberne 1797–99.

received $1^1/_2$ rations, the rest receiving only 1 ration [21]). This means that, generally speaking, an increase from 1,500 to 1,800 rations reflected an expansion of the labour force by 300 men.

At certain times there were quite large changes in the numbers of artificers on strength. From 1757 to 1758 the number of shore rations rose from about 1,200 to about 1,500, corresponding to an increase from about 1,100 to about 1,400 artificers. Between 1770 and 1772, shore rations went up from about 1,500 to about 1,950, which means an increase of about 450 in the number of artificers. However, it is problematical how far such new recruiting took place in Copenhagen and therefore how far it affected the Copenhagen labour market. But there can be little doubt that when the number of artificers was reduced in 1774–75 by about 400 men, the strain must have been taken by the Copenhagen labour market in the first instance [22]).

The unemployment described here is nearest to the cyclical in its form, though the conditioning factors are political, not economic.

It is possible to make a comparison between the above-calculated annual wages of journeymen-masons and the pay of naval personnel in the 1780s. If the value of the shore ration is assumed to equal the average of the cost to the navy of a shore ration in 1783–89 [23]) and clothing and quartering or quartering-money are regarded as equal to the budget value [24]), the following table is produced:

	Carpenter 1st Class	Carpenter 7th Class	Seaman
Yearly pay	15 : 80 rd.	15 : 80 rd.	15 : 80 rd.
Clothing	3 : 00 rd.	3 : 00 rd.	3 : 00 rd.
Quartering	4 : 00 rd.	4 : 00 rd.	4 : 00 rd.
Rations	37 : 38 rd.	37 : 38 rd.	37 : 38 rd.
Day-wages	54 : 20 rd.	22 : 16 rd.	0 : 00 rd.
Total per annum	114 : 42 rd.	82 : 38 rd.	60 : 22 rd.

21. The sources for this are the same as the sources for Appendix 4.12.
22. Sources:
    1747–59: RA, Søetaten: Bogholderkontoret, Søetatens hovedbøger 1747–59. The relevant data are in the malt-money ledgers. Since 50 *sk.* per man per month was expended on shore rations, the number of shore rations can be worked out from the malt-money ledgers.
    1760–84: Håndværksstokkens mønsterskriverkontor, provianteringsbøger 1760–84.
    1784–94: 3. Departement, udgiftsbog over landkost 1784–94.
23. RA Søetaten: Bogholderkontoret; Betalingsreglementer 1784–90.
24. Cf. Appendix 4.11–4.12 and sources thereto.

9. The movement of real wages 1730–1800

By correlating the retail price index computed in Chapter 7 with the movement of wages as described in Chapter 8, the movement of real wages in the various occupations will be revealed. Since the movement of wages in the various occupations was not uniform, no conclusions can be drawn os to any dominant trend of wage-earners' real remuneration in 1730–1800.

Fig. 21 shows the average day-wage of workmen according to the Copenhagen municipal treasury ledgers and the retail index-figure for food and fuel with the budget of 1731 (average of 1760–69 in the case of fuel). Fig. 22 shows the curve for real wages computed on the same basis.

It is apparent from this that real wages were about the same at the end of the period as at the beginning, but that in the interval there were substantial fluctuations.

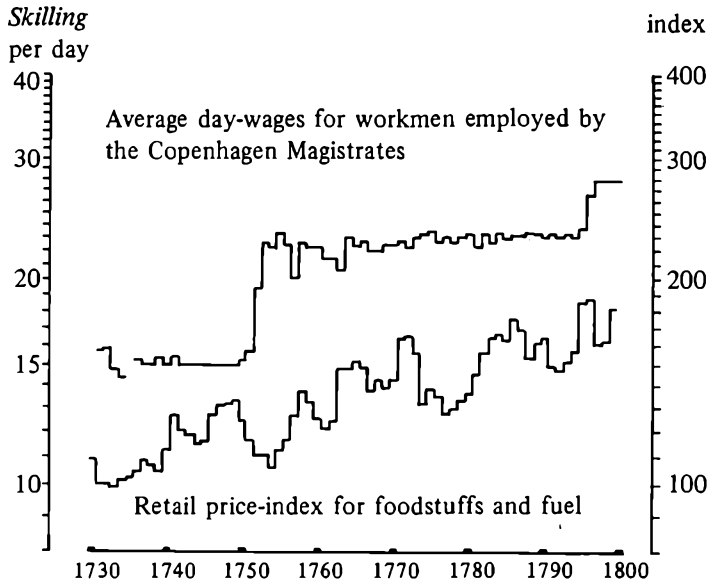
This conclusion emerge from a comparison between day-wages and the index-figure. If the yearly wage did not move proportionately to day-wages, i. e. if seasonal unemployment changed during the period, then naturally the conclusions have no validity.

The yearly wage of the weavers at the Cotton Manufactory whose remuneration has been studied fell on an average by about a half between 1784–85 and the beginning of the 1790s [1]). At the same time the index-figure declined from about 180 to about 155, a fall of about 15 %. Thus a substantial reduction of real wages was involved.

Assuming that the yearly wage of journeymen-carpenters and journeymen-masons moved in proportion to the day-wage inclusive of master's remuneration, a real-wage curve for these occupations would be broadly reciprocal to the index-figure curve, which is to say that real wages were

1. Cf. figs. 15–16.

Fig. 21



Sources: Appendix 4.02

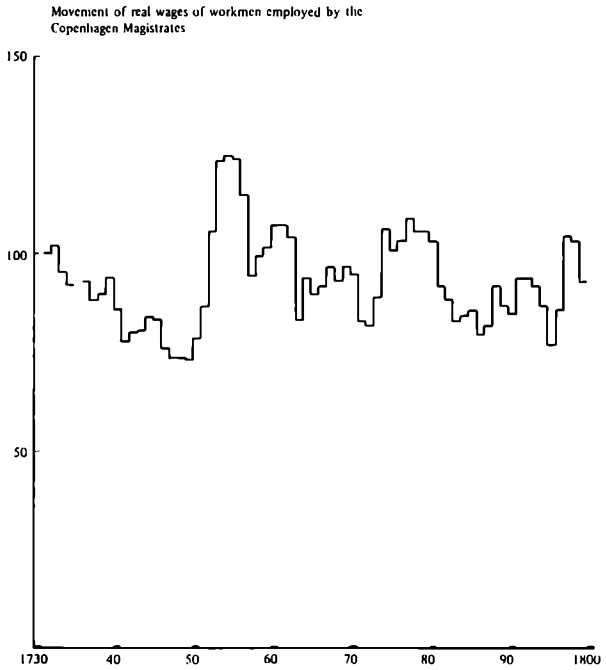
substantially reduced [2]). However, the increase in day-wages inclusive of master's remuneration in the final five-year period of the century seems to imply that part of the loss of real wages was recovered, though only a part.

Working on the same assumption that the yearly wage moved proportionately to the day-wage including master's emolument, the real wages of mortar-men were at the same level in 1780 as at the beginning of the period, while in the last half of the 1740s, in the 1760s and in the first half of the 1770s they were substantially lower [3]).

The movement of hodmen's day-wages including master's emolument according to the Copenhagen church ledgers and the Copenhagen municipal treasury ledgers suggests that wages did not rise as much for hodmen as they did for workmen engaged by the Copenhagen Magistra-

2. Cf. Figs. 17–18.
3. Cf. fig. 20.

Fig. 22



Source: Appendix 4.02

tes [4]). Furthermore, it is difficult to ascertain the points in time when the hodmen's wages were raised. At the beginning of the period, workmen engaged by the Copenhagen Magistrates received 16 *sk.* a day, while the general day-wage of hodmen, inclusive of master's emolument was 18 *sk.* By the end of the period workmen under the Magistrates were getting 28 *sk.* a day, but the general day-wage of hodmen inclusive of master's emolument was 24 *sk.* Thus, while the real wage of workmen engaged by the Magistrates was at about the same level at the beginning and end of the period, the real wage of hodmen had declined by the end of the period, assuming of course that the level of employment of hodmen had not risen during the period.

Thus the trend of real wages through the period among the categories examined in this study was not identical. However, it is essential to

4. Cf. figs. 14 and 19.

remember that artisans in the building trades, whose real wages appear to have fallen appreciably during the period, were considerably better paid at the beginning of the period than were those workmen whose real wages viewed over the period as a whole maintained their level.

For the first half of the 1790s it is possible to compare estimated yearly wages with rents and food prices, so forming some idea of the overall budget of families of the artisan and labouring classes. After the fire of Copenhagen in 1795 a public debate arose about the level of rents that the lower orders of society could afford. Most of those taking part spoke of annual rents of 10–30 rix-dollars as being fair and reasonable [5]). Since the debate was born of the rise in rents after the fire, it may be presumed that what was then regarded as fair and reasonable corresponded to the level of rents before the fire.

As mentioned in Chapter 2, artisan and labouring class families had an average of 1–2 children living at home [6]). The following calculation has been made for a family with one child, the family's daily calorie intake being put at 7,200 kcal. The annual cost of obtaining this has been computed, firstly on the basis of the pattern of consumption from which the monthly price index [7]) is calculated (i. e. with 27.5 % of the calories derived from animal foodstuffs), and secondly assuming all of the 7,200 kcal. to be derived from rye bread, i. e. 0 % from animal foodstuffs [8]).

	Annual cost of 7,200 kcal.	
	With 27.5 % of the calorie-level derived from animal foodstuffs	With 0 % of the calorie-level derived from animal foodstuffs
1790	86 rix-dollars	45 rix-dollars
1791	79 rix-dollars	34 rix-dollars
1792	76 rix-dollars	35 rix-dollars
1793	80 rix-dollars	40 rix-dollars
1794	84 rix-dollars	41 rix-dollars
1795	99 rix-dollars	48 rix-dollars

5. Meddelelser fra foreningen til gamle bygningers bevarelse, ser. 8, vol. 2, 1958.
6. Cf. p. 24 ff.
7. Cf. p. 70.
8. The same price-series has been used as in computing the price-indices, cf. p. 63 ff.

In Chapter 8, the yearly wages in certain occupations are estimated. At the beginning of the 1790s yearly wages were:

Journeymen-masons	87½	rix-dollars
Workmen		
engaged by the Copenhagen municipal authorities	50–55	rix-dollars
Naval seamen	60	rix-dollars
Naval carpenters 7th class	82	rix-dollars
Naval carpenters 1st class	114	rix-dollars

If these yearly wages are viewed in context with yearly rents of 10–30 rix-dollars and the above-stated outlays on food, it can be seen that if families had no other income than the husband's wages, then in years when food prices were high they must have been compelled to resort to cheap calories, i. e. to bread, for a very large part of their food consumption. The same will have applied in any year to families with several children.

10. Living standards in Copenhagen evaluated from demographic data

Any use made of demographic data from 18th century Denmark is subject to two inescapable conditions: 1. Censuses of population are available only for the years 1769, 1787 and 1801 [1]). 2. Any count of births and deaths, whether contemporary or present-day, must base itself upon the church registers, which means that in reality it is a computation of baptisms and burials.

As stated on page 14 ff there is uncertainty as to the number of Copenhagen's inhabitants in the 18th century. The margin of error originating from the size of population enters into the calculation of *per capita* consumption in Chapter 6. Therefore all calculations into which the size of Copenhagen's population enters are excluded from the present chapter.

Use of the »proportional mortality indicator« or »p-indicator« in evaluating living standards in Copenhagen 1730–1800

In what follows, the term "proportional mortality indicator" or "p-indicator" is to be understood as meaning the relationship, expressed as a percentage, between the number of deaths at age fifty or over and the total number of deaths. In other words:

$$\text{p-indicator} = \frac{\text{number of deaths at age} \geqq 50 \text{ years} \times 100}{\text{total number of deaths}}$$

The theory of p-indicators is developed by S. Swaroop and K. Uemura of the WHO's Statistical Department. The following discussion of the ap-

1. On annual censuses of the population of Copenhagen, however, see p. 16.

plicability of p-indicators to the evaluation of living standards is very largely based on their investigations [2]).

As was mentioned in the introduction, a committee set up by the UN, the ILO, the UNESCO, the FAO and the WHO in 1954 issued a report on international definitions and methods of measurement of living standards [3]). This report adduced "Health, including demographic conditions" as living standard indicator no. 1. From this point of departure Swaroop and Uemura have tried to discover what form of statistics is most practicable for comparing living standards in different countries as defined by "Health, including demographic conditions".

Their study begins by assuming *ex cathedra* that the following countries, called Group A, have a high standard of life: Australia, Canada, Denmark, England and Wales, France, New Zealand, Norway, Sweden, Switzerland and the United States; while group B, consisting of Ceylon, Colombia, the Dominican Republic, Egypt, India, Malaya, Mexico, Peru, the Phillippines and Thailand, have a low standard of life. Group B of course had to be selected from among those under-developed countries with fairly comprehensive population statistics. The aim of the study was to discover what form or combination of forms of population statistics would discriminate most clearly between the two groups [4]). The crude death rate, the birth rate, the infant mortality rate and the life-expectation of persons of a certain age [5]), etc., were all studied. In addition, formulae were devised in which these factors were incorporated with different weights. However, the p-indicator described above turned out to give a clearer distinction between the A-group and the B-group than any othe form or combination of forms of population statistics, inasmuch as the highly developed countries had high p-indicator values while the less developed countries had low values.

If it is desired to utilise the p-indicator for assessing how the standard of living evolved over a period of time, it is necessary to understand what makes a p-indicator rise and what makes it fall, and what kind of defects and errors in the statistical data employed will affect the result.

A society's p-indicator at any given point in time is determined by its

2. S. Swaroop and K. Uemura: "Proportional mortality of 50 years and above". Bulletin of the World Health Organisation 17, 1957, pp. 439–481.
3. Report on international definition and measurement of standards and levels of living. UN sales number 1954. IV. 5.
4. The statistical technique used is described in Bulletin of the WHO 17, 1957, p. 474.
5. E. g., expectation of life at age 1.

age-distribution and by the death rates prevailing in the various age-groups. That is to say, a p-indicator expresses something about both the year for which it is calculated and the preceding period. It must be noted as well, however, that the same consideration applies for example to the birth rate and the crude death rate, which are also affected by the age-structure of the population.

Closer study of what the changes in an accurate p-indicator may signify will be delayed until the p-indicator computed for the parish of Helligånd, Copenhagen, in 1730–1800 is examined, though the extent to which errors in the statistical base-data used may produce an inaccurate p-indicator can be looked at here.

Three forms of error in statistics of the age-distribution of deceased persons will produce errors in the calculation of a p-indicator.

1. Ages of deceased persons incorrectly stated.
2. Inconsistency between different age-groups in the registration of deaths.
3. Ages of some deceased persons not stated.

Regarding No. 1: In an undeveloped society the correct age of a deceased person will often not be known, and a certain number of those under 50 will therefore be reported as being aged 50 or over, and vice versa. If the p-indicator is being computed for a sufficiently large population, these errors will cancel one another out, except when there is some special reason for the ages of the deceased being reported lower or higher than they actually were. 50 years seems to be an excellent age-boundary for dividing deceased persons into two groups, since there is no particular social prestige bound up with being 5–10 years older or younger than 50 years. If age 70 had been chosen as the boundary, for example, it could be assumed, that the number of those aged less than 70 reported as 70 or over would exceed the number aged 70 or over reported as less than 70.

Regarding No. 2: Inconsistency between age-groups in the registration of deaths normally arises in a primitive society because the under-registration of child deaths exceeds that of adult deaths.

In 18th century Denmark the opposite seems to have happened. It may be presumed that very nearly 100 % of deceased adults were buried by the church, their deaths thereby being registered. But the number of children buried by the church seems to have exceeded the number deceased in consequence of numerous stillborn infants being buried under church auspices.

If the p-indicator is computed from a count in the church registers themselves, all cases in which it is directly stated that the child was stillborn can be excluded. However, whenever an infant is buried without its name or age being recorded there will be doubt, for in such cases the entry in the church register can relate to the burial of either a stillborn or a live-born child. In the computations below of the p-indicator for Helligånd parish in 1730–1800, such doubtful cases are assigned to the live-born category. It would not in fact have made any vital difference if these doubtful cases had all been counted as stillbirths instead. In respect of the Helligånd parish p-indicator calculated for five-year periods, the question assumes its largest dimensions in 1775–79, when the assigning of all doubtful cases as liveborn gives a p-indicator of 33.15, while assigning them as stillborn gives 33.38. The disparity between the two results is thus only 0.7 %.

If instead of the church registers recourse is had to the reports of the ages of deceased persons that were kept from 1765 onwards for every *herred* [6]) in the diocese of Ribe and from 1775 for every diocese in Denmark, a considerably larger error in the resultant p-indicator must be accepted. These reports were produced by the number of deceased for the parish in each ten-year age-group being entered by the priest on a schedule circulated by the dean among all the priests of the *herred*. The completed schedule for all the *herreder* was then submitted by the dean to the bishop, in whose office a schedule was constructed with figures for every *herred* and a summary for the whole diocese. This schedule was submitted to *Kommercekollegiet* (the Board of Trade) [7]). A calculation for Århus diocese, Jutland, carried out by Henry F. Holm [8]) with the aid of the 1787 and 1801 population censuses and the reports of "births (i. e., baptisms) and "deaths' (i. e. burials) for the intervening period, discloses, when compared with other material in the same work [9]), that the numbers buried unbaptised [10]) in the diocese of Århus in 1787–1801 constituted on average 9.3 % of all burials.

With this average figure in mind, it could be not unreasonably presumed, that *that proportion* of unbaptised buried which consisted of stillborn infants constituted between 0 % and 15 % of the buried in

6. A *herred* is an administrative division approximating to the English hundred.
7. Source as for Appendix 5.17.
8. Aksel Lassen: Fald og Fremgang 1965, p. 415 f.
9. Aksel Lassen: Op. cit., p. 462 ff.
10. Henry F. Holm uses the incorrect term "stillborn" to describe all unbaptised burials.

every Danish diocese in every year between 1765 and 1800, the period for which computations have been made in the present study. If in computing the p-indicators from the reports, the stated margin of error of 15 % is applied, then the true p-indicator must lie between the value obtained by using the figures from the reports and 117.6 % of that value [11]). This means, for example, that if a computation based on the bishops' reports gives a figure of p = 30.00, then the true p-indicator must lie between 30.00 and 35.30.

Regarding No. 3: The margin of error arising from the lack of information about ages of some deceased is best illustrated by an example.

In a certain geographical locality 1,000 deaths occured in the period of computation. Of these, 300 were reported to be aged 50 or over and 600 were under 50 years of age. The ages of the remaining 100 were unknown.

If the group of unknown ages is ignored, then:

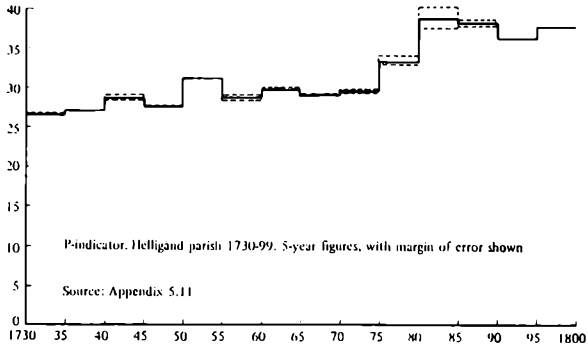
$$\text{p-indicator} = \frac{300 \times 100}{900} = 33.33$$

If it is assumed that all the 100 whose ages were unknown were in fact aged 50 or over, then:

$$\text{p-indicator} = \frac{400 \times 100}{1{,}000} = 40.00$$

11. This is shown by the following calculations:
Let a = the number of all burials according to the report and b = the number of burials of persons aged over 50.
Then where the burials include no stillborn infants
$p_1 = \frac{b \cdot 100}{a}$
And where the burials include 15 % of stillborn infants
$p_2 = \frac{b \cdot 100}{a - 0.15a}$
If $p_2 = p_1 + x \cdot p_1$
Then $\frac{b \cdot 100}{a - 0.15a} \quad \frac{b \cdot 100}{a} + x \cdot \frac{b \cdot 100}{a}$
$x = \frac{1}{1 - 0.15} - 1 = 0.176$ or
$p_2 = p_1 + \frac{17.6}{100} \cdot p_1 = \frac{117.6}{100} \cdot p_1$

Fig. 23



and if it is assumed that they were all under age 50 then:

$$\text{p-indicator} = \frac{300 \times 100}{1{,}000} = 30.00$$

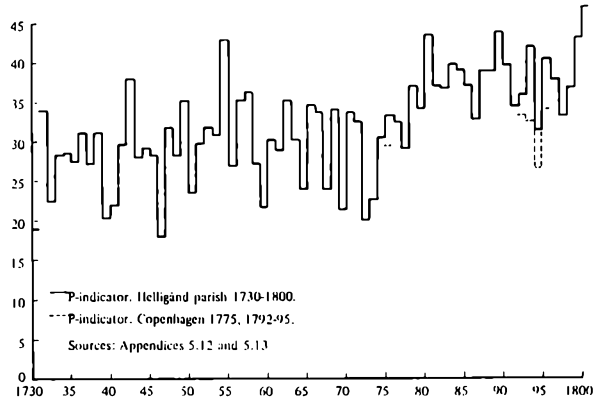
The true p-indicator must therefore be as follows:
$30.00 \leqq \text{p-indicator} \leqq 40.00$

This is a calculation of the maximum possible error. If it could be assumed that the age-distribution of the group whose ages were not known was the same as that of the other deceased, then the unknown-age group could be ignored without further ado. Examination of the church registers of Helligånd parish, however, discloses that the unknown-age group contained a disproportionately high number of adults. This the reason for making the calculation above.

Fig. 23 shows the p-indicator for Helligånd parish computed for 5-year periods. The dotted lines show the maximum margin of error arising from the possible inclusion of stillborn infants and from ages not being reported. The figures for the diagram are to be found in Appendix 5.11. The p-indicator for Helligånd parish computed for 5-year periods reveals a shallow rise from 1730–34 to 1770–74. Then there is a steep rise from 1770–74 to 1780–84, followed by a gentle decline from 1780–84 to 1795–99. The diagram shows the changes occurring during the period to be considerably larger than the margin of error.

Fig. 24 shows the p-indicator for Helligånd parish computed for individual years. The figures for this are to be found in Appendix 5.12. It

Fig. 24



is evident from the diagram that there could be very large variations between the individual years, and that the picture of a steady trend as suggested by the 5-year figures is somewhat misleading. The possibility cannot be excluded, however, that the broadness of these fluctuations owes something to the slenderness of the material.

Appendix 5.12 shows not only the p-indicator but also the absolute number of deaths in Helligånd parish. It is evident that if in any year this absolute figure of deaths was higher than in the preceding and succeeding years, then the year with the high number of deaths would normally also have a lower p-indicator, as for instance in 1750. Of course the absolute number of deaths does not tell us anything about the pattern of mortality in Helligånd parish during the period. Admittedly the boundaries of the parish did not change in 1730–1800, but the growth of Copenhagen's population unaccompanied by any growth in area must have brought an increased density of population in some parts of the city at least. Moreover, the absolute mortality figures for Helligånd parish are affected by the fact that in 1728 and 1795 the parish was fairly heavily hit by large fires, with temporary falls in the numbers of inhabitants as a result. Unless the fires and the consequent temporary movement away from the parish brought an alteration of the parish's social structure, the p-indicator would not be affected by changes in the number of inhabitants. It can be seen too that low absolute mortality in 1796–98 was not accompanied by a high p-indicator value but by a low one.

As well as the p-indicator for Helligånd parish, fig. 24 shows the p-indicator for all of Copenhagen in 1775 and 1792–95, the only years of the 18th century for which the age-distribution of deceased persons is known for Copenhagen as a whole. It will be seen that the p-indicator values for Helligånd parish are higher than those for Copenhagen as a whole. However, the difference is partly attributable to the p-indicator values for Copenhagen as a whole being computed from the episcopal report, i. e. to the curve having been drawn at the lower limit of a 17.6 % margin of error (cf. p. 107).

Copenhagen was divided into parishes determined by geographical and linguistic boundaries, special military parishes being demarcated as well. Thus Helligånd, for instance, was a civilian Danish-speaking parish, St. Petri was a civilian German-speaking parish, and Holmen parish mostly contained naval personnel. Since the military element constituted a large proportion of 18th century Copenhagen's population, and since the living standard of the many sailors and soldiers is generally presumed to have been substantially below the average [12]), it is not surprising that the p-indicator for Helligånd parish is higher than that for Copenhagen as a whole. A comparison made with the parish of Holmen for the years 1785–87 produces the following [13]):

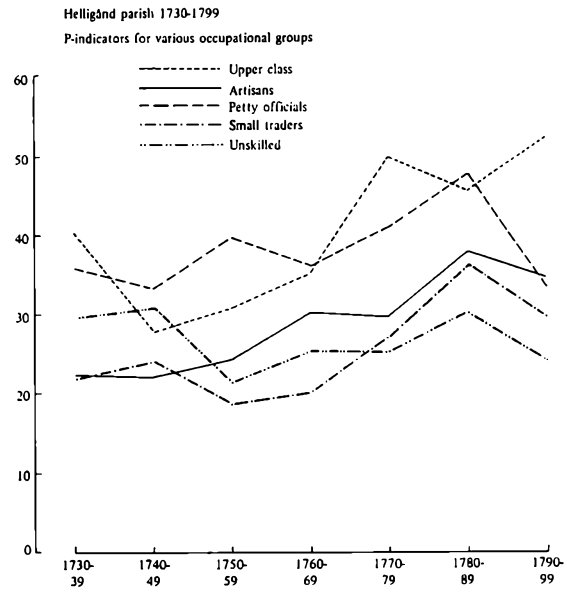
Helligånd parish p-indicator value = 36.11
Holmen parish p-indicator value = 26.17

It is important to bear in mind when evaluating these figures that Holmen parish also contained discharged sailors etc., but that there was probably some emigration of old people from the parish.

While the level of the p-indicator for Helligånd parish thus seems to have been higher than that for Copenhagen as a whole, it is probable that its trend was similar to that in the other civil parishes of Copenhagen, since Helligånd contained representatives of all the important civilian social classes of 18th century Copenhagen and since the trend of the p-indicator for those classes was essentially the same. The social structure of Helligånd parish is revealed by the mortality figures for the various classes shown in Appendix 5.15, and these figures can be compared with the situation in Copenhagen as a whole as described in Chapter 2. Fig. 25 shows the p-indicator for various social classes in Hel-

12. Cf. e. g. P. F. Rist: Fra Støvlettiden, 1884.
13. Basis of calculation: LA Kbh, Helligånds sogns kirkebog og Holmens sogns kirkebog.

Fig. 25



Source: Appendix 5.15

ligånd parish, the corresponding figures being found in Appendix 5.15. It may be remarked that the basis of computation for the "upper class" category is rather slender, and this is presumed to be the explanation of the fact that this category does not manifest the same trend as the other classes in the years subsequent to 1770–79. It will be seen that in other respects the five curves display a fairly uniform pattern.

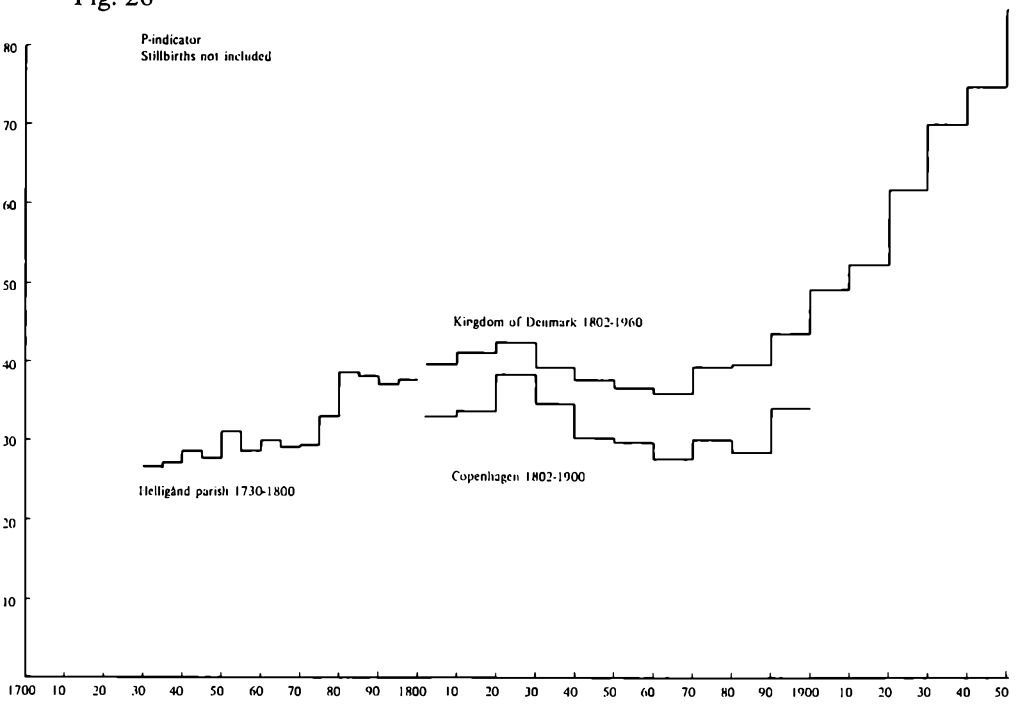
Thus, there appear to be sound reasons for supposing that the *trend* of the Helligånd parish p-indicator is representative of all civilian Copenhagen parishes.

The next problem is how to explain this trend; that is to say in broad terms, how to explain the rise from the mid-1770s to the beginning of the 1780s.

As has already been noted, a p-indicator is determined partly by the age-structure of the population and partly by the death rates within the various age-groups. A rising p-indicator can therefore be ascribed to one or more of the following causes:

1. A rising death rate in the 50-plus age-group.

Fig. 26



Source: Appendix 5.14

2. The passage of a "big year" or a number of "big years" from the under-50 age-group to the 50-plus group.

3. A declining birth rate, which, if infant mortality is unchanged, will give fewer child deaths.

4. A declining death rate in the under-50 group, e. g. declining infant mortality.

5. Declining death rates both above and below the age of 50.

According to the definition of the standard of living set forth in the introduction to this work, causes 4 and 5 constitute a form of rising living standards, while causes 1–3 do not. Therefore it is essential to decide which of these possible causes is responsible for the rise in the Helligånd parish p-indicator from the mid-1770s to the beginning of the 1780s.

Possibility 1: A rising death rate in the 50-plus age-group. A glance

at fig. 26 shows not only that the p-indicator for Helligånd parish maintains a high level to the end of the century, but also that the p-indicator for Copenhagen is rising from 1802 to the 1820s. As stated above, Helligånd parish and Copenhagen are considered to manifest similar trends but different levels. It is therefore probable that the p-indicator for Helligånd parish did not decline appreciably until after the 1820s, i. e. that the high p-indicator level that began around 1780 maintained itself for 50–60 years. The higher level therefore cannot be attributed to a higher death rate in the 50-plus age-group, for this can give a higher p-indicator only in the shorter term.

Possibility 2: The passage of a "big year" or group of "big years" from the under-50 group to the 50-plus group.

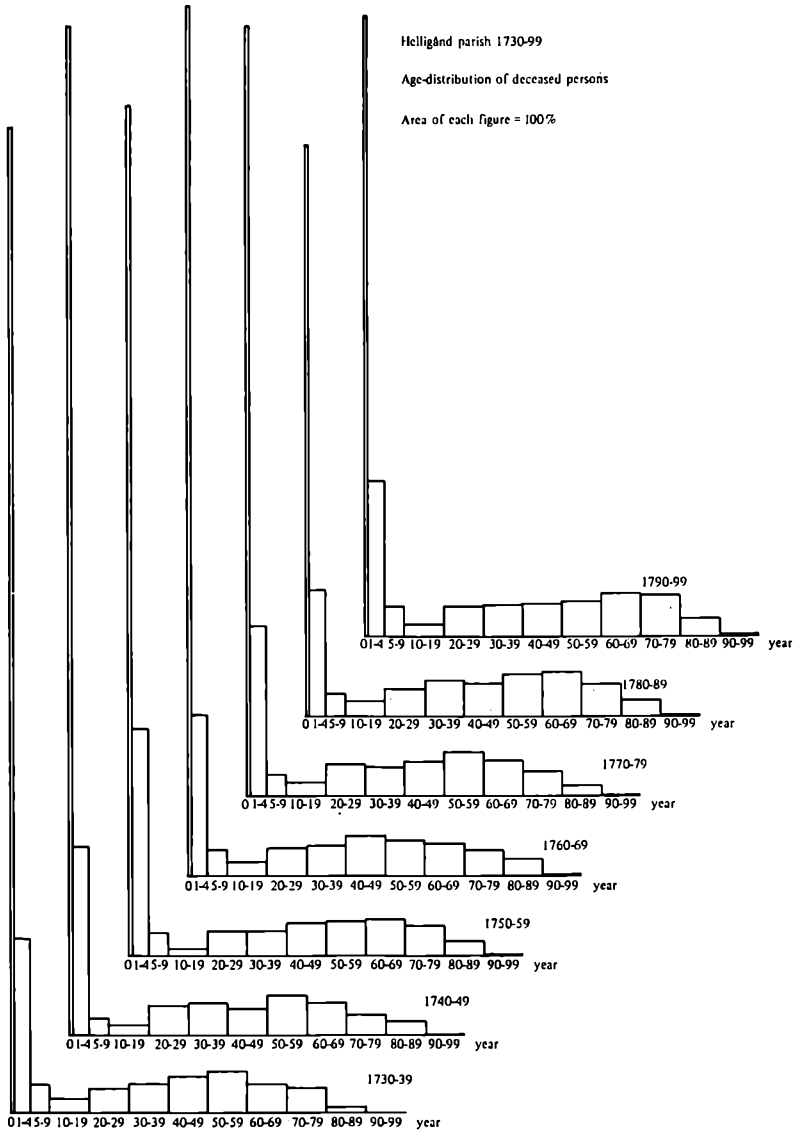
This may have happened to some extent, but it cannot be invoked to explain why the p-indicator remained at high level as long as it did.

Possibility 3: Falling birth rate.

Baptisms in Helligånd parish in 1780–89 were 7 % lower than in 1770–79. A calculation in which the number of child-burials in the 0–9 age-group is increased by 7 % gives a rise in the p-indicator from 1770–79 to 1780–89 of 92 % of the level actually ascertained. Thus the rise in the p-indicator from the 1770s to the 1780s can be explained only to a limited extent in terms of declining births. On the other hand when the number of baptisms falls by 7 % from 1770–79 to 1780–89, the number of burials at age one year or under declines by 25.5 %, and the number buried at age 1–4 years by 24 %. Thus there was a fall in infant mortality.

In regard to possibilities 4 and 5, it is evident that the rise in the p-indicator from the 1770s to the 1780s was caused not only by a fall in the percentage of children but also by a rise in the average age of deceased adults. This may be observed from fig. 27, the quantitative data for which are to be found in Appendix 5.2. Fig. 27 shows how large a percentage of the deceased was accounted for by the various age-groups. It is apparent that from 1770–79 to 1780–89 the percentage comprised by deaths under one year old decreased. If the rising p-indicator from 1770–79 to 1780–89 is attributable only to this, then the various groups of deceased adults would be increased in the same mutual proportion. The diagram shows, however, that between 1770–79 and 1780–89 the mortality peak for the category 10 years of age and over shifted from the 50–59 to the 60–69 age-group. In 1750–59 also the mortality peak for the 10 year-plus category was at 60–69 years, but to

Fig. 27



Source: Appendix 5.2

offset this then there was a higher level of infant mortality. The diagram further shows that the proportion aged 50 and over among the 10 year-plus deaths increased from 1770–79 to 1780–89.

This suggests that the rise in the Helligånd parish p-indicator between the mid-1770s and the beginning of the 1780s was caused partly by declining infant mortality but partly also by the fact that the average age of deceased adults was higher. This can be ascribed either to a higher average age of persons surviving beyond childhood or to a number of "big years" crossing the age 50 line or to a combination of these two factors.

Comparability between the p-indicator level of the social classes

Study of fig. 25 and of Appendix 5.15 discloses that for most of the period the p-indicator for the "upper class" is higher than that for artisans, small tradesmen and the unskilled classes. However, there are difficulties about comparing the p-indicator levels of different social classes. For example, a class such as that comprised by inmates of charitable institutions will contain a large number of old people and will therefore present a high p-indicator value unrelated to their standard of life. Some such factor may well be responsible for the very high p-indicator value manifested by the class of "petty officials"—i. e., watchmen and the like (cf. fig. 25). It seems probable that this class was largely recruited from people above a certain age.

P-indicators for various social classes in Holmen parish have also been calculated for 1785–87. The results are:

Naval seamen and seamen-gunners	19.87
Naval artificers	21.77
Other military personnel	20.69
Civilians	35.65

Thus, the p-indicator for seamen and seamen-gunners was almost as high as that for Holmen artisans, even though the remuneration of artisans was much higher [14]). However, a calculation of the number of deceased females aged 20 and over per 100 deceased males of 20 and over produces the following figures:

14. RA Søetaten, Bogholderkontoret: Betalingsreglementer 1784–96.

Naval seamen and seamen-gunners	62.88 females per hundred males.
Naval artificers	94.44 females per hundred males.

This suggests a considerably higher incidence of marriage, and therefore relatively more children, among naval artificers than among seamen and seamen-gunners. It also emerges that children under one year of age comprised 22.0 % of the deceased in the seaman and seamen-gunner class, but 26.9 % in the artificer class. From this it is clear that the p-indicator for naval artificers is not immediately comparable with the p-indicator for seamen and seamen-gunners. The differing incidence of marriage can be offset by comparing instead the p-indicators for the female members of the two classes. This gives:

Class of seamen and seamen-gunners, females	p-indicator = 44.5
Class of naval artificers, females	p-indicator = 56.5

The disparity between the p-indicators here is considerably wider, both relatively and absolutely, than that revealed by a calculation including both males and females.

The fact that the p-indicator for both classes is higher for females than for males and females is of no special significance. This is normal among all populations.

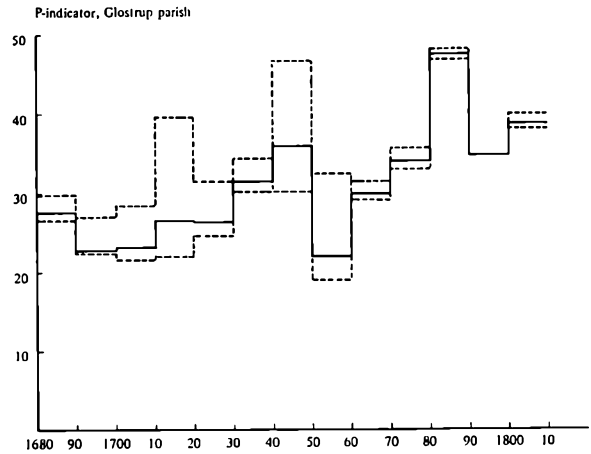
Other p-indicators

To supplement the Helligånd parish p-indicator, further p-indicators have been computed for the parish of Glostrup in 1680–1809 [15]) and for the four Jutland dioceses in 1765–1800 [16]).

The Glostrup parish results can be seen in appendix 5.16 and fig. 28. The data for computation are rather exiguous compared with Helligånd parish and the p-indicator values have therefore been computed in ten-year periods. In this case the margin of error arising from possible stillbirths can be disregarded, since there are practically no such instances, while the margin of error arising from the ages of deceased persons not being stated is very large up to 1759. The p-indicator seems to have risen between the 1690s and the 1740s, although there may have been a break in the pattern in the period 1710–19. From 1740–49 there was a fall to 1750–59 or possibly 1760–69. The p-indicator then moved

15. A rural parish in the vicinity of Copenhagen.
16. These four dioceses together form the whole province of Jutland.

Fig. 28



The margin of error is shown by the dotted line, cf. Appendix 5.20

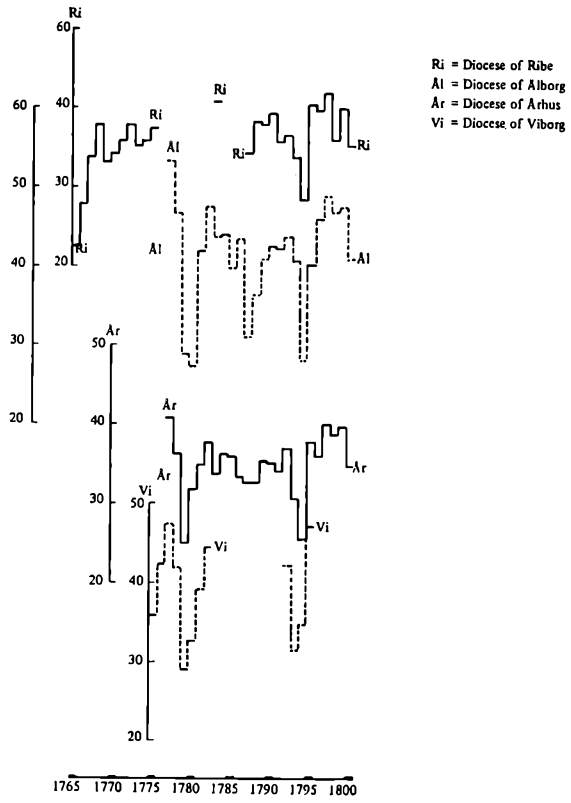
Source: Appendix 5.16

upwards until 1780–89, following which a decline in 1790–99 brought it back to about the level of 1770-79. These fluctuations are considerably wider than in the case of Helligånd parish, but the data on which the Glostrup calculations are based are much sparser. However, comparison of figs. 23 and 28 shows, that the trends in the two parishes do not differ fundamentally.

The p-indicators of the four Jutland dioceses for 1765–1800 will be found in appendix 5.17 and in fig. 29. The data on which the calculations are based consist of the diocesan reports of the age-distribution of deceased persons. These begin in 1765 for the diocese of Ribe but only in 1775 for the other dioceses. The material is not complete despite the fact that data from different sets of records have been brought together (cf. Appendix 5.17). Because fig. 29 includes a proportion of stillbirths unfortunately not accurately known, the figures given in this appendix must be looked upon as the lower limits of a margin of error suggested on p. 107 to be about 17 %. The similarities between the fluctuations of the curves for the four dioceses are seen to be by no means inconsiderable, cf. e. g. 1779 or 1794. This can only mean that common causes

Fig. 29

P-indicator for four Jutland dioceses



Source: Appendix 5.17

must be operating in some degree to produce these variations in the four curves. It is also evident that even though the p-indicators plotted in the diagram represent the lower limit of the margin of error, this lower limit is higher for all four dioceses than the p-indicator for Helligånd parish.

Causes of death in Helligånd parish 1730–1799

The standard of life in Helligånd parish can be illustrated not only by means of the p-indicator but also by using statistics of causes of

death. The official statistics of causes of death in 18th century Copenhagen were compiled in the same way as those of births and deaths, i. e. through the medium of reports from the parishes to the police, who published an annual summary. The printed schedules, not many of which survive [17]), only show the numbers dying of the different ailments but not the age-groups in which deaths occurred. However, it has been possible to investigate this in the case of Helligånd parish.

Appendices 5.31 and 5.32 show the relationship between cause of death and age at death in Helligånd parish in 1730–39 and 1790–99 respectively. It will be seen that "internal causes" (*slag*) was the term generally used to denote the death of a baby but that it could be used of adults as well. Smallpox was far more important in the 1–4 year age-group than among babies. The term fever probably covers a variety of infections. Such cases evidently occurred most commonly in the 20–29 age-group both in 1730–39 and 1790–99. It is a natural presumption that death from fever will have been a frequent occurrence among children and young immigrants who had still not developed immunity against the infections of the city. It is doubtful whether there is any real difference between the causes of deaths recorded as "chest ailments" (*brystsyge*) and "wasting sickness" or "tuberculosis" (*tærende syge eller svindsot*). A large proportion were probably tubercular cases, irrespective of the description. It will also be noted that the two groups of causes produced the largest number of deaths in the 40–59 year age-group in 1730–39 and in the 50–69 group in 1790–99.

Appendix 5.33 shows causes of death in Helligånd parish in 1730–99 expressed as a percentage of total deaths. In evaluating these figures it should be observed that the "cause unstated" group is important in 1790–94 and 1795–99. No substantial change occurs in the causes of death during the period. The term "maladies of the teeth" goes out of vogue in the middle of the period, but this is offset by a rise in the number of children recorded as dying from internal causes, the two groups probably being largely complementary. Deaths from smallpox, after reaching a high point in 1750–59 are seen to decline only marginally afterwards, except in 1770–74. The decreasing number of deaths

17. The Royal Library has only 1767 and 1783–86.
The schedules for 1760–84, however, are published in Statistisch-Tabellarische Uebersicht der Volks-Menge in den königlichen Dänischen Staaten. Beylage zu dem 2. Theile der Materialen zur Dänischen Statistik, Flensburg und Leipzig 1787, Tafel XXVI.

from chest ailments must be viewed in context with the rise in the figure for deaths from tuberculosis and wasting sicknesses.

Thus, Appendix 5.33 reveals on the whole no great variations in the proportionate importance of the various causes of death, which implies that changes in the p-indicators must be explained in terms of changes in the powers of resistance of the population or changes in its age-structure.

11. Conclusion

In this work, three methods have been employed in an attempt to shed light on the evolution of living standards in Copenhagen in 1730–1800.

1. The calorific value per person per day of the consumption registered in the consumption tax ledgers has been computed. The margin of error in the computations is fairly considerable, but it is less in the shape of the curve than in its height.

2. A price index has been computed and compared with data about wages. The margin of error on the index figure itself is not remarkably wide, since the budget can be modified substantially without the shape of the curve being appreciably altered. It is wages that are responsible for the margin of error in this section of the work. There is a considerable element of uncertainty about the level of master's emolument, on the question which thread was dominant when the wage-pattern discovered was not uniform, and in regard to level of unemployment.

3. The p-indicator has been computed for the parish of Helligånd, Copenhagen. While there is very little margin of error in the computed p-indicator itself, there is a considerable one in the interpretation of the changes, since the p-indicator expresses something about both the period for which it is calculated and the preceding period.

Thus, there seems to be no ground for favouring any one of these three methods at the expense of the others. However, there are some differences between them, inasmuch as the calorie-curve and the surveys of real wages make it possible to discern which were the years of really serious crisis, while the data in the demographic section are not really abundant enough to enable trends to be viewed year by year but only in five-year periods. The three methods taken together, however, do bring out certain tendencies in the evolution of living standards in Copenhagen in the era under review, and the three metods produce results that are not incompatible.

While an isolated survey of the wages of building artisans in relation to the trend of prices will produce results suggesting a sharp fall in the standard of living during the period, such a conclusion can be sustained to any extent only for certain workmen and for others not at all. The figures of imports per head suggest a declining standard of living up to about 1750 and a rising one thereafter. It is thus a problem how this could coincide with falling real wages for building artisans. The answer is probably that they were so relatively well paid at the beginning of the period that their real wages could fall considerably without bringing them to the verge of starvation. It must be borne in mind too that building artisans constituted only a small proportion of the population for whom the average calorie intake has been computed. However, it cannot be denied that the years of crisis, denoted by peaks on the price-index and bread-consumption curves but troughs on the animal products consumption curve, must have placed both journeymen-craftsmen and labourers, together with their families, in a parlous situation. In broad terms the fluctuations of the price-index and calorie curves show that the standard of living in Copenhagen in 1730–1800 varied very substantially from year to year.

Danish money, weights and measures, 1730-1800

Money

In the period 1730–1800, the units of account of the Danish coinage were 1 *rigsdaler* (rix-dollar) = 6 *mark* = 96 *skilling*. This system of account was applied to two different coinage systems: the specie system and the *kurant* (current) system. The specie system was based on a monetary unit of 1 *skilling* = 263 mg fine silver and remained unaltered throughout the period. Only a small amount of money was coined on the specie system. The *kurant* system was the everyday coinage of the period, and it is in this coinage that all prices and wages in this enquiry are expressed. At the beginning of the period, the *kurant* system consisted of coins on a standard of 215 mg fine silver per *skilling*. From 1737 onwards, *kurant* notes were issued as well, the convertibility of which with silver was suspended in 1745–47 and finally abolished in 1757. After 1788, practically no further silver coin was struck on the *kurant* system. The exchange value of the *skilling* therefore did not remain constant in terms of silver [1]). Tables of the silver value of 1 *skilling kurant* in the period here in question are already published [2]).

Weights and measures

A comprehensive list of Danish units of weight and measure in 1660–1800 has already been published in English in vol. I of A History of Prices and Wages in Denmark [3]). The reader is referred to the latter for a more detailed explanation of the individual terms. The list below is no more than a brief explanation of the terms occurring in the present study and is

1. Cf. Friis and Glamann: A History of Prices and Wages in Denmark 1660–1800, vol. I, 1958, p. 3 ff, and Knud Erik Svendsen in Knud Erik Svendsen, Svend Aage Hansen, Erling Olsen and Erik Hoffmeyer: Dansk pengehistorie, vol. I, 1968, p. 26 ff.
2. Friis and Glamann: Op. cit. p. 111 ff.
3. Friis and Glamann: Op. cit., p. 114 ff.

based on the list in the work abovementioned. In cases where a term has more than one meaning, only the one used in the present study is given.

The terms *læs* and *tønde* have usually been rendered in the English text as "wagon-load" or "load" and "barrel" respectively. In other cases the Danish word has been retained for the sake of accuracy.

alen	1 alen (ell) = 62.814 cm.
balle	Unit for skim-sugar, sugar-sweepings and molasses. 1 balle (bale) = 102 potter = 98.532 litres.
fjerding	1 fjerding (quarter or firkin) = 1/4 tønde, see tønde.
fjerdingkar	1 fjerdingkar (half peck) = 1/32 tønde, see tønde.
fod	1 fod (foot) = 31.407 cm.
kop	Unit of butter. Its size is not precisely known, cf. Appendix 2.35.
lispund	1 lispund (stone) = 16 pund, see pund.
læs	1 læs (wagon-load) was probably not a precise measure. Cf. however appendix 2.96.
lod	1 lod = 1/32 pund, see pund.
otting	1 otting (eighth) = 1/8 tønde, see tønde.
ottingkar	1 ottingkar = 1/64 tønde, see tønde.
pot	1 pot (quart) = 0.966 litres.
pund	1 pund (pound) = 496 grams.
pægl	1 pægl (half pint) = 1/4 pot, see pot.
skippund	1 skippund (three hundredweight) = 20 lispund = 320 pund, see pund.
skok	1 skok (three score) = 60.
skålpund	1 skålpund (pound) = 1 pound.
skæppe	1 skæppe (half bushel) = 1/8 tønde, see tønde.
snes	1 snes (score) = 20.
tomme	1 tomme (inch) = 1/24 alen, see alen.
tønde	1 korntønde (grain-barrel) = 144 potter = 139.10 litres. The grain-barrel was used for wheat, rye, barley, oats, malt, groats, peas and fruit. 1 øltønde (ale-barrel) = 136 potter = 131.39 litres. The ale-barrel was used for ale and other liquids, and also for butter, tallow, soap, meat, fish and various other merchandise. The barrel in use for provisions was supposed to weigh 16 lispund gross – i. e., 2 lispund tare weight, 14 lispund net. Thus, for certain commodities the barrel was really a unit of weight, not of capacity.

List of appendices

Population

Prices

Institutional fare

Consumption registrated in the Copenhagen consumption tax ledgers

Price index

Wages

Demographic data

Appendices

Appendix 1.01

Population census schedule for Copenhagen 1769.

Tabell

over

Saavel Mand- som Qvinde-Kiønnet, udi mit Huus i

Qvarteer No. (de i virkelig Tieneste ved Soe- og Land-Etaterne staaende Under-Officerer, Tambourer, Soldater og Matroser for deres egne Personer undtagen, men deres Hustruer og Børn ibegreben) saaledes som dets Tall, efter hvers Alder befandtes at være den 15de Augusti 1769, nemlig:

1. Rubrique.		2. Rubrique.		3. Rubrique.		4. Rubrique.		5. Rubrique.		6. Rubrique.		7. Rubrique.	
Paa 8 Aar og derunder.		Fra 8 til 16 Aar inclusive.		Fra 16 til 24 Aar inclusive.		Fra 24 til 32 Aar inclusive.		Fra 32 til 40 Aar inclusive.		Fra 40 til 48 Aar inclusive.		Fra 48 Aar og derover.	
Mandfolk.	Fruentimmer.	Mandfolk.	Fruentimmer.	Mandfolk.	Fruentimmer.	Mandfolk.	Fruentimmer.	Mandfolk.	Fruentimmer.	Mandfolk.	Fruentimmer.	Mandfolk.	Fruentimmer.

Af forauførte Mandfolk og Fruentimmer, henhører til efterstrevne Nummere, nemlig:	Mandfolk.	Fruentimmer.
1) Rangs-Personer, Justitz- og alle andre Kongelige Betiente med deres Hustruer og hos sig havende Børn		
2) Geistligheden, samt Kirke- og Skole-Betiente, saa og Studentere med deres Hustruer og hos sig havende Børn		
3) (a) Soefarende og Fiskere, iberegnet dem, der med Tilladelse ere i Farten eller paa Reyser, med deres Hustruer		
og (b) Deres hos sig havende Børn		
4) Fabriqveurer og Haandverker, samt deres Svenne og Lære-Drenge med deres Hustruer og hos sig havende Børn		
5) Andre Borgere og saadanne Indbyggere, som ikke under forestaaende 1. 2. 3 og 4 §. ere benævnte med deres Hustruer og hos sig havende Børn		
6) Alle ugifte Personer: af 2den Rubrique		
" 3die		
" 4de		
" 5te		
" 6te		
" 7de		
7) Alle Tienestefolk og Dagleyere		
8) De udi Kiøbenhavn hiemmehørende, som med Pas paa nogen Tiid ere paa uden Rigs Reyser og henhøre til de under 1. 2. 4. 5. 6 og 7 §. benævnte Stænder		
og 9) Hospitals-Lemmer samt andre Vanføre, Gebreklige og Aflsindige Personer		

Source: KB 32–90.

Appendix 1.02

Estimate of the population of Copenhagen 1730–1800.

	Column 1	Column 2	Column 3	Column 4
Year	Baptisms according to lists of »births« published in the 18th century	Correction of figures in column 1	7-year moving average of the corrected figures of baptisms	Estimated population, for method cf. p. 17 ff.
1727	2383			
1728	2346			
1729	2070			
1730	2105		2267	65403
1731	2187		2286	65951
1732	2403		2303	66442
1733	2378		2368	68317
1734	2516		2414	69643
1735	2465		2470	71260
1736	2520		2521	72731
1737	2432		2567	74057
1738	2573		2548	73510
1739	2764		2538	73221
1740	2702		2562	73912
1741	2377		2592	74779
1742	2395		2623	75674
1743	2692		2626	75760
1744	2640		2630	75876
1745	2794		2678	77260
1746	2781		2737	78962
1747	2731		2723	78559
1748	2710		2796	80665
1749	2813		2810	81069
1750	2746	+ 28	2825	81501
1751	2781	+ 189	2884	83203
1752	2592	+ 296	2929	84502
1753	2545	+ 344	2958	85338
1754	2763	+ 381	2990	86262
1755	2669	+ 353	2967	85598
1756	2653	+ 367	2877	83001
1757	2600	+ [400]	2859	82482
1758	2407	+ [400]	2803	80867
1759	2059	+ [200]	2736	78934
1760	2482	+ 281	2673	77116
1761	2470	+ 280	2664	76856
1762	2289	+ 268	2668	76972
1763	2327	+ 245	2762	79684
1764	2645	+ 295	2790	80492
1765	2541	+ 291	2820	81357
1766	2643	+ 276	2870	82800
1767	2957		2927	84444
1768	2961		2886	83261
1769	2909		2854	82338
1770	2970		2836	81819
1771	2657		2831	81674
1772	2604		2823	81444
1773	2794		2803	80867
1774	2920		2791	80520
1775	2909		2830	81646
1776	2769		2890	83377
1777	2886		2924	84357
1778	2928		2933	84617
1779	3021		2921	84271
1780	3035		2959	85367
1781	2985		3007	86752
1782	2822		3030	87416
1783	3035		3061	88310
1784	3224		3065	88425
1785	3191		3076	88743
1786	3134		3127	90214
1787	3065		3192	92089
1788	3058		3211	92637
1789	3179		3258	93993
1790	3492		3274	94455
1791	3359		3303	95292
1792	3516		3302	95263
1793	3248		3280	94628
1794	3269		3249	93734
1795	3049		3248	93705
1796	3027		3232	93243
1797	3276		3251	93791
1798	3351		3239	93445
1799	3407		3320	95782
1800	3381		3413	98465
1801	3185		3452	99590
1802	3615			
1803	3679			
1804	3543			

Only a small proportion of the original printed lists of baptisms and burials[1]) could be found for the computations, viz.:

1732 UB 1
1737–39 KB
1740 UB 1
1763 RA KommKol Da journalsager K 88 a
1764–65 RA KommKol Da journalsager L 338
1766 RA KommKol Da journalsager L 1008
1767 KB
1768 RA KommKol Da journalsager M 584
1769 RA KommKol Da journalsager N 175
1770 RA KommKol Da journalsager N 473
1774–75 UB 1
1782–86 KB

The lists for 1747–56 are reproduced in: Josias Lorck: Beyträge zu der neuesten Kirchengeschichte, Copenhagen 1757, p. 645–654.

Total baptisms and burials are reported for the years:

1725–1784 in: Statistisch-Tabellarische Uebersicht der Volks-Menge in den Königlichen Dänischen Staaten. Beylage zu dem 2. Theile der Materialien zur Dänischen Statistik. Flensburg und Leipzig 1787, Tafel XXIV.
1729–1808 in: Henrich Callisen: Physisk-medizinske Betragtninger over Kiøbenhavn, vol. II, 1809, pp. 651–653.

Comparison and check-reckoning of totals disclose the following errors in Callisen:

1742 2,365 baptisms instead of 2,395.
1785 3,591 baptisms instead of 3,191.
1792 There is an error of 7 either in the figure of baptisms or burials, or in the figure of baptisms minus burials.
1802 The figure of baptisms is probably 3,615, not 3,262. Since the figures of both baptisms and burials are stated as 3,262, and since baptisms minus burials are stated as 353, there is probably an error in the figure either of baptisms or burials. From a comparison with the figures in Statistisk Tabelværk 1,1 which are totted up by the church year and not, like these, by the calender year, it appears most likely that it is the baptisms figure that ought to be corrected.

The contemporary published figures have been corrected, with the aid of the following sources, to allow for missing reports of baptisms at the maternity hospital in 1750–66.

1750–56: Josias Lorck: Beiträge zu der neuesten Kirchengeschichte, Copenhagen 1757, p. 655 f.
1757–59: The figures given are estimated, based on a comparison of the figures for the aggregate number of births at the maternity hospital from its foundation in 1750 to Easter 1759 according to A. Stafeldt: »Kjøbenhavns Fødselsstiftelse, Indbydelsesskrift til Kjøbenhavns Universitets Aarfest til erindring om Kirkens Reformation, 1887«, with Josias Lorck's figures for each of the years 1750–56 and the registers of baptisms compiled by the maternity hospital and Frederiks Hospital, which are extant from 28/10 1759 and 1/4 1758 respectively (LA Kbh).
1760–66: Registers of baptisms compiled by the maternity hospital and Frederiks Hospital (LA Kbh).

[1]) The lists carry the heading: Fortegnelse paa dennem, som udi denne Kongl. Residents-Stad Kjøbenhavn fra ... til ... ere copulerede, fødte og døde. (List of those who, in this Royal Capital City of Copenhagen, from ... to ..., were maried, born and died.) The lists, which show the numbers of baptisms and burials in every parish, with totals for Copenhagen as a whole, were issued annually by the Copenhagen police, cf. p. 19.

Appendix 1.03

Numbers employed in certain occupations in Copenhagen after the fire of 1728, and their places of residence.

Occupation	Total number of businesses	Workmen living in with masters	Workmen not living in with masters	Businesses without workmen living in
Carters	20	51	5	2
Coachmen	36	24	6	19
Joiners	91	181	21	37
Carpenters	49	24	181	36
Masons	24	11	153	16
Painters	34	42	4	18
Mortar-men	37	2	0	37
Blacksmiths	35	93	4	11
Locksmiths	29	83	4	9
Bakers	47	140	23	11
Butchers	41	63	9	19
Distillers	234	17	3	217
Brewers	69	115	48	30
Potmen	218	18	0	209
Hucksters	78	6	0	75
Wigmakers	68	61	10	37
Shoemakers	169	258	29	82
Cobblers	111	0	10	111
Tailors	220	244	70	121
Seamstresses	117	0	0	117
Spinsters	178	0	0	178
Washerwomen	89	0	0	89

Source: G. L. Grove: Kjøbenhavns Huse og Indvaanere efter branden 1728, Copenhagen 1906, p. 42*.

Businesses with workmen living in				
1 workman	2 workmen	3 workmen	4 workmen	5 or more workmen
3	6	5	2	2
10	7	0	0	0
10	13	13	9	9
7	3	2	0	1
5	3	0	0	0
6	5	1	1	3
0	0	0	0	0
3	4	3	5	9
1	5	5	0	9
1	7	12	4	12
8	4	5	1	4
17	0	0	0	0
10	8	6	8	7
5	1	1	2	0
2	0	0	1	0
16	8	4	1	2
16	26	18	11	16
0	0	0	0	0
40	24	15	6	14
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

Appendix 1.04
Table of population of Copenhagen 1787. Males.

Occupations	0–9 years	10–19 years			20–29 years			30–39 years		
	s	s	m	w	s	m	w	s	m	w
Ecclesiastical functionaries	95	53	0	0	46	6	2	25	47	5
Army officers	74	44	0	0	92	5	1	53	23	0
Soldiers	577	569	2	1	2061	228	7	971	509	25
Naval officers	32	15	0	0	50	3	0	20	8	0
Seamen	1375	1172	0	0	963	562	11	305	1085	50
Civil functionaries	768	358	0	0	360	85	0	217	353	19
Merchants	310	143	0	0	73	56	2	68	162	3
Merchants' labourers and apprentices	53	343	0	0	260	11	0	66	33	0
Artists and manufacturers	315	148	1	0	78	39	0	39	158	4
Artists' and manufacturers' labourers and apprentices	352	381	1	0	605	95	3	193	252	10
Artisans	1121	395	0	0	106	149	4	82	629	19
Artisans' journeymen and apprentices	655	1578	0	0	2191	220	2	606	496	15
Shipmasters, fishermen and seafarers	264	151	0	0	149	108	1	51	196	5
Other occupations	1006	311	0	0	100	151	1	36	477	11
Servants	184	245	0	0	1158	67	1	532	125	7
Day-labourers	592	153	1	0	157	110	3	124	357	16
Rentiers	49	39	0	0	30	6	0	3	7	1
Pensioners	121	78	0	0	26	1	0	12	12	3
Paupers	213	293	0	0	16	0	0	18	12	2
Others	282	250	1	0	446	44	1	116	113	6
Total	8438	6719	6	1	8967	1946	39	3537	5054	201

s = single m = married w = widowed
Source: Danmarks Statistik: Folketællingen 1787.

40–49 years			50–59 years			60–69 years			70–79 years			80+ years			
s	m	w	s	m	w	s	m	w	s	m	w	s	m	w	Total
15	52	3	6	41	5	4	11	8	0	6	5	0	0	2	437
30	30	2	16	21	4	4	11	5	1	2	5	0	0	1	424
372	341	22	88	127	19	10	23	6	3	3	1	0	3	0	5968
7	16	0	3	21	1	0	4	3	0	1	2	0	1	0	187
95	842	54	43	497	70	18	172	50	7	54	17	2	9	2	7455
93	433	33	56	288	38	21	113	36	9	34	24	4	4	4	3350
20	127	6	11	82	14	14	41	12	1	8	5	0	1	0	1159
14	22	0	4	19	3	1	2	2	0	2	1	1	0	0	837
27	145	13	16	108	17	8	53	19	1	13	11	0	0	0	1213
42	165	9	23	75	9	8	33	12	3	9	4	0	1	1	2286
39	546	35	23	343	38	15	161	35	4	40	20	0	3	3	3810
114	247	22	41	124	25	13	64	16	7	13	4	0	2	1	6456
8	121	3	5	48	8	1	4	3	0	3	2	0	0	0	1131
25	405	12	8	217	24	5	87	13	0	21	3	1	2	3	2919
124	92	9	41	38	15	18	20	6	3	5	1	1	0	0	2692
67	330	23	44	244	31	10	94	26	1	21	2	1	1	0	2408
7	24	4	6	26	6	5	25	11	1	12	6	0	5	3	276
31	48	6	28	96	14	23	72	25	16	22	23	1	10	8	676
14	11	3	25	20	10	22	33	28	7	36	21	4	13	14	815
51	91	11	28	67	20	11	39	19	6	19	9	1	1	1	1633
195	4088	270	515	2502	371	211	1062	335	70	324	166	16	56	43	46132

Appendix 1.04 (contd.)
Table of population of Copenhagen 1787. Females.

Occupations	0–9 years	10–19 years			20–29 years			30–39 years		
	s	s	m	w	s	m	w	s	m	w
Ecclesiastical functionaries	123	48	4	0	23	40	0	12	45	5
Army officers	59	29	2	0	11	29	0	5	25	0
Soldiers	581	188	13	0	24	317	1	1	443	3
Naval officers	46	26	2	0	9	8	0	8	20	0
Seamen	1465	703	10	0	115	595	14	29	996	34
Civil functionaries	789	400	25	0	136	255	5	50	407	8
Merchants	307	166	20	0	60	142	5	15	158	8
Merchants' labourers and apprentices	62	23	1	0	6	29	0	4	22	0
Artists and manufacturers	353	172	5	0	65	122	2	21	157	9
Artists' and manufacturers' labourers and apprentices	405	199	4	0	120	132	8	39	248	39
Artisans	1179	570	23	0	151	381	10	46	633	28
Artisans' journeymen and apprentices	599	146	13	0	35	300	0	8	383	1
Shipmasters, fishermen and seafarers	263	81	9	0	18	172	4	6	188	2
Other occupations	978	535	13	1	248	291	42	112	537	151
Servants	228	1843	1	0	4585	154	11	1249	144	48
Day-labourers	622	233	3	0	75	198	7	28	368	41
Rentiers	64	69	0	2	54	14	6	22	21	15
Pensioners	144	165	0	0	78	7	3	37	44	49
Paupers	184	233	1	0	79	4	10	62	24	59
Others	241	220	6	2	142	88	27	72	134	70
Total	8692	6049	155	5	6034	3278	155	1826	4997	570

s = single m = married w = widowed
Source: Danmarks Statistik: Folketællingen 1787.

40–49 years			50–59 years			60–69 years			70–79 years			80+ years			
s	m	w	s	m	w	s	m	w	s	m	w	s	m	w	Total
11	39	6	6	22	5	3	6	7	2	2	5	0	0	1	415
3	25	2	1	10	1	0	3	2	0	1	0	0	0	1	209
1	272	4	1	97	4	0	19	6	0	1	3	0	0	1	1980
6	15	0	2	7	0	0	1	1	1	1	0	0	0	0	153
7	822	48	3	493	36	2	202	41	2	35	19	0	5	5	5681
38	341	14	12	187	30	7	70	36	2	11	11	0	1	5	2840
11	103	14	5	45	6	3	21	18	0	2	13	0	0	4	1126
1	22	1	1	7	3	1	3	2	0	1	0	0	0	2	191
11	110	8	6	75	24	1	30	28	0	6	10	0	0	3	1218
15	148	57	15	68	76	9	32	66	1	7	18	0	2	1	1709
19	437	33	9	260	55	4	105	50	2	19	36	0	2	15	4067
1	255	1	0	129	7	2	41	11	1	9	11	0	2	2	1957
1	85	1	2	31	8	1	9	6	1	2	7	0	0	1	898
71	345	208	53	176	211	29	69	136	4	12	47	2	1	10	4282
50	90	56	102	41	46	40	14	21	11	4	5	1	0	4	9048
16	300	71	7	200	74	3	62	37	1	12	9	0	3	3	2373
17	24	38	20	25	61	10	15	45	1	6	31	2	0	3	565
36	74	82	46	79	127	34	34	99	11	16	56	3	1	23	1248
61	26	173	83	38	283	107	33	334	51	19	229	9	8	103	2213
36	84	99	24	65	131	16	24	156	11	8	52	2	1	16	1727
12	3617	916	398	2055	1188	272	793	1102	102	174	562	19	26	203	43900

Appendix 1.05
Table of population of Copenhagen 1801. Males.

Occupations	0–9 years	10–19 years			20–29 years			30–39 years		
	s	s	m	w	s	m	w	s	m	w
Church officials and the teaching profession	133	343	0	0	661	32	0	123	59	4
Army officers	84	169	0	0	168	14	1	74	45	2
Soldiers	395	383	1	0	2440	193	8	807	349	16
Naval officers	68	78	0	0	33	8	0	14	20	0
Seamen	1240	984	3	0	719	385	4	213	728	34
Civil functionaries	685	349	0	0	309	88	1	181	318	18
Merchants	472	212	1	0	126	71	1	85	203	6
Merchants' labourers and apprentices	90	426	0	0	424	27	0	96	52	2
Manufacturers	167	94	0	0	44	27	0	12	76	1
Manufacturers' labourers and apprentices	195	265	0	0	400	79	1	129	137	4
Artists and artisans	1654	579	1	0	181	279	4	135	864	24
Artists' and artisans' labourers and apprentices	870	1957	3	0	2399	326	9	609	578	22
Shipmasters, fishermen and seafarers	338	346	0	0	387	97	0	107	271	6
Farmers, innkeepers and the like	1343	514	0	0	171	167	3	99	733	10
Servants	272	339	0	0	1200	57	3	728	208	9
Day-labourers	768	276	0	0	198	75	1	191	377	14
Rentiers	89	123	0	0	27	8	1	12	18	2
Pensioners	195	161	0	0	23	2	0	23	26	4
Paupers	383	283	0	0	34	1	0	42	19	5
Unknown occupation	66	16	0	0	18	8	0	9	17	2
Total	9507	7897	9	0	9962	1944	37	3689	5098	185

s = single m = married w = widowed
Source: Danmarks Statistik: Folketællingen 1801.

40–49 years			50–59 years			60–69 years			70–79 years			80+ years			
s	m	w	s	m	w	s	m	w	s	m	w	s	m	w	Total
22	55	1	16	36	4	5	25	8	2	4	2	0	1	3	1539
20	28	5	14	30	7	8	12	5	2	2	1	1	0	0	692
06	212	16	106	72	14	16	25	8	4	6	3	0	0	0	5380
8	28	0	3	15	0	0	5	2	0	2	2	0	0	0	286
08	741	63	41	398	67	12	139	35	2	25	8	0	1	3	5953
83	351	26	43	226	29	24	77	33	4	20	8	0	1	1	2875
34	170	23	11	101	12	6	38	10	2	8	9	0	0	0	1601
30	36	4	10	26	3	5	7	6	1	1	1	0	2	0	1249
11	88	7	1	50	5	2	21	3	2	8	2	0	0	0	621
56	128	8	20	74	18	10	29	8	2	7	4	0	1	1	1576
66	901	47	31	447	73	15	194	71	2	44	30	0	5	5	5652
04	408	24	83	275	32	22	68	18	1	8	14	0	1	0	7931
32	167	8	13	89	6	1	18	5	1	4	4	0	0	0	1900
60	725	29	35	409	30	5	128	22	5	42	11	0	4	2	4547
41	166	17	69	80	26	19	31	9	4	4	4	0	0	1	3487
58	446	38	96	312	57	32	101	36	7	25	12	0	2	0	3222
5	15	6	10	30	11	8	27	12	7	19	7	0	2	2	441
31	65	10	42	161	40	39	157	55	21	61	39	2	10	14	1181
40	28	9	53	50	24	40	66	70	20	42	67	4	21	21	1322
1	17	1	3	10	4	1	5	3	0	2	1	0	2	1	187
16	4775	342	700	2891	462	270	1173	419	89	334	229	7	53	54	51642

Appendix 1.05 (contd.)
Table of population of Copenhagen 1801. Females.

Occupations	0–9 years	10–19 years			20–29 years			30–39 years		
	s	s	m	w	s	m	w	s	m	w
Church officials and the teaching profession	171	133	6	0	59	70	4	25	53	5
Army officers	80	57	5	0	24	46	0	5	36	0
Soldiers	429	115	9	0	9	245	0	1	313	1
Naval officers	51	35	2	0	13	29	1	3	28	2
Seamen	1107	550	7	0	87	394	9	17	699	20
Civil functionaries	690	408	9	0	166	260	5	44	340	8
Merchants	454	265	22	0	108	214	5	21	187	9
Merchants' labourers and apprentices	87	43	3	0	15	51	0	1	47	0
Manufacturers	163	125	5	0	42	56	4	13	70	5
Manufacturers' labourers and apprentices	199	104	1	0	70	86	6	32	139	15
Artists and artisans	1623	886	28	0	226	522	9	44	940	27
Artists' and artisans' labourers and apprentices	813	225	11	0	33	451	1	5	511	4
Shipmasters, fishermen and seafarers	331	129	16	0	26	184	3	5	224	8
Farmers, innkeepers and the like	1412	757	12	0	215	424	17	44	803	37
Servants	295	2216	5	0	4679	189	31	1196	259	82
Day-labourers	807	434	1	0	292	199	57	144	436	169
Rentiers	72	113	3	0	72	25	15	34	18	26
Pensioners	192	299	2	0	188	16	29	61	55	65
Paupers	446	394	0	0	156	11	15	120	38	116
Unknown occupation	49	44	2	0	55	21	5	10	23	13
Total	9471	7332	149	0	6535	3493	216	1825	5219	612

s = single m = married w = widowed
Source: Danmarks Statistik: Folketællingen 1801.

40–49 years			50–59 years			60–69 years			70–79 years			80+ years			
s	m	w	s	m	w	s	m	w	s	m	w	s	m	w	Total
13	48	9	9	20	10	2	13	17	1	1	6	0	0	3	678
5	26	1	4	17	2	1	3	6	0	0	0	0	0	0	318
0	171	4	0	60	7	0	12	4	0	2	2	0	0	0	1384
1	9	4	4	9	1	0	2	2	0	0	1	1	0	0	198
7	682	15	1	368	47	0	161	19	0	26	9	0	4	6	4235
23	272	11	11	135	27	9	42	43	1	6	11	0	0	8	2529
9	103	15	9	51	13	0	16	17	0	0	12	0	1	1	1532
3	24	3	1	13	4	0	2	5	0	3	2	0	0	0	307
3	80	7	2	37	10	3	14	8	1	6	11	0	0	1	666
11	110	23	10	63	18	4	19	10	1	7	4	0	1	1	934
18	689	49	4	379	68	4	132	65	5	32	50	0	2	11	5813
3	356	8	2	176	10	1	70	9	1	9	11	0	0	2	2712
2	139	2	2	44	7	0	13	14	0	3	3	0	0	1	1156
25	585	103	22	278	132	11	84	85	0	30	37	0	3	8	5124
28	153	110	148	64	88	46	19	49	5	1	16	2	0	3	10084
94	392	235	68	224	269	23	59	135	9	13	40	0	3	4	4107
13	29	46	25	31	68	22	17	84	6	4	58	4	1	6	792
52	132	137	59	150	220	34	98	189	12	22	99	4	3	21	2139
38	68	312	206	58	531	173	57	649	80	28	488	19	10	168	4281
3	17	27	4	9	27	4	6	15	0	2	8	0	0	0	344
351	4085	1121	591	2186	1559	337	839	1425	122	195	868	30	28	244	49333

Appendix 1.06

Calculations for estimating the size of families.
1787 census of population. Copenhagen.

	Married males aged 20 years and over per 1000 males aged 20 years and over	Ratio of males and females aged 0–9 years to married females aged 0–49 years	Ratio of unmarried males and females aged 10–19 years to married females aged 0–59 years	Ratio of unmarried females aged 10–19 years, multiplied by 2, to married females aged 0–59 years
Ecclesiastical and civil functionaries, and officers of the army and navy	547	1.55	0.65	0.67
Soldiers	256	1.11	0.69	0.33
Seamen	656	1.17	0.64	0.48
Merchants	676	1.46	0.66	0.71
Merchants' labourers and apprentices	202	1.55	4.52	0.57
Artists and manufacturers	689	1.70	0.68	0.73
Artists' and manufacturers' labourers and apprentices	406	1.42	0.97	0.66
Artisans	813	1.56	0.56	0.66
Artisans' journeymen and apprentices	249	1.32	1.60	0.27
Shipmasters, fishermen and seafarers	670	1.00	0.40	0.28
Other occupations	849	1.67	0.62	0.79
Servants	153	1.06	4.86	8.57[1]
Day-labourers	696	1.35	0.36	0.44
Rentiers	452	1.92	1.29	1.64
Pensioners	547	2.12	1.19	1.19
Paupers	405	7.22	5.66	5.01
Others	340	1.68	1.39	1.17
Average	485	1.42	0.91	0.85

[1]) Ratio of unmarried males aged 10–19 years, multiplied by 2, to married females aged 0–59 years = 1.14.

Basis of calculation: Appendix 1.04.

Appendix 1.07

Calculations for estimating the size of families.
1801 census of population. Copenhagen.

	Married males aged 20 years and over per 1000 males aged 20 years and over	Ratio of males and females aged 0–9 years to married females aged 0–49 years	Ratio of unmarried males and females aged 10–19 years to married females aged 0–59 years	Ratio of unmarried females aged 10–19 years multiplied by 2, to married females aged 0–59 years
Ecclesiastical and civil functionaries, teachers, officers of the army and navy	431	1.57	1.09	0.86
Soldiers	190	1.12	0.62	0.29
Seamen	649	1.32	0.71	0.51
Merchants	645	1.76	0.83	0.92
Merchants' labourers and apprentices	206	1.42	3.40	0.62
Manufacturers	750	1.56	0.88	1.01
Manufacturers' labourers and apprentices	470	1.17	0.92	0.52
Artists and artisans	800	1.50	0.57	0.69
Artists' and artisans' labourers and apprentices	326	1.27	1.45	0.30
Shipmasters, fishermen and seafarers	531	1.19	0.78	0.39
Farmers, innkeepers and the like	821	1.51	0.60	0.72
Servants	190	0.94	3.81	6.61[1])
Day-labourers	614	1.53	0.57	0.69
Rentiers	520	2.15	2.23	2.13
Pensioners	584	1.89	1.30	1.68
Paupers	361	7.09	3.87	4.50
Unknown occupation	581	1.83	0.83	1.22
Average	475	1.47	1.01	0.97

[1]) Ratio of unmarried males, multiplied by 2, to married females aged 0–59 years = 0.7134.

Basis of calculation: Appendix 1.05.

Appendix 1.11

Prices:

Shirts[1]) for seamen or for Christiansø prisoners

Year	Total number	*Sk.* per piece	Year	Total number	*Sk.* per piece
1728	240	64	1769	8	88
1729	300	64	1770	358	88
1730	262	45	1773	4	88
1731	253	60	1774	4	88
1732	316	60	1775	4	88
1733	340	60	1776	792	88
1734	378	60	1777	247	88
1735	514	60	1779	604	88
1736	474	60	1780	1437	88
1737	468	60	1781	1771	88
1738	434	60			
1739	278	60	1788	50	96
1740	256	60	–	775	104
1741	42	60	–	1200	112
1743	380	52			
1745	1150	68	1794	5000	79
1746	1540	68	1795	650	76
			–	500	77
1761	12	80	1796	1200	80
1763	3	80	–	170	96
1764	12	88	1797	800	88
1765	10	88	–	100	96
1766	8	88	1798	1712	106
1767	8	88	1800	200	106
1768	8	88			

[1]) White or bleached linen shirts.

Source: RA Søetaten, Kommissariatskontoret, Indkøb og udlevering, Indtægtsbog på adskillige materialer til Søetaten 1728–53 and 1761–1800.

Appendix 1.12

Prices:

Flensburg or Russian sailcloth for seamen's or artisans' uniforms, rolls of 52 *alen* × 24 *tommer*.

Year	*Sk.* per piece excluding discount	Discount	Year	*Sk.* per piece excluding discount	Discount
1728	416	1 1/3 %	1749	480	1 1/3 %
1729	432	1 1/3 %	1750	480	1 1/3 %
1730	432	1 1/3 %	1751	480	1 1/3 %
1731	432	1 1/3 %	1752	480	1 1/3 %
1732	432	1 1/3 %			
1733	432	1 1/3 %	1761	480	1 1/3 %
1734	432	1 1/3 %	1762	480	1 1/3 %
1735	432	1 1/3 %	1763	480	1 1/3 %
1736	432	1 1/3 %	1764	480	1 1/3 %
1737	432	1 1/3 %	1765	480	1 1/3 %
1738	432	1 1/3 %	1766	480	1 1/3 %
1739	432	1 1/3 %	1767	480	1 1/3 %
1740	432	1 1/3 %	1768	480	1 1/3 %
1741	432	1 1/3 %	1769	480	1 1/3 %
1742	432	1 1/3 %	1770	480	1 1/3 %
1743	432	1 1/3 %	1771	480	1 1/3 %
1744	432	1 1/3 %	1772	480	1 1/3 %
1745	432	1 1/3 %	1773	480	1 1/3 %
1746	480	1 1/3 %	1774	480	1 1/3 %
1747	480	1 1/3 %	1775	480	1 1/3 %
1748	480	1 1/3 %			

Source: as for Appendix 1.11.

Appendix 1.13
Prices:
Shoes for seamen and Christiansø prisoners.

Year	*Sk.* per pair excluding discount. Shoes for seamen	Shoes for prisoners	Discount
1729	84	88	1⅓ %
1730	84	72	1⅓ %
1731		72	1⅓ %
1732		72	1⅓ %
1733	80	64	1⅓ %[1]
1734		64	0
1735	88	64	0
1736	88	64	0
1737	88	64	1⅓ %[1]
1738		64	0
1739		64	0
1740		64	0
1741	80	64	0
1745	92		0
1746	92	92	0

Year	*Sk.* per pair excluding discount. Shoes for seamen	Discount
1748	92	0
1749	92	0
1750	92	0
1751	92	0
1752	96	0
1753	96	0
1762	96	0
1769	96	0
1770	96	0
1773	96	0
1774	96	0
1775	96	0
1776	96	0
1777	96	0
1778	96	0
1779	96	0
1780	96	0
1781	96	0
1782	96	0
1788	96	0
1789	120	0
1794	92	0
1795	80	0
1796	80	0
1797	80	0
1798	96	0
1800	84–96	0

[1]) Only on seamen's shoes, no discount on prisoners' shoes.
Source: as for Appendix 1.11.

Appendix 1.14
Prices:
Boots purchased by the Royal Navy.

Year	*Sk.* per pair excl. discount	Discount
1729	384	1 1/3 %
1730	336	1 1/3 %
1732	384	1 1/3 %
1733	384	1 1/3 %
1737	384	1 1/3 %
1738	384	1 1/3 %
1739	384	1 1/3 %
1740	384	1 1/3 %
1741	384	1 1/3 %
1742	320–384	1 1/3 %
1743	384	1 1/3 %
1744	384	1 1/3 %
1745	320	1 1/3 %
1747	320	1 1/3 %
1748	320	1 1/3 %
1749	320	1 1/3 %
1750	320	1 1/3 %
1751	320	1 1/3 %
1752	384	1 1/3 %
1753	384	1 1/3 %
1761	384	1 1/3 %
1762	384	1 1/3 %
1763	384	1 1/3 %
1764	384	1 1/3 %
1765	384	1 1/3 %
1766	384	1 1/3 %
1767	384	1 1/3 %
1768	384	1 1/3 %
1769	384	1 1/3 %
1770	384	1 1/3 %
1771	384	1 1/3 %
1772	384	1 1/3 %
1775	384	1 1/3 %
1776	384	1 1/3 %
1777	384	1 1/3 %
1778	384	1 1/3 %
1779	384	1 1/3 %
1780	384	1 1/3 %
1781	384	1 1/3 %
1782	384	1 1/3 %
1783	384	1 1/3 %
1784	384	1 1/3 %
1785	384	1 1/3 %
1786	384	1 1/3 %
1787	384	1 1/3 %
1788	384–432	0–1 1/3 %
1789	384–448	0–1 1/3 %
1790	448–576	0
1791	448	0
1792	448	0
1794	316	0
1795	312	0
1796	312–352	0
1797	352	0
1798	352–384	0
1800	336–416	0

Source: As for Appendix 1.11.

Appendix 1.15

Prices:

Fish-oil for lighting purchased by the Royal Navy.

Year	*Sk.* per *pot* excluding discount[1])	Discount[2])	Year	*Sk.* per *pot* excluding discount[1])	Discount[2])
1728	16	1 1/3 %	1772	16	31 % + 1 1/3 %
1729	16	3 % + 1 1/3 %	1773	16	31 % + 1 1/3 %
1730	16	3 % + 1 1/3 %	1775	16	20 % + 1 1/3 %
1731	16	3 % + 1 1/3 %	1776	16	20 % + 1 1/3 %
1732	16[3])	3 % + 1 1/3 %	1777	16	20 % + 1 1/3 %
			1778	16	20 % + 1 1/3 %
1735	16	3 % + 1 1/3 %	1779	16	20 % + 1 1/3 %
1736	16	3 % + 1 1/3 %	1780	16	20 % + 1 1/3 %
1737	16	3 % + 1 1/3 %	1781	16	24 % + 1 1/3 %
1738	16	3 % + 1 1/3 %	1782	16	24 % + 1 1/3 %
1739	16	3 % + 1 1/3 %	1783	16	24 % + 1 1/3 %
1740	16	3 % + 1 1/3 %	1784	16	24 % + 1 1/3 %
1741	16	3 % + 1 1/3 %	1785	16	24 % + 1 1/3 %
1742	16	3 % + 1 1/3 %	1786	16	24 % + 1 1/3 %
1743	16	17 % + 1 1/3 %	1787	16	24 % + 1 1/3 %
1744	16	17 % + 1 1/3 %	1788	16	24 % + 1 1/3 %
			1789	16	24 % + 1 1/3 %
1761	16	7 1/4 % + 1 1/3 %	1790	16	24 % + 1 1/3 %
1762	16	7 1/4 % + 1 1/3 %	1791	16	24 % + 1 1/3 %
1763	16	7 1/4 % + 1 1/3 %	1792	16	24 % + 1 1/3 %
1764	16	7 1/4 % + 1 1/3 %	1793	13	0
1765	16	7 1/4 % + 1 1/3 %	1794	13	0
1766	16	7 1/4 % + 1 1/3 %	1795	13	0
1768	16	1 1/3 %	1796	13	0
–	16	31 % + 1 1/3 %	1797	16	0
–	16	34 % + 1 1/3 %	1798	16	0
1769	16	31 % + 1 1/3 %	1799	16	0
1770	16	31 % + 1 1/3 %	1800	16	0
1771	16	31 % + 1 1/3 %			

[1]) Maximum purchases were about 2000 quarts *per annum*.

[2]) These discounts were allowed simultaneously on a whole series of articles – e.g.: paper, ink, white soap, pencils, turpentine, oil and fish-oil – purchased from the same supplier. Changes in the discount, therefore, cannot be interpreted as true changes in the price of fish-oil, since the same discount was allowed on all the articles mentioned.

[3]) Purchases were also made during this year at 8 1/2 *sk.* per *pot* less 1 1/3 % discount.

Source: As for appendix 1.11.

Appendix 1.16
Prices:
Tallow candles purchased by the City Magistrates, average prices.

Year	*Sk.* per *lispund*	Year	*Sk.* per *lispund*	Year	*Sk.* per *lispund*
1731	176.0	1757	208.0	1780	233.0
1732	176.0	1758	192.0	1781	320.0
1734	176.0	1759	192.0	1782	220.0
1736	160.0	1760	208.0	1783	267.0
1737	160.0	1761	240.0	1784	256.0
1738	160.0	1762	272.0	1785	240.0
1739	160.0	1763	256.0	1786	275.0
1740	176.0	1764	256.0	1787	288.0
1741	208.0	1765	192.0	1788	272.0
1742	224.0	1766	224.0	1789	288.0
1743	192.0	1767	251.0	1790	288.0
1744	176.0	1768	256.0	1791	287.4
1745	224.0	1769	256.0	1792	279.5
1746	256.0	1770	256.0	1793	280.0
1747	208.0	1771	256.0	1794	280.6
1748	176.0	1772	256.0	1795	276.2
1749	176.0	1773	272.0	1796	339.8
1750	176.0	1774	284.0	1797	297.3
1751	192.0	1775	256.0	1798	256.2
1752	208.0	1776	240.0	1799	288.0
1753	208.0	1777	208.0	1800	285.9
1755	192.0	1778	209.0		
1756	192.0	1779	208.0		

Source: P. Københavns kæmnerregnskaber.

Appendix 1.17

Prices:

Yellow wax candles purchased by the City Magistrates, average prices.

Year	*Sk.* per *lispund*	Year	*Sk.* per *lispund*	Year	*Sk.* per *lispund*
1731	576.0	1756	640.0	1780	704.0
1732	576.0	1757	640.0	1781	704.0
1734	576.0	1758	640.0	1782	704.0
1736	576.0	1759	640.0	1783	704.0
1737	576.0	1760	640.0	1784	704.0
1738	576.0	1761	640.0	1785	640.0
1739	576.0	1762	640.0	1786	768.0
1740	576.0	1763	640.0	1787	768.0
1741	640.0	1764	640.0	1788	768.0
1742	640.0	1765	640.0	1789	1020.0
1743	640.0	1766	640.0	1790	1024.0
1744	640.0	1767	640.0	1791	1024.0
1745	640.0	1768	640.0	1792	1024.0
1746	640.0	1769	640.0	1793	1024.0
1748	640.0	1770	576.0	1794	1024.0
1749	640.0	1771	583.0	1795	1024.0
1750	640.0	1773	672.0	1796	1024.0
1751	640.0	1775	768.0	1797	1024.0
1752	640.0	1776	768.0	1798	1024.0
1753	640.0	1777	768.0	1799	1024.0
1755	640.0	1778	744.0	1800	991.1

Source: P. Københavns kæmnerregnskaber.

Appendix 1.18

Price of green soap in *sk.* per *otting* according to Royal Navy's purchases and Copenhagen market prices respectively.

Year	Royal Navy's purchases	Market prices	Year	Royal Navy's purchases	Market prices
1729	168[1]		1765	216	216
1730	168		1766	216	216
1731	168		1767	216	216
1732	168–180		1768	216	216
1733	180		1769	216	216
1734	180		1770	216	208–216[5]
1735	176		1771	216	208
1736	176		1772	216	208
1737	176		1773	216	208
1738	176		1774	216	208
1739			1775	216	208
1740	176		1776	216	208
1741	200		1777	216	208
1742	204		1778	216	208
1743	204		1779	216	208–216[6]
1744	204[2]		1780	216	216
1745	204		1781	216	216
1746	204		1782	216–228[7]	216–228[8]
1747	204		1783	216	216–228[8]
1748	192	192	1784		216
1749	196	196	1785	216–240[10]	216–240[11]
1750	196	196	1786	240[12]	240
1751	196	196	1787	228–240[13]	228–240[14]
1752	196	196	1788	228–252[15]	228–252[16]
1753		196	1789	252[17]	252
1754		196	1790		252
1755		196	1791	252[17]	252
1756		192	1792	252[17]	252
1757		186–192[3]	1793	234	240–252[18]
1758		186	1794	216	222–252[19]
1759		186	1795	216–228	192–256[20]
1760		186	1796		192–272[20]
1761		186	1797		234–240[21]
1762		186–216[4]	1798		234
1763	216	216	1799		234
1764	216	216	1800		276

Sources: Purchases of Royal Danish Navy: as Appendix 1.11.
Copenhagen market prices: Friis and Glamann: A History of Prices and Wages in Denmark 1660–1800, vol. I, 1958, pp. 336–350.

[1] 1729 168 *sk.* less $1^1/_3$ % discount.
[2] "To be paid as usual according to the Magistrate's scale".
[3] Jan.–Mar. 192 *sk.* per *otting*, Apr.–Dec. 186 *sk.* per *otting*.
[4] Jan.–Feb. 186 *sk.* per *otting*, Feb.–Aug. 192 *sk.* per *otting*, Sept.–Dec. 216 *sk.* per *otting*.
[5] Jan.–Feb. 216 *sk.* per *otting*, Mar.–Dec. 208 *sk.* per *otting*.
[6] Jan.–Sept. 208 *sk.* per *otting*, Oct.–Dec. 216 *sk.* per *otting*.
[7] 216 *sk.* per *otting* is paid for soap supplied 6/2 – July, 228 *sk.* per *otting* is paid for soap supplied after 13/8, "paid in accordance with the decree of 4/8 1782".
[8] Jan.–Aug. 216 *sk.* per *otting*, Sept.–Dec. 228 *sk.* per *otting*.

9) Jan.–Aug. 228 *sk.* per *otting*, Sept.–Dec. 216 *sk.* per *otting*.
10) 216 *sk.* per *otting* is paid for soap supplied 17/2–9/5, 240 *sk.* per *otting* is paid for soap supplied 30/7–15/12. Upon receipt a note is made: "In accordance with decrees of 8/9 79 and 23/5 85".
11) Jan.–Apr. 216 *sk.* per *otting*, May–Dec. 240 *sk.* per *otting*.
12) "in accordance with the decree of 23/5 85".
13) 240 *sk.* per *otting* in accordance with the decree of 23/5 87.
14) Jan.–Apr. 240 *sk.* per *otting*, May–Dec. 228 *sk.* per *otting*.
15) 228 *sk.* per *otting* "in accordance with the decree of 23/5 87".
240 *sk.* per *otting* "in accordance with the decree of 18/8 88".
16) Jan.–July 228 *sk.* per *otting*, Aug.–Dec. 252 *sk.* per *otting*.
17) "in accordance with decree of 18/8 88".
18) Jan.–June 252 *sk.* per *otting*, July–Dec. 240 *sk.* per *otting*.
19) Jan.–May 240 *sk.* per *otting*, June–Nov. 222 *sk.* per *otting*, Dec. 252 *sk.* per *otting*.
20) Fluctuating prices.
21) Jan.–Oct. 240 *sk.* per *otting*, Nov.–Dec. 234 *sk.* per *otting*.

Appendix 1.21

The Fleet's victualling scales afloat.
(Per man per week).

	1680[1])	1736[2])	1752[3])	1794[4])	Interim scale of 1802[5])
Pork	1.083 *pund*	1.500 *pund*	1.500 *pund*	1.500 *pund*	1.500 *pund*
Beef	2.000 *pund*	3.000 *pund*	3.000 *pund*	3.000 *pund*	3.000 *pund*
Bergen fish	2.000 *pund*	0.250 *pund*	0.750 *pund*	0	0
Butter	1.000 *pund*	1.388 *pund*	1.328 *pund*	1.250 *pund*	1.000 *pund*
Barley groat	1.250 *ottkr.*	1.025 *ottkr.*	1.025 *ottkr.*	1.000 *ottkr.*	0.614 *ottkr.*
Peas	2.500 *ottkr.*	0.375 *ottkr.*	0.375 *ottkr.*	0.500 *ottkr.*	0.500 *ottkr.*
"Hard bread"	6.000 *pund*	7.000 *pund*	6.000 *pund*	6.000 *pund*	6.857 *pund*
Ale[6])	20.00 *pot*	17.25 *pot*[6])	17.25 *pot*	8.50 *pot*[6])	8.50 *pot*[6])
Brændevin	0	0.250 *pot*	0.250 *pot*	0.437 *pot*	0.437 *pot*
Prunes	0	0			0.375 *pund*
Treacle	0	0			0.469 *pund*

Salt and vinegar are excluded. As regards salt it is presumed that the quantity of salt stated in the victualling scales does not represent the quantity consumed, since both the pork and the beef were salted. The quantities of vinegar were negligible.

[1]) H. G. Garde: Efterretninger om den danske og norske sømagt, I, 1832, p. 253 f.
[2]) H. G. Garde: Efterretninger om den danske og norske sømagt, II, 1833, p. 216 f.
[3]) RA Søetaten: Admiralitetet, Admiralitetets kongelige resolutioner 1752 8/1.
[4]) Kong Friderich den Femtes Søe-Krigs-Artikels-Brev, dateret 8/1 1752, second ed., 1811, appendix 13. The above-mentioned victualling scale is shown as the victualling scale afloat, approved by the Crown, of 8/1 1752 and 28/3 1794, but since it is not identical with the victualling scale of 1752, it is construed as the 1752 victualling scale with revisions of 1794.
[5]) H. G. Garde: Efterretninger om den danske og norske sømagt, IV, 1835, p. 573 f.
[6]) Ship's ale is mentioned in 1680, 1736 and 1752, but 4-dollar ale in 1796 and 1802. 4-dollar ale must have been a considerably better grade, since for 1794 there is a provision that where ship's ale is issued in its place, the ration is to be doubled (Source as for note 4). If the 8.5 *pot* of 4-dollar ale in 1794 are converted to 17 *pot* of ship's ale, the reduction amounts to only $^1/_4$ *pot* per man per week.

Appendix 1.22

Dietary regulations of Frederiks hospital 1757[1]).

For midday meals:

Throughout the week 3 *pægl* veal broth with 8 *lod* meat without bone added prepared in the following manner.
On Sunday with chervil and oatmeal.
On Monday with *suramph* (dock and lilac leaves) and spinach.
On Tuesday with Savoy cabbage.
On Wednesday with *purslane* and lettuce.
On Thursday with shredded kale or red cabbage.
On Friday with coarse barley grits.
On Saturday with carrots and oatmeal.

At that season when fresh vegetables are not to be had, the soup on Sundays is permitted to be served with prunes, and on the other days alternatively with coarse barley grits or oatmeal, parsley roots, celery, parsnips and leeks.

For evening meals:

On Sunday a well-cooked half-bowl of barley-meal broth with 1/2 *lod* butter.
On Monday warm ale with good thick-cut rye bread, 3 *pægle* with 1 *lod* white caster sugar and 1/2 *lod* butter.
On Tuesday as for Sunday.
On Wednesday 3 *pægle* oatmeal broth with parsley or chopped chervil with 1/2 *lod* butter.
On Thursday as for Sunday.
On Friday as for Sunday.
On Saturday 3 *pægle* barleymeal broth with anise and 1/2 *lod* butter.

With every midday or evening meal is issued 1/2 *pund* well baked rye bread or a simnel cake to a value of 1 Danish *skilling*, at midday without butter and in the evening with 1 1/2 *lod* butter to both rye bread and simnel cake.
To each person daily three *potter* of the hospital's customary ale at 8 Danish *mark* per barrel.

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[1]) Reglement hvorefter med den daglige Spiisning saavel Middag som Aften udi det Kongelig Friderichs Hospital skal forholdes, Copenhagen, 1757.

Appendix 1.23

Frederiks plejehus.
Expenditure account for maintenance of children in care, 1/1–31/12 1766[1]).

Aggregate expenditures on:	*rd* : *sk*
1. Bread	63 : 39
2. Meat	32 : 20 1/2
3. Fish	5 : 60
4. Butter and dripping	11 : 51
5. Cheese	15 : 01
6. Groats of all varieties	24 : 85
7. Peas	3 : 39 1/2
8. Wheaten flour	3 : 34
9. Rice	0 : 28
10. Turnips, cabbage and all varieties of garden produce	14 : 67
11. Eggs	0 : 72
12. Salt	1 : 24
13. Mustard	0 : 46 1/2
14. Raisins, currants, lemons, caraway seeds and all varieties of spices	1 : 25
15. Sugar	0 : 44 1/2
16. Treacle	3 : 72
17. Tea	1 : 86
18. Milk	7 : 75 1/2
19. Ale	8 : 88
20. Vinegar	0 : 70
21. Wine	0 : 35
Total	202 : 07 1/2

[1]) Hærens Arkiv: Christians Plejehus, Regnskaber 1765–66.

Appendix 2.0

Introduction to appendices 2.1–2.7.

Appendices 2.1–2.7 list the most important of the foodstuffs registered in the Copenhagen consumption tax ledgers[1]). The appendices contain tables showing quantities of grain registered as having been milled in the city and tables of imported foodstuffs. Unmilled grain was not registered on import. For 1730–69 the import-table totals cover total imports, but for 1770–1800 they include only imports by land, cf. p. 38 ff. The figures in the tables are rounded to whole numbers of the units employed. Quantities smaller than $^1/_2$ of the units employed are given as 0. In those cases where figures are missing, either the space is left empty or a figure is arrived at by linear interpolation between the preceding and succeeding years. Such interpolated figures are shown in square brackets. Square brackets are also used for those totals where more than 10 % of the amount derives from interpolated figures.

[1]) RA GenToldkamm: Reviderede regnskaber, København; Antegnelser, ekstrakter m. v. 1730–1800. However, the milling figures for 1788–89 and 1799 are taken from: RA GenToldkamm VA II p. 278: Beregninger over de i København formalede samt ind- og udførte kornvarer.

Appendix 2.1111

Copenhagen consumption tax ledgers.
Registered grain-milling liable to consumption tax.
Rye for flour, barrels.

1730	24124	1754	39735	1778	59687
1731	23092	1755	47896	1779	58980
1732	[24736]	1756	54079	1780	61460
1733	[26381]	1757	52877	1781	59049
1734	[28025]	1758	58766	1782	65548
1735	29670	1759	50890	1783	46195
1736	31382	1760	50944	1784	67876
1737	30062	1761	50979	1785	21296
1738	27946	1762	49967	1786	80652[1])
1739	30791	1763	56666	1787	61382
1740	43305	1764	60892	1788	53119
1741	49337	1765	61409	1789	67323
1742	36541	1766	56783	1790	65258
1743	35150	1767	61057	1791	57859
1744	32485	1768	66859	1792	58449
1745	36978	1769	61638	1793	66151
1746	43525	1770	61898	1794	69648
1747	41190	1771	70655	1795	70339
1748	40191	1772	65530	1796	76356
1749	40631	1773	64551	1797	58378
1750	35474	1774	54759	1798	70209
1751	32948	1775	52560	1799	82360
1752	35750	1776	53754	1800	92186
1753	36688	1777	50883		

[1]) According to table filed with the records from 1788.

Appendix 2.1112

Copenhagen consumption tax ledgers.
Registered grain-milling liable to consumption tax.
Barley for flour, barrels.

1730	499	1754	231	1778	91
1731	272	1755	273	1779	17
1732	[326]	1756	290	1780	32
1733	[380]	1757	223	1781	44
1734	[434]	1758	349	1782	3
1735	489	1759	498	1783	2
1736	678	1760	466	1784	1809
1737	637	1761	374	1785	2657
1738	354	1762	397	1786	[1666]
1739	432	1763	249	1787	674
1740	760	1764	274	1788	180
1741	1432	1765	391	1789	188
1742	1777	1766	252	1790	463
1743	889	1767	180	1791	229
1744	725	1768	221	1792	617
1745	784	1769	375	1793	227
1746	993	1770	160	1794	67
1747	700	1771	542	1795	324
1748	905	1772	363	1796	89
1749	660	1773	152	1797	14
1750	432	1774	266	1798	45
1751	290	1775	264	1799	44
1752	274	1776	103	1800	1076
1753	284	1777	18		

Appendix 2.1113

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Rye- and barley-flour, and bread made from rye- and barley-flour[1]), barrels.

Year	The custom house (habour)	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports
1730	[2124]	49	813	898	132	[4016]
1731	2599	62	914	1259	147	4981
1732	1845	37	882	923	143	3830
1733	2620	48	955	1229	136	4988
1734	2630	21	945	1287	172	5055
1735	3057	17	743	1596	107	5520
1736	2392	9	592	2038	56	5087
1737	2446	6	512	[1985]	34	[4983]
1738	2675	14	695	1932	72	5388
1739	3407	15	401	[1555]	136	[5514]
1740	2711	18	542	1178	84	4533
1741	2840	26	913	1548	86	5413
1742	2190	19	337	1820	55	4421
1743	2656	17	485	[1523]	55	[4736]
1744	3128	17	479	1226	55	4905
1745	3090	14	611	894	15	4624
1746	3292	14	585	957	67	4915
1747	2363	20	657	945	155	4140
1748	2302	18	600	1057	143	4120
1749	1618	16	594	944	97	3269
1750	1866	21	707	1910	102	4606
1751	1657	26	836	2268	85	4872
1752	1551	23	1180	2254	82	5090
1753	1626	42	1191	2405	96	5360
1754	1770	7	1175	2384	63	5399
1755	1548	12	769	1587	59	3975
1756	1558	24	909	1538	109	4138
1757	1669	43	1245	2418	61	5436
1758	1849	39	365	2712	65	5030
1759	2922	33	671	3987	73	7686
1760	1555	28	366	3507	69	5525
1761	2261	22	906	4266	60	7515
1762	2185	95	962	[3390]	114	[6746]

Appendix 2.1113 (contd.)

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Rye- and barley-flour[2]), barrels.

Year	The custom house (habour)	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports
1763	1558	14	548	2513	38	4671
1764	1397	13	739	2511	85	4745
1765	4590	9	403	2513	112	7627
1766	5262	11	674	2512	64	8523
1767	3773	15	607	1387	98	5880
1768	4386	9	754	1804	94	7047
1769	4221	26	778	938	97	6060

Footnotes on page 163.

Appendix 2.1113 (contd.)

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Rye- and barley-flour[2]).

	Christians-havns Gate		North Gate		West Gate	
Year	Barrels	*Lispd.*	Barrels	*Lispd.*	Barrels	*Lispd.*
1770	21	0	612	0	1892	0
1771	75	0	488	0	2511	0
1772	17	0	471	0	695	0
1773	17	0	557	0	2513	0
1774	21	0	837	0	3512	0
1775	12	0	637	0	2111	0
1776	13	0	605	0	1372	0
1777	[23]	[0]	[725]	[0]	[1255]	[0]
1778	33	0	846	0	1138	0
1779	[29]	[0]	[1040]	[0]	[1353]	[0]
1780	[25]	[0]	1233	0	1567	0
1781	22	0	930	0	1489	0
1782	34	0	1436	0	1463	0
1783	61	0	2325	0	[1053]	[0]
1784	153	0	1543	1873	643	0
1785	96	3	1025	1646	1241	1269
1786	67	1	711	727	600	0
1787	92	0	836	450	939	0
1788	0	975	771	7915	946	5961

Footnotes on page 163.

East Gate		Total imports overland[3])
Barrels	*Lispd.*	Barrels
83	0	2608
89	0	3163
165	0	1348
182	0	3269
190	0	4560
139	0	2899
116	0	2106
[113]	[0]	[2116]
109	0	2126
[320]	[0]	[2742]
531	0	3356
504	0	2945
1252	0	4185
1768	0	[5207]
1531	0	4046
2797	0	5432
3542	10588	5981
2547	6680	5082
1087	11552	5279

Appendix 2.1113 (contd.)

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Rye-flour, *lispund*.

Year	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports overland
1789	952	18474	8984	19220	47630
1790	1104	15384	8474	21472	46434
1791	1110	18606	13738	23515	56969
1792	1617	15636	[10660]	18824	[46737]
1793	1217	11753	7582	9244	29796
1794	1795	11570	[10896]	7723	[31984]
1795	1771	7842	[14211]	13403	[37227]
1796	2350	7550	17526	13360	40786
1797[4])	1377	1978	[6878]	3036	[13269]

Appendix 2.1113 (contd.)

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Unsifted rye-flour, *lispund*[5]).

Year	Christians-havns Gate	North Gate	West Gate	Total imports, Christianshavns, North and West Gate
1797	1177	2453	[7442]	11072
1798	1469	4541	14671	20681
1799	1615	11190	13952	26757
1800	4405	12533	15926	32864

Appendix 2.1113 (contd.)

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Sifted rye-flour, *lispund*[6]).

Year	Christians-havns Gate	North Gate	West Gate	Total imports, Christianshavns, North and West Gate
1797	0	1589	[3257]	4846
1798	138	1015	2666	3819
1799	0	873	156	1029
1800	0	1473	218	1691

Appendix 2.1113 (contd.)

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Fine rye-flour, *lispund*.

Year	Christians-havns Gate	North Gate	West Gate	Total imports, Christianshavns, North and West Gate
1797	0	0	[0]	0
1798	0	0	317	317
1799	0	1	3704	3705
1800	0	37	3629	3666

Appendix 2.1113 (contd.)

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Rye-flour, barrels.

Year	East Gate[7])
1797	1471
1798	4775
1799	3949
1800	2421

[1]) For some years, only an aggregate figure, covering both imported rye- and barley-flour and rye and barley bread, is entered in the consumption tax ledgers. This is because the import duty was the same for rye and barley, and because the quantity of barrels recorded probably refers not to the volume of the flour and bread but to the amount of grain estimated to have gone into their production, cf. Appendix 2.92. Wherever a distinction is made, rye-flour accounts for most of the imports.

[2]) Wherever a distinction is made, rye-flour accounts for most of the imports.

[3]) The sums paid in duty give a conversion factor of 1 barrel = $10^2/_3$ *lispund*.

[4]) See also unsifted rye-flour, sifted rye-flour, fine rye-flour and rye-flour East Gate.

[5]) Statements in barrels are converted into *lispund* according to the ledger for the Christianshavn Gate in 1797: 1 barrel = 12 *lispund*.

[6]) Statements in barrels are converted into *lispund*. The sums paid in duty give a conversion factor of 1 barrel = 10 *lispund*.

[7]) In the East Gate ledgers for 1797–1800, rye flour is not categorised but counted all together as barrels.

Appendix 2.1114

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Barley-flour.

Year	Christians-havns Gate		North Gate		West Gate	
	Barrels	*Lispd.*	Barrels	*Lispd.*	Barrels	*Lispd.*
1789	0	64	0	72	0	1190
1790	0	90	0	189	0	2197
1791	0	78	0	194	0	3310
1792	0	112	0	239	[0]	[2727]
1793	0	50	0	419	0	2143
1794	0	46	0	111	[0]	[2873]
1795	0	130	0	233	[0]	[3603]
1796	0	115	0	217	0	4333
1797	0	2	1	31	[0]	[3524]
1798	61	3	1	33	0	2715
1799	50	1	1	27	0	3049
1800	5	0	26	258	0	13196

[1]) The sums paid in duty give a conversion factor of 1 barrel = 8 *lispund*.

East Gate		Total imports overland[1])
Barrels	*Lispd.*	*Lispd.*
0	2093	3419
0	857	3333
0	256	3838
0	469	[3547]
0	516	3128
0	662	[3692]
0	472	[4438]
0	880	5545
32	106	[3927]
50	0	3647
26	0	3693
332	0	16358

Appendix 2.1115

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Rye bread.

Year	The custom house (harbour)		Christians-havns Gate	North Gate	West Gate	East Gate	Total imports[1])
	Barrels	*Lispd.*	*Lispd.*	*Lispd.*	*Lispd.*	*Lispd.*	*Lispd.*
1763	55	12	130	475[2])	407	113	1697
1764	61	2	100	654	401	177	1944
1765	75	9	92	382	404	222	1859
1766	30	1	50	555	405	165	1476
1767	25	0	80[3])	454	418	116	1338
1768	42	0	72	598	370	152	1612
1769	30	0	54	582	228	190	1354

Appendix 2.1115 (contd.)

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Rye bread, *lispund*.

Year	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports overland[4])
1770	60	650	597	169	1476
1771	68	526	212	139	945
1772	76	384	417	181	1058
1773	52	440	404	255	1151
1774	78	446	405	205	1134
1775	66	444	560	179	1249
1776	65	429[5])	482	231	1247
1777	[59]	[486]	[542]	[172]	[1259]
1778	52	542	601	113	1308
1779	[45]	[504]	[621]	[95]	[1265]
1780	[38]	466[6])	640	76	1240
1781	32	540[7])	334	141	1057
1782	36	701	464	173	1374
1783	36	750[8])	[500]	756	[2062]
1784	40	661[9])	536	202	1619
1785	57	564[10])	556	1293	2480
1786	140	549	630	2511	3830
1787	165	1153	684	3583	5585
1788	155	2226	954	7592	10927
1789	189	2461	1066	8137	11853
1790	206	3845	824	6279	11154
1791	132	2356	1112	3075	6675
1792	109	2428	[2036]	2342	[6915]
1793	79	2621	2960	3618	9278
1794	140	2072	[2944]	4433	[9589]
1795	516	2064	[2928]	5623	[11131]
1796	300	1972	2913	7948	13133
1797	250	2418	[3117]	6216	[12001]
1798	140	8995	3320	6015	18470
1799	327	8647	3519	5386	17879
1800	427	12290	4536	6794	24047

[1]) The conversion factor used is 1 barrel = 10 *lispund*.
[2]) + 1 barrel.
[3]) + 2 barrels.
[4]) The conversion factor used is 1 barrel = 10 *lispund*.
[5]) + 4 barrels.
[6]) + 2 barrels.
[7]) + 1 barrel.
[8]) + 2 barrels.
[9]) + 18 barrels.
[10]) + 1 barrel.

Appendix 2.1121

Copenhagen consumption tax ledgers.
Registered grain-milling liable to consumption tax.
Wheat for flour, barrels.

1730	23052	1754	24444	1778	37009
1731	20949	1755	28753	1779	38541
1732	[20246]	1756	30372	1780	46561
1733	[19544]	1757	26659	1781	43853
1734	[18841]	1758	24038	1782	54507
1735	18139	1759	23798	1783	44224
1736	16993	1760	25947	1784	44469
1737	17829	1761	28637	1785	43208
1738	17650	1762	26470	1786	44822[1])
1739	21685	1763	30128	1787	47144
1740	19349	1764	31673	1788	49510
1741	16977	1765	25661	1789	40553
1742	16702	1766	27850	1790	34904
1743	22181	1767	31686	1791	38494
1744	22356	1768	31569	1792	38105
1745	20435	1769	30887	1793	39150
1746	21948	1770	33846	1794	38006
1747	22730	1771	32701	1795	33282
1748	21178	1772	32341	1796	35386
1749	23627	1773	30601	1797	42997
1750	24024	1774	27700	1798	40493
1751	23872	1775	27009	1799	39167
1752	26121	1776	30597	1800	35496
1753	24618	1777	33406		

[1]) According to table filed with the records from 1788.

Appendix 2.1122

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Wheaten flour and bread made from wheaten flour[1]).

Year	The custom house (harbour)		Christians-havns Gate	North Gate	West Gate	East Gate	Total imports[2])
	Barrels	*Lispd.*	*Lispd.*	*Lispd.*	*Lispd.*	*Lispd.*	*Lispd.*
1730	[17]	[11405]	2	117	1774	19	[13453]
1731	0	11553	0	141	1328	20	13042
1732	19	14721	0	60	552	15	15500
1733	32	14816	1	69	832	11	15985
1734	18	12716	61	889	161	11	13982
1735	3	7449	2	261	639	3	8378
1736	0	8213	198	20	276	6	8713
1737	13	10234	1	156	[1087]	0	11582
1738	16	15003	3	236	1898	5	17273
1739	11	12115	1	19	[1537]	16	[13776]
1740	10	9784	3	62	1175	6	11110
1741	19	11119	9	962	523	5	12770
1742	20	18198	9	216	531	10	19124
1743	16	22621	0	134	[370]	114	23367
1744	15	21694	6	113	208	105	22246
1745	17	20376	9	177	531	118	21347
1746	16	20841	17	62	374	79	21501
1747	15	28606	8	115	265	145	29259
1748	21	32162	19	140	264	258	33011
1749	15	21011	3	166	271	101	21672
1750	15	18501	7	266	346	77	19317
1751	14	21501	9	278	360	78	22338
1752	13	22022	2	343	276	151	22898
1753	19	23366	9	385	302	98	24312
1754	16	19903	2	362	301	120	20816
1755	17	19965	2	240	223	232	20798
1756	18	17984	2	235	375	144	18884
1757	17	15785	4	234	363	94	16616
1758	16	18487	2	291	417	90	19415
1759	0	16464	5	267	590	107	17433
1760	17	20222	9	286	691	80	21424
1761	21	32102	11	440	603	117	33441
1762	20	30183	2	352	[606]	40	31343
1763	2	4786	4	304	608	33	5751
1764	4	4001	0	346	491	99	4969
1765	0	4315	5	127[3])	499	138	5100
1766	0	4102	7	363	500	51[4])	5079
1767	0	2363	5	515	472	151	3506
1768	0	3715	2	599	536	299	5151
1769	1	4793	91	571	523	301	6287

Footnotes on page 171.

Appendix 2.1122 (contd.)

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Wheaten flour, *lispund*.

Year	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports overland[5])
1770	68	1097	569	405	2139
1771	62	1652	403	1320	3437
1772	52	328	718	340	1438
1773	68	159	409	121	757
1774	36	197	408	133	774
1775	61	181	670	150	1062
1776	58	251	1386	87	1764
1777	[33]	[331]	[3534]	[99]	[3997]
1778	7	411	5681	110	6209
1779	[16]	[429]	[8576]	[120]	[9141]
1780	[26]	447	11471	130	12074
1781	36	605	5724	533	6898
1782	16[6])	200[7])	5759	0[10])	18807
1783	87	69[8])	[3112]	0[11])	[10284]
1784	128	389[9])	464	1826	3751
1785	140	182	595	327	1244
1786	55	371	430	424	1280
1787	76	245	469	200[12])	1030
1788	125	446	613	190[13])	1406
1789	46	443	0	204	693
1790	66	292	402	290	1050
1791	111	420	643	122	1296
1792	64	211	[522]	91	[888]
1793	71	163	401	167	802
1794	243	490	[438]	332	[1503]
1795	168	119	[475]	293	[1055]
1796	67	205	512	436	1220
1797[14])	8	36	[73]	115	[232]

Appendix 2.1122 (contd.)

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Sifted wheaten flour, *lispund*[15])

Year	Christians-havns Gate	North Gate	West Gate	Total imports, Christians-havns, North and West Gate
1797	56	269	[543]	[868]
1798	100	1245	144	1489
1799	74	954	490	1518
1800	178	839	939	1956

Appendix 2.1122 (contd.)

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Fine wheaten flour, *lispund*[16]).

Year	Christians-havns Gate	North Gate	West Gate	Total imports, Christians-havns, North and West Gate
1797	14	53	[112]	[179]
1798	14	2	800	816
1799	5	108	1048	1161
1800	4	229	2079	2312

Appendix 2.1122 (contd.)

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Wheaten flour, barrels.

Year	East Gate[17])
1797	233
1798	1280
1799	851
1800	441

[1]) The quantity of barrels recorded probably does not represent the volume of wheaten flour and wheaten bread but the amount of grain estimated to have gone into their production. The reasons for this are the same as in the case of rye-flour and rye bread, cf. Appendix 2.92.
[2]) The sums paid in duty give a conversion factor of 1 barrel = 8 *lispund*.
[3]) + 2 barrels.
[4]) + 7 barrels.
[5]) The sums paid in duty give a conversion factor of 1 barrel = 8 *lispund*.
[6]) + 116 barrels.
[7]) + 4 barrels.
[8]) + 160 barrels.
[9]) + 118 barrels.
[10]) + 1484 barrels.
[11]) + 717 barrels.
[12]) + 5 barrels.
[13]) + 4 barrels.
[14]) See also sifted wheaten flour and fine wheaten flour and wheaten flour East Gate.
[15]) Statements in barrels are converted into *lispund* in accordance with the ordinance of 1/2 1797: 1 barrel = 11 *lispund*.
[16]) Statements in barrels are converted into *lispund* in accordance with the ordinance of 1/2 1797: 1 barrel = 9 *lispund*.
[17]) In the East Gate ledgers for 1797–1800, wheaten flour is not categorised as sifted or fine but counted all together as barrels.

Appendix 2.1123

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Wheaten bread, *lispund*.

Year	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports overland
1770	0	0[1])	114	660	774
1771	0	0[2])	18	260	278
1772	0	1067	42	773	1882
1773	0	166	90	186	442
1774	0	136	92	152	380
1775	0	235	170	177	582
1776	0	289	123	327	739
1777	[0]	[259]	[132]	[320]	[711]
1778	0	229	140	312	681
1779	[0]	[231]	[185]	[299]	[715]
1780	[0]	233	230	285	748
1781	0	282	113	208	603
1782	0	490	124	186	800
1783	0	619	[140]	196	[955]
1784	13	583	156	223	975
1785	10	674	286	646	1616
1786	17	856	417	1654	2944
1787	20	1415	1360	1274	4069
1788	23	1887	2115	1251	5276
1789	21	2184	1522	1283	5010
1790	20	2932	1316	1302	5570
1791	26	1861	1606	862	4355
1792	18	2100	[2582]	607	[5307]
1793	22	2362	3558	475	6417
1794	19	1980	[3849]	526	[6374]
1795	27	1573	[4141]	653	[6394]
1796	68	1319	4433	1120	6940
1797[3])	10	137	[902]	354	[1403]

Appendix 2.1123 (contd.)

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Wheaten bread, soft, *lispund*.

Year	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports overland
1797	40	1112	[3379]	725	[5256]
1798	54	1570	3797	919	6340
1799	85	1344	4026	827	6282
1800	69	1268	4725	1093	7155

Appendix 2.1123 (contd.)

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Wheaten bread, hard, *lispund*.

Year	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports overland
1797	4	198	[846]	268	[1316]
1798	4	140	2078	338	2560
1799	13	224	1756	313	2306
1800	13	199	2666	591	3469

[1]) Recorded under rye bread.
[2]) Probably recorded under rye bread as in the previous year.
[3]) See also soft wheaten bread and hard wheaten bread.

Appendix 2.1131

Copenhagen consumption tax ledgers.
Registered grain-milling liable to consumption tax.
Bran for flour, barrels.

1730	2471	1754	586	1778	0
1731	3679	1755	759	1779	30
1732	[3330]	1756	227	1780	16
1733	[2981]	1757	97	1781	0
1734	[2632]	1758	40	1782	4
1735	2284	1759	105	1783	0
1736	1971	1760	189	1784	6
1737	1350	1761	81	1785	6
1738	1233	1762	39	1786	[3]
1739	1344	1763	3	1787	0
1740	1196	1764	13	1788	0
1741	681	1765	1	1789	0
1742	566	1766	46	1790	0
1743	1010	1767	87	1791	0
1744	1512	1768	24	1792	0
1745	1481	1769	38	1793	0
1746	1462	1770	14	1794	0
1747	2041	1771	59	1795	0
1748	1744	1772	0	1796	0
1749	1461	1773	12	1797	0
1750	1763	1774	16	1798	0
1751	1904	1775	21	1799	0
1752	1812	1776	0	1800	0
1753	1246	1777	20		

Appendix 2.1132

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Bran, barrels.

Year[1])	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports overland
1785	6	69	8	8	91
1786	0	33	0	229	262
1787	1	16	0	214	231
1788	0	79	0	306	385
1789	1	131	0	442	574
1790	1	107	3	466	577
1791	0	90	6	409	505
1792	0	91	[3]	235	329
1793	0	89	0	315	404
1794	0	99	[0]	297	396
1795	0	101	[0]	390	491
1796	0	98	0	480	578
1797	1	110	[0]	403	514
1798	3	119	0	655	777
1799	6	140	0	448	594
1800	6	161	0	481	648

[1]) Imports in 1730–84 did not exceed 50 barrels a year.

Appendix 2.121

Copenhagen consumption tax ledgers.
Registered grain-milling liable to consumption tax.
Barley for groats, barrels.

1730	1230	1754	2725	1778	3306
1731	2329	1755	2124	1779	1481
1732	[2556]	1756	2566	1780	815
1733	[2783]	1757	4897	1781	5924
1734	[3010]	1758	6500	1782	6824
1735	3237	1759	6432	1783	6132
1736	3207	1760	5280	1784	4658
1737	3373	1761	4983	1785	4058
1738	3285	1762	8734	1786	[4079]
1739	3008	1763	1787	1787	4099
1740	2907	1764	2624	1788	4855
1741	3710	1765	3132	1789	6318
1742	3189	1766	2949	1790	5003
1743	1308	1767	2705	1791	5321
1744	2725	1768	3620	1792	2409
1745	2318	1769	4044	1793	4190
1746	1796	1770	4725	1794	3717
1747	2231	1771	5628	1795	5159
1748	1988	1772	4539	1796	5598
1749	3724	1773	4412	1797	4763
1750	2406	1774	6201	1798	4231
1751	3395	1775	3598	1799	6121
1752	2356	1776	3467	1800	7935
1753	1570	1777	3775		

Appendix 2.122

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Barley groats, ordinary[1]), barrels.

Year	The custom house (habour)	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports
1730	[3174]	137	1338	1923	140	[6712]
1731	3411	93	694	1437	142	5777
1732	2971	47	678	1026	180	4902
1733	2915	134	1196	1747	118	6110
1734	1946	69	1258	1603	90	4966
1735	2197	59	760	2500	36	5552
1736	1637	73	566	1687	44	4007
1737	2506	100	1090	[2423]	18	[6137]
1738	2784	128	1016	3158	29	7115
1739	2941	111	877	[2865]	124	[6918]
1740	2488	56	1035	2571	47	6197
1741	2770	64	1278	2863	47	7022
1742	2742	113	1422	2147	72	6496
1743	3494	33	965	[1790]	57	[6339]
1744	3860	50	936	1433	60	6339
1745	3646	39	1391	1936	57	7069
1746	3420	86	986	1164	61	5717
1747	3320	34	2285	1160	63	6862
1748	3658	90	2681	1000	54	7483
1749	3366	46	1406	1440	121	6379
1750	3843	40	1778	1257	56	6974
1751	3893	77	1911	992	47	6920
1752	3012	71	1828	978	46	5935
1753	4020	75	1690	1006	38	6829
1754	2981	41	1799	1011	19	5851
1755	3926	31	1902	814	37	6710
1756	4015	27	2359	1242	37	7680
1757	3891	36	3024	869	35	7855
1758	3845	28	2620	1683	50	8226
1759	4618	15	2298	1823	38	8792
1760	3935	66	32	1341	7	5381
1761	3761	33	1991	1969	48	7802
1762	3861	5	2394	[1650]	7	[7917]
1763	4660	8	2438	1330	6	8442
1764	4810	8	2016	1230	15	8079
1765	6600	5	1091	1231	194	9121
1766	6353	13	1849	1164	41	9420
1767	5142	5	1638	570	27	7382
1768	8053	100	1929	499	23	10604
1769	5722	625	1804	438	58	8647

Appendix 2.122 (contd.)

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Barley groats, ordinary, barrels.

Year	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports overland
1770	812	1840	939	12	3603
1771	463	2224	818	46	3551
1772	313	2096	400	61	2870
1773	229	1962	888	294	3373
1774	419	1579	666	14	2678
1775	351	1483	371	23	2228
1776	322	1256	215	22	1815
1777	[314]	[1237]	[212]	[165]	[1928]
1778	305	1217	209	308	2039
1779	[362]	[1169]	[180]	[1288]	[2999]
1780	[419]	1121	151	2268	[3959]
1781	477	1151	74	341	2043
1782	443	1131	121	152	1847
1783	358	1329	[152]	340	2179
1784	74	1399	183	783	2439
1785	245	1421	215	1516	3397
1786	801	1338	154	1111	3404
1787	437	1732	201	1216	3586
1788	616	1974	166	2620	5376
1789	561	1779	183	2346	4869
1790	700	1307	265	2152	4424
1791	484	1794	256	1006	3540
1792	706	1527	[308]	1137	3678
1793	787	1621	360	1009	3777
1794	670	1535	[564]	909	[3678]
1795	1204	1746	[768]	722	[4440]
1796	708	1415	972	957	4052
1797	781	1588	[816]	273	[3458]
1798	985	1339	660	532	3516
1799	867	1136	862	491	3356
1800	783	1182	2523	294	4782

[1]) Up to 1761 inclusive, "bankebyg" (a sort of barley groats) is included.

Appendix 2.123

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Special types of groats (*eiergryn*, pearl barley, rice, and after 1762 *bankebyg*), *lispund*.

Year	The custom house (harbour)	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports
1730	[6058]	0	1	292	0	[6351]
1731	5393	0	3	199	16	5611
1732	7317	0	7	249	3	7576
1733	8799	0	1	113	0	8913
1734	5700	0	10	106	1	5817
1735	6784	0	3	71	1	6859
1736	3786	37	2	54	0	3879
1737	6337	0	0	[58]	0	6395
1738	3472	0	0	61	0	3533
1739	8647	0	1	[49]	7	8704
1740	6510	0	13	36	0	6559
1741	8418	0	2	27	0	8447
1742	8209	4	1	32	0	8246
1743	9765	0	3	[49]	0	9817
1744	10336	0	1	66	1	10404
1745	7391	0	4	37	0	7432
1746	6986	0	1	45	47	7079
1747	5855	0	20	39	0	5914
1748	8179	0	13	60	0	8252
1749	5589	0	0	63	163	5815
1750	10253	0	0	55	22	10330
1751	11264	0	0	112	0	11376
1752	17966	0	2	110	1	18079
1753	7990	0	0	243	0	8233
1754	27880	0	6	6	0	27892
1755	14385	0	0	565	0	14950
1756	18789	0	1	199	0	18989
1757	21679	0	0	92	0	21771
1758	11154	0	0	44	0	11198
1759	12194	1	0	51	0	12246
1760	19679	0	0	80	0	19759
1761	8869	0	0	44	0	8913
1762	9365	0	0	[338]	0	9703
1763	14490	0	0	632	0	15122
1764	14362	0	8	526	1	14897
1765	36311	0	2	503	1	36817
1766	20482	0	5	504	0	20991
1767	20983	0	2	409	0	21394
1768	27073	207	0	647	0	27927
1769	20790	1378	6	492	1	22667

Appendix 2.123 (contd.)

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Special types of groats (*eiergryn*, pearl barley, rice, and after 1762 *bankebyg*), *lispund*.

Year	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports overland
1770	2464	12	1381	1	3858
1771	3238	0	603	0	3841
1772	2246	6	2271	1	4524
1773	1138	29	1103	719	2989
1774	1195	18	1532	43	2788
1775	1061	67	821	44	1993
1776	1173	26	768	253	2220
1777	[676]	[192]	[3412]	[1355]	[5635]
1778	178	357	6056	2456	9047
1779	[478]	[308]	[5279]	[1709]	[7774]
1780	[778]	259	4501	962	[6500]
1781	1078	3	3182	26	4289
1782	502	238	3394	606	4740
1783	529	214	[2173]	758	[3674]
1784	1943	1075	951	1303	5272
1785	1950	850	3483	5072	11355
1786	1681	80	2834	3747	8342
1787	736	117	4768	3124	8745
1788	743[1])	222	4155	3165	8285
1789	646[1])	218	2590	2325	5779
1790	271	219	4442	3485	8417
1791	484	117	5606	1996	8203
1792	998	104	[4850]	1819	[7771]
1793	3968	510	4093	2548	11119
1794	622	130	[5511]	2378	[8641]
1795	1756	42	[6930]	1703	[10431]
1796	3126	71	8349	1843	13389
1797	2577	229	[7861]	946	[11613]
1798	5317	375	7372	1111	14175
1799	2503	305	8812	1120	12740
1800	1498[1])	456[1])	14992	1261[1])	18207

[1]) Statements in barrels are calculated into *lispund* according to the sums paid in duty:
1 barrel = 14 *lispund*.

Appendix 2.13

Copenhagen consumption tax ledgers.
Registered grain-milling liable to consumption tax.
Malt for ale, barrels.

	For the brewers' gild	For household use[1])	For the "Brewhouse"[2])	Total
1730	60539	5504	1684	67727
1731	74393	5593	1719	81705
1732	[75673]	[5297]	[1912]	[82882]
1733	[76952]	[5001]	[2105]	[84058]
1734	[78232]	[4704]	2298	[85234]
1735	79511	4408	2168	86087
1736	76643	4184	1281	82108
1737	71964	3434	1390	76788
1738	73901	3154	1902	78957
1739	75487	3334	2080	80901
1740	71387	3126	[2000]	76513
1741	52734	2235	[2000]	56969
1742	51252	3081	[2000]	56333
1743	59124	2412	[2000]	63536
1744	55886	2442	1912	60240
1745	58071	2211	[2000]	62282
1746	54590	2043	[2000]	58633
1747	52988	3847	[2000]	58835
1748	52159	3617	[2000]	57776
1749	52313	3055	[2000]	57368
1750	56073	3585	[2000]	61658
1751	54795	3890	[2000]	60685
1752	58318	1823	2040	62181
1753	59765	1685	1957	63407
1754	58210	1416	1881	61507
1755	59132	1162	2159	62453
1756	61866	993	2708	65567
1757	58079	1013	2570	61662
1758	48705	809	2758	52272
1759	51309	967	2019	54295
1760	52024	1032	2585	55641
1761	54905	1134	2394	58433
1762	55332	1433	2631	59396
1763	49678	1805	2737	54220
1764	48972	1888	2407	53267
1765	49463	1422	2316	53201

Appendix 2.13 (contd.)

Copenhagen consumption tax ledgers.
Registered grain-milling liable to consumption tax.
Malt for ale, barrels.

	For the brewers' gild	For household use[1])	For the "Brewhouse"[2])	Total
1766	54344	1467	3021	58832
1767	55900	1367	1825	59092
1768	51884	1423	2090	55397
1769	56365	1225	2477	60067
1770	58484	1284	2027	61795
1771	50988	1206	2155	54349
1772	47018	1256	2546	50820
1773	49614	725	3067	53406
1774	46506	691	2941	50138
1775	55235	917	3195	59347
1776	55005	393	3343	58741
1777	59165	696	3689	63550
1778	64878	1384	4137	70399
1779	74217	1901	[4964]	81082
1780	68833	2076	5790	76699
1781	75896	1558	7424	84878
1782	70558	1102	7165	78825
1783	73769	1017	6184	80970
1784	61448	1249	6066	68763
1785	60578	1165	5522	67265
1786	56547	[1232]	5192	62971
1787	53802	1299	5602	60703
1788	61304	1236[3])	6220	68760
1789	59006	[1250]	8406	68662
1790		1264		61611
1791	60718	1398	5742	67858
1792	61026	1406	4528	66960
1793	59024	1467	5136	65627
1794	62072	1704	8362	72138
1795	55970	1868	8478	66316
1796	59710	1995	9716	71421
1797	67326	1762	7894	76982
1798				77940
1799	60382	1952	9624	71958
1800	52394	1820	8582	62796

[1]) The term used varies between "malt for free brewers" and "malt for households".
[2]) In the "Brewhouse" ale was brewed for the Navy.
[3]) Reckoned as the difference between the total quantity milled in the year and the quantity milled for the brewers' gild and the Brew-house.

Appendix 2.141

Copenhagen consumption tax ledgers.
Registered grain-milling liable to consumption tax.
Malt for distilling, barrels.

1730	4940	1754	8535	1778	9697
1731	5393	1755	9051	1779	9872
1732		1756	7079	1780	10294
1733		1757	5857	1781	10942
1734		1758	5509	1782	10718
1735	5957	1759	5612	1783	10816
1736	5649	1760	5831	1784	10084
1737	5309	1761	6643	1785	10500
1738	5259	1762	6916	1786	
1739	6091	1763	6052	1787	9273
1740	6170	1764	7096	1788	10021
1741	5891	1765	6876	1789	10403
1742	5647	1766	6367	1790	10122
1743	6178	1767	7314	1791	10414
1744	6777	1768	7380	1792	11231
1745	7123	1769	7906	1793	10680
1746	6564	1770	7687	1794	11311
1747	6524	1771	6800	1795	10209
1748	6374	1772	5965	1796	11504
1749	6475	1773	6025	1797	8676
1750	6607	1774	8209	1798	15201
1751	7116	1775	7370	1799	13746
1752	7514	1776	7133	1800	14110
1753	8185	1777	8667		

Appendix 2.142

Copenhagen consumption tax ledgers.
Registered grain-milling liable to consumption tax.
Wheat for distilling, barrels.

1730	7502	1754	30100	1778	43578
1731	5383	1755	35459	1779	48019
1732		1756	37630	1780	50500
1733		1757	22766	1781	55780
1734		1758	25033	1782	58910
1735	1054	1759	24975	1783	64468
1736	4255	1760	29634	1784	85519
1737	8250	1761	28389	1785	60668
1738	6243	1762	24168	1786	57948[1])
1739	7198	1763	31568	1787	56076
1740	2326	1764	24454	1788	59045
1741	7376	1765	22843	1789	58428
1742	14365	1766	32241	1790	57846
1743	16284	1767	27506	1791	29265
1744	14353	1768	24330	1792	62760
1745	11666	1769	24459	1793	61940
1746	15531	1770	32191	1794	65989
1747	19396	1771	33458	1795	62904
1748	16447	1772	33868	1796	67005
1749	24025	1773	31949	1797	81331
1750	25725	1774	25609	1798	82472
1751	25124	1775	27195	1799	81684
1752	25792	1776	34832	1800	74886
1753	25334	1777	40189		

[1]) According to table filed with the records from 1788.

Appendix 2.143

Copenhagen consumption tax ledgers.
Registered grain-milling liable to consumption tax.
Rye for distilling, barrels.

1730	8014	1754	10018	1778	4670
1731	11554	1755	609	1779	2664
1732		1756	2857	1780	3645
1733		1757	10983	1781	4004
1734		1758	6566	1782	1873
1735	18470	1759	6511	1783	0
1736	14120	1760	5232	1784	0
1737	9201	1761	9877	1785	0
1738	11571	1762	12998	1786	
1739	14758	1763	5168	1787	0
1740	16796	1764	12180	1788	0
1741	0	1765	13837	1789	4
1742	2369	1766	5463	1790	0
1743	4567	1767	12263	1791	870
1744	10728	1768	15866	1792	1847
1745	14977	1769	14535	1793	1527
1746	10630	1770	8550	1794	945
1747	8716	1771	1150	1795	693
1748	10951	1772	62	1796	1223
1749	5047	1773	28	1797	2859
1750	3608	1774	6027	1798	751
1751	5635	1775	4483	1799	544
1752	7449	1776	1588	1800	24
1753	8348	1777	4250		

Appendix 2.144

Copenhagen consumption tax ledgers.
Registered grain-milling liable to consumption tax.
Barley for distilling, barrels.

1730	3	1754	0	1778	26
1731	7	1755	0	1779	7
1732		1756	10	1780	10
1733		1757	1	1781	1
1734		1758	4	1782	24
1735	43	1759	0	1783	44
1736	86	1760	0	1784	56
1737	33	1761	0	1785	63
1738	0	1762	0	1786	
1739	0	1763	0	1787	0
1740	1224	1764	0	1788	
1741	8906	1765	1	1789	
1742	2106	1766	0	1790	28
1743	107	1767	0	1791	0
1744	1	1768	0	1792	0
1745	5	1769	0	1793	0
1746	17	1770	0	1794	0
1747	0	1771	658	1795	0
1748	10	1772	496	1796	0
1749	0	1773	299	1797	0
1750	7	1774	789	1798	
1751	2	1775	1569	1799	0
1752	1	1776	242	1800	86
1753	0	1777	0		

Appendix 2.145

Copenhagen consumption tax ledgers.
Registered sugar sirup for destilling, barrels[1]).

1730	0	1754	0	1778	956
1731	0	1755	0	1779	1062
1732		1756	0	1780	1010
1733		1757	601	1781	1156
1734		1758	1635	1782	878
1735	0	1759	2432	1783	906
1736	0	1760	2142	1784	873
1737	0	1761	2554	1785	1316[2])
1738	0	1762	2103	1786	
1739	0	1763	1935	1787	1395
1740	0	1764	1920	1788	1307
1741	0	1765	2136	1789	951
1742	0	1766	1796	1790	0
1743	0	1767	1720	1791	0
1744	0	1768	2207	1792	831
1745	0	1769	2196	1793	836
1746	0	1770	1630	1794	1082
1747	0	1771	1785	1795	844
1748	0	1772	1997	1796	617
1749	0	1773	1509	1797	851
1750	0	1774	1609	1798	1004
1751	0	1775	1710	1799	839
1752	0	1776	1653	1800	919
1753	0	1777	1355		

[1]) 1 barrel sugar-syrup *(sukkervand)* is 136 *potter*, cf. ordinance of 17/5 1762.

[2]) The ledger-entry shows 1315 1/2 *baller*, which has been taken as a transcription error for 1315 1/2 barrels.

Appendix 2.146

Copenhagen consumption tax ledgers.
Registered skim-sugar [1]) for distilling, *baller*[2]).

1730	0	1754	0	1778	185
1731	0	1755	0	1779	179
1732		1756	0	1780	228
1733		1757	229	1781	495
1734		1758	615	1782	617
1735	0	1759	945	1783	514
1736	0	1760	822	1784	562
1737	0	1761	667	1785	929
1738	0	1762	702	1786	
1739	0	1763	676	1787	561
1740	0	1764	1012	1788	386
1741	0	1765	1569[3])	1789	719
1742	0	1766	1335	1790	0
1743	0	1767	1417	1791	0
1744	0	1768	1644	1792	306
1745	0	1769	1352	1793	398
1746	0	1770	1070	1794	394
1747	0	1771	950	1795	46
1748	0	1772	948	1796	53
1749	0	1773	508	1797	61
1750	0	1774	423	1798	21
1751	0	1775	497	1799	0
1752	0	1776	477	1800	0
1753	0	1777	329		

[1]) A byproduct skimmed from the surface of the refining vate.
[2]) 1 *balle* of skim-sugar is 102 *potter*, cf. ordinance of 17/5 1762.
[3]) The ledger-entry shows 1569 barrels, which has been taken as a transcription error for 1569 *baller*.

Appendix 2.15

Copenhagen consumption tax ledgers.
Registered grain-milling liable to consumption tax.
Malt for vinegar, barrels.

1730	29	1754	223	1778	351
1731	27	1755	299	1779	540
1732		1756	287	1780	505
1733		1757	266	1781	537
1734		1758	260	1782	478
1735	59	1759	227	1783	498
1736	76	1760	226	1784	566
1737	88	1761	273	1785	418
1738	88	1762	255	1786	
1739	102	1763	232	1787	427
1740	145	1764	262	1788	520
1741	96	1765	253	1789	483
1742	93	1766	301	1790	502
1743	60	1767	290	1791	486
1744	70	1768	318	1792	498
1745	48	1769	292	1793	569
1746	38	1770	347	1794	598
1747	76	1771	279	1795	710
1748	119	1772	331	1796	700
1749	180	1773	250	1797	443
1750	177	1774	321	1798	544
1751	158	1775	334	1799	555
1752	160	1776	408	1800	485
1753	236	1777	393		

Appendix 2.211

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Dried and split peas, barrels.

Year	The custom house (harbour)	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports
1730	[2141]	17	274	2998	16	[5446]
1731	1872	22	451	3002	105	5452
1732	1943	19	383	3195[1])	79	5619
1733	2013	8	125	2945	23	5114
1734	1973	17	361	2822	43	5216
1735	2599	8	107	3388	9	6111
1736	4077	7	122	4267	6	8479
1737	2983	3	67	[4694]	3	[7750]
1738	2081	12	160	5120	10	7383
1739	1301	7	51	[4886]	28	[6273]
1740	1684	17	131	4651	8	6491
1741	3716	30	390	5040	18	9194
1742	3352	22	218	4020	25	7637
1743	4258	7	202	[4725]	18	[9210]
1744	1909	17	265	5429	26	7646
1745	2303	32	407	6031	16	8789
1746	2482	27	371	6902	15	9797
1747	2228	16	354	6393	29	9020
1748	2390	9	372	4920	37	7728
1749	1671	9	387	5098	37	7202
1750	1432	9	342	7007	42	8832
1751	1291	2	264	5366	29	6952
1752	1096	5	366	5874	38	7379
1753	1120	10	185	4078	20	5413
1754	1391	5	423	4064	33	5916
1755	1452	7	81	5963	10	7513
1756	1122	9	173	5707	12	7023
1757	1288	12	92	7192	7	8591
1758	1430	9	136	7861	14	9450
1759	2855	15	104	11151	8	14133
1760	1242	14	159	6899	8	8322
1761	2492	6	226	9061	20	11805
1762	2462	11	349	[7753]	17	[10592]
1763	1543[2])	23	283	6445	16	8310
1764	1403[2])	19	673	8696	36	10827
1765	2652[2])	3	711	8937	42	12345
1766	2345[2])	5	1509	6902	26	10787
1767	2127[2])	0	1030	6893	22	10072
1768	2346[2])	5	1090	6439	53	9933
1769	2966[2])	4	605	4649	26	8250

Appendix 2.211 (contd.)

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Dried and split peas, barrels.

Year	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports overland
1770	2	360	6687	7	7056
1771	1	322	9458	18	9799
1772	12	277	5364	26	5679
1773	2	563	6937	42	7544
1774	2	547	6879	71	7499
1775	1	554	9338	24	9917
1776	2	424	8761	31	9218
1777	[3]	[778]	[8381]	[42]	[9204]
1778	3	1132	8001	52	9188
1779	[2]	[947]	[8601]	[51]	[9601]
1780	[1]	761	9201	49	10012
1781	1	343	4277	16	4637
1782	2	453	3785	40	4280
1783	4	343	[3385]	40	[3772]
1784	9	362	2984	64	3419
1785	2	338	2802	12	3154
1786	14	298	3674	15	4001
1787	12	319	5688	37	6056
1788	104	198	8494	37	8833
1789	1	133	5717	18	5869
1790	8	144	4943	14	5109
1791	37	145	6251	33	6466
1792	34	177	[6585]	17	[6813]
1793	24	319	6919	62	7324
1794	51	195	[7623]	20	[7889]
1795	41	279	[8327]	63	[8710]
1796	16	370	9031	102	9519
1797	35	1127	[8231]	134	[9527]
1798	7	342	7431	130	7910
1799	7	186	5949	32	6174
1800	18	400	7023	53	7494

[1]) Embraces both peas and beans.
[2]) In 1763–69 the Copenhagen custom house figures include lentils.

Appendix 2.212

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Green peas in pod, barrels.

Year	The custom house (harbour)	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports
1762 $^{1}/_{0}$–$^{31}/_{12}$	0	0	5	[0]	0	5
1763	0	0	97	4814	0	4911
1764	0	0	2367	2102	129	4598
1765	0	0	63	4204	110	4377
1766	0	0	260	4208	23	4491
1767	0	0	343	5742	40	6125
1768	0	0	301	7115	37	7453
1769	0	0	238	4346	53	4637

Appendix 2.212 (contd.)

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Green peas in pod, barrels.

Year	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports overland
1770	0	166	5698	34	5898
1771	0	84	5689	22	5795
1772	0	179	5782	23	5984
1773	0	580	4204	21	4805
1774	0	263	4208	42	4513
1775	0	200	8000	30	8230
1776	0	210	9300	37	9547
1777	[0]	[1339]	[9451]	[53]	[10843]
1778	0	2468	9602	69	12139
1779	[0]	[2668]	[8457]	[43]	[11168]
1780	[0]	2868	7312	16	10196
1781	0	383	6405	36	6824
1782	4	411	7313	92	7820
1783	0	401	[7332]	0	[7733]
1784	0	945	7350	0	8295
1785	0	1158	5480	0	6638
1786	0	203	7355	29	7587
1787	1	461	9112	43	9617
1788	0	740	10415	41	11196
1789	0	1164	7014	31	8209
1790	1	414	9212	59	9686
1791	1	701	18024	48	18774
1792	0	691	[16952]	45	[17688]
1793	0	705	15880	54	16639
1794	0	512	[17695]	56	[18263]
1795	1	427	[19510]	26	[19964]
1796	1	312	21326	73	21712
1797	2	1918	[22227]	37	[24184]
1798	0	1775	23127	51	24953
1799	0	1384	18968	29	20381
1800	0	1696	21928	54	23678

Appendix 2.22

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Turnips, swedes and potatoes[1]), barrels.

Year	The custom house (harbour)	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports
1730	[42]	13958	17	26	5	14048
1731	46	10212	2	13	1	10274
1732	87	10951	15	23	10	11086
1733	98	10849	2	29	2	10980
1734	102	11383	6	29	2	11522
1735	47	12360	24	27	8	12466
1736	54	10910	10	127	4	11105
1737	49	10204	28	[79]	2	10362
1738	46	12399	19	31	19	12514
1739	90	11107	7	[21]	13	11238
1740	56	13106	33	11	18	13224
1741	86	12745	19	18	14	12882
1742	74	13545	26	45	30	13720
1743	77	13664	17	[36]	27	13821
1744	63	15165	21	27	42	15318
1745	100	8144	30	21	19	8314
1746	122	13176	50	20	36	13404
1747	59	12727	32	17	32	12867
1748	144	13751	56	59	35	14045
1749	115	15033	60	50	31	15289
1750	108	13104	36	30	22	13300
1751	120	13972	55	36	32	14215
1752	24	10691	81	52	30	10878
1753	151	12146	76	55	50	12478
1754	133	13094	75	88	51	13441
1755	121	9404	82	45	51	9703
1756	127	9938	96	59	64	10284
1757	145	10036	93	76	51	10401
1758	152	9341	90	22	60	9665
1759	125	8377	53	89	39	8683
1760	132	10094	82	109	63	10480
1761	149	9792	122	153	106	10322
1762	246	8014	342	[181]	293	9076
1763	229	10180	385	208	275	11277
1764	341	10990	514	176	355	12376
1765	138	8892	491	177	377	10075
1766	281	10200	646	535	436	12098
1767	533	9530	615	133	343	11154
1768	163	8594	657	176	452	10042
1769	258	8014	748	62	388	9470

Appendix 2.22 (contd.)

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Turnips, swedes and potatoes[1]), barrels.

Year	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports overland
1770	7469	738	197	523	8927
1771	8192	829	137	461	9619
1772	8106	1063	248	1025	10442
1773	8054	1635	277	1170	11136
1774	8186	1830	178	1669	11863
1775	8770	1249	421	1048	11488
1776	5837	1297	532	1101	8767
1777	[6946]	[1185]	[390]	[957]	[9478]
1778	8055	1073	248	812	10188
1779	[8727]	[1137]	[213]	[708]	[10785]
1780	[9399]	1201	177	603	[11380]
1781	100712)	2136	216	346	12769
1782	114553)	2713	262	465	14895
1783	101064)	2985	[678]	231	14000
1784	134485)	3767	10936)	208	18516
1785	122225)	3663	12327)	982	18099
1786	146495)	4694	11188)	3831	24292
1787	183395)	59539)	162710)	29955)	28914
1788	188785)	449111)	178012)	37765)	28925
1789	168245)	374313)	179414)	3733	26094
1790	187195)	1188415)	184110)	26435)	35087
1791	18026	883217)	504118)	2234	34133
1792	15398	782710)	[5393]	2923	[31541]
1793	17268	817620)	574421)	27725)	33960
1794	15676	742222)	[5774]	3089	[31999]
1795	15650	478223)	[5804]	4348	[30584]
1796	17059	343524)	583525)	9146	35475
1797	18336	701620)	[6094]	4526	[35972]
1798	17487	744527)	635328)	4036	35321
1799	144125)	470620)	617730)	4775	30070
1800	153915)	378031)	585032)	4782	29803

1) Potatoes are mentioned for the first time in 1781.
2) Of which 78 barrels potatoes.
3) Of which 116 barrels potatoes.
4) Of which 136 barrels potatoes.
5) Potatoes are mentioned but the quantity is not specified.
6) Of which 155 barrels potatoes.
7) Of which 576 barrels potatoes.
8) Of which 650 barrels potatoes.
9) Of which 4873 barrels potatoes.
10) Of which 984 barrels potatoes.
11) Of which 3160 barrels potatoes.
12) Of which 1053 barrels potatoes.
13) Of which 1937 barrels potatoes.
14) Of which 986 barrels potatoes.
15) Of which 6718 barrels potatoes.
16) Of which 1007 barrels potatoes.
17) Of which 4820 barrels potatoes.
18) Of which 4216 barrels potatoes.
19) Of which 5893 barrels potatoes.
20) Of which 6004 barrels potatoes.
21) Of which 4909 barrels potatoes.
22) Of which 5884 barrels potatoes.
23) Of which 4229 barrels potatoes.
24) Of which 2970 barrels potatoes.
25) Of which 4978 barrels potatoes.
26) Of which 6400 barrels potatoes.
27) Of which 5999 barrels potatoes.
28) Of which 5457 barrels potatoes.
29) Of which 3471 barrels potatoes.
30) Of which 5298 barrels potatoes.
31) Of which 2850 barrels potatoes.
32) Of which 5027 barrels potatoes.

Appendix 2.231

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Kale, loads.

Year	The custom house (harbour)	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports
1730	[0]	6201	7	16	23	6247
1731	0	4660	16	5	21	4702
1732	0	4893	8	6	15	4922
1733	1	4583	7	6	34	4631
1734	0	5189	7	6	15	5217
1735	0	5331	8	7	15	5361
1736	0	4702	14	15	11	4742
1737	0	4492	15	[8]	16	4531
1738	0	4709	28	0	48	4785
1739	0	4410	9	[1]	30	4450
1740	0	4250	22	2	29	4303
1741	1	4484	32	13	38	4568
1742	0	5446	37	32	25	5540
1743	0	5802	21	[28]	29	5880
1744	0	5408	17	23	13	5461
1745	0	4574	16	8	17	4615
1746	0	4951	27	27	34	5039
1747	0	4624	18	27	30	4699
1748	0	4350	30	25	36	4441
1749	0	5445	35	34	42	5556
1750	0	5906	20	15	35	5976
1751	0	4894	31	19	37	4981
1752	0	5089	20	16	34	5159
1753	0	5272	16	8	36	5332
1754	0	5309	21	12	33	5375
1755	0	4758	24	32	28	4842
1756	0	4736	30	4	33	4803
1757	0	5400	17	32	25	5474
1758	0	4805	35	22	50	4912
1759	0	4587	21	30	25	4663
1760	0	3446	23	52	31	3552
1761	0	3710	30	35	45	3820
1762	2	2990	17	[41]	23	3073
1763	1	2810	47	46	20	2924
1764	2	3432	45	41	30	3550
1765	0	3334	31	47	23	3435
1766	0	3280	25	48	29	3382
1767	0	3160	15	31	20	3226
1768	0	3062	35	28	36	3161
1769	0	3125	31	35	35	3226

Appendix 2.231 (contd.)

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Kale, loads.

Year	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports overland
1770	3029	48	40	37	3154
1771	2712	33	20	39	2804
1772	2562	31	34	46	2673
1773	2814	39	26	46	2925
1774	3348	15	68	25	3456
1775	2895	12	30	41	2978
1776	2534	14	51	33	2632
1777	[2554]	[14]	[38]	[23]	[2629]
1778	2573	13	25	12	2623
1779	[2612]	[14]	[13]	[6]	[2645]
1780	[2651]	15	0	0	[2666]
1781	2690	26	23	21	2760
1782	2440	34	24	0	2498
1783	2720	45	[68]	0	2833
1784	3012	48	112	0	3172
1785	2520	22	18	23	2583
1786	3472	22	24	38	3556
1787	3773	24	50	28	3875
1788	3790	10	61	38	3899
1789	3499	6	42	38	3585
1790	3762	11	34	30	3837
1791	3991	9	28	36	4064
1792	3706	3	[29]	33	3771
1793	3875	2	30	23	3930
1794	3689	8	[34]	15	3746
1795	3717	6	[39]	6	3768
1796	3875	11	44	10	3940
1797	3875	8	[55]	13	3951
1798	2488	5	65	10	2568
1799	2135	11	61	11	2218
1800	2112	14	63	13	2202

Appendix 2.232

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Cabbage and red cabbage, *skok*.

Year	The custom house (harbour)	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports
1730	[7]	8537	198	51	126	8919
1731	7	6861	161	64	136	7229
1732	14	7549	237	52	198	8050
1733	22	8005	204	51	140	8422
1734	15	7799	283	55	170	8322
1735	10	6482	255	73	228	7048
1736	2	5469	267	51	206	5995
1737	1	6653	296	[68]	116	7134
1738	4	8308	313	84	273	8982
1739	8	6752	118	[212]	217	7307
1740	7	5464	157	340	131	6099
1741	17	5793	226	280	203	6519
1742	13	6330	315	116	212	6986
1743	10	6362	393	[161]	343	7269
1744	27	8424	328	206	243	9228
1745	38	7946	341	186	131	8642
1746	54	9074	581	195	314	10218
1747	7	7668	442	318	212	8647
1748	16	8338	185	132	114	8785
1749	16	11112	309	241	214	11892
1750	12	8681	365	174	266	9498
1751	17	9302	326	131	216	9992
1752	21	9594	321	121	319	10376
1753	19	9991	421	142	374	10947
1754	17	9864	230	103	196	10410
1755	12	9647	511	122	284	10576
1756	5	7891	658	127	287	8968
1757	10	9677	455	90	215	10447
1758	12	10083	316	184	241	10836
1759	7	8921	369	99	261	9657
1760	13	9768	354	137	253	10525
1761	17	8466	642	129	311	9565
1762	26	7950	449	[161]	248	8834
1763	5	8190	539	193	230	9157
1764	8	8479	650	192	260	9589
1765	14	8464	239	198	577	9492
1766	21	8104	643	197	324	9289
1767	18	7780	696	185	317	8996
1768	5	7754	674	287	296	9016
1769	13	7313	684	129	355	8494

Appendix 2.232 (contd.)
Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Cabbage and red cabbage, *skok*.

Year	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports overland
1770	7820	656	282	335	9093
1771	7444	516	152	291	8403
1772	6584	796	219	415	8014
1773	6364	764	298	654	8080
1774	6400	937	197	565	8099
1775	5840	657	300	413	7210
1776	6315	665	400	397	7777
1777	[6350]	[591]	[501]	[417]	[7859]
1778	6385	517	601	436	7939
1779	[7566]	[403]	[366]	[327]	[8662]
1780	[8784]	288	130	218	[9420]
1781	9930	559	164	320	10973
1782	13712	627	336	194	14869
1783	14524	860[1])	[400]	212	15996
1784	14498	731[1])	464	285	15978
1785	13332	858[1])	513	338	15041
1786	12739	1012	574	520	14845
1787	14710	1145	694	541	17090
1788	18742	917	756	510	20925
1789	18785	793	813	523	20914
1790	17141	618	951	493	19203
1791	15758	518	989	525	17790
1792	15636	627	[895]	468	17626
1793	16654	686	800	457	18597
1794	15142	578	[874]	491	17085
1795	15486	497	[949]	331	17263
1796	16254	590	1024	864	18732
1797	18195	992	[1119]	542	20848
1798	16983	1119	1213	656	19971
1799	12967	864	1187	791	15809
1800	14036	1063	1110	889	17098

[1]) Savoy cabbage are also included here.

Appendix 2.233

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Cauliflower[1]), *skok*.

Year	The custom house (harbour)	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports
1762	0	0	97	[0]	63	160
1763	0	0	267	0	0	267
1764	0	0	339	30	260	629
1765	0	0	178	31	237	446
1766	0	0	316	32	147	495
1767	0	0	456	65	291	812
1768	0	0	479	64	190	733
1769	0	0	383	90	162	635

Appendix 2.233 (contd.)

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Cauliflower, *skok*.

	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports overland
1770	0	383	0	208	591
1771	0	448	28	218	694
1772	0	412	90	287	789
1773	0	307	131	302	740
1774	0	428	33	229	690
1775	0	212	50	198	460
1776	0	247	61	230	538
1777	[0]	[246]	[96]	[181]	[523]
1778	0	245	131	132	508
1779	[0]	[189]	[66]	[122]	[377]
1780	[0]	132	0	111	243
1781	0	179	125	199	503
1782	5	337	0	259	601
1783	12	347	[30]	70	459
1784	18	376	60	236	690
1785	24	460	114	370	968
1786	4	670	255	634	1563
1787	27	527	365	521	1440
1788	59	674	405	582	1720
1789	67	816	386	533	1802
1790	89	493	712	691	1985
1791	47	400	624	602	1673
1792	6	388	[619]	432	[1445]
1793	9	394	614	447	1464
1794	2	389	[632]	669	[1692]
1795	6	298	[651]	368	[1323]
1796	9	238	670	843	1760
1797	20	318	[698]	618	[1654]
1798	46	483	725	337	1591
1799	81	569	719	486	1855
1800	73	497	608	684	1862

[1]) Prior to the ordinance of 17/6 1762, cauliflowers were probably counted as cabbages.

Appendix 2.24

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Fresh apples and pears, barrels.

Year	The custom house (harbour)	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports
1730	[3212]	51	1721	4709	1157	[10850]
1731	4253	31	258	3000	394	7936
1732	4201	49	573	4134	512	9469
1733	3983	30	588	2774	623	7998
1734	3578	49	1144	4256	1202	10229
1735	3315	47	563	3891	939	8755
1736	4564	29	707	5789	696	11785
1737	6314	30	1573	[5274]	168	[13359]
1738	2861	24	901	4759	883	9428
1739	5012	34	352	[2737]	1459	[9594]
1740	2408	11	285	714	344	3762
1741	1470	1	27	131	10	1639
1742	2634	34	214	6171	156	9209
1743	4602	10	589	[5783]	460	[11444]
1744	3472	36	1084	5394	842	10828
1745	7435	31	1610	7160	190	16426
1746	7410	28	1049	4251	658	13396
1747	9021	12	687	8645	400	18765
1748	4798	31	1202	7060	767	13858
1749	4925	57	516	4485	301	10284
1750	2931	31	732	4875	604	9173
1751	5951	26	1513	11214	910	19614
1752	2971	30	973	12937	549	17460
1753	6167	50	1664	15670	880	24431
1754	2021	51	629	9238	373	12312
1755	4987	46	1228	10729	941	17931
1756	3998	29	1160	6678	456	12321
1757	2123	31	198	5578	84	8014
1758	2952	75	752	10902	383	15064
1759	4801	21	390	9747	148	15107
1760	3031	49	1571	11952	1028	17631
1761	3897	20	368	4923	160	9368
1762	1092	15	384		302	
1763[1])	127[2])					
1764[1])	80[2])					
1765[1])	153[2])					
1766[1])	174[2])					
1767	5107	25	1383	4264	487	11266
1768	4840	16	740	4973	461	11030
1769	4283	21	995	4639	312	10250

Appendix 2.24 (contd.)

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Fresh apples and pears, barrels.

Year	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports overland
1770	11	435	4616	205	5267
1771	13	1064	6181	675	7933
1772	13	498	2709	115	3335
1773	25	832	4049	416	5322
1774	13	651	3150	170	3984
1775	4	2638	12180	1179	16001
1776	6	1537	7302	670	9515
1777	[4]	[1262]	[9192]	[362]	[10820]
1778	2	987	11081	54	12124
1779	[7]	[1731]	[9347]	[286]	[11371]
1780	[13]	2474	7612	518	10617
1781	19	825	2205	151	3200
1782	12	2774	3206	317	6309
1783	17	894	[5879]	131	[6921]
1784	25	3211	8551	324	12111
1785	7	324	2304	48	2683
1786	10	1299	4626	793	6728
1787	12	584	1450	114	2160
1788	61	988	6524	843	8416
1789	3	1377	5416	270	7066

Appendix 2.24 (contd.)

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Fresh apples, pears and cherries, barrels.

Year	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports overland
1790	3	719	6154	190	7066
1791	3	734	13162	235	14134
1792	5	818	[21834]	382	23039
1793	1	511	30506	439	31457
1794	1	512	[25332]	216	26061
1795	14	512	[20158]	536	21220
1796	5	656	14984	1015	16660
1797	8	1407	[15180]	216	16811
1798	16	1979	15375	1119	18489
1799	21	2190	15566	1239	19016
1800	69	1645	1974[3])	344	4032

[1]) In 1763–66 home-grown fruit is not registered.
[2]) »From the Baltic«.
[3]) Probably an error.

Appendix 2.25

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Fresh cherries, barrels.

Year	The custom house (harbour)	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports
1730	[0]	1	0	1399	373	1773
1731	0	1	246	1216	130	1593
1732	0	0	299	2219	169	2687
1733	0	0	699	1804	194	2697
1734	0	0	499	1049	215	1763
1735	0	0	353	1905	125	2383
1736	0	0	361	1577	47	1985
1737	0	0	704	[1524]	8	[2236]
1738	0	0	345	1471	4	1820
1739	0	0	5	[2668]	176	[2849]
1740	0	0	326	3864	116	4306
1741	0	0	158	117[1])	77	352
1742	0	0	150	2104	35	2289
1743	0	0	567	[2480]	127	[3174]
1744	0	0	863	2856	108	3827
1745	0	0	283	2046	59	2388
1746	0	0	247	817	20	1084
1747	0	0	789	1322	51	2162
1748	0	0	764	1551	62	2377
1749	0	0	889	429	32	1350
1750	0	0	224	856	10	1090
1751	0	0	398	2234	11	2643
1752	0	0	232	2703	12	2947
1753	3	0	123	2181	9	2316
1754	0	0	333	2236	28	2597
1755	0	0	342	3716	48	4106
1756	0	0	700	1291	42	2033
1757	0	0	130	1809	9	1948
1758	0	1	827	4852	253	5933
1759	0	0	56	2934	2	2992
1760	0	0	935	2843	74	3852
1761	0	0	488	2059	78	2625
1762	0	0	784		83	
1763[2])						
1764[2])						
1765[2])						
1766[2])						
1767	0	0	256	2021	19	2296
1768	0	0	584	2846	29	3459
1769	0	0	567	1305	347	2219

Appendix 2.25 (contd.)

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Fresh cherries, barrels.

Year	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports overland
1770	0	82	656	15	753
1771	0	773	1559	66	2398
1772	0	100	774	17	891
1773	0	258	1766	97	2121
1774	0	550	4837	15	5402
1775	0	185	2000	5	2190
1776	0	654	1563	52	2269
1777	[0]	[586]	[1594]	[31]	[2211]
1778	0	518	1624	10	2152
1779	[0]	[568]	[1238]	[30]	[1836]
1780	[0]	618	851	50	1519
1781	0	216	1039	0	1255
1782	0	249	703	76	1028
1783	0	851	[1191]	0	[2042]
1784	0	599	1678	0	2277
1785	0	519	1903	0	2422
1786	0	700	2179	93	2972
1787	0	0	2279	11	2290
1788	0	0	9179	198	9377
1789	0	0	6204	16	6220

[1]) Probably an error.
[2]) In 1763–66 home-grown fruit is not registered.

Appendix 2.26

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Hops, *lispund.*

	Total imports[1])		Total imports[1])		Total imports overland
1730		1754	21026	1777	
1731	20573	1755	20631	1778	180
1732	23465	1756	21050	1779	
1733	21344	1757	23482	1780	2
1734	17875	1758	19491	1781	505
1735	19792	1759	17493	1782	1
1736	14452	1760	19750	1783	
1737	13582	1761	18648	1784	36
1738	14193	1762	21074	1785	0
1739	16265	1763	14398	1786	11
1740	11038	1764	16025	1787	1394
1741	6390	1765	12126	1788	147
1742	7991	1766	17644	1789	341
1743	14351	1767	8003	1790	247
1744	9036	1768	17526	1791	320
1745	14560	1769	9521	1792	
1746	18403		Total imports	1793	2214
1747	20752		overland	1794	
1748	18508	1770	64	1795	
1749	10400	1771	803	1796	577
1750	17478	1772	20	1797	
1751	18411	1773	120	1798	966
1752	20873	1774	132	1799	891
1753	19038	1775	0	1800	1365
		1776	369		

[1]) Nearly all the imports came by sea.

Appendix 2.311

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Oxen and cows[1])

Year	The custom house (harbour)	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports
1730	[5]	271	1951	3976	237	6440
1731	6	355	1160	4401	457	6379
1732	0	549	1022	4421	541	6533
1733	3	482	972	4842	539	6838
1734	9	477	1936	3771	408	6601
1735	5	445	2035	4215	334	7034
1736	9	343	2223	4392	325	7292
1737	0	319	2228	[4315]	82	[6944]
1738	0	413	1825	4237	318	6793
1739	9	368	1360	[4577]	733	[7047]
1740	0	515	2272	4916	514	8217
1741	0	422	2896	3484	350	7152
1742	0	277	2645	4101	258	7281
1743	0	356	2259	[4185]	249	[7049]
1744	0	285	2953	4269	413	7920
1745	0	232	2247	5697	154	8330
1746	225	115	588	4824	99	5851
1747	740	92	269	3868	58	5027
1748	644	152	208	4338	63	5405
1749	187	159	225	4620	72	5263
1750	206	154	413	4739	90	5602
1751	129	216	418	6039	64	6866
1752	336	211	507	6099	72	7225
1753	270	269	673	6842	77	8131
1754	112	423	909	7394	115	8953
1755	535	407	687	8673	142	10444
1756	360	378	10	8796	5	9549
1757	551	312	0	9122	0	9985
1758	264	300	0	8992	1	9557
1759	309	327	0	8661	0	9297
1760	321	464	0	8929	0	9714
1761	64	388	0	9137	0	9589
1762	149	240	0	[8319]	0	[8708]
1763	905	358	1	7500	0	8764
1764	651	269	566	6779	0	8265
1765	362	275	0	7636	0	8273
1766	253	198	0	7707	0	8158
1767	417	287	0	8409	0	9113
1768	496	193	1247	6100	312	8348
1769	185	213	3107	4977	232	8714

Appendix 2.311 (contd.)
Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Oxen and cows[1])

Year	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports overland
1770	283	2790	5205	350	8628
1771	375	1469	4279	419	6542
1772	280	1492	4060	425	6257
1773	326	1953	4585	495	7359
1774	292	1712	4765	534	7303
1775	264	1689	5310	443	7706
1776	353	2409	4938	646	8346
1777	[350]	[2206]	[5641]	[703]	[8900]
1778	346	2003	6344	760	9453
1779	[506]	[2238]	[6382]	[963]	[10089]
1780	666	2472	6420	1165	10723
1781	496	2746	6102	1094	10438
1782	609	2576	6517	1068	10770
1783	449	2798	5771	963	9981
1784	405	3341	5897	1248	10891
1785	540	3493	6058	1146	11237
1786	567	3242	5825	1256	10890
1787	574	3020	5174	1158	9926
1788	699	3201	4929	890	9719
1789	683	3812	5252	884	10631
1790	654	2937	5222	813	9626
1791	660	2358	5036	856	8910
1792	571	2239	4752	554	8116
1793	579	2393	4599	569	8140
1794	584	2879	[4517]	891	[8871]
1795	669	2629	[4435]	504	[8237]
1796	529	1790	4354	752	7425
1797	698	1287	[5000]	274	[7259]
1798	765	1213	5645	277	7900
1799	792	1710	6025	379	8906
1800	635	1883	6340	516	9374

[1]) The extent to which cows account for these numbers can be seen from Appendix 2.312, inasmuch as the import abstracts give separate figures for oxen and cows.

Appendix 2.312

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Of the numbers shown in appendix 2.311 cows constituted the following numbers.

Year	The custom house (harbour)	Christians-havns Gate	North Gate	West Gate	East Gate
1730				627	
1731			172	631	
1732	0		192	684	
1733	0		186	857	
1734			337	610	
1735			241	797	
1736	0		119	767	
1737	0		184		
1738	0		181	787	
1739	0		115		
1740	0		180	987	
1741	0		289	732	
1742	0		191	1028	
1743	0		170		
1744	0		217	1021	15
1745	0		163	847	18
1746			284	482	57
1747			207	635	41
1748			132	635	42
1749			143	564	44
1750			274	767	63
1751			176	1110	47
1752			132	950	49
1753			156	1089	51
1754			282	1094	59
1755			172	1208	30
1756			2	1398	1
1757			0	1266	0
1758			0	1195	1
1759			0	1220	0
1760			0	1393	0
1761			0	1905	0
1762			0		0
1763			0	1107	0
1764			0	1394	0
1765			0	1244	0
1766			0	1125	0
1767			0	1634	0
1768			2	1215	2
1769			0	1253	0

Appendix 2.312 (contd.)

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Of the numbers shown in appendix 2.311 cows constituted the following numbers.

Year	Christians-havns Gate	North Gate	West Gate	East Gate
1770		0	1057	0
1771		2	1014	0
1772		0	915	0
1773		4	878	2
1774		11	1093	6
1775		22	1437	24
1776		90	1341	31
1777				
1778		205	1331	31
1779				
1780	578	216	1928	27
1781		268	1690	36
1782		262	2061	57
1783		154	1788	47
1784		178	1807	47
1785		145	1768	29
1786		128	1638	38
1787		150	1497	35
1788		167	1411	36
1789		186	1527	30
1790		154	1532	27
1791		144	1536	35
1792		178	1631	29
1793		198	1546	34
1794		176		49
1795		135		40
1796		134	1952	54
1797	634	146		53
1798	694	138	2845	40
1799	701	162	3230	40
1800		119	2901	70

Appendix 2.32

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Calves under 3 weeks.

Year	The custom house (harbour)	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports
1730	[0]	1593	88	189	9	1879
1731	0	1496	65	142	59	1762
1732	0	1366	68	82	17	1533
1733	0	1469	67	229	24	1789
1734	0	1377	90	118	11	1596
1735	0	1655	97	196	16	1964
1736	0	1640	85	384	12	2121
1737	0	1715	142	[458]	14	[2329]
1738	1	1479	99	531	15	2125
1739	0	1560	117	[409]	25	[2111]
1740	0	1627	94	286	18	2025
1741	0	1654	160	318	10	2142
1742	0	1513	117	315	17	1962
1743	0	1410	109	[308]	26	[1853]
1744	0	1604	176	300	23	2103
1745	0	1240	129	234	18	1621
1746	0	128	60	48	21	257
1747	0	175	27	28	5	235[1])
1748	0	24	0	3	0	27
1749	0	563	55	76	10	704
1750	0[2])	426	17	41	6	490
1751	0[2])	591	29	79	9	708
1752	0[2])	1366	69	170	27	1632
1753	0[2])	1512	149	274	26	1961
1754	0[2])	1467	263	459	32	2221
1755	0[2])	1616	242	560	34	2452
1756	0[2])	1649	360	807	21	2837
1757	0[2])	1678	369	784	53	2884
1758	0[2])	1621	621	848	62	3152
1759	0[2])	1498	448	991	72	3009
1760	0[2])	1432	438	1083	44	2997
1761	0[2])	1198	550	960	55	2763
1762	0[2])	1150	712	[712]	58	[2632]
1763	2	406	279	463	50	1200
1764	14	912	161	456	27	1570
1765	11	1244	247	537	54	2093
1766	13	976	265	536	45	1835
1767	5	1076	328	618	35	2062
1768	4	1252	282	706	52	2296
1769	6	1196	280	915	34	2431

Appendix 2.32 (contd.)

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Calves under 3 weeks.

Year	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports overland
1770	1078	152	789	46	2065
1771	1128	231	456	52	1867
1772	1082	274	403	76	1835
1773	1186	272	537	94	2089
1774	1113	131	536	124	1904
1775	1107	187	828	140	2262
1776	1154	172	392	107	1825
1777	[1116]	[210]	[495]	[127]	[1948]
1778	1077	248	598	147	2070
1779	[1071]	[300]	[522]	[164]	[2057]
1780	[1065]	352	446	181	2044
1781	1059	460	467	216	2202
1782	1057	467	416	92	2032
1783	1142	460	[424]	198	[2224]
1784	1246	674	432	0	2352
1785	1221	906	1504	388	4019
1786	1240	885	2803	282	5210
1787	1036	529	2379	306	4250
1788	1204	729	2574	306	4813
1789	1280	904	2822	381	5387
1790	1451	828	2643	392	5314
1791	1362	741	2387	387	4877
1792	1518	765	[2281]	380	[4944]
1793	1645	792	2175	446	5058
1794	1775	617	[2665]	467	[5524]
1795	1686	983	[3155]	443	[6267]
1796	1806	1040	3646	555	7047
1797	1510	706	[3665]	476	[6357]
1798	1668	721	3684	567	6640
1799	1498	1451	4277	504	7730
1800	1540	573	1571	427	4111

[1]) An ordinance of 19/5 1747 prohibited the import of live or slaughtered calves into the towns. The cattle plague was the reason for the embargo.
[2]) Included in the numbers on appendix 2.33.
[3]) Described as bull-calves.

Appendix 2.33

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Calves under 1 year but over 3 weeks.

Year	The custom house (harbour)	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports
1730	[1]	352	346	2539	83	3321
1731	0	379	404	2393	59	3235
1732	2	384	152	1929	49	2516
1733	4	349	127	2366	44	2890
1734	1	331	477	1992	29	2830
1735	4	254	296	2291	14	2859
1736	2	274	322	2455	13	3066
1737	3	392	305	[2733]	6	[3439]
1738	0	365	369	3011	12	3757
1739	1	460	179	[2911]	22	[3573]
1740	10	505	181	2810	4	3510
1741	5	452	393	2754	10	3614
1742	3	461	347	2634	6	3451
1743	6	495	422	[3434]	6	[4363]
1744	4	282	421	4234	23	4964
1745	3	460	392	3284	16	4155
1746	13	43	169	703	13	941
1747	6	41	154	521	18	740[1])
1748	131	86	97	506	3	823
1749	25	279[2])	243[2])	1502	30	2079
1750	25[3])	156	324	1535	13	2053
1751	1[3])	173	224	1962	28	2388
1752	3[3])	340	251	2904	42	3540
1753	4[3])	466	302	4649	36	5457
1754	2[3])	443	332	4752	38	5567
1755	2[3])	577	228	5481	26	6314
1756	2[3])	606	271	5471	15	6365
1757	6[3])	481	361	5365	13	6226
1758	24[3])	506	306	2407	18	3261
1759	13[3])	462	240	3507	17	4239
1760	7[3])	605	360	2694	6	3672
1761	5[3])	533	344	3007	20	3909
1762	129[3])	515	421	[2015]	22	[3102]
1763	3	84	166	1023	20	1296
1764	10	124	225	2050	33	2442
1765	0	371	230	3026	41	3668
1766	0	365	527	3909	77	4878
1767	2	130	701	3897	79	4809
1768	4	192	533	4283	68	5080
1769	2	243	405	3539	106	4295

Appendix 2.33 (contd.)

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Calves under 1 year but over 3 weeks.

Year	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports overland
1770	156	371	2933	78	3538
1771	204	287	4050	34	4575
1772	209	181	3891	27	4308
1773	217	236	3027	27	3507
1774	362	246	3909	42	4559
1775	388	342	5152	32	5914
1776	454	269	4966	32	5721
1777	[424]	[446]	[5095]	[41]	[6006]
1778	394	623	5224	49	6290
1779	[472]	[655]	[4974]	[49]	[6150]
1780	[550]	687	4723	49	6009
1781	628	333	5636	43	6640
1782	664	240	5827	52	6783
1783	898	260	[5344]	97	[6599]
1784	678	337	4861	79	5955
1785	688	352	5836	21	6897
1786	681	279	6089	30	7079
1787	784	190	5454	24	6452
1788	690	176	6415	27	7308
1789	654	185	5925	17	6781
1790	608	146	7218	25	7997
1791	646	182	7456	22	8306
1792	735	159	[7429]	21	[8344]
1793	432	304	7401	18	8155
1794	473	142	[6998]	13	[7626]
1795	397	250	[6595]	19	[7261]
1796	227	529	6193	18	6967
1797	348	790	[6837]	27	[8002]
1798	519	935	7481	39	8974
1799	531	683	7132	51	8397
1800	291	179	2436	14	2920

[1]) An ordinance of 19/5 1747 prohibited the import of live or slaughtered calves into the towns. The cattle plague was the reason for the embargo.
[2]) Described as bull-calves.
[3]) Described in the import abstracts merely as calves.

Appendix 2.34

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Fresh and smoked beef, *lispund*.

Year	The custom house (harbour)	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports
1730	[1190]	3163	4171	20574	975	30073
1731	1429	2215	5481	16781	219	26125
1732	1315	1713	4002	16529	594	24153
1733	1113	3513	4139	23917	221	32903
1734	1032	1914	12715	14279	12	29952
1735	970	1931	6323	30525	196	39945
1736	1238	2392	6815	26476	152	37073
1737	1295	2873	9674	[36631]	217	[50690]
1738	1702	2429	11856	46786	14	62787
1739	1331	2582	8662	[51621]	3	[64199]
1740	1404	1379	6920	56456	11	66170
1741	1717	759	6851	22615	9	31951
1742	1099	1282	6018	24613	1508	34520
1743	1126	771	4455	[34425]	1421	[42198]
1744	1409	1181	5798	44236	1680	54304
1745	1514	336	8734	53961	2502	67047
1746	2684	275	3487	13956	790	21192
1747	2832	87	881	3149	302	7251
1748	2764	53	1956	10235	307	15315
1749	1652	241	1445	16406	430	20174
1750	1542	40	1583	14553	327	18045
1751	1602	850	1936	21777	360	26525
1752	1803	1412	3881	19019	501	26616
1753	2829	1622	3582	25199	551	33783
1754	1425	1701	11150	23943	616	38835
1755	1845	2721	5843	47901	1413	59723
1756	1983	1946	8271	49051	1799	63050
1757	1864	2351	9836	46483	3719	64253
1758	1782	1889	6378	29956	3094	43099
1759	2185	818	6414	18759	3078	31254
1760	1723	873	3869	22094	940	29499
1761	2703	735	4383	33835	1255	42911
1762	2943	250	6805	38056	1845	49899
1763	3120	72	2435	14354	1502	21483
1764	2803	40	1836	14352	270	19301
1765	1719	170	2487	14454	785	19615
1766	1116	456	5353	13956	1129	22010
1767	1991	860	4307	13997	1405	22560
1768	1408	388	2768	16433	587	21584
1769	2495	700	3746	28688	1202	36831

Appendix 2.34 (contd.)

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Fresh and smoked beef, *lispund*.

Year	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports overland
1770	568	3051	26189	992	30800
1771	378	1603	14352	1022	17355
1772	340	2726	38725	833	42624
1773	228	1669	18454	571	20922
1774	328	2081	13956	1060	17425
1775	378	3122	21800	1117	26417
1776	791	1426	18820	701	21738
1777	[831]	[8497]	[17762]	[982]	[28072]
1778	870	15567	16703	1263	34403
1779	[761]	[10873]	[28256]	[1232]	[41122]
1780	[652]	6179	39810	1200	47841
1781	544	6903	39168	1345	47960
1782	263	3795	37125	938	42121
1783	661	5271	[43442]	800	[50174]
1784	195	7646	49759	844	58444
1785	315	5677	56602	1065	63659
1786	491	4438	72816	1194	78939
1787	168	1550	56212	776	58706
1788	408	2840	78683	742	82673
1789	247	1025	85145	765	87182
1790	328	1352	93093	673	95446
1791	507	3273	92389	750	96919
1792	451	6877	[114124]	958	[122410]
1793	441	8259	135859	807	145366
1794	507	7253	[135742]	939	[144441]
1795	678	14292	[135625]	887	[151482]
1796	1604	13379	135509	844	151336
1797	1799	19181	[145409]	907	[167296]
1798	732	21860	155308	1753	179653
1799	964	25950	149851	2873	179638
1800	659	37800	198292	856	237607

Appendix 2.35

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Salt beef, barrels.

Year	The custom house (harbour)	Christians-havns Gate[1])	North Gate	West Gate[2])	East Gate	Total imports
1730	[2732]	25	40	406	21	[3224]
1731	1872	20	1	266	103	2262
1732	1431	10	27	216	78	1762
1733	1651	19	4	148	219	2041
1734	1427	13	18	50	137	1645
1735	1663	13	15	78	98	1867
1736	1997	21	14	113	98	2243
1737	1906	22	33	[77]	119	2157
1738	1376	15	11	40	221	1663
1739	1406	14	15	[39]	157	1631
1740	2575	7	13	37	111	2743
1741	1921	10	19	38	102	2090
1742	962	7	5	118	3	1095
1743	1714	4	6	[69]	4	1797
1744	2492	6	5	19	4	2526
1745	2178	1	25	43	5	2252
1746	2352	6	13	32	2	2405
1747	1840	0	12	25	2	1879
1748	2221	1	16	19	8	2265
1749	1258	0	19	95	2	1374
1750	1510	0	29	317	1	1857
1751	2111	0	7	79	3	2200
1752	1983	0	7	23	5	2018
1753	2324	0	6	24	2	2356
1754	2202	1	9	44	1	2257
1755	2314	1	10	34	7	2366
1756	3125	11	18	28	5	3187
1757	3928	1	88	42	5	4064
1758	4510	2	12	14	2	4540
1759	3779	16	24	66	13	3898
1760	3582	2	10	44	6	3644
1761	2219	2	13	26	1	2261
1762	3255	0	25	[33]	3	3316
1763	2099[3])	1	17	40	2	2159
1764	2201[3])	0	14	36	3	2254
1765	3915[3])	0	12	47	4	3978
1766	1869[3])	0	13	48	4	1934
1767	3795[3])	1	14	36	5	3851
1768	3419[3])	3	15	36	1	3474
1769	4061[3])	3	14	38	5	4121

Appendix 2.35 (contd.)

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Salt beef, barrels.

Year	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports overland
1770	10	38	27	3	78
1771	3	11	19	3	36
1772	6	7	27	7	47
1773	2	6	19	11	38
1774	4	10	48	5	67
1775	5	8	86	8	107
1776	3	9	54	0	66
1777	[3]	[16]	[79]	[3]	[101]
1778	2	23	103	5	133
1779	[2]	[20]	[62]	[3]	[87]
1780	[3]	17	20	0	40
1781	3	12	64	0	79
1782	2	7	18	0	27
1783	2	25	[18]	0	[45]
1784	1	43	18	0	62
1785	1	73	13	1	88
1786	2	80	292	5	379
1787	3	18	166	1	188
1788	1	1	83	6	91
1789	2	6	28	6	42
1790	3	7	8	3	21
1791	0	11	30	2	43
1792	0	19	[33]	1	[53]
1793	0	56	35	1	92
1794	0	34	[85]	4	[123]
1795	0	11	[136]	2	[149]
1796	0	6	187	4	197
1797	0	7	[148]	2	[157]
1798	0	6	109	2	117
1799	0	7	174	6	187
1800	0	9	360	5	374

[1]) In 1730–45 the figures also include tripe and ox tongues, together with pigs' heads and trotters.
[2]) In 1730–32 the figures also include tripe.
[3]) Includes also tripe and salt meat other than beef.

Appendix 2.36
Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Milk, barrels.

Year	The custom house (harbour)	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports
1730	[0]	22476	378	1334	115	24303
1731	0	19710	461	1338	40	21549
1732	0	19167	589	1074	2	20832
1733	1	19107	454	1190	83	20835
1734	1	18399	789	1349	17	20555
1735	1	21826	1295	1441	5	24568
1736	1	22938	1466	1588	29	26022
1737	0	21146	980	[2029]	6	24161
1738	1	20652	411	2469	3	23536
1739	1	21220	235	[2509]	44	[24009]
1740	0	21367	318	2548	3	24236
1741	2	19754	789	2476	19	23040
1742	0	20295	870	2192	17	23374
1743	0	20848	711	[3065]	12	[24636]
1744	1	22978	393	3938	13	27323
1745	2	20246	335	3812	175	24570
1746	3	6579	56	313	13	6964
1747	1	8340	109	610	21	9081
1748	3	10877	194	1546	17	12637
1749	4	15089	203	2130	16	17442
1750	4	13515	147	2047	133	15846
1751	5	16015	224	2927	61	19232
1752	7	18084	280	3160	86	21617
1753	4	19188	375	2986	35	22588
1754	5	20609	381	3326	108	24429
1755	7	20892	265	3536	91	24791
1756	6	20811	249	3424	6	24496
1757	5	21698	506	2656	27	24892
1758	5	20436	482	2504	19	23446
1759	4	19124	330	3417	98	22973
1760	0	19127	629	3985	22	23763
1761	3	20372	878	3960	43	25256
1762	4	18859	875	[2833]	167	[22738]
1763	3	10865	229	1705	150	12952
1764	4	15838	751	1701	35	18329
1765	1	18087	283	1710	114	20195
1766	2	17960	893	1708	20	20583
1767	1	16530	1343	1599	21	19494
1768	3	17371	1615	1488	26	20503
1769	1	17025	1629	3960	120	22735

Appendix 2.36 (contd.)

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Milk, barrels.

Year	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports overland
1770	15258	1235	2705	70	19268
1771	15838	1114	[3569]	138	[20659]
1772	14609	1323	4433	233	20598
1773	15405	1707	3710	217	21039
1774	15698	1776	1708	435	19617
1775	14109	1463	728	376	16676
1776	15546	1144	1048	321	18059
1777	[17121]	[2074]	[1077]	[524]	[20796]
1778	18695	3003	1105	726	23529
1779	[19311]	[2680]	[1657]	[672]	[24320]
1780	[19927]	2356	2208	617	[25108]
1781	20543	1597	3316	472	25928
1782	21409	1392	2300	220	25321
1783	21166	2020	[2657]	214	[26057]
1784	22258	2814	3014	299	28385
1785	23370	3435	3716	1425	31946
1786	23946	3486	4424	2581	34437
1787	23862	3932	4660	2944	35398
1788	25180	4319	4214	2670	36383
1789	25148	5137	4524	2781	37590
1790	24774	8760	5007	3016	41557
1791	24764	4805	5514	3095	38178
1792	24457	5007	[6696]	3318	[39478]
1793	24143	5835	7878	3241	41097
1794	23977	5942	[7394]	3188	[40501]
1795	24254	4532	[6911]	4126	[39823]
1796	24004	4601	6428	5475	40508
1797	25444	4973	[7059]	5357	[42833]
1798	28219	5611	7689	5653	47172
1799	26915	3835	7598	5537	43885
1800	27666	2858	8126	6069	44719

Appendix 2.37

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Butter.

Year	The custom house (harbour)	Christians-havns Gate		North Gate		West Gate	East Gate	Total impo
	otting	*otting*	*kop*[1])	*otting*	*kop*[1])	*otting*	*otting*	*otting*[2])
1730	[44475]	1699	43940	1313	0	10908	294	[60258]
1731	49181	1350	32711	747	0	9841	151	62438
1732	47806	1251	28235	597	0	9837	81	60580
1733	44466	1306	31225	598	0	8932	122	56539
1734	38913	1171	29977	2125	0	11006	100	54386
1735	54830	1727	32654	1144	1	13653	66	72586
1736	39477	1906	28759	1479	26	12035	51	55976
1737	59521	1870	24044	1924	2	[13036]	15	[77225]
1738	55765	1786	24630	1415	8	15636	57	75539
1739	54993	1949	23210	647	11	[13585]	157	[72160]
1740	52949	1997	25511	1173	22	11533	29	68593
1741	49053	1681	26230	2580	25	7030	112	61394
1742	53111	1481	32149	1412	30	14925	39	72117
1743	68215	1630	28774	2214	17	[15474]	40	[88601]
1744	58510	1765	29845	1621	36	16023	105	79091
1745	57712	1683	23681	1672	38	15362	64	77340
1746	64189	73	4828	317	78	2754	35	67543
1747	50822	219	4974	252	59	3498	31	55002
1748	52400	275	7840	831	44	6275	54	60117
1749	47404	658	13596	852	10	7625	46	57071
1750	68690	482	10418	676	3	6894	50	77164
1751	71893	627	12376	765	0	8164	53	81944
1752	69534	811	12875	988	0	9370	106	81269
1753	68021	855	12238	1197	0	11070	84	81664
1754	69987	962	14347	1532	0	11975	101	85069
1755	75096	1149	17155	1116	0	13191	153	91318
1756	81547	1041	12094	733	0	12922	39	96714
1757	90364	1013	10801	935	0	23619	66	116383
1758	92699	792	6768	696	0	9068	45	103542
1759	85446	557	3199	770	0	7711	47	94645
1760	78899	607	2784	1062	0	8384	82	89133
1761	60491	774	3720	1228	0	9603	105	72334
1762	78971	688	3480	1452	0	[6219]	92	87546
1763	71274	130	620	536	0	2835	84	74881
1764	72116	443	1480	1434	0	2832	94	76972
1765	77913	474	1048	493	0	2835	140	81892
1766	73841	600	1034	1612	0	2736	180	79006
1767	82497	322	504	1659	0	2597	40	87133
1768	88782	384	414	1040	0	5632	97	95950
1769	81546	364	430	892	0	7297	150	90264

Appendix 2.37 (contd.)
Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Butter.

Year	Christianshavns Gate		North Gate	West Gate	East Gate	Total imports overland
	otting	*kop*[1])	*otting*	*otting*	*otting*	*otting*[2])
1770	312	64	721	2416	113	3564
1771	311	276	535	2832	80	3768
1772	264	16	833	[3834]	88	[5021]
1773	348	46	1574	4835	121	6880
1774	479	30	1026	2754	237	4497
1775	482	24	815	3200	55	4553
1776	286	8	630	4162	116	5194
1777	[389]	[7]	[2138]	[5195]	[135]	[7857]
1778	491	6	3646	6227	154	10518
1779	[398]	[6]	[4134]	[12630]	[199]	[17361]
1780	[306]	[6]	4622	19032	244	24204
1781	214	6	1343	14044	212	15813
1782	161	0	1585	12907	184	14837
1783	224	0	1576	[14687]	208	[16695]
1784	180	0	3275	16467	124	20046
1785	239	3	1603	20295	59	22196
1786	275	2	865	20542	252	21934
1787	319	3	914	21396	284	22913
1788	324	11	883	23384	161	24752
1789	319	4	806	25080	127	26332
1790	346	2	881	41568	191	42986
1791	472	9	957	26596	85	28110
1792	441	0	901	[27517]	121	[28980]
1793	268	0	1620	28437	28	30353
1794	364	0	806	[29865]	88	[31123]
1795	323	0	1324	[31294]	140	[33081]
1796	261	0	1301	32723	330	34615
1797	265	0	2423	[36034]	190	[38912]
1798	218	0	2919	39345	202	42684
1799	184	0	1613	41110	194	43101
1800	210	0	1574	42978	152	44914

[1]) 1 *kop* is equivalent to about 1 *pund*, cf LA Kbh, Gisselfeld husholdningsregnskab 1712 $^{1}/_{6}$–$^{4}/_{6}$ and 1713 $^{0}/_{5}$–$^{22}/_{5}$. 1 *otting* = 28 *pund*, cf Friis and Glamann: A history of prices and wages in Denmark 1660–1800, Copenhagen 1958, p. 138.

[2]) The conversion factor used is 1 *kop* = $^{1}/_{28}$ *otting* cf note 1.

Appendix 2.38
Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Cheese, *lispund*.

Year	The custom house (harbour)	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports
1730	[47527]	3	377	2893	71	[50871]
1731	47458	1	158	2199	45	49861
1732	58021	0	135	1570	38	59764
1733	57104	0	95	2056	20	59275
1734	51423	1	593	1880	42	53939
1735	54805	1	220	2324	25	57375
1736	53134	5	174	1437	11	54761
1737	41258	1	217	[2238]	5	43719
1738	52008	2	109	3038	30	55187
1739	57547	5	34	[2389]	37	60012
1740	45358	5	119	1739	14	47235
1741	43203	2	413	2623	12	46253
1742	48665	12	244	2272	35	51228
1743	61052	2	457	[2782]	135	64428
1744	65105	6	299	3292	34	68736
1745	61821	3	177	2628	50	64679
1746	55392	4	179	1607	24	57206
1747	31674	1	190	1623	47	33535
1748	32705	5	214	2358	52	35334
1749	31771	0	303	2100	117	34291
1750	44758	6	223	2229	34	47250
1751	46777	7	176	2036	40	49036
1752	44818	1	128	2419	29	47395
1753	54436	5	168	3033	26	57668
1754	58430	13	131	2886	21	61481
1755	57198	15	145	1475	53	58886
1756	58829	1	112	1555	23	60520
1757	71749	8	152	1923	20	73852
1758	73919	72	127	1608	31	75757
1759	50207	4	120	2127	25	52483
1760	63739	4	165	1871	22	65801
1761	36849	4	220	1589	35	38697
1762	36983	0	245	[1347]	58	38633
1763	51360	10	131	1104	67	52672
1764	51614	0	520	754	107	52995
1765	59886	0	103	765	66	60820
1766	50476	20	327	1607	41	52471
1767	60304	7	393	1327	22	62053
1768	59066	111	224	1444	37	60882
1769	59392	3	177	837	23	60432

Appendix 2.38 (contd.)
Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Cheese, *lispund*.

Year	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports overland
1770	2	148	838	28	1016
1771	0	198	664	7	869
1772	5	241	2035	35	2316
1773	12	554	765	34	1365
1774	6	281	1619	73	1979
1775	5	255	1214	24	1498
1776	0	145	1320	33	1498
1777	[2]	[556]	[1416]	[61]	[2035]
1778	3	966	1512	89	2570
1779	[3]	[1084]	[1212]	[64]	[2363]
1780	[2]	1202	912	38	2154
1781	2	311	1416	10	1739
1782	2	321	1012	0	1335
1783	1	503	[1412]	42	[1958]
1784	8	632	1812	9	2461
1785	2	576	2216	23	2817
1786	17	224	2012	53	2306
1787	6	241	3014	56	3317
1788	12	223	3764	38	4037
1789	11	186	2753	38	2988
1790	16	125	3216	61	3418
1791	17	78	2884	30	3009
1792	13	96	[3327]	33	[3469]
1793	13	116	3769	29	3927
1794	37	98	[3744]	63	[3942]
1795	14	76	[3720]	51	[3861]
1796	13	80	3696	225	4014
1797	8	77	[4412]	63	[4560]
1798	10	95	5127	124	5356
1799	22	80	5098	53	5253
1800	17	96	5327	116	5556

Appendix 2.41

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Hogs.

Year	The custom house (harbour)	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports
1730	[36]	150	4443	7536	258	12423
1731	49	103	3910	7530	396	11988
1732	46	146	3610	9736	386	13924
1733	49	109	3122	11507	254	15041
1734	35	61	1200	13586	258	15140
1735	34	80	1114	13929	122	15279
1736	23	64	1049	14757	100	15993
1737	48	86	1430	[13855]	102	[15521]
1738	53	32	1188	12952	115	14340
1739	34	94	705	[12997]	291	[14121]
1740	48	95	820	13041	117	14121
1741	33	126	1171	18961	155	20446
1742	1	154	975	16684	172	17986
1743	27	150	1466	[14199]	92	[15934]
1744	25	107	1136	11714	136	13118
1745	43	206	1428	14041	127	15845
1746	89	512	1664	14699	203	17167
1747	46	260	1165	13922	135	15528
1748	25	277	1740	14960	185	17187
1749	28	204	1220	13636	167	15255
1750	67	150	1376	12574	153	14320
1751	70	113	2058	12605	180	15026
1752	37	100	1879	13565	190	15771
1753	19	111	2231	19018	236	21615
1754	56	115	3144	16288	169	19772
1755	32	149	1648	16578	104	18511
1756	59	139	1149	14255	126	15728
1757	159	117	750	15349	91	16466
1758	131	109	568	16046	131	16985
1759	87	168	516	17390	103	18264
1760	65	201	621	15121	160	16168
1761	29	72	829	13194	97	14221
1762	31	135	1062	[17498]	112	[18838]
1763	62	616	1563	21801	120	24162
1764	45	462	1036	20020	147	21710
1765	17	466	660	22420	187	23750
1766	14	464	891	33560	201	35130
1767	17	932	907	32989	117	34962
1768	25	484	945	32923	149	34526
1769	37	520	811	30501	119	31988

Appendix 2.41 (contd.)

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Hogs.

Year	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports overland
1770	560	841	27791	266	29458
1771	602	780	22389	213	23984
1772	586	664	8781[1])	112	10143
1773	418	544	14814	164	15940
1774	372	597	18991	89	20049
1775	346	490	4840	96	5772
1776	478	655	10657	105	11895
1777	[448]	[973]	[10076]	[108]	[11605]
1778	418	1291	9495	110	11314
1779	[541]	[1444]	[8919]	[107]	[11011]
1780	[665]	1596	8342	104	10707
1781	789	1028	10062	186	12065
1782	703	705	10051	189	11648
1783	785	514	[8539]	174	[10012]
1784	[799]	1152	7027	96	9074
1785	813	855	7794	108	9570
1786	756	528	7430	100	8814
1787	848	631	6397	89	7965
1788	764	539	5523	85	6911
1789	754	1158	6858	98	8868
1790	774	1451	6524	71	8820
1791	691	1680	6414	86	8871
1792	898	2146	[7495]	76	[10615]
1793	1279	2442	8575	76	12372
1794	1088	2767	[8690]	106	[12651]
1795	829	1944	[8806]	110	[11689]
1796	892	1332	8922	209	11355
1797	1067	1154	[9423]	109	[11753]
1798	778	907	9925	194	11804
1799	857	867	9855	148	11727
1800	511	916	6550	127	8104

[1]) The figures agree with the sums recorded as paid in duty.

Appendix 2.42
Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Bacon, flitches.

Year	The custom house (harbour)	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports
1730	[24201]	86	491	10930	73	[35781]
1731	26926	104	2404	10416	86	39936
1732	27544	101	2253	9909	119	39926
1733	27932	106	527	16934	169	45668
1734	26430	19	2101	17776	145	46471
1735	19638	33	409	19725	27	39832
1736	10940	17	427	18588	33	30005
1737	24282	54	338	[22952]	37	[47663]
1738	22307	75	1025	27315	67	50789
1739	18782	62	453	[23257]	54	[42608]
1740	24807	119	364	19199	43	44532
1741	25707	28	1083	17411	52	44281
1742	17517	40	561	18354	25	36497
1743	26159	25	741	[21661]	82	[48668]
1744	23674	25	751	24968	83	49501
1745	29210	36	1228	29054	74	59602
1746	32580	173	1257	29491	71	63572
1747	32431	113	933	29181	66	62724
1748	33416	67	1241	33576	81	68381
1749	24564	71	1342	28325	138	54440
1750	24812	187	1032	31099	112	57242
1751	25714	430	859	37657	162	64822
1752	22625	228	1636	41136	225	65850
1753	29617	159	1347	38880	267	70270
1754	23885	129	1895	38865	187	64961
1755	27659	142	961	36451	79	65292
1756	28589	122	1072	35350	99	65232
1757	29673	287	1210	35140	104	66414
1758	26814	131	975	48690	179	76789
1759	27615	112	791	33631	137	62286
1760	25715	145	1286	25035	75	52256
1761	33519	180	2353	48686	69	84807
1762	53238	98	2869	[38347]	105	[94657]
1763	17343	206	3088	28008	100	48745
1764	18240	190	4077	28009	199	50715
1765	27238	158	3798	28199	215	59608
1766	31084	202	6149	29491	278	67204
1767	17773	162	4673	29596	71	52275
1768	28925	62	5830	18686	337	53840
1769	26922	126	3636	32813	185	63682

Appendix 2.42 (contd.)
Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Bacon.

Year	Christians-havns Gate		North Gate		West Gate		East Gate		Total imports overland	
	flitches	*lispd.*	flitches	*lispd.*	flitches	*lispd.*	flitches	*lispd.*	flitches	*lispd.*
1770	58	0	2451	0	25236	0	176	0	27921	0
1771	145	0	2023	0	26816	0	206	0	29190	0
1772	134	0	1618	0	31078	0	100	0	32930	0
1773	18	0	1969	0	24299	0	128	0	26414	0
1774	20	0	2143	0	29491	0	167	0	31821	0
1775	88	0	2005	0	24000	0	107	0	26200	0
1776	85	0	2526	0	30200	0	114	0	32925	0
1777	[86]	[0]	[4066]	[0]	[35116]	[0]	[107]	[0]	[39375]	[0]
1778	86	0	5605	0	40031	0	99	0	45821	0
1779	[65]	[0]	[5597]	[0]	[42634]	[0]	[390]	[0]	[48686]	[0]
1780	[45]	[0]	5589	0	45236	0	681	0	51551	0
1781	25	0	3366	0	34181	0	226	0	37798	0
1782	19	0	3250	0	27682	0	288	0	31239	0
1783	21	0	3516	0	[29281]	[0]	304	0	[33122]	[0]
1784	11	0	3606	0	30880	0	268	0	34765	0
1785	31	0	3698	0	37760	0	225	0	41714	0
1786	29	0	2668	0	32259	0	232	0	35188	0
1787	41	0	1733	0	33493	0	280	0	35547	0
1788	78	0	1634	0	42294	0	283	0	44289	0
1789	39	0	793	0	43004	0	313	0	44149	0
1790	66	0	638	0	45831	0	158	0	46693	0
1791	48	0	927	0	46244	0	170	0	47389	0
1792	48	0	1282	0	[45030]	[0]	91	0	[46451]	[0]
1793	44	0	2769	0	43815	0	160	0	46788	0
1794	43	0	1188	0	[44132]	[0]	160	0	[45523]	[0]
1795	37	0	1914	0	[44449]	[0]	420	0	[46820]	[0]
1796	40	0	2095	0	44767	0	606	0	47508	0
1797	31	0	2468	588	[48692]	[0]	346	9	[51537]	[597]
1798	43	14	3121	782	52616	0	629	200	56409	996
1799	24	14	1865	716	49977	0	236	191	52102	921
1800	11	15	1174	975	26182	0	201	94	27568	1084

Appendix 2.43
Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Pigs.

Year	The custom house (harbour)	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports
1730	[30]	1425	426	915	116	2912
1731	50	1991	586	2000	197	4824
1732	42	1560	645	1600	146	3993
1733	25	1849	607	2092	127	4700
1734	33	1673	804	1494	212	4216
1735	30	1650	472	1710	118	3980
1736	57	1857	721	2256	167	5058
1737	13	1724	337	[2139]	69	[4282]
1738	21	1744	625	2022	145	4557
1739	25	1877	338	[1663]	177	[4080]
1740	12	1652	353	1303	30	3350
1741	0	1975	742	1523	76	4316
1742	14	1667	642	1870	91	4284
1743	16	2040	805	[2353]	70	[5284]
1744	66	2077	820	2835	81	5879
1745	18	1811	743	2339	41	4952
1746	55	1794	896	3311	86	6142
1747	48	2694	969	3487	151	7349
1748	11	2840	643	2567	104	6165
1749	12	1865	474	1567	63	3981
1750	5	1603	695	1848	67	4218
1751	7	1981	635	1706	74	4403
1752	5	1952	906	1772	112	4747
1753	7	1599	679	1778	80	4143
1754	11	1637	1122	1723	160	4653
1755	17[1])	1790	822	2136	108	4873
1756	12	1408	535	1820	72	3847
1757	9	1136	749	1757	91	3742
1758	7	1092	509	3301	47	4956
1759	15	1049	866	2785	140	4855
1760	9	1195	496	19761[3])	38	21499
1761	13	1291	1361	1392	185	4242
1762	13	1232	1141	[1290]	167	[3843]
1763	24[2])	1626	909	1187	158	3904
1764	18[2])	1736	1585	[2245]	246	[5830]
1765	17	1254	372	3302	153	5098
1766	10[2])	1230	1294	3311	141	5986
1767	19	1814	926	3518	116	6393
1768	20	1526	925	3249	186[4])	5906
1769	18	1214	487	836	112	2667

Appendix 2.43 (contd.)
Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Pigs.

Year	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports overland
1770	854	1010	412[5]	191	2467
1771	754	438	316	106	1614
1772	432	873	2082	128	3515
1773	312	814	3302	122	4550
1774	414	848	3311	190	4763
1775	434	857	2048	139	3478
1776	682	349	2770	78	3879
1777	[694]	[666]	[3386]	[104]	[4850]
1778	705	983	4001	129	5818
1779	[671]	[1069]	[2001]	[142]	[3883]
1780	[637]	1154	0	155	1946
1781	604	764	912	198	2478
1782	480	408	0	142	1030
1783	580	1596	[0]	173	2349
1784	390	1063	0	0	1453
1785	556	1063	0	86	1705
1786	860	934	2016	242	4052
1787	635	679	1512	233	3059
1788	794	263	1656	281	2994
1789	690	1216	1412	278	3596
1790	587	942[2]	1264	285	3078
1791	748	1012	3412	352	5524
1792	643	988	[3138]	197	[4966]
1793	854	898	2864	231	4847
1794	549	784	[3114]	239	[4686]
1795	303	595	[3364]	125	[4387]
1796	554	602	3615	232	5003
1797	555	400	[3764]	237	[4956]
1798	399	514	3912	434	5259
1799	317	489	3907	279	4992
1800	192	516	2713	175	3596

[1]) Described as "sucking-pigs".
[2]) Described as "pigs for roasting".
[3]) Sic!
[4]) The source states 185 1/2 pairs, which has been taken as a transcription error for 185 1/2 head, since pigs are never otherwise counted in pairs.
[5]) Described as "small pigs".

Appendix 2.51

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Lambs[1]).

Year	The custom house (harbour)	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports
1730	[92]	2954	21150	29214	1613	55023
1731	97	3607	19303	28921	2218	54146
1732	134	3550	24796	24093	1456	54029
1733	145	4206	26518	26197	1520	58586
1734	116	4277	36695	19042	1608	61738
1735	72	3743	27687	22787	1580	55869
1736	56	2997	16678	11952	513	32196
1737	65	2655	21742	[17597]	185	[42244]
1738	130	3131	24167	23241	839	51508
1739	88	3735	16231	[25446]	3348	[48848]
1740	54	2952	19760	27650	960	51376
1741	88	2868	25271	15148	1053	44428
1742	80	2567	20894	16401	859	40801
1743	78	2448	21478	[24537]	1521	[50062]
1744	87	2720	22725	32672	1137	59341
1745	109	2424	22585	31977	1173	58268
1746	266	3584	17854	30666	1401	53771
1747	235	4561	25282	45665	1581	77324
1748	184	4222	18311	52539	1823	77079
1749	113	4197	17853	53735	1267	77165
1750	184	4696	23554	54019	931	83384
1751	120	5154	22559	56492	734	85059
1752	39	4452	23227	56869	676	85263
1753	89	4432	21782	54081	577	80961
1754	87	3849	21341	44194	506	69977
1755	122	4558	17062	46366	734	68842
1756	95	4665	21170	43074	559	69563
1757	105	4881	23022	43633	480	72121
1758	192	4436	21889	40323	185	67025
1759	160	3916	23960	35926	659	64621
1760	169	4054	27785	26678	513	59199
1761	183	4533	26050	39832	645	71243
1762	179	4608	22343	[34178]	999	[62307]
1763	426	4852	19104	28524	867	53773
1764	319	4908	22575	28421	2019	58242
1765	79	4732	23750	36418	2838	67817
1766	95	4640	28800	30666	1173	65374
1767	89	5120	31123	34500	1030	71862
1768	207	5012	32325	34993	414	72951
1769	134	5106	31012	32350	262	68864

Appendix 2.51 (contd.)

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Lambs[1]).

Year	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports overland
1770	5332	29288	32280	230	67130
1771	4286	29009	28501	204	62000
1772	3632	24412	34909	427	63380
1773	4346	26570	25443	576	56935
1774	4451	30323	26118	315	61207
1775	4697	29853	38105	278	72933
1776	4297	29350	30479	149	64275
1777	[4260]	[29138]	[33958]	[196]	[67552]
1778	4222	28926	37437	243	70828
1779	[4533]	[35890]	[37693]	[244]	[78360]
1780	[4845]	42853	37948	244	85890
1781	5157	39359	51010	425	95951
1782	3932	38217	46229	312	88690
1783	4080	42030	[45104]	223	[91437]
1784	3461	39651	43979	710	87801
1785	3551	38976	41941	162	84630
1786	2693	31379	44516	218	78806
1787	3118	31173	46211	290	80792
1788	4203	37336	39174	6410	87123
1789	3456	39320	37844	216	80836
1790	3435	23890	33848	556	61729
1791	3526	31965	39628	148	75267
1792	3048	31102	[43226]	205	[77581]
1793	2912	30321	46824	285	80342
1794	2192	30769	[55602]	187	[88750]
1795	4610	33736	[64380]	376	[103102]
1796	5381	30096	73159	3893	112529
1797	6924	36434	[76497]	356	[120211]
1798	5393	35669	79835	1159	122056
1799	4121	31177	77617	1239	114154
1800	3355	34983	78180	275	116793

[1]) This includes lambs, rams, sheep, bucks, goats and kids. The source terms the category now "lambs", now "sheep and lambs", now "sheep, lambs and rams" etc. On those occasions where the figures allow of being distinguished, lambs are very much in the majority.

Appendix 2.52

Registered gross imports from Iceland, Greenland, the Faroes and Finmark, free of consumption tax.
Sheep and mutton.

Year	mutton, barrels	sheep
1730	[1398]	[19]
1731	1654	37
1732	3033	22
1733	4067	2
1734	4040	0
1735	3459	0
1736	5152	0
1737	3980	0
1738	3523	0
1739	[4103]	[0]
1740	4682	0
1741	3869	0
1742	4893	0
1743	6460	0
1744	6277	61
1745	4931	57
1746	6738	109
1747	5285	116
1748	4565	94
1749	5866	115
1750	5236	163

Appendix 2.61

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Geese.

Year	The custom house (harbour)	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports
1730	[173]	1613	3239	22419	672	28116
1731	211	1297	1797	18914	1040	23259
1732	251	1385	2630	21346	875	26487
1733	293	1356	2435	30161	599	34844
1734	166	1427	5554	29461	765	37373
1735	261	1638	1928	40659	422	44908
1736	34	1713	1654	31048	326	34775
1737	74	1247	2985	[34680]	189	[39175]
1738	137	1583	2819	38311	468	43318
1739	80	1721	1510	[32055]	836	[36202]
1740	46	1223	1977	25798	241	29285
1741	130	1453	3000	13770	234	18587
1742	95	1206	2879	30653	275	35108
1743	130	1408	2437	[33062]	409	[37446]
1744	104	1537	2392	35470	429	39932
1745	152	1179	2989	36785	341	41446
1746	226	1211	2203	31475	385	35500
1747	234	1094	2260	31436	370	35394
1748	199	1426	3285	40759	431	46100
1749	174	927	2788	35593	433	39915
1750	191	1471	3353	39288	414	44717
1751	200	1576	3502	51240	414	56932
1752	121	1717	3961	49004	541	55344
1753	189	1440	4068	53375	571	59643
1754	187	1434	5167	47745	1068	55601
1755	197	1516	2162	49718	387	53980
1756	179	1091	3334	52278	670	57552
1757	173	1197	3510	43011	588	48479
1758	192	950	2137	47456	268	51003
1759	160	922	2495	58997	366	62940
1760	193	1005	2631	69872	499	74200
1761	201	1128	4502	75938	586	82355
1762	203	880	5307	[56153]	364	[62907]
1763	211	1160	5212	36367	360	43310
1764	224	1150	5264	36370	947	43955
1765	223	1006	3735	36472	1615	43051
1766	304	1082	5160	31475	926	38947
1767	211	960	6665	31886	680	40402
1768	79	898	6055	28968	1343	37343
1769	93	704	6574	26216	1188	34775

Appendix 2.61 (contd.)

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Geese.

Year	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports overland
1770	720	5825	29893	875	37313
1771	590	3758	36370	832	41550
1772	574	4436	24992	520	30522
1773	610	4057	36471	695	41833
1774	464	5645	31475	1158	38742
1775	594	6873	30020	940	38427
1776	518	5763	29870	799	36950
1777	[538]	[7707]	[40338]	[694]	[49277]
1778	558	9651	50806	588	61603
1779	[667]	[8850]	[51705]	[717]	[61939]
1780	[776]	8048	52603	845	62272
1781	885	7438	53538	554	62415
1782	552	8837	49008	800	59197
1783	815	9861	[49376]	508	[60560]
1784	652	6910	49743	356	57661
1785	847	8212	43399	566	53024
1786	953	6093	47330	1473	55849
1787	1115	3784	77333	1089	83321
1788	957	2958	70960	1431	76306
1789	898	3106	60840	1168	66012
1790	1409	2793	52914	880	57996
1791	1564	3522	81601	1266	87953
1792	1060	3315	[79977]	1055	[85407]
1793	1122	3734	78353	1164	84373
1794	1406	3377	[72440]	737	[77960]
1795	892	2714	[66527]	671	[70804]
1796	822	3009	60614	1162	65607
1797	822	6375	[63786]	1223	[72206]
1798	536	15490	66958	1431	84415
1799	487	10728	58299	1028	70542
1800	408	8355	46324	685	55772

Appendix 2.62

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Ducks.

Year	The custom house (harbour)	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports
1730	[486]	1055	2712	8354	795	13402
1731	590	880	2469	7738	1021	12698
1732	875	1017	3108	7144	653	12797
1733	744	991	3050	10657	660	16102
1734	471	1173	5187	8626	842	16299
1735	698	1037	3661	15337	628	21361
1736	543	815	3095	9626	413	14492
1737	381	584	2469	[12245]	155	[15834]
1738	608	824	2641	14864	411	19348
1739	1021	891	1344	[11561]	1207	[16024]
1740	421	631	1654	8257	243	11206
1741	383	557	2701	6031	244	9916
1742	846	477	2284	7002	253	10862
1743	743	543	2761	[8693]	416	[13156]
1744	849	790	3116	10383	526	15664
1745	1051	752	4069	11659	554	18085
1746	1257	603	3919	11016	842	17637
1747	1331	607	4221	11789	784	18732
1748	1206	640	4276	13180	896	20198
1749	984	405	3158	10180	413	15140
1750	1149	515	3491	10918	449	16522
1751	1203	1098	4590	12842	455	20188
1752	1006	1042	6711	13748	759	23266
1753	1197	1278	7202	16566	776	27019
1754	1162	1174	8509	16045	959	27849
1755	1179	958	6012	25162	888	34199
1756	1142	678	4972	25708	787	33287
1757	985	762	5078	22918	621	30364
1758	1139	338	2224	20608	392	24701
1759	936	343	3172	17821	690	22962
1760	1163	482	3253	22750	606	28254
1761	1205	778	5062	35642	1020	43707
1762	1247	626	5442	[26155]	782	[34252]
1763	[1]	680	5550	16668	700	23598
1764	[1]	660	8656	12446	1531	23293
1765	[1]	364	3404	12459	2278	18505
1766	[1]	544	7275	11016	1180	20015
1767	[1]	484	5409	11461	922	18276
1768	[1]	568	6258	10683	1020	18529
1769	[1]	416	6043	19268	1121	26848

Appendix 2.62 (contd.)

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Ducks.

Year	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports overland
1770	476	5938	18229	1057	25700
1771	412	4619	11270	706	17007
1772	436	4500	9959	759	15654
1773	628	4796	12459	1092	18975
1774	543	5399	11016	1442	18400
1775	628	4673	11400	1012	17713
1776	540	4352	10200	1056	16148
1777	[550]	[6467]	[13113]	[1006]	[21136]
1778	560	8581	16025	955	26121
1779	[669]	[8375]	[8966]	[1124]	[19134]
1780	[779]	8168	1906	1292	12145
1781	889	6541	12612	612	20654
1782	648	7820	12628	828	21924
1783	920	10305	[14326]	728	[26279]
1784	804	7456	16024	688	24972
1785	1123	8182	13148	1521	23974
1786	745	5923	24630	1993	33291
1787	1127	5560	22032	1702	30421
1788	1100	5220	19019	1906	27245
1789	1444	3882	18832	1587	25745
1790	914	4993	14624	1830	22361
1791	1389	3122	14448	1752	20711
1792	1408	2947	[16496]	1632	[22483]
1793	1231	3110	18543	1239	24123
1794	1274	2999	[16512]	1075	[21860[1]
1795	953	2596	[14482]	944	[18975]
1796	983	1835	12452	1953	17223
1797	981	2014	[13039]	1071	[17105]
1798	777	2868	13626	1701	18972
1799	571	2259	13896	1500	18226
1800	692	2939	13850	1214	18695

[1]) See appendix 2.631.

Appendix 2.631

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Hens and chickens.

Year	The custom house (harbour)	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports
1730	[2865]	2593	14455	70469	3629	94011
1731	3854	2355	18168	52988	4158	81523
1732	3813	1865	15750	41558	3817	66803
1733	3719	1950	13213	59697[1])	2607	81186
1734	3530	2244	21932	39024	3352	70082
1735	4088	1997	15129	68121	2014	91349
1736	3181	1890	11638	54022	1429	72160
1737	2648	2140	11554	[66294]	848	[83484]
1738	2993	2021	13325	78565	1688	98592
1739	3451	2006	9055	[68903]	3295	[86710]
1740	2063	2558	9158	59241	1622	74642
1741	2307	1440	9097	44856	839	58539
1742	2685	1305	10022	56473	1479	71964
1743	3038	1564	11749	[58871]	2633	[77855]
1744	3125	1690	14445	61269	2707	83236
1745	3296	1388	13928	62482	1793	82887
1746	4212	2096	13935	54636	2274	77153
1747	3830	1668	11807	63112	1894	82311
1748	3348	1625	12985	66941	2007	86906
1749	2384	1246	12403	46798	1581	64412
1750	2976	1197	15321	54862	1807	76163
1751	2985	1262	17118	92028	1646	115039
1752	3127	1107	17086	86220	2073	109613
1753	3220	1531	16354	85002	1938	108045
1754	2953	1851	16943	90078	1442	113267
1755	3003	1144	13818	103733	1455	123153
1756	2973	1867	12951	98401	1122	117314
1757	3073	1632	12823	82218	1321	101067
1758	2979	1096	10134	38304	986	53499
1759	2521	1026	13577	76830	2029	95983
1760	2983	1185	13619	83578	1849	103214
1761	3364	1280	20868	95264	2868	123644
1762	3531	1632	20067	[89675]	2010	[116915]

Appendix 2.631 (contd.)

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Hens.

Year	The custom house (harbour)	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports
1763	3685[2])	672	6460	36034	1000	47851
1764	3804[2])	702	7236	38401	755	50898
1765	3859[2])	748	6072	38441	1027	50147
1766	3643[2])	596	6763	38440	553	49995
1767	3638[2])	436	6840	39462	709	51085
1768	1760[2])	556	7448	33773	777	44314
1769	2742[2])	312	6944	24479	604	35081

Appendix 2.631 (contd.)

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Hens.

Year	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports overland
1770	412	6756	31271	434	38873
1771	376	6133	37422	601	44532
1772	252	5232	15866	655	22005
1773	228	5745	38441	709	45123
1774	208	6030	38440	1115	45793
1775	148	6865	28040	829	35882
1776	253	6077	26056	541	32927
1777	[279]	[6604]	[29037]	[541]	[36461]
1778	304	7130	32018	541	39993
1779	[600]	[7065]	[28347]	[577]	[36589]
1780	[896]	7000	24675	612	33183
1781	1192	6581	28460	744	36977
1782	1280	6234	24624	590	32728
1783	1160	6629	[29817]	628	[38234]
1784	1240	7426	35010	640	44316
1785	1333	7553	24632	1139	34657
1786	512	6819	24448	1328	33107
1787	809	5195	22824	1082	29910
1788	812	5827	16434	1538	24611
1789	781	6833	22830	1345	31789
1790	451	5523	20626	1392	27992
1791	290	4681	14832	1459	21262
1792	379	3986	[14918]	1141	[20424]
1793	295	4007	15003	1060	20365
1794	406	3866	[16031]	1285	[21588]
1795	347	3499	[17059]	1872	[22777]
1796	347	3182	18088	1681	23298
1797	347	5869	[18331]	1440	[25987]
1798	297	11431	18574	1646	31948
1799	250	10241	18454	1478	30423
1800	297	7798	18472	1089	27656

[1]) Hens, chickens and doves.
[2]) Hens and ducks.

Appendix 2.632

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Chickens.

Year	The custom house (harbour)	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports
1763	1004	708	11525	48051	800	62088
1764	944	1060	19923	48000	1906	71833
1765	733	736	8227	48100	3143	60939
1766	710	712	18089	48102	1117	68730
1767	618	628	13610	47973	1414	64243
1768	858	444	14694	41668	1416	59080
1769	446	444	14596	21772	1735	38993

Appendix 2.632 (contd.)

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Chickens.

Year	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports overland
1770	376	11154	32757	100	44387
1771	344	7274	33242	867	41727
1772	264	10538	23532	1057	35391
1773	328	17429	48100	1504	67361
1774	364	17888	50102	1905	70259
1775	337	15100	28000	1360	44797
1776	340	11954	[34697]	1244	[48235]
1777	[364]	[16142]	[41393]	[1481]	[59380]
1778	388	20330	48090	1718	70526
1779	[396]	[21254]	[38950]	[1501]	[62101]
1780	[405]	22178	29810	1283	53676
1781	414	16476	26412	924	44226
1782	364	15254	28770	420	44808
1783	340	23391	[63760]	560	[88051]
1784	260	15444	98750	694	115148
1785	324	21577	78824	2104	102829
1786	488	15990	85842	3086	105406
1787	485	19759	74266	3057	97567
1788	650	23903	68530	3829	96912
1789	742	24635	60832	2023	88232
1790	587	18235	43522	2359	64703
1791	812	17858	44210	2282	65162
1792	851	16146	[46673]	2105	[65775]
1793	696	16267	49135	2100	68198
1794	809	16050	[49226]	1956	[68041]
1795	619	13310	[49317]	3259	[66505]
1796	696	11888	49408	4825	66817
1797	696	9998	[50333]	2819	[63846]
1798	722	13669	51258	3732	69381
1799	665	9579	51674	1726	63644
1800	642	11997	51468	1347	65454

Appendix 2.64

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Eggs, scores.

Year	The custom house (harbour)	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports exclusive *td.*
1730	[112 *td.* 19202]	9503	7007	33539	875	[70126]
1731	194 *td.* 23123	8237	9926	33493	1464	76243
1732	39513	6732	8966	31164	1015	87390
1733	29900	7683	7381	32531	1246	78741
1734	24715	6635	11589	29165	1079	73183
1735	19870	7377	7735	34124	564	69670
1736	24335	6747	6516	32111	387	70096
1737	24798	6794	7688	[32962]	469	[72711]
1738	26634	7148	7706	33813	585	75886
1739	8 *td.* 30224	6846	7344	[30776]	1295	[76485]
1740	29180	5812	8245	27738	792	71767
1741	31924	5120	8204	37595	717	83560
1742	24056	5028	7669	28596	681	66030
1743	30377	4857	9802	[35144]	976	[81156]
1744	36437	5232	10475	41691	1304	95139
1745	49538	5331	10977	43332	932	110110
1746	58688	5190	10730	38176	723	113507
1747	49411	4520	10948	35871	1259	102009
1748	38603	4650	13441	30690	1032	88416
1749	35924	5441	13455	35186	917	90923
1750	44521	5075	13845	31782	1209	96432
1751	48602	6278	17190	47416	1176	120662
1752	52885	5393	17266	49131	1279	125954
1753	45081	5182	17139	46501	1051	114954
1754	57291	5920	19090	51930	1165	135396
1755	61731	5231	15229	63268	847	146306
1756	58281	5082	14505	55165	771	133804
1757	52630	4096	13709	50783	1106	122324
1758	64478	3340	15107	47760	1126	131811
1759	77024	2890	14552	32535	1051	128052
1760	49285	3587	18153	46802	903	118730
1761	38599	3946	19152	65070	1753	128520
1762	39486	4040	24386	[52797]	1551	[122260]
1763	64399	3570	19903	40524	1460	129856
1764	59486	3648	24465	40548	1613	129760
1765	78898	3414	20595	40700	1736	145343
1766	90413	3116	29117	38176	1228	162050
1767	81818	2856	29482	37986	1313	153455
1768	82196	1954	28396	22891	1479	136916
1769	76970	1408	25852	16544	1237	122011

Appendix 2.64 (contd.)
Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Eggs, scores.

Year	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports overland
1770	954	24993	42893	1348	70188
1771	866	23657	25274	1223	51020
1772	516	21446	52535	1246	75743
1773	472	25370	40700	1659	68201
1774	478	23415	38176	1743	63812
1775	698	24644	30001	1678	57021
1776	306	21178	27350	1077	49911
1777	[296]	[24863]	[38676]	[1301]	[65136]
1778	286	28548	50001	1525	80360
1779	[337]	[29186]	[48152]	[1324]	[78999]
1780	[388]	29824	46303	1123	77638
1781	440	25890	178837	1260	206427
1782	321	24520	62300	974	88115
1783	402	28781	[61353]	553	[91089]
1784	340	33112	60405	637	94494
1785	1305	29690	70806	1479	103280
1786	1488	28926	86701	3773	120888
1787	1309	31370	71024	3216	106919
1788	1553	49757	77308	2901	131519
1789	1399	61372	80216	2989	145976
1790	1488	29619	60496	4690	96293
1791	1291	27905	70372	4068	103636
1792	1184	28328	[71456]	2856	[103824]
1793	1115	31499	72539	4155	109308
1794	1160	29861	[73668]	3840	[108529]
1795	994	22898	[74797]	4706	[103395]
1796	1111	23945	75927	6008	106991
1797	1111	29972	[78683]	4147	[113913]
1798	1236	37646	81359	4780	125021
1799	1025	22337	80986	3439	107787
1800	1118	28957	81019	2878	113972

Appendix 2.711

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Dried fish and split cod[1]), *lispund*.

Year	Total imports	Year	Total imports
1730	[8474]	1750	28250
1731	1972	1751	32563
1732	8202	1752	28468
1733	17192	1753	25254
1734	22682	1754	18678
1735	12128	1755	22723
1736	10357	1756	21702
1737	14963	1757	20019
1738	17236	1758	26350
1739	19889	1759	24847
1740	19251	1760	25996
1741	37633	1761	19647
1742	32057	1762	20220
1743	20750	1763	13204
1744	20926	1764	14128
1745	15615	1765	27951
1746	21084	1766	13061
1747	15433	1767	11751
1748	19420	1768	2599
1749	24659	1769	7353

[1]) The figures have been produced by adding together the various groups in the source. About 10 % of the figures for 1730–62 derive from cod in scores being converted to *pund*. The conversion factor employed is 140 cod = 1 *skippund*, cf. Carl Pontoppidan: Det Finmarkske Magazins Samlinger, Copenhagen 1790, p. 221.

The imports overland 1770–1800 are negligible.

Appenlix 2.712

Registered gross imports from Iceland, Greenland, the Faroes and Finmark, free of consumption tax.
Dried fish and split cod, *lispund*.

Year	Total imports	Year	Total imports
1730	[71691]	1741	99844
1731	76817	1742	127236
1732	75080	1743	114098
1733	97382	1744	161811
1734	111462	1745	128973
1735	85349	1746	119499
1736	45511 + 19622 *td*	1747	88094
1737	74437	1748	87266
1738	86052	1749	83088
1739	[95011]	1750	110376
1740	103969		

Appendix 2.721

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Salt fish, barrels.

Year	Total imports	Year	Total imports
1730	[1295]	1750	2234
1731	930	1751	1794
1732	2016	1752	1506
1733	2023	1753	1654
1734	2331	1754	1266
1735	2503	1755	1393
1736	1808	1756	1181
1737	1705	1757	1198
1738	1294	1758	2176
1739	1777	1759	2385
1740	1540	1760	1387
1741	2933	1761	1078
1742	2499	1762	1208
1743	2333	1763	1169
1744	2079	1764	1107
1745	1731	1765	1365
1746	1910	1766	1009
1747	1163	1767	1132
1748	1302	1768	477
1749	1853	1769	283

[1]) The figures have been produced by adding together the various groups in the source. 1 load (*læst*) has been converted to 12 barrels (*tønder*).

The imports overland 1770–1800 are negligible.

Appendix 2.722

Registered gross imports from Iceland, Greenland, the Faroes and Finmark, free of consumption tax.
Salt fish, barrels.

Year	Total imports	Year	Total imports
1730	[395]	1741	1019
1731	387	1742	1103
1732	482	1743	1103
1733	664	1744	1270
1734	675	1745	1079
1735	564	1746	675
1736	701	1747	958
1737	713	1748	864
1738	921	1749	1009
1739	[945]	1750	1362
1740	968		

Appendix 2.73

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Salt, dried and smoked herring, barrels.

Year	Total imports	Year	Total imports
1730	[7494]	1750	16230
1731	8203	1751	16343
1732	8733	1752	18882
1733	10290	1753	12108
1734	8840	1754	20210
1735	6156	1755	19079
1736	8436	1756	20286
1737	7442	1757	19007
1738	9641	1758	19952
1739	10716	1759	13833
1740	9619	1760	18366
1741	10189	1761	12315
1742	9268	1762	12588
1743	6212	1763	12683
1744	6016	1764	13325
1745	6727	1765	15533
1746	8284	1766	11598
1747	11504	1767	12167
1748	12376	1768	13652
1749	18072	1769	18198

1) Wherever the figures can be broken down salt herring is the chief category.

The overland imports 1770–1800 are less than 100 barrels a year.

Appendix 2.74

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Fresh herring[1]).

Year	The custom house (harbour) Boats	Christians-havns Gate Barrels	North Gate Barrels	West Gate Barrels	East Gate Barrels	Total imports overland Barrels[1])
1730	[20]	2	150	65	12	229
1731	31	0	62	38	10	110
1732	50	3	108	122	54	287
1733	44	0	90	152	13	255
1734	31	0	125	59	6	190
1735	59	0	255	143	52	450
1736	61	22	260	175	51	508
1737	94	23	401	[154]	37	[615]
1738	70	6	419	132	36	593
1739	188	109	374	[139]	408	[1030]
1740	741	1007	1590	145	240	2982
1741	712	1733	1069	137	230	3169
1742	284	1822	582	275	119	2798
1743	44	254	374	[284]	82	[994]
1744	68	195	387	292	44	918
1745	27	93	264	159	26	542
1746	39	32	194	201	20	447
1747	27	2	283	252	33	570
1748	11	0	251	198	17	466
1749	9	2	271	339	13	625
1750	9	0	195	202	11	408
1751	17	0	262	345	20	627
1752	9	3	350	405	148	906
1753	23	0	311	247	182	740
1754	39	6	243	344	120	713
1755	29	1	218	157	163	539
1756	58	2	310	145	124	581
1757	61	0	305	221	42	568
1758	46	1	335	[191]	53	[580]
1759	63	16	254	160	113	543
1760	41	32	204	388	81	705
1761	134	0	158	319	197	674
1762	171	0	225	[332]	92	[649]
1763	216	5	117	345	81	548
1764	255	0	558	336	159	1053
1765	189	0	567	337	155	1059
1766	205	0	519	336	126	981
1767	105	0	388	339	106	833
1768	40 td. + 133	0	482	429	174	1085
1769	119	0	573	319	211	1103

Appendix 2.74 (contd.)

Copenhagen consumption tax ledgers.
Registered gross imports liable to consumption tax.
Fresh herring, barrels.

Year	Christians-havns Gate	North Gate	West Gate	East Gate	Total imports overland
1770	0	474	848	222	1544
1771	0	403	336	189	928
1772	0	893	254	435	1582
1773	48	827	337	825	2037
1774	25	871	302	851	2049
1775	4	1202	372	1147	2725
1776	0	916	430	566	1912
1777	[0]	[711]	[362]	[544]	[1617]
1778	0	505	293	522	1320
1779	[0]	[420]	[374]	[424]	[1218]
1780	[0]	334	454	325	1113
1781	0	314	274	0	588
1782	0	269	248	252	769
1783	0	520	[329]	316	[1165]
1784	0	262	410	178	850
1785	0	337	412	47	796
1786	4	519	424	608	1555
1787	2	518	316	251	1087
1788	1	339	214	113	667
1789	0	409	184	111	704
1790	0	306	176	118	600
1791	0	198	185	673	1056
1792	0	210	[170]	1182	[1562]
1793	0	234	155	1521	1910
1794	0	222	[155]	1310	1687
1795	0	300	[156]	1644	2100
1796	0	452	156	1666	2274

1) Duty on seaward imports was not charged by the barrel but by the boat, regardless of size. Since imports of other fresh saltwater fish were free of duty, it must have been easy to smuggle fresh herring in by sea.

Appendix 2.81
Free milling of rye for the army in Copenhagen, barrels.

Year	Free milling according to the milling consumption tax office ledgers[1])	Free milling according to the surviving statistics[2])	Free milling orders issued[3])
	column 1	column 2	column 3
1730	.....	.....	13000
1731	.....	.....	10000
1732	.....	.....	14000
1733	.....	.....	12000
1734	.....	.....	18000
1735	.....	.....	12000
1736	.....	.....	18000
1737	.....	.....	16000
1738	.....	.....	12000
1739	.....	.....	18000
1740	.....	.....	16000
1741	.....	.....	18000
1742	.....	.....	16000
1743	25200	.....	26000
1744	.....	.....	26500
1745	16000	.....	16000
1746	17600	.....	14000
1747	17424	.....	12000
1748	16800	.....	20000
1749	15200	.....	9000
1750	16600	.....	16000
1751	15200	.....	14000
1752	16800	.....	16000
1753	16200	.....	12000
1754	13204	.....	6000?
1755	17400	.....	18000
1756	14600	.....	15000
1757	20000	.....	14000
1758	15800	.....	17000
1759	10800	.....	13000
1760	11800	.....	10000
1761	15200	.....	10000
1762	16533	.....	12000
1763	11600	.....	8000
1764	6600	.....	6000
1765	13000	.....	12000
1766	10800	.....	10000
1767	14746	.....	12000
1768	10000	.....	10000
1769	8240	.....	8000
1770	8753	8400	10000
1771	13800	13600	.....
1772	.....	15000	.....
1773	.....	16000	.....
1774	.....	11500	.....

Year	Free milling according to the milling consumption tax office ledgers[1])	Free milling according to the surviving statistics[2])	Free milling orders issued[3])
	column 1	column 2	column 3
1775	.....	10760	.....
1776	.....	6000	.....
1777	.....	5800	.....
1778	.....	9200	.....
1779	.....	4000	.....
1780	.....	4800	.....
1781	.....	7200	.....
1782	.....	4800	.....
1783	.....	5200	.....
1784	7000	7000	.....
1785	.....	11000	.....
1786	12000	.....	.....
1787	13000	.....	.....
1788	13000	.....	.....
1789	12000	.....	.....
1790	13000	.....	.....
1791	14000	.....	.....
1792	8000	.....	8000
1793	8000	.....	8000
1794	.....	.....	10000
1795	.....	.....	10000
1796	.....	.....	12000
1797	.....	.....	10000
1798	.....	.....	6000
1799[4])	.....	.....	.....
1800[4])	.....	.....	.....

In computing the calorific and protein values of consumption in Copenhagen, column 3 is used for the years 1730–45, column 1 for 1746–71, column 2 for 1772–85, column 1 for 1786–93 and column 3 for 1794–98.

[1]) *Source:* RA GenToldkamm, Reviderede regnskaber, København, Antegnelser ekstrakter m. v. 1730–1800.

In the milling consumption tax office free-milling abstracts, these figures are not recorded as representing free milling for the army in Copenhagen but as free milling for a number of named individuals who according to the free-milling orders issued for the army (cf. note 3) appear to have been the army's "bread contractors". However, it is also apparent from some of the free-milling orders that for part of the time the same individuals were responsible for the baking of bread for victualling naval vessels. Therefore it is possible that for some years the figures of free-milling for the army according to the milling consumption tax office ledgers shown in column 1 also include a certain amount of free milling for the navy. However, it is clear from the free-milling orders (source as note 3) that no more than about 4,000 barrels of rye a year were involved in the victualling of naval vessels. The figures of free millings for the army culled from the milling consumption tax office ledgers are not homogeneous. In some years the figures comprise the quantities actually milled during the calendar year, while in others they embrace the quantities

for which free-milling orders were received during the calendar year. This is important for the figures because free-milling orders were normally for 2,000 barrels of rye, and if one of these orders was issued in December, for instance, then a computation of free milling arrived at by counting up the quantities for which free-milling orders were issued would result in all 2,000 barrels being assigned to the year of issue, while a computation based on quantities milled would share the 2,000 barrels between the year of issue of the order and the following year, according to how many of the 2,000 barrels had been milled before the turn of the year.

[2]) *Source:* RA GenToldkamm, Reviderede regnskaber, København 1785B. This list seems to have been compiled from the free-milling orders issued.

[3]) *Source:* RA Rtk 2241.80–89 + RA GenToldkamm VA II, p. 268, 1760–71 Frie ordres protokol + RA Rtk 2335.3–4 + RA GenToldkomm VA II p. 271, Københavns Told- og Konsumptions samt Øresunds- og Strømtoldkontor, Journaler.

This column comprises free-milling orders according to the records maintained by the issuing authority. The total for each year contains the free-milling orders recorded in the registers. The list will therefore be incomplete if the registers are incomplete.

[4]) From 1799 onwards, the milling of rye for the army is included in the quantities on which duty is paid (i. e. the figures in appendix 2.1111). This is shown by RA GenToldkamm, Reviderede regnskaber, København, Antegnelser, ekstrakter m. v. 1799–1800, esp. Maleværksregnskaberne.

Appendix 2.82

Victuals supplied free of consumption tax to naval seamen and artificers in Copenhagen, estimated figures, barrels.

Year	Free-milled rye	Free-milled barley groats	Free-milled malt	Peas imported duty-free
1730	14910	1305	14910	745
1731	14770	1290	14770	740
1732	15350	1340	15350	770
1733	14290	1250	14290	715
1734	15100	1320	15100	755
1735	14820	1300	14820	745
1736	16990	1485	16990	850
1737	17770	1555	17770	890
1738	18310	1600	18310	915
1739	20850	1825	20850	1045
1740	17140	1500	0	855
1741	15890	1390	0	795
1742	17200	1505	0	860
1743	15280	1340	0	765
1744	17420	1525	0	870
1745	17010	1490	0	850
1746	15440	1350	0	770
1747	16930	1480	0	850
1748	16070	1410	0	805
1749	16710	1460	0	835
1750	16720	1465	0	835
1751	15520	1360	0	780
1752	14610	1280	0	730
1753	15170	1330	0	760
1754	16560	1450	0	830

Year	Free-milled rye	Free-milled barley groats	Free-milled malt	Peas imported duty-free
1755	15480	1355	0	775
1756	17520	1525	0	870
1757	19440	1650	0	950
1758	21170	1675	0	955
1759	20690	1630	0	930
1760	21440	1700	0	970
1761	20320	1600	0	915
1762	20310	1600	0	915
1763	22160	1760	0	1005
1764	22080	1750	0	1000
1765	22210	1765	0	1010
1766	22770	1815	0	1035
1767	22870	1820	0	1040
1768	23000	1835	0	1050
1769	20380	1605	0	915
1770	20990	1660	0	950
1771	21700	1720	0	130
1772	24740	1985	0	0
1773	24940	2005	0	1145
1774	22500	1790	0	1025
1775	22650	1805	0	1030
1776	20840	1645	0	940
1777	22400	1775	0	1015
1778	23090	1855	0	1060
1779	21470	1710	0	975
1780	20810	1730	0	990
1781	20540	1630	0	930
1782	20500	1685	0	960
1783	21690	1725	0	985
1784	21720	1730	0	990
1785	22700	1845	0	1055
1786	22710	1855	0	1060
1787	24390	2055	0	1175
1788	22440	1800	0	1030
1789	21660	1745	0	995
1790	23100	1850	0	1060
1791	22990	1840	0	1050
1792	21160	1685	0	965
1793	18290	1450	0	830
1794	16240	1280	0	730
1795	16290	1280	0	730
1796	15910	1245	0	715
1797	15760	1220	0	700
1798	14810	1160	0	660
1799	15060	1180	0	675
1800	16320	1280	0	730

Naval seamen and artificers received a ration of foodstuffs consisting of rye, malt (until 1739), peas, barley groats, butter, beef and pork. Icelandic mutton was often substituted for the beef and pork. Of these commodities, rye, malt, peas and barley groats seem to have eluded the general consumption tax ledger (cf. p. 43). Rye and malt were supplied unmilled to naval personnel together with chits entitling them to get the supplied quantity milled free

of consumption tax. These quantities of rye and barley, milled tax-free for naval personnel, are not included in the general computations of annual milling found in the milling consumption tax office ledgers. It is evident from these ledgers that they deal only with the quantities on which consumption tax was paid. Nor is the free milling for naval personnel accounted for in the computation of free milling in the milling consumption tax office ledgers [1]). That it is nonetheless known that rye and malt were milled free of consumption tax is due to the fact that in the naval archives there is a record-book of free milling chits issued from 1722–37, and the system must have continued, for in 1809 a special computation of the free-milling for naval personnel was made in the milling comsumption tax office ledgers [2]). It has been ascertained that, in addition to the issue to naval personnel of free-milling chits for the rye and malt distributed to them, peas for the navy were imported dutyfree [3]), and that the navy even had mills for grinding the barley groats supplied to its personnel [4]).

Even though the actual ledgers for tax-free comestibles distributed to naval personnel are not extant for the whole of the period 1730–1800, the quantities distributed can nevertheless be worked out with a fair degree of certainty, since the number of shore-rations and the size of a shore-ration are known directly or indirectly for the whole period.

Basis of calculation:

1730–39 Rye and peas: RA Søetaten, Kommissariatskontoret, Provianteringsbøger 1728–39. Barly groats: Calculated on the basis of the number of shore-rations according to the above and the quantity of barley groats per ration as disclosed by RA Søetaten, Anden divisions mønsterskriver. Indtægts- og udgiftsbøger for Grynmøllen 1736–1770.
Malt: RA Søetaten, Anden divisions mønsterskriver, Konsumptionsbog 1722–37. Distribution of malt ceased on 31/12 1739 cf. RA Søetaten, Anden divisions mønsterskriver, Indtægts- og udgiftsbog for øl, malt etc 1735–58, and Kristof Glamann: Bryggeriets historie i Danmark, Copenhagen 1962, p. 156 ff.

1740–76 All tax-free comestibles are calculated on the basis of: RA Søetaten, Bogholderkontoret, Søetatens hovedbøger. When the supply of malt to naval personnel was abolished, malt-money was introduced instead, at the rate of 50 *skilling* per shore-ration. The number of shore-rations can therefore be worked out from the ledgers. The quantity of food per shore-ration was unchanged from 1730 to 1800, apart from the abolition of the malt ration in 1739, cf. the sources cited for 1730–39 and 1777–1800, and RA Søetaten, Håndværksstokkens mønsterskriver, provianteringsbog 1760–84, also RA Søetaten, Tredie divisions mønsterskriver (4. departement), Provianteringsbog for 4. departement 1772–1790.

In 1772–77 the amounts of malt-money in the main ledgers (*Søetatens hovedbøger*), are amalgamated with the amounts of ration-money for *frimændene* ("free hands", i. e. naval seamen granted permission to go to sea with the merchant fleet). The table above is compiled on the assumption that the amounts of ration-money for *frimændene* which were the same in 1772 and 1777, did not change in the intervening period. For 1777, the amounts of ration-money for *frimændene* can be worked out from the figures in the main ledgers and the number of shore-rations according to RA Søetaten, Holmens chef, Søetatens proviantgård, udgiftordrebøger 1777. For the first half of 1772, the amounts of ration-money for *frimændene* is worked out from the main ledger figures and the number of shore-rations according to RA Søetaten, Anden divisions mønsterskriver, Indtægts- og udgiftsbog for grynmøllen 1771–1804.

From 1756 onwards the navy enlisted *rugdrenge* ("ryeboys"), who were remunerated with a ration of rye. The number of rye-rations distributed to *rugdrenge* in 1756–76 is not precisely known. In constructing the above table, use has been made of the number of rye-rations for *rugdrenge* according to the navy estimates (RA Rtk 222.300–338 and RA Finansarkiverne, VA III p. 39, 1772–76 Søetatens reglementer). This method of calculation has been employed because it has been ascertained that for the period 1777 ff there was only a small difference between the number of rye-rations for *rugdrenge* according to the

estimates and the number actually distributed. (RA Finansarkiverne, VA III, p. 39, 1777 ff. Søetatens reglementer and RA Søetaten, Holmens chef, Søetatens proviantgård, Udgiftsordrebøger 1777 ff).

1777–1800 Rye and peas: RA Søetaten, Holmens chef, Søetatens proviantgård, Udgiftsordrebøger 1777–1800.
Barley groats: Calculated on the basis of the number of shore-rations according to the above and the quantity of barley groats per shore-ration as disclosed by RA Søetaten, Anden division mønsterskriver, Indtægts- og udgiftsbog for grynmøllen 1771–1804.

[1]) RA GenToldkamm, Reviderede regnskaber, København, Antegnelser, ekstrakter m. v. 1730–1800.
[2]) RA Søetaten, Anden divisions mønsterskriver, Konsumptionsbog 1722–37.
RA GenToldkamm, Reviderede regnskaber, København, Antegnelser, ekstrakter m. v. 1809.
[3]) cf. app. 2.81 note 3.
[4]) RA Søetaten, Anden divisions mønsterskriver, Indtægts- og udgiftsbog for grynmøllen 1736–1800.

Appendix 2.91
Estimate of calorie consumption in Copenhagen 1730–1800.

Year	Grain products excluding ale 10^6 kcal	Ale 10^6 kcal	Fruits and vegetables including split peas 10^6 kcal	Animal products 10^6 kcal	Fish 10^6 kcal	Total calorie intake 10^6 kcal	Estimated population	Estimated average consumption kcal per day
1730	27482	13949	3693	21426	2667	69217	65403	2899
1731	26245	16327	3336	21341	2545	69794	65951	2899
1732	27521	16597	3529	21917	2873	72437	66442	2979
1733	27461	16584	3270	23123	3340	73778	68317	2959
1734	29508	16893	3418	22564	3289	75672	69643	2977
1735	27938	17014	3742	24633	2660	75987	71260	2921
1736	30116	16855	4592	22450	2913	76926	72731	2890
1737	29970	16054	4361	25633	2912	78930	74057	2920
1738	28515	16432	4259	25910	3265	78381	73510	2921
1739	33327	17174	3831	25167	3571	83070	73221	3108
1740	34078	12839	3773	25683	3673	80046	73912	2959
1741	36028	9472	4608	23996	4351	78455	74779	2874
1742	31377	9362	4408	24436	3989	73572	75674	2664
1743	34971	10776	5056	28359	2979	82141	75760	2970
1744	29262	10050	4578	28392	2928	75210	75876	2708
1745	32830	10387	4758	28865	2811	79651	77260	2825
1746	34996	9758	5236	25043	3187	78220	78962	2714
1747	35361	9793	5064	22202	3470	75890	78559	2647
1748	34266	9611	4490	24103	3666	76136	80665	2579
1749	34224	9540	4381	22894	4705	75744	81069	2560
1750	33583	10280	4863	25461	4528	78715	81501	2646
1751	32338	10112	4411	28153	4676	79660	83203	2623
1752	33882	10363	4405	28666	4945	82261	84502	2660
1753	33435	10588	3931	31081	3872	82907	85338	2662
1754	34158	10274	3906	31248	4827	84413	86262	2681
1755	32821	10389	4444	32878	4756	85288	85598	2730
1756	40668	10831	4108	32877	4895	93379	83001	3074
1757	42450	10182	4682	35923	4671	97908	82482	3252
1758	42814	8532	5199	34622	5021	96188	80867	3259
1759	39489	9008	6751	31732	4112	91092	78934	3162
1760	39399	9142	4722	30698	4767	88728	77116	3144
1761	41925	9656	5742	30904	3717	91944	76856	3278
1762	41921	9781	5199	33435	3768	94104	76972	3350
1763	41649	8871	4585	27032	3575	85712	79684	2947
1764	41958	8764	5590	27644	3757	87713	80492	2977
1765	44249	8768	6048	30322	4473	93860	81357	3161

Appendix 2.91 (contd.)
Estimate of calorie consumption in Copenhagen 1730–1800.

Year	Grain products excluding ale 10^6 kcal	Ale 10^6 kcal	Fruits and vegetables including split peas 10^6 kcal	Animal products 10^6 kcal	Fish 10^6 kcal	Total calorie intake 10^6 kcal	Estimated population	Estimated average consumption kcal per day
1766	42790	9617	5557	31818	3466	93248	82800	3085
1767	45181	9868	5306	32589	3502	96446	84444	3129
1768	46966	9185	5273	33123	3460	98007	83261	3216
1769	42963	9923	4474	33594	4231	95185	82338	3167
1770	43872	10299	5120	32190	3949	95430	81819	3195
1771	48502	8994	5909	30207	3861	97473	81674	3270
1772	47484	8318	4233	28720	3954	92709	81444	3110
1773	47379	8674	5427	29495	4019	94994	80867	3218
1774	41875	8133	5474	30282	4021	89785	80520	3055
1775	39640	9676	6584	27822	4117	87839	81646	2948
1776	38604	9546	6055	29602	4001	87808	83377	2877
1777	39216	10315	6163	31316	3959	90969	84357	2954
1778	44397	11418	6260	33034	3917	99026	84617	3206
1779	42506	13116	6364	34551	3903	100440	84271	3265
1780	45935	12218	4422	36068	3888	102531	85367	3281
1781	45373	13346	4355	34571	3813	101458	86752	3204
1782	50599	12348	4446	33481	3829	104703	87416	3281
1783	42077	12886	4319	33668	3895	96845	88310	3005
1784	48818	10803	4526	34764	3850	102761	88425	3175
1785	52746	10639	4118	36274	3842	107619	88743	3322
1786	55715	9956	4857	36086	3951	110565	90214	3358
1787	51004	9494	5796	35311	3884	105489	92089	3138
1788	49182	10776	7175	36724	3824	107681	92637	3176
1789	50524	10383	5782	37613	3829	108131	93993	3152
1790	48720	9397	5731	39091	3815	106754	94455	3096
1791	47776	10876	6552	37444	3879	106527	95292	3063
1792	44424	10758	6716	37978	3952	103828	95263	2978
1793	46250	10423	7148	39113	4001	106935	94628	3096
1794	46876	10989	7116	39545	3969	108495	93734	3171
1795	46490	9966	7287	39660	4028	107431	93705	3141
1796	49794	10632	7721	39641	4053	111841	93243	3277
1797	45265	11905	7830	41213	4029	110242	93791	3220
1798	47542	11920	7139	43278	4029	113908	93445	3340
1799	49064	10741	6142	42895	4029	112871	95782	3228
1800	52923	9316	6367	41417	4029	114052	98465	3173

The figures for consumption are based in part upon the import and milling figures in Appendices 2.1–2.8, and in part upon estimates as follows: Imports by sea 1770–1800; the estimate is based upon the seaward imports before 1770, and the sources specified on p. 41 f. Imports of salt and dried fish from Iceland, Greenland, the Faroes and Finnmark 1730–1800; the estimate is based upon the imports and exports of 1750, the only year for which both the import and export figures for these commodities are known. Imports of salt mutton from Iceland 1751–1800; the estimate is based upon imports in 1731–50.

In other cases where figures for a consumption tax point are not available, the figures used for computation purposes are arrived at by linear interpolation between the preceding and succeeding known figures for the consumption tax point in question, cf. appendix 2.93.

Appendix 2.92
Estimate of protein consumption in Copenhagen 1730–1800.

Year	Grain products excluding ale Kg protein	Ale Kg protein	Fruits and vegetables including split peas Kg protein	Animal products Kg protein	Fish Kg protein	Total intake Kg protein	Estimated population	Estimated average consumption grams per day
1730	751350	104430	215810	749570	492180	2313340	65403	97
1731	738080	122240	198990	717190	456020	2232520	65951	93
1732	769990	124250	208030	760310	518730	2381310	66442	98
1733	768420	124150	192220	807900	602420	2495110	68317	100
1734	819360	126470	200050	804650	614690	2565220	69643	101
1735	776900	127370	221840	840870	507410	2474390	71260	95
1736	830970	126180	274210	832010	529170	2592540	72731	97
1737	831240	120190	256920	820740	542460	2571550	74057	95
1738	793550	123020	254550	853430	590160	2614710	73510	97
1739	926640	128580	225920	864330	637770	2783240	73221	104
1740	941350	96120	226500	891400	645170	2801340	73912	104
1741	993030	70910	290020	822500	790350	2966810	74779	109
1742	872800	70090	263630	821930	728270	2756720	75674	100
1743	972230	79380	301730	923400	571170	2847910	75760	103
1744	824540	75240	268460	994640	565120	2728000	75876	98
1745	913580	77760	280400	995760	533420	2800920	77260	99
1746	972450	73060	312940	802480	595190	2756120	78962	96
1747	979630	73320	292870	714330	608790	2668940	78559	93
1748	955340	71950	260560	764180	648950	2700980	80665	91
1749	956560	71420	259890	769370	787920	2845160	81069	96
1750	938530	76960	295930	803310	779470	2894200	81501	97
1751	906330	75700	247220	898740	808390	2936380	83203	97
1752	949470	77580	252900	926800	827520	3034270	84502	98
1753	935110	79270	211660	1034680	689740	2950460	85338	95
1754	952250	76920	224580	1047860	781890	3083500	86262	98
1755	1067930	77780	254020	1108570	786730	3295030	85598	105
1756	1135930	81090	242450	1086570	799450	3345490	83001	110
1757	1175830	76230	286800	1145180	766750	3450790	82482	115
1758	1182660	63870	304810	1101990	833320	3486650	80867	118
1759	1096530	67440	410950	1026260	720500	3321680	78934	115
1760	1295500	68440	270740	1042650	798260	3475590	77116	123
1761	1170460	72290	351280	1025990	650570	3270590	76856	117
1762	1168720	73230	315540	1024580	659790	3241860	76972	115
1763	1158540	66410	274140	911100	614370	3024560	79684	104
1764	1170290	65610	339280	926400	640290	3141870	80492	107
1765	1218870	65640	371180	1020950	768160	3444800	81357	116

Appendix 2.92 (contd.)
Estimate of protein consumption in Copenhagen 1730–1800.

Year	Grain products excluding ale Kg protein	Ale Kg protein	Fruits and vegetables including split peas Kg protein	Animal products Kg protein	Fish Kg protein	Total intake Kg protein	Estimated population	Estimated average consumption grams per day
1766	1185100	72000	337180	1053620	600730	3248630	82800	107
1767	1252720	73870	320850	1116500	600760	3364700	84444	109
1768	1302810	68770	318230	1088920	565390	3344120	83261	110
1769	1196940	74290	269090	1114760	671950	3327030	82338	111
1770	1228450	77100	314120	1124520	648840	3393030	81819	114
1771	1348960	67330	358360	979550	638310	3392510	81674	114
1772	1312550	62270	256790	916590	649490	3197690	81444	107
1773	1230600	64940	329310	953600	657270	3235720	80867	110
1774	1164310	60880	329480	971240	657480	3183390	80520	108
1775	1102260	72440	390030	916100	669040	3149870	81646	106
1776	1163310	71460	367370	963260	655140	3220540	83377	106
1777	1103970	77220	372190	1023030	650090	3226500	84357	105
1778	1246770	85480	376230	1082700	645010	3436190	84617	111
1779	1200220	98190	383830	1121130	643270	3446640	84271	112
1780	1307180	91470	393790	1159530	663250	3615220	85367	116
1781	1288540	99920	262100	1180450	632490	3463500	86752	109
1782	1449690	92440	261670	1142950	635590	3582340	87416	112
1783	1204650	96470	252230	1149640	642360	3345350	88310	104
1784	1387220	80880	255000	1182380	636980	3542460	88425	109
1785	1490950	79650	240100	1222680	636050	3669430	88743	113
1786	1566790	74530	277110	1236140	649030	3803600	90214	116
1787	1444890	71080	341750	1188960	641030	3687710	92089	110
1788	1403780	80680	413010	1233840	633850	3765160	92637	111
1789	1419010	77730	330370	1265770	634480	3727360	93993	109
1790	1360410	70350	327520	1229110	632700	3620090	94455	105
1791	1341090	81420	374340	1226390	640500	3663740	95292	105
1792	1253620	80540	374420	1250830	649150	3608560	95263	103
1793	1302200	78030	388040	1301290	655100	3724660	94628	108
1794	1313810	82270	396020	1329270	651290	3772660	93734	110
1795	1297970	74610	415710	1329500	658350	3776140	93705	110
1796	1387340	79600	446240	1322310	661330	3896820	93243	114
1797	1288380	89120	453060	1372210	660440	3863210	93791	113
1798	1362550	89240	404900	1448680	660440	3965810	93445	116
1799	1401280	80410	342970	1438610	660440	3923710	95782	112
1800	1491580	69940	379860	1439950	660440	4041770	98465	112

Appendix 2.93

Summary showing the percentage of estimated and interpolated figures entering into the calculation of calorie consumption in Copenhagen 1730–1800.

Year	Grain products excluding ale	Ale	Fruits and vegetables including split peas	Animal products	Fish	Total Calorie intake
1730	7	0	2	4	99	21
1731	0	0	0	0	50	2
1732	55	84	0	0	44	42
1733	56	85	0	0	38	42
1734	53	85	0	0	39	41
1735	0	0	0	0	48	2
1736	0	0	0	0	44	2
1737	4	0	43	37	44	16
1738	0	0	0	0	39	2
1739	3	0	50	45	36	17
1740	0	0	0	0	35	2
1741	0	0	0	0	29	2
1742	0	0	0	0	32	2
1743	3	0	38	35	44	17
1744	0	0	0	0	43	2
1745	0	0	0	0	45	2
1746	0	0	0	0	40	2
1747	0	0	0	0	37	2
1748	0	0	0	0	35	2
1749	0	0	0	0	27	2
1750	0	0	0	0	28	2
1751	0	0	0	6	27	4
1752	0	0	0	6	26	4
1753	0	0	0	5	33	4
1754	0	0	0	5	26	3
1755	0	0	0	5	27	3
1756	0	0	0	5	26	3
1757	0	0	0	5	27	3
1758	0	0	0	5	27	3
1759	0	0	0	5	25	3
1760	0	0	0	5	27	3
1761	0	0	0	5	34	3
1762	3	0	60	43	34	21
1763	0	0	7	6	35	4
1764	0	0	5	7	34	4
1765	0	0	5	6	28	3

Appendix 2.93 (contd.)

Summary showing the percentage of estimated and interpolated figures entering into the calculation of calorie consumption in Copenhagen 1730–1800.

Year	Grain products excluding ale	Ale	Fruits and vegetables including split peas	Animal products	Fish	Total Calorie intake
1766	0	0	5	5	37	3
1767	0	0	0	5	36	3
1768	0	0	0	5	37	3
1769	0	0	0	5	30	3
1770	5	0	24	49	94	24
1771	5	0	21	55	97	24
1772	5	0	29	55	94	25
1773	5	0	22	54	93	24
1774	5	0	22	52	93	26
1775	6	0	18	57	91	26
1776	6	0	20	54	93	26
1777	9	0	94	100	100	49
1778	5	0	19	48	95	23
1779	10	0	94	100	100	48
1780	5	0	43	50	96	26
1781	5	0	28	46	98	23
1782	4	0	27	47	97	22
1783	6	0	65	72	97	35
1784	5	0	27	46	97	23
1785	48	0	29	44	97	43
1786	6	2	25	44	94	22
1787	4	0	21	45	96	22
1788	5	0	17	43	98	21
1789	4	2	21	42	97	21
1790	5	13	21	41	98	23
1791	5	0	18	42	96	22
1792	7	0	70	76	95	39
1793	5	0	17	40	93	22
1794	7	0	73	82	95	41
1795	7	0	77	82	93	42
1796	4	0	16	40	92	21
1797	8	0	68	83	100	43
1798	5	13	17	37	100	22
1799	5	0	20	37	100	21
1800	5	0	20	38	100	20

Regarding which figures are estimated and which interpolated, cf. appendix 2.91.

Appendix 2.94
Margin of error in interpolations.

The margin of error on interpolated and estimated figures entering into the computations of average calorie consumption per head is put at 40 %. This is not to be construed as implying that the interpolated and estimated figures diverge by not more than 40 % from the figures recorded at the time but now lost. The validity of the 40 % margin of error is not absolute; furthermore it is different for interpolated and estimated figures respectively.

The linear interpolations are made where figures for a consumption tax-point are missing for one year but extant for the preceding and succeeding year. However, an interpolation has been made in one instance even though the figures for the consumption tax-point are missing for two years in succession and in another instance even though they are missing for three years in succession (West Gate 1794–95 and the milling consumption tax office 1732–34). There is a substantial difference between the margin of error on the linear interpolations and that on the estimates made in cases where figures are missing for a lengthy series of years (cf. Appendix 2.91). The validity of the 40 % margin of error applied to the figures derived by linear interpolation can be assessed by making similar linear interpolations for years where the figures recorded at the time have survived, then comparing the interpolated and the recorded figures. It is possible to do this wherever a consumption tax-point can show figures for a commodity in the given year and in the preceding and succeeding year, but it has in fact been done only in respect of certain of the most important commodities, viz., from the milling ledgers: Rye for flour, wheat for flour, barley for groats and malt for ale for the brewers gild; the year 1785 is omitted from the calculations, cf. p. 51. From the import ledgers, West Gate: Split peas, oxen and cows, butter and bacon. The West Gate has been singled out because it is far the most important of the gates; however, the years 1763–67 are not included in the calculations because, as has been remarked, there is so little variation from one year to another in this period between the quantities of goods recorded at the West Gate that the figures must be presumed to have been concocted. If these years are included, there will be relatively many years showing little difference between recorded and interpolated figures. Examination of the differences between recorded and interpolated figures yields the following percentage distribution (page 265). In respect of the commodities selected, interpolated figures diverge by 40 % or more in 0–23 % of cases, with an average for the eight commodities of 7 %.

Additionally it is to be noted that there seems to be a tendency for the quantities of those articles recorded in the consumption-tax ledgers that are of little account in the city's overall consumption to vary relatively more from year to year than do the important commodities studied in this appendix, and therefore for the figures derived by linear interpolation to diverge more widely from the recorded figures in the case of less important articles. This is of significance when evaluating interpolated figures for articles of little account in the city's overall consumption but unimportant when evaluating that overall consumption itself, in which the main weight attaches to a small group of commodities.

From all this it seems reasonable to conclude that in respect of important commodities and the city's overall consumption, the interpolated figures diverge from the figures recorded at the time but since lost by less than 40 % in about 90 % of instances. This applies to cases where the recorded figures are missing for only one year. The 40 % margin of error will therefore probably apply in fewer than 90 % of the instances where interpolations have been made to cover two or three years of missing figures in a row, and in a still smaller percentage of cases where the figures are estimated.

Divergence between interpolated and recorded figures.

Divergence	0–9 %	10–19 %	20–29 %	30–39 %	40 + %	Total
Registered grain-milling liable to consumption tax.						
Rye for flour.						
% of cases	75	14	5	0	6	100
Wheat for flour.						
% of cases	80	20	0	0	0	100
Barley for groats.						
% of cases	37	19	17	10	17	100
Malt for ale for the brewers gild.						
% of cases	93	7	0	0	0	100
Registered gross import liable to consumption tax, West Gate.						
Split peas.						
% of cases	31	36	17	5	11	100
Oxen and cows.						
% of cases	82	16	2	0	0	100
Butter.						
% of cases	44	21	6	6	23	100
Bacon.						
% of cases	59	19	14	5	3	100
Total of above-mentioned 8 groups.						
% of cases	65	18	7	3	7	100

Appendix 2.95

The percentage margin of error in the per capita calorie consumption figures.

Year	Percentage margin of error in the curve height[1])	Percentage margin of error in the curve shape[2])	Year	Percentage margin of error in the curve height[1])	Percentage margin of error in the curve shape[2])
1730	28.7	8.3	1766	22.7	1.4
1731	21.2	0.7	1767	22.2	1.2
1732	37.2	16.8	1768	22.0	1.2
1733	37.1	16.7	1769	22.0	1.2
1734	37.1	16.5	1770	30.6	9.6
1735	21.2	0.7	1771	30.5	9.7
1736	20.9	0.7	1772	30.2	9.9
1737	27.3	6.3	1773	30.2	9.7
1738	21.0	0.6	1774	31.0	9.3
1739	27.7	6.9	1775	30.9	10.5
1740	20.9	0.6	1776	31.2	10.5
1741	21.2	0.6	1777	40.4	19.6
1742	20.9	0.7	1778	30.0	9.3
1743	26.8	6.8	1779	40.1	19.4
1744	20.7	0.7	1780	31.6	10.5
1745	21.2	0.6	1781	29.8	9.1
1746	21.3	0.6	1782	29.4	8.8
1747	21.7	0.7	1783	34.4	13.9
1748	21.7	0.7	1784	29.5	9.0
1749	21.4	0.7	1785	37.8	17.2
1750	21.2	0.6	1786	29.0	8.7
1751	22.1	1.5	1787	29.1	8.7
1752	22.0	1.4	1788	28.9	8.5
1753	22.5	1.4	1789	28.9	8.6
1754	22.0	1.4	1790	28.7	9.1
1755	22.1	1.4	1791	28.9	8.6
1756	21.7	1.3	1792	40.8	15.5
1757	21.4	1.2	1793	28.8	8.6
1758	21.7	1.2	1794	36.6	16.4
1759	21.8	1.3	1795	36.9	16.7
1760	21.7	1.3	1796	27.7	8.2
1761	22.4	1.3	1797	37.2	17.1
1762	29.5	8.6	1798	28.3	8.7
1763	22.4	1.5	1799	28.4	8.3
1764	22.4	1.7	1800	28.7	8.2
1765	22.0	1.4			

[1]) Regarding definition and method of calculation cf. p. 54 f.
[2]) Regarding definition and method of calculation cf. p. 55.

Appendix 2.96

Conversion factors used in computing the calorie and protein values of the consumption registered (appendices 2.1–2.8).

Rye and barley. Since the rate of consumption tax was the same for rye and for barley, the entries in the abstracts often show only an aggregate figure of rye- and barley-flour imports. However, in those cases where the figures can be separated it is evident that rye is vastly preponderant, and for this reason account has only been taken of rye in calculating the conversion factor. In the abstracts, the rye bread imported in the period 1730–68 is included in the rye- and barley-flour category (cf. appendix 2.1113). It has been possible because what is being lumped in with the number of barrels of rye-flour is not a number of barrels of rye bread. It is evident from some of the ledgers that as far as rye bread is concerned, the number of barrels refers not to the volume of the bread but to the quantity of rye estimated to have gone into its making. Further, 1 barrel of rye-flour probably denotes not the rye-flour contained in 1 barrel but the flour yielded by one barrel of rye. At any rate this is so from 1797 onwards, since the following conversion ratios then come into use:

1 barrel unsifted rye-flour = 12 *lispund* 10 *pund.*
1 barrel sifted rye-flour = 10 *lispund.*
1 barrel fine rye-flour = 8 *lispund* [1]).

1 barrel of unmilled rye is defined in the same ordinance as equivalent to 13 *lispund* gross, the difference between the 13 *lispund* gross and the weights specified above being "for siftings, bran and sacking".

It is probable also that before 1797 the description 1 barrel rye-flour was employed to denote the flour yielded by 1 barrel of rye, since there was a general principle that it should cost the same in consumption tax to import milled grain products via the Gates as to have grain milled in the town. The milling-consumption tax office levied 32 *skilling* on the milling of one barrel of rye into flour, but the import of one barrel of rye-flour also costs 32 *skilling* in consumption tax [2]). Since rye occupies less space when milled and sifted, this implies that if the "one barrel of rye-flour" mentioned above means rye-flour to a volume of one barrel, it would have been cheaper in consumption tax to have rye milled outside the city and to import it as flour rather than to have it milled in the city; but 10 times as many barrels of rye were ground for flour in the town as were imported by land and by sea altogether. It is therefore to be presumed that in the import-ledger abstracts one barrel of rye is to be understood as the flour from one barrel of rye. In the conversion it has been assumed throughout the period that one barrel of rye produced 12 *lispund* of unsifted rye-flour. In the revisions of the bakers scales of 1762 and 1776 it was assumed that 1 barrel of rye produced 12 *lispund* of unsifted rye-flour [3]), and for consumption-tax purposes in 1797 in was assumed that one barrel of rye produced 12 *lispund* 10 *pund* of unsifted rye-flour [4]).

Wheat. On the question whether the numbers of barrels stated in the import abstracts refer to the volume of the grain before or after milling, the same argument can be applied as in the case of rye. The conclusion is also the same. When the official baker's scale of prices was revised in 1776, a barrel of wheat was reckoned to weigh a minimum of 13 *lispund,* yielding 136 *pund* of flour [5]). This gives an extraction rate of only 57 %, which it to be regarded as an extremely improbable figure. The customs and consumption tax ordinance of 1/2 1797 assumes that a barrel of unmilled wheat-grain weighed 14 *lispund* and that this would yield 11 *lispund* of sifted wheat-flour. This gives an extraction-rate of 78.5 %. Regard must be had here to the fact that the lower the yield of a barrel of wheat was set in the

1) Ordinance of 1/2 1797.
2) Ordinances of 31/12 1700, 29/2 1732, 17/5 1762, 26/11 1768, 15/11 1778 and 1/2 1797.
3) Friis and Glamann: A History of Prices and Wages in Denmark, 1660–1800, vol. I, 1958, p. 145 and p. 149.
4) Op. cit., p. 156 f.
5) Op. cit., p. 145 and p. 150.

consumption tax rates, the higher the consumption tax revenue on import would be, while the revenue from milling would be unchanged. Today the extraction rate for wheat is about 75 %, and it may be surmised that the absurdly low extraction rate of 1776 represents an attempt to conceal the fact that bakers' profits were in actual fact larger than was indicated by the official scale. In the conversion it has been assumed throughout the period that one barrel of wheat yielded 11 *lispund* of sifted flour.

Bran is understood as rye-bran, with 12 *lispund* per barrel.

Barley groats. One barrel of barley groats is defined in the customs and consumption tax ordinance of 1/2 1797 as equal to 9 *lispund* or 71.5 kg. A calculation from the specific gravity of barley groats and the capacity of a barrel gives 69.5 kg. In the calculation one barrel of barley groats is assumed to equal 70 kg.

Groats (*Eiergryn*, pearl barley, millets, rice and semolina). Since imports are in *lispund*, there are no conversion problems.

Malt ground for ale. C. F. Brøndum asserted in 1828 that a barrel of malt ought to weigh 8 *lispund* 4 *pund*. If the barrel weighed substantially less, this was an indication that the grain from which the malt was made was too weak, had too strong a germ or had been dried too quickly. If the barrel weighed substantially more, the barley had not germinated sufficiently [6]). According to the customs and consumption tax ordinance of 1/2 1797, 1 barrel of barley malt weighed $9^1/_2$ *lispund*.

The weight of a barrel of malt being known, the calorie values can be calculated, but the problem is how many calories were lost during brewing. In the official Copenhagen ale prices from 1730 to 1799 the assumed brewing ratio is between 11 and 14 (except in 1771, when it is 17). The brewing ratio is understood to mean the number of barrels of ale brewed from 4 barrels of malt [7]). If the quantity of malt consumed in the brewing of modern "pilsner" type beer is converted to barrel measure according to the conversion factor given by Brøndum, the brewing ratio works out at about 13.5 [8]), which corresponds quite well to the brewing ratios of the 18th century. However, "pilsner" beer is brewed with a higher percentage content of alcohol [9]), and the loss of calories per kg of malt consumed is greater than when brewing to a lower percentage of alcohol. On the other hand modern brewing technology has improved, and in consideration of this it has been assumed in calculating the calorific value of the ale brewed from 1 barrel of malt that in the 18th century the loss of calories incurred in brewing 1 kg of malt was the same as that of today. C. F. Brøndum's figure has been used as the weight of 1 barrel. In calculating the calorific value of the ale no account has been taken of the hops (appendix 2.26).

Raw materials for distilling. Since distilling technology has been substantially improved [10]) since the 18th century, no attempt has been made to work out the calorific value of the *brændevin* produced from the raw materials mentioned in appendices 2.14. *Brændevin* consumption it therefore not included in the total calorie-intake figure for the city derived from the consumption tax ledgers.

Dried and split peas. According to the customs and consumption tax ordinance of 1/2 1797, 1 barrel was equal to 14 *lispund* or 111.2 kg, while a calculation from the specific gravity of split peas and the capacity of a barrel gives a figure of 112.8 kg [11]), which has been used in the calculations.

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[6]) Chr. A. Brøndum: Grundsætninger for Ølbryggeriet, 1828, p. 44 f.
[7]) Kristof Glamann: Bryggeriets Historie i Danmark, 1962, bilag B.
[8]) Calculated from figures supplied by the Carlsberg Breweries.
[9]) Kristof Glamann: Bryggeriets Historie i Danmark, 1962, p. 12.
[10]) Lars Rumar: Jordbrug og brændevinsbrænding I, Erhvervshistorisk årbog 1966, p. 15 ff.
[11]) 1 hectolitre of peas is equivalent to 81 kg. Landbrugets Ordbog, 4 ed., 1952, article: tønde.

Green peas. One barrel of green peas in the pod is assumed to weigh 60 kg. The loss on shelling is about 55 % [12]). In terms of calories and protein, imports of green peas are negligible by comparison with split peas.

Turnips, swedes and potatoes. 1 barrel is assumed to weigh 90 kg, which lies between the figures for the various types [13]).

Kale. A wagon-load of kale is assumed to weigh roughly 30 *lispund* or about 240 kg, cf. the weight of a load of hay according to Friis and Glamann [14]).

Cabbage and red cabbage. A head of cabbage is assumed to weigh 1.5 kg, which would be regarded as small today. A *skok* (= three score) would thus weigh 90 kg.

Cauliflower. A head of cauliflower is assumed to weigh 0.7 kg. Thus a *skok* would weigh 42 kg.

Fresh fruit. One barrel is assumed to weigh 60 kg according to specific gravity tests.

Hops. Not included in the calculations.

Oxen and cows. Appendix 2.97 shows the weight of oxen bought by the Asiatic Company and the West Indies Company. The weights given are for the quantity of meat yielded by the slaughtering of the oxen. The figures in appendix 2.97 are depicted in fig. 30. It is evident from the latter that there is no consistent difference in weight between the oxen bought by the two companies in the same years. In some years the oxen bought by the Asiatic Company show the greater average weight, in other years those bought by the West Indies Company. The figures are therefore regarded as one series, even though they do not originate from the same source.

The next question is whether the oxen bought by the companies generally weighed more or less than other oxen imported into Copenhagen. Imports of cows and oxen attracted consumption tax of 2 *rigsdaler* a head, regardless of the size of animal. This figure remained unchanged throughout the period [15]). This meant that the import of large animals was cheapest in terms of consumption tax per unit of weight. The chartered companies were exempt from consumption tax on commodities that were re-exported or used in the fitting-out of ships. Therefore the companies were able to import relatively small animals without incurring disproportionately heavy consumption tax charges. In nevertheless holding it most likely that the weight of the oxen bought by the companies was about the average for oxen imported into Copenhagen, regard is being paid to the fact that the companies' purchases were rather large, comprising 20–80 head at a time, accounting for a considerable proportion of the supplies becoming available during the short periods when vessels were being fitted out. There is a limit, therefore, to the extent to which the average weight of oxen purchased by the chartered companies could diverge from the general average weight of oxen imported into Copenhagen. The companies' purchases were generally effected in June or in September-December, and these times of year did not change during the period covered by appendix 2.97.

As is evident from appendix 2.312, some of the livestock imported into Copenhagen were not oxen but cows, which weighed less than oxen. The invoices for meat supplied to the companies always refer to a certain number of ox-carcases, i. e. slaughtered oxen. It is open to question, however, whether a certain number of cows did not find their way among the ox-carcases delivered to the companies and paid for according to weight. Cow-meat was probably not a nice word in the 18th century either.

Fig. 30 shows not only the average weights of ox-carcases bought by the companies but also the line of best fit for these computed by the method of least suares. No account is

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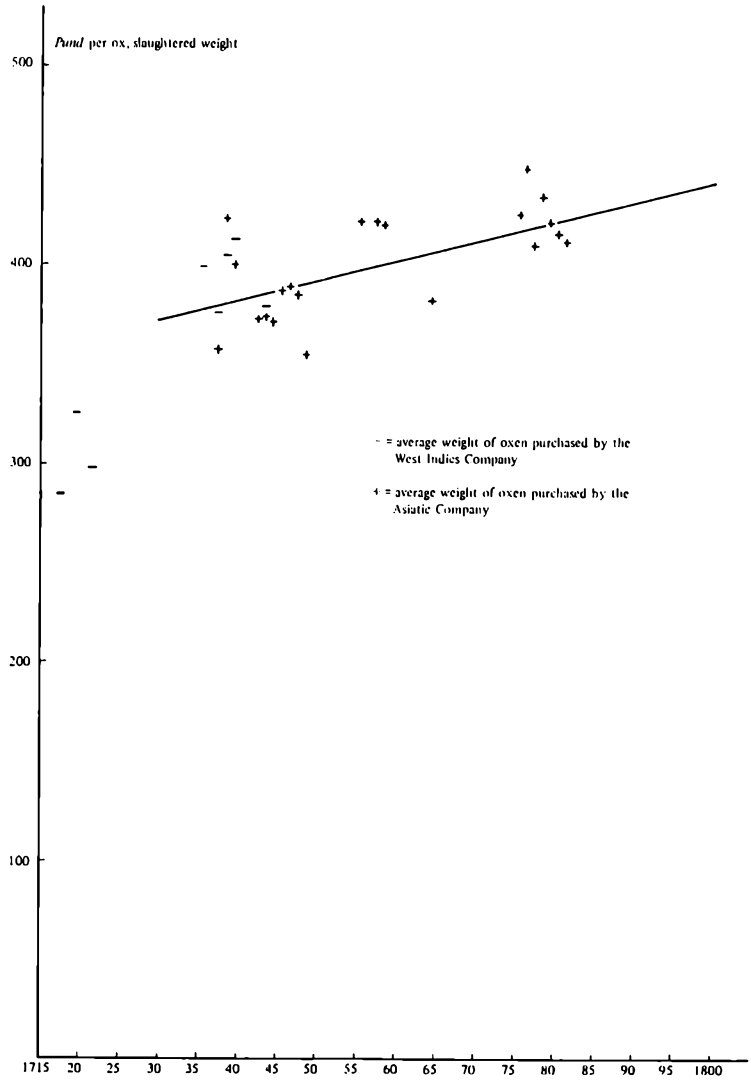
12) Rich. Ege: Fødevare- og ernæringstabeller, 1963, nr. 178.

13) Landbrugets Ordbog, 4 ed., 1952, article: tønde.

14) Friis and Glamann: A History of Prices and Wages in Denmark 1660–1800. vol. I, 1958, p. 124 ff.

15) Ordinances of 31/12 1700, 29/2 1732, 17/5 1762, 26/11 1768, 15/11 1778 and 1/2 1797. However, in 1757 the levy on imports by sea was increased to $3^1/_2$ *rigsdaler*.

Fig. 30



Source: Appendix 2.97

taken of the low weight of oxen in 1725. The average weights arrange themselves as a normal distribution around this straight line. The function for this straight line is.

Weight of oxen in *pund* = 343.01 + 0.99048 × x

where x = the two last digits of the year. This equation is used to calculate the weight of the oxen and cows imported.

Calves. The consumption tax ledgers divide calves into two categories:

sucking calves, or calves under 3 weeks old

fattening calves, or calves over 3 weeks but under one year.

Unfortunately no information about the weight of calves has come to light from the ledgers, and conversion from calves on the hoof to weights of veal are therefore based on an estimate. According to the edict of 27/1 1800, calves weighing over 64 *pund* were to be counted as fattening calves and those under that weight as sucking calves. In calculating imports into Copenhagen and the other market towns in 1839, *Tabelkommissionen* (the Statistical Commission) employed a conversion factor of one (sucking) calf to 30 *pund* [16]).

Having regard to the above and to the computed weight of oxen,

1 sucking calf is deemed to weigh 25 *pund*

1 fattening calf is deemed to weigh 64 *pund*

Fresh and smoked beef. The unit of import is the *lispund.*

Salt beef. 1 barrel is equivalent to 16 *lispund* gross and 14 *lispund* net [17]).

Milk. cf. page 45 ff.

Butter. 1 barrel = 14 *lispund* net [18])

Cheese. The unit of import is the *lispund.*

Hogs, bacon flitches and pigs [19]).

The average weight of bacon flitches bought by the West Indies Company in 1721–44 was 35 *pund* (cf. appendix 2.98). When the line of best fit is worked out by the method of least squares, the weight of 1 bacon flitch in *pund* becomes 34.73 – 0.006477 × x, where x = the last two digits of the year. This is to all intents and purposes a constant. The Asiatic Company's purchases of pork in 1777 give an average bacon flitch weight of 28.38 *pund*, while *Tabelkommissionen's* conversion factor in 1839 was 1 bacon flitch = 48 *pund* [20]). With all this in mind 1 bacon flitch in 1730–1800 has been assumed to weigh 35 *pund. Tabelkommissionen* also applied the following equivalents:

1 hog = 144 *pund*
1 pig = 12 *pund* [20])

No ledger records have been discovered of hog weights, but if the weights in *Tabelkommissionen's* calculations are reduced in proportion to the ratio between the weight of a bacon flitch as purchased by the Asiatic Company and the *Tabelkommission* figure for a bacon flitch, the following weights are produced for 1730–1800.

1 hog = 100 *pund*
1 pig = 9 *pund*

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[16]) Reported in Marcus Rubin: Undersøgelse over konsumen i Kjøbenhavn, 1882, p. 22. The results of the calculations are reproduced in Statistisk Tabelværk, ældste række, hefte 4, 7, 8, 9, 12, 14, 15, 16, 18, 19 og 20.

[17]) Friis and Glamann: A History of Prices and Wages in Denmark 1660–1800, vol. I, 1958, p. 138.

[18]) Cf. Ordinances of 29/2 1732, 17/5 1762 and 26/11 1768.

[19]) In the present study "hog" denotes a fully matured swine, while "pig" denotes a young swine.

[20]) Reported in Marcus Rubin: Op. cit., 1882, p. 22.

These figures are used as the conversion factor. A hog weight of 100 *pund* is reasonable in relation to information to be found in the literature around the year 1800 [21]).

Lamb. A lamb is assumed to weigh 22.67 *pund* in accordance with the weight recorded in a Copenhagen probate case [22]).

Mutton. 1 barrel = 14 *pund* net as for salt beef.

Geese. The weight is deemed to be that of wild geese today. One goose = 3 kg [23]).

Duck. A duck is assumed to weigh 1.1 kg [24]).

Hens and chickens. One hen or chicken is assumed to weigh 1.5 kg [25]).

Eggs. An egg is assumed to weigh 50 grams.

Dried fish and split cod. The unit of import is the *lispund.*

Salt fish. A barrel is assumed to weigh 110 kg.

Salt herring. A barrel is assumed to weigh 95 kg [26]).

Fresh herring. A barrel is assumed to weigh 95 kg.

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[21]) A. Falkenskjold: Afhandling om Svineavlen i Danmark, 1804, p. 4.
Gr. Begtrup: Beskrivelse over Agerdyrkningens Tilstand i Sjelland og Møen II, 1803, p. 442.
E. Viborg: Veiledning til Svinets Behandling som Husdyr, 1804, p. 27 f.

[22]) P. Københavnske skifter, lammekød, 1766 maj.

[23]) G. Ahlefeldt-Bille: Jeg er jæger, 2 ed., 1961, p. 255.

[24]) Op. cit. p. 260.

[25]) Cf. Hønsegården 1858, p. 63.

[26]) Calculated from data of specific gravity supplied by Folmer Hansen, Foreningen af Hørkramgrossister.

Appendix 2.97

Weight of slaughtered oxen purchased by the chartered companies.

Year	Number of ox-carcases	Average weight in *pund*	Year	Number of ox-carcases	Average weight in *pund*
West Indies Company [1]			Asiatic Company (contd.)		
1717	24	284.52	1746	161	389.42
1719	40	324.90	1747	100	385.13
1721	20	298.20	1748	30	354.90
1735	58	399.10	1755	32	422.50
1737	14	375.86	1757	65	422.45
1738	28	405.43	1758	50	400.20
1739	66	413.39	1759	68	369.97
1743	28	379.71	1764	88	382.32
Asiatic Company[2])			1775	86	426.47
1737	23	357.74	1776	102	449.65
1738	54	424.25	1777	93	410.69
1739	170	400.71	1778	85	434.94
1742	182	373.02	1779	81	422.91
1743	232	374.76	1780	144	416.50
1744	136½	372.47	1781	99	412.69
1745	227	386.68			

[1]) Source: P. Vestindisk Kompagni, Negotie Journaler 1671–1750.
[2]) Source: P. Asiatisk Kompagni, Negotie Journaler 1737–1800.
Note: The number of ox-carcases shown does not represent the companies' total purchases for the year in question. The figures refer only to those purchases for which the quantities are stated both in ox-carcases and in weight.

Appendix 2.98

Weight of bacon flitches purchased by the chartered companies.

Year	Number of bacon flitches	Average weight in *pund*	Year	Number of bacon flitches	Average weight in *pund*
West Indies Company [1]			West Indies Company (contd.)		
1721	31	26.77	1738	26	47.38
1728	52	36.54	1739	103	39.28
1730	29	33.93	1740	310	34.52
1732	136	32.91	1741	71	28.85
1733	106	33.74	1744	60	32.00
1734	220	31.98	Asiatic Company[2])		
1735	99	38.81	1777	80	28.38
1737	31	31.81			

[1]) Source: P. Vestindisk Kompagni, Negotie Journaler 1671–1750.
[2]) Source: P. Asiatisk Kompagni, Negotie Journaler 1737–1800.
Note: The number of bacon flitches shown does not represent the Companies' total purchases for the year in question. The figures refer only to those purchases for which the quantities are stated both in flitches and in weight.

Appendix 3.1

The average *per capita* consumption registered in the consumption tax ledgers.

	1731	1750
Ryebread	98 *pund*	116 *pund*
Wheat bread	85 *pund*	80 *pund*
Barley groat	0.093 *tønde*	0.086 *tønde*
Malt for ale	1.166 *tønde*	0.690 *tønde*
Split peas	0.079 *tønde*	0.102 *tønde*
Beef	48 *pund*	34 *pund*
Veal	3.7 *pund*	1.7 *pund*
Bacon	39 *pund*	40 *pund*
Lamb	18 *pund*	22 *pund*
Mutton	6 *pund*	14 *pund*
Butter	0.120 *tønde*	0.110 *tønde*
Cheese	11.2 *pund*	9.0 *pund*
Egg	1.27 score	1.12 score
Dried fish and split cod	11.1 *pund*	11.1 *pund*
Salt fish, excl. herring	0.0178 *tønde*	0.0416 *tønde*
Salt herring	0.120 *tønde*	0.188 *tønde*

Poultry not included.

Basis of calculation: RA GenToldkamm: Reviderede regnskaber, København, Antegnelser, ekstrakter m. v. 1731 and 1750, and appendix 1.02.

Appendix 3.2
Price index for Copenhagen 1730–99.

Year	Food	Food and fuel	Year	Food	Food and fuel
1730	109.4	109.5	1765	150.0	150.5
1731	*100.0*	*100.0*	1766	149.2	148.6
1732	99.7	100.1	1767	137.9	137.4
1733	99.5	99.9	1768	143.0	142.6
1734	100.6	101.1	1769	140.1	139.8
1735	101.7	101.8	1770	142.6	142.0
1736	104.7	104.4	1771	165.5	164.7
1737	109.6	109.3	1772	166.0	164.6
1738	107.5	107.1	1773	157.5	156.0
1739	104.5	104.3	1774	131.7	131.4
1740	111.7	112.3	1775	139.2	139.1
1741	127.4	127.0	1776	133.0	133.0
1742	120.7	120.2	1777	126.9	127.0
1743	120.1	119.7	1778	128.0	129.5
1744	114.6	114.5	1779	131.2	131.6
1745	115.9	115.6	1780	135.4	135.4
1746	128.1	127.1	1781	144.2	145.6
1747	132.5	131.3	1782	158.7	157.9
1748	132.7	131.5	1783	165.2	166.1
1749	133.3	132.0	1784	167.2	167.3
1750	125.5	124.3	1785	161.5	162.0
1751	115.9	115.5	1786	176.8	176.5
1752	111.0	110.7	1787	170.8	169.9
1753	110.3	110.7	1788	151.4	152.6
1754	106.9	106.9	1789	159.6	161.0
1755	112.9	113.2	1790	162.1	163.9
1756	118.1	117.8	1791	148.1	149.5
1757	128.0	127.4	1792	145.6	147.1
1758	138.4	137.4	1793	150.7	151.9
1759	131.2	131.5	1794	157.7	158.9
1760	123.2	124.2	1795	185.6	187.2
1761	118.1	120.4	1796	185.5	186.8
1762	121.8	123.4	1797	157.5	161.4
1763	148.2	148.4	1798	158.0	162.9
1764	148.2	148.3	1799	177.0	181.7

Cf. page 62 ff.

Appendix 4.01
Day-wage for workmen, Copenhagen municipal treasury ledgers[1]).

Year	Number of days of:						
	14 *sk.*	16 *sk.*	18 *sk.*	20 *sk.*	24 *sk.*	28 *sk.*	32 *sk.*
1730[2])							
1731	–	235½	32	35	–	–	–
1732	24	1583¼	–	496	16	–	–
1733	684	5452½	–	98½	–	–	–
1734	535	1589	–	–	–	–	–
1735[2])							
1736	–	2397½	31	36	16	–	–
1737	–	1654	–	–	–	–	–
1738	–	2069	–	–	–	–	–
1739	–	2516½	–	165½	–	–	–
1740	–	995½	–	–	–	–	–
1741	–	1640½	–	144	–	–	–
1742	–	1307	–	–	–	–	–
1743	–	1735	–	–	–	–	–
1744	–	1145	–	–	–	–	–
1745	–	1827½	–	–	–	–	–
1746	–	2917	–	–	–	–	–
1747	–	2331	–	–	–	–	–
1748	–	2179	–	–	–	–	–
1749	–	1801	–	–	–	–	–
1750	–	8046½	–	464	–	–	–
1751	–	3051½	–	556	30	–	–
1752	–	959	–	4½	152	230	52
1753	–	158	–	1519	4510	–	–
1754	–	90½	–	1011	1620½	–	–
1755	–	(552)[3])+6	–	603	2094	46	62
1756	–	12	–	653	1173	–	–
1757	–	165	–	1435	170	–	–
1758	–	–	36	435	658	–	–
1759	–	–	–	396	492	–	–
1760	–	157	–	174	730	–	–
1761	–	–	–	618	358	–	–
1762	–	–	–	165	88	–	–
1763	–	–	–	562	840½	–	–
1764	–	–	–	574	1585	–	–
1765	–	–	–	738½	1102	–	–
1766	–	–	–	504½	1053	–	–
1767	–	60	–	392	65	–	–
1768	–	72½	–	432½	732	–	–
1769	–	–	–	695	1072½	–	–
1770	–	–	–	708½	1030	–	–
1771	–	–	–	1547½	3270	–	–
1772	–	–	–	1569	2065½	–	–
1773	–	–	–	594	1828	–	–
1774	–	–	–	811½	3236	–	–
1775	–	–	–	1027½	4844	–	–
1776	–	–	–	2152	5508	–	–
1777	–	–	–	1666	5116	–	–
1778	–	–	–	2129	4856	–	–

Appendix 4.01 (contd.)
Day-wage for workmen, Copenhagen municipal treasury ledgers[1]).

Year	Number of days of:						
	14 *sk.*	16 *sk.*	18 *sk.*	20 *sk.*	24 *sk.*	28 *sk.*	32 *sk.*
1779	–	–	–	3677	11972[1]/4	–	–
1780	–	–	–	3300[1]/2	13912[1]/4	–	–
1781	–	–	–	3749	4549	–	–
1782	–	–	–	1600	6108	–	–
1783	–	–	–	2611	6209	–	–
1784	–	–	–	1090	5681	–	–
1785	–	–	–	1167	3545	–	–
1786	–	–	–	1289	5297	–	–
1787	–	–	–	1157	4408	–	–
1788	–	–	–	1080	5259	–	–
1789	–	–	–	1036	4380	–	–
1790	–	–	–	1916	6266	–	–
1791	–	–	–	993	5480	–	–
1792	–	–	–	1112	3484	–	–
1793	–	–	–	903	3761	–	–
1794	–	–	–	1080	3384	–	–
1795	–	–	–	183	8192	–	–
1796	–	–	–	–	2380	4155	–
1797	–	–	–	–	–	5024	–
1798	–	–	–	–	–	101[4])	–
1799	–	–	–	–	–	145[4])	–
1800	–	–	–	–	–	128[4])	–

[1]) Source: P. Københavns kæmnerregnskaber.
[2]) The vouchers have not survived.
[3]) Soldiers; general labourers were receiving at that time 24 *sk.* a day.
[4]) There are no data for these years of wages paid to workmen in sandpits or on road-mending.

Appendix 4.02

Day-wage for workmen, Copenhagen municipal treasury ledgers.
Average of the wages paid out.

Year	Average day-wage *skilling* [1]	Real wage[2]	Year	Average day-wage *skilling* [1]	Real wage[2]
1730			1765	22.40	89.3
1731	16.67	100.0	1766	22.70	91.7
1732	16.97	101.7	1767	22.04	96.2
1733	15.84	95.1	1768	22.13	93.1
1734	15.50	92.0	1769	22.43	96.2
1735			1770	22.37	94.5
1736	16.13	92.7	1771	22.72	82.7
1737	16.00	87.8	1772	22.27	81.2
1738	16.00	89.6	1773	23.02	88.5
1739	16.25	93.5	1774	23.20	105.9
1740	16.00	85.5	1775	23.30	100.5
1741	16.33	77.2	1776	22.88	103.2
1742	16.00	79.8	1777	23.02	108.8
1743	16.00	79.8	1778	22.78	105.5
1744	16.00	83.8	1779	23.06	105.1
1745	16.00	83.0	1780	23.23	102.9
1746	16.00	75.5	1781	22.19	91.4
1747	16.00	73.1	1782	23.17	88.0
1748	16.00	73.0	1783	22.82	82.4
1749	16.00	72.7	1784	23.36	83.7
1750	16.22	78.3	1785	23.01	85.2
1751	16.68	86.6	1786	23.22	78.9
1752	19.46	105.5	1787	23.17	81.8
1753	22.81	123.6	1788	23.34	91.7
1754	22.25	124.8	1789	23.23	86.6
1755	23.37[3]	123.8	1790	23.06	84.4
1756	22.53	114.8	1791	23.38	93.8
1757	20.01	94.3	1792	23.03	93.9
1758	22.67	99.0	1793	23.23	91.7
1759	22.22	101.4	1794	23.03	86.9
1760	22.16	107.0	1795	23.91	76.6
1761	21.47	107.0	1796	26.54	85.2
1762	21.39	104.0	1797	28.00	104.1
1763	20.40	82.5	1798	28.00	103.1
1764	23.04	93.2	1799	28.00	92.4
			1800	28.00	

[1]) Source: appendix 4.01.
[2]) Basis of calculation: average day-wage and price index of food and fuel (appendix 3.2).
[3]) Exclusive soldiers. Inclusive soldiers 21.82.

Appendix 4.03

The Royal Chartered Cotton Manufactory.
(Det Kongelige Priviligerede Bomuldsmanufaktur)

Piece wages and advances paid out to weavers[1]).

Year	Chr. Fr. Lind *rd : sk*	Daniel Kihm *rd : sk*	Adam Straub *rd : sk*	Johan G. Vallet *rd : sk*	Heinrich Bjørcklund *rd : sk*
1782	47 : 07	57 : 42	49 : 60	56 : 03	85 : 16
1783	101 : 94½	105 : 34	107 : 82	102 : 23½	157 : 10½
1784	147 : 88	143 : 49	144 : 25	82 : 40	235 : 94
1785	108 : 30	143 : 49	131 : 56	137 : 33	222 : 32
1786	70 : 24	143 : 93	127 : 95	94 : 16	139 : 00
1787	124 : 01	119 : 52	107 : 29	137 : 46	221 : 17
1788	88 : 24	104 : 26	103 : 86	101 : 22	86 : 68
1789	88 : 00	127 : 83	115 : 16	90 : 32	
1790	84 : 48	115 : 70	115 : 24	91 : 00	
1791	56 : 16	110 : 74	83 : 16	90 : 16	
1792	62 : 16	128 : 32	72 : 00	81 : 48	
1793	54 : 00	24 : 00	74 : 04	82 : 02	
1794	72 : 48		65 : 00	57 : 00	
1795	90 : 00		91 : 32	116 : 94	

Year	Johan Lydig[2]) *rd : sk*	Johan Chr. Jeninger[2]) *rd : sk*	Sofie Andrejsen *rd : sk*	Andreas Andrejsen *rd : sk*	Josef Lydig *rd : sk*
1782					
1783	8 : 00	161 : 40	34 : 64	41 : 00	23 : 24
1784	130 : 00	256 : 13	58 : 85	46 : 82½	134 : 30
1785	278 : 32	162 : 24	103 : 75	141 : 06	216 : 24
1786	100 : 32	216 : 74	112 : 35	182 : 78	212 : 40
1787	144 : 09	224 : 81	59 : 00	198 : 16	20 : 00
1788	181 : 88	175 : 88	45 : 00	210 : 08	
1789	165 : 80	124 : 30	3 : 08	100 : 78	
1790	175 : 48	125 : 37	0 : 31	12 : 00	
1791	152 : 28	96 : 93			
1792	123 : 18	53 : 21			
1793	138 : 80	124 : 45			
1794	12 : 00	181 : 12			
1795		43 : 34			

[1]) Basis of calculations: P. Industrilønninger.
[2]) From 1790 the amounts stated are in part paid for labour other than weaving.

Appendix 4.11

Pay regulations of the Royal Danish Navy
Pay of seamen

1700–1709 Yearly pay 16 rix-dollars, victuals $21^2/_3$ rix-dollars, clothing 3 rix-dollars, quartering-money 4 rix-dollars.
1710–1711 Yearly pay 16 rix-dollars, victuals 39 rix-dollars, clothing 3 rix-dollars, quartering-money 4 rix-dollars.
1712–1719 No information available.
1720–1770 Yearly pay 16 rix-dollars, victuals $21^2/_3$ rix-dollars, quartering-money 4 rix-dollars (but no information for 1747).
1771 No information available.
1772–1789 Yearly pay 16 rix-dollars, victuals 25 rix-dollars, clothing 3 rix-dollars, quartering-money 4 rix-dollars (but no information for 1782–83).
1791–1792 No information available.
1793–1800 Yearly pay 15:80 rix-dollars, victuals 34:70 rix-dollars, clothing 2:47 rix-dollars, quartering-money 4 rix-dollars.

Yearly pay was distributed in cash but victuals and clothing in kind. Men accommodated in quarters received no cash quartering-money, while others received quartering-money instead. The change that occurred in yearly pay between 1790 and 1793 was in essentials only an accounting change, since the 16 rix-dollars were not paid out in full but were subject to deduction of "1 per cent to the Navy hospital and one third of 1 per cent for promt payment" [1].

The stated values of victuals are only book-keeping values and do not represent the true value of the comestibles supplied. From 1739 onwards a substantial reduction of the value of rations was brought about by the substitution of an annual cash allowance of 6 rix-dollars 74 *skilling* for the former 4 *tønder* 1/2 *skæppe* of malt [2].

Sources:

1700–07, 11, 1721–28 RA Søetaten: Admiralitetet, Søetatens originale reglementer 1700–07, 1711, 1721–1728.
1707–09 H. G. Garde: Efterretninger om den danske og norske sømagt II, 1833, p. 41.
1710, 20, 46, 40–70, 71–81 RA Søetaten: Ekstrakter af betalingsreglementer 1.–4. division vedkommende 1710–1785.
1729–45 RA Søetaten: Admiralitetet, Søetatens originale betalingsreglementer 1729–1745.
1784–89, 93–1800 RA Søetaten. Bogholderkontoret. Betalingsreglementer for Søetaten 1784–96 and 1797–1805.

[1]) RA, Søetaten: Bogholderkontoret, Betalingsreglementer for Søetaten 1784–96: 1784, p. 52.
[2]) Kristof Glamann: Bryggeriets historie i Danmark, 1962, p. 156 ff.

Appendix 4.12

Pay regulations of the Royal Danish Navy
Pay of ship's carpenters, 1st class

1737–1784 Yearly pay 16 rix-dollars, victuals $21^{2}/_{3}$ rix-dollars, clothing 3 rix-dollars, quartering-money 4 rix-dollars, summer day-wage 20 *skilling* for 179 days, winter day-wage 14 *skilling* for 116 days.
No information available for the years 1747, 1750, 1753, 1771, 1774 and 1783.
From 1771 onward: victuals 25 rix-dollars.

1785–1790 Yearly pay 16 rix-dollars, victuals $21^{2}/_{3}$ rix-dollars, clothing 3 rix-dollars, quartering-money 4 rix-dollars, summer day-wage 20 *skilling* for 177 days, winter day-wage 14 *skilling* for 127 days.
No information available for 1786.

1791–1792 No information available.

1793–1800 Yearly pay 15:80 rix-dollars, victuals 34:70 rix-dollars, clothing $2{:}85^{1}/_{2}$ rix-dollars, quartering-money 4:00 rix-dollars, summer day-wage $19^{10}/_{24}$ *skilling* for 177 days, winter day-wage $13^{41}/_{48}$ *skilling* for 127 days.

On yearly wages, victuals, clothing and quartering cf. appendix 4.11. From 1784 to 1785, there was a rise from 54:20 rix-dollars to 55:38 rix-dollars in the element of his pay that a carpenter 1st class received as day-wages, but this was because the working-time was changed from 179 summer days and 116 winter days to 177 summer days and 127 winter days. The changes that occured in the day-wage rates between 1790 and 1793 are probably attributable, as in the case of yearly pay, to an accounting change (cf. app 4.11).

Source:

1737–45 RA Søetaten: Admiralitetet, Søetatens originale reglementer 1727–45.
1746, 48–49, 51–52, 54–58, 60–70, 72–73, 75–80, 84 RA Søetaten: 1. departement, Ekstrakter af reglementer 1685–1784.
1759 RA Søetaten: Bogholderkontoret. Ekstrakter af Søetatens reglementer 1759–93.
1781–82 RA Søetaten: Bogholderkontoret: Konceptbetalingsreglementer for Søetaten 1762–90.
1785, 87–89, 93, 95 RA Søetaten: Bogholderkontoret: Betalingsreglementer for Søetaten 1784–96.
1790, 94, 96, 98 RA Søetaten: 3. departement. Ekstrakter af reglementer 1771–1806. In this 1. departement 1790!
1797, 1798–1800 RA Søetaten: Bogholderkontoret. Betalingsreglementer 1797–1807.

Appendix 5.11

Helligånd parish 1730–99. 5-year average P-indicator.

Year	P-indicator[1])	Margin of error[2])	
		Lower limit	Upper limit
1730–34	26.57	26.50	26.78
1735–39	27.16	27.16	27.16
1740–44	28.59	28.33	29.24
1745–49	27.71	27.67	27.82
1750–54	31.01	30.92	31.19
1755–59	28.59	28.38	29.10
1760–64	29.84	29.76	30.03
1765–69	29.08	29.03	29.20
1770–74	29.47	29.30	29.88
1775–79	33.15	32.91	33.63
1780–84	38.61	37.59	40.23
1785–89	38.13	37.78	38.70
1790–94	36.00	36.00	36.00
1795–99	37.51	37.51	37.51

Basis of calculation: LA Kbh, Helligånd parish register.

[1]) In calculating the values shown in this column, no account is taken of deceased persons of unstated age. Dead infants not recorded at burial as having been stillborn are counted as live births and so are included.

[2]) To calculate the upper and lower limits respectively, it is assumed that all deceased persons of unstated age were under 50 years of age in the former case and over 50 in the latter. To this is added the margin of error deriving from deaths that might in fact have been stillbirths.

Appendix 5.12
Helligånd parish 1730–1800. Burials and p-indicator.

Year	Burials	P-indicator	Year	Burials	P-indicator	Year	Burials	P-indicator
1730	69	18.84	1754	147	42.86	1778	126	36.59
1731	65	33.85	1755	178	26.97	1779	101	34.00
1732	58	22.41	1756	142	35.21	1780	77	43.42
1733	95	28.42	1757	142	36.17	1781	125	36.92
1734	64	28.57	1758	165	27.16	1782	140	36.69
1735	84	27.38	1759	214	21.60	1783	95	39.36
1736	113	30.97	1760	175	30.29	1784	95	38.89
1737	137	27.01	1761	113	28.83	1785	117	37.07
1738	132	31.06	1762	150	35.33	1786	114	32.73
1739	134	20.15	1763	155	30.32	1787	98	38.78
1740	201	21.89	1764	143	23.78	1788	103	38.83
1741	153	29.61	1765	107	34.58	1789	108	43.52
1742	129	37.98	1766	125	33.60	1790	96	39.58
1743	138	27.94	1767	105	23.81	1791	140	34.29
1744	150	29.05	1768	106	33.96	1792	98	35.71
1745	106	28.30	1769	146	21.38	1793	79	41.77
1746	151	17.80	1770	122	33.61	1794	112	31.25
1747	132	31.82	1771	101	32.32	1795	117	40.17
1748	167	28.14	1772	120	20.00	1796	98	37.76
1749	108	35.19	1773	87	32.56	1797	91	32.97
1750	213	23.47	1774	82	30.49	1798	93	36.56
1751	142	29.58	1775	114	33.33	1799	107	42.99
1752	123	31.71	1776	108	32.41	1800	92	46.74
1753	121	30.83	1777	107	28.97			

Basis of calculation: LA Kbh., Helligånd parish register.

Appendix 5.13
P-indicator for Copenhagen

Year	P-indicator
1775	29.5
1792	33.2
1793	32.2
1794	26.6
1795	30.0

Basis of calculation:

1775 RA KommKol, Danske journalsager 1776, F 32.
1792–95 RA Rtk 14.4.

Appendix 5.14

P-indicator 1802–1960. Average for ten-year periods.[1])

Stillbirths not included.

Year	Copenhagen	Kingdom of Denmark[2])
1802–09	32.99[3])	39.66[4])
1810–19	33.63[5])	41.11[6])
1820–29	38.47[7])	42.44[8])
1830–39	34.59	39.25
1840–49	30.06	37.63
1850–59	29.51[9])	36.57[10])
1860–69	27.52	35.87
1870–79	29.98	39.33
1880–89	28.44	39.62
1890–1900	33.90	43.50
1901–10		49.20
1911–20		52.28
1921–30		61.68
1931–40		69.97
1941–50		74.60
1951–60		84.35

1) Basis of calculation:
1802–1900: Statistisk tabelværk, 5 rk. A nr. 5, 1905, p. 122–123;
1901–1960: Statistiske undersøgelser, nr. 19, 1966, p. 82–83.

2) As modified by territorial changes.

3) In these years a group with unstated ages occurs. In calculating the figure in the table, this group is excluded. Counting all those of unstated ages as under 50 years of age produce a value of 31.89; counting them as over 50 gives 36.44. Thus the correct value must lie between these two.

4) As note 3: lower value 39.48; upper value 39.94.

5) As note 3: lower value 32.69; upper value 35.42.

6) As note 3: lower value 40.97; upper value 41.31.

7) As note 3: lower value 38.05; upper value 39.32.

8) As note 3: lower value 42.39; upper value 42.51.

9) As note 3: lower value 29.24; upper value 30.13.

10) As note 3: lower value 36.53; upper value 36.65.

Appendix 5.15
Helligånd parish 1730–1799.
P-indicators for various occupational groups.

Period	Upper class		Artisans		Petty officials		Small tradesmen	
	Total deaths	P-indicator	Total deaths	P-indicator	Total deaths	P-indicator	Total deaths	P-indicator
1730–39	52	40.38	478	22.38	64	35.94	124	21.77
1740–49	56	27.79	543	22.10	135	33.33	196	23.98
1750–59	65	30.77	576	24.31	168	39.88	183	18.58
1760–69	85	35.29	458	30.35	133	36.09	145	20.00
1770–79	88	50.00	347	29.68	104	41.35	106	27.36
1780–89	92	45.65	321	38.01	119	47.90	127	36.22
1790–99	69	52.17	265	34.71	123	33.33	139	29.49

Basis of calculation: LA Kbh Helligånd parish register.

Upper class: Great merchants, high-ranking functionaries, titled persons, persons buried inside the church building.
Artisans: Includes the skilled manufacturing occupations and bakers, brewers and butchers.
Petty officials: Minor employees of the state and the Copenhagen municipality.
Small tradesmen: Provision dealers, cellarers, etc.
Unskilled: Labourers and hodmen.
Other occupations: Includes inmates of charitable institutions, paupers, seafarers, servants etc.
All persons are counted as belonging to the occupations of their respective breadwinners.

Unskilled		Other occupations		Occupations not recorded	
Total deaths	P-indicator	Total deaths	P-indicator	Total deaths	P-indicator
119	29.41	68	27.94	41	53.66
136	30.88	218	32.57	142	43.66
177	21.47	305	35.75	86	58.14
118	25.42	179	32.96	204	36.96
75	25.33	160	29.38	181	26.52
38	31.41	144	36.81	129	35.59
104	24.04	169	37.86	163	49.08

Appendix 5.16
Burials and p-indicator.
Glostrup parish 1680–1809.

Year	No. of buried	P-indicator[1])	Margin of P-indicator error[2])	
			Lower limit	Upper limit
1680–89	127	27.6	26.7	29.8
1690–99	140	22.8	22.4	24.5
1700–09	134	23.1	21.5	28.4
1710–19	135	26.6	21.9	39.6
1720–29	136	26.5	24.6	31.4
1730–39	137	31.4	30.1	34.3
1740–49	108	36.1	30.2	46.5
1750–59	173	22.0	19.0	32.5
1760–69	164	29.9	29.2	31.5
1770–79	177	33.9	33.0	35.7
1780–89[3])	129	47.3	46.7	48.0
1790–99	147	34.6	34.6	34.6
1800–09	150	38.6	37.9	39.8
1710–19 (plague year 1711 excepted)	95	27.4	23.8	36.6

Basis of calculation: Glostrup sogns kirkebog 1676–1814, published by Hist. Selsk. for Glostrup og omegn, 1957–59.

[1]) Cases where the age of the deceased is unstated are excluded.
[2]) The two limits of the margins of error are produced by counting the groups of unstated ages as under and over 50 years of age respectively.
[3]) The whole of 1780 and part of 1781 is missing.

Appendix 5.17
-indicators for the four Jutland dioceses 1765–1800.

Ecclesiastical year	Ribe diocese	Ålborg[1]) diocese	Århus[1]) diocese	Viborg[1]) diocese	Basis of calculation
765	22.65				RA Komm.Koll. da. journalsag. L342
766	27.93				RA Komm.Koll. da. journalsag. L1007
767	33.69				RA Komm.Koll. da. journalsag. M322
768	37.94				RA Komm.Koll. da. journalsag. M571
769	33.02				RA Komm.Koll. da. journalsag. N176
770	34.15				RA Komm.Koll. da. journalsag. N465
771	35.79				LA Vib C4–180
772	37.81				LA Vib C4–180
773	34.97				RA Komm.Koll. da. journalsag. C51
774	35.58				LA Vib C4–180
775	37.33	40.39	33.44	35.79	RA Komm.Koll. da. journalsag. F31+F34–35
776				42.26	LA Vib C2–108
777		53.16	40.85	47.43	LA Vib C1–352+C3–1216+C2–108
778		46.68	36.29	42.03	LA Vib C1–352+C3–1216+C2–108
779		28.82	22.50	29.10	LA Vib C1–352+C3–1216+C2–108
780		27.20	31.75	32.99	LA Vib C1–352+C3–1216+C2–108
781		42.01	34.65	39.35	LA Vib C1–352+C3–1216+C2–108
782		47.50	37.50	44.53	LA Vib C1–352+C3–1216+C2–108
783	40.84	43.66	33.70		LA Vib C4–180+C1–353+C3–1216
784		43.94	36.17		LA Vib C1–353+C3–1211
785		39.83	36.02		LA Vib C1–353+C3–1211
786		43.50	33.20		LA Vib C1–353+C3–1211
787	34.14	30.97	32.54		RA Rtk 14.4+LA Vib C1–353+C3–1211
788	38.38	36.42	32.50		LA Vib C4–185+C1–353+C3–1211
789	37.89	40.95	35.14		LA Vib C4–745+C1–353+C3–1212
790	39.36	42.45	35.07		LA Vib C4–185+C1–353+C3–1212
791	35.85	42.39	34.00		LA Vib C4–185+C1–353+C3–1212
792	36.47	43.56	36.86	42.12	RA Rtk 14.4
793	33.55	40.66	30.49	31.61	RA Rtk 14.4
794	28.40	27.91	25.57	34.76	RA Rtk 14.4
795	40.25	40.30	37.70	47.24	RA Rtk 14.4
796	39.51	45.91	35.94		LA Vib C4–745+C1–354+C3–1212
797	41.90	49.24	39.92		LA Vib C4–742+C1–354+C3–1213
798	36.02	46.66	38.60		LA Vib C4–745+C1–354+C3–1213
799	39.68	47.28	39.51		LA Vib C4–742+C1–354+C3–1213
800	35.02	40.97	34.52		LA Vib C4–745+C1–354+C3–1213

[1]) In 1765–74 no report of the age-distribution of deceased persons was prepared.

Appendix 5.2.
Helligånd parish 1730–99. Percentage distribution of deaths among age-groups.

	Under 1 year	1–4 years	5–9 years	10–19 years	20–29 years	30–39 years	40–49 years	50–59 years
1730–39								
Males	23.1	17.1	2.5	4.5	6.9	6.1	12.0	13.7
Females	26.9	18.2	5.0	3.0	5.2	8.2	7.2	7.6
Total	24.9	17.7	3.7	3.8	6.1	7.2	9.7	10.7
1740–49								
Males	27.7	18.6	2.1	2.7	6.8	8.4	7.8	11.5
Females	22.9	19.5	2.2	2.5	7.9	7.6	5.9	8.5
Total	25.4	19.0	2.2	2.6	7.3	8.0	6.9	10.1
1750–59								
Males	23.9	23.3	3.3	2.2	4.8	5.1	8.6	9.9
Females	18.9	22.4	2.6	1.6	7.5	7.1	8.4	7.7
Total	21.5	22.9	3.0	1.9	6.1	6.1	8.5	8.8
1760–69								
Males	22.9	15.8	4.3	3.6	7.2	7.2	10.7	9.7
Females	20.9	16.9	2.6	3.5	6.8	8.7	9.5	8.4
Total	22.0	16.3	3.5	3.6	7.0	7.9	10.1	9.1
1770–79								
Males	21.1	16.4	3.0	3.8	8.1	5.7	9.4	11.7
Females	17.9	17.9	2.6	3.9	8.2	9.5	8.9	11.0
Total	19.5	17.1	2.8	3.8	8.2	7.6	9.2	11.3
1780–89								
Males	15.8	13.3	3.2	3.3	7.5	9.3	10.0	13.0
Females	13.0	12.6	3.2	5.0	6.6	10.4	7.8	9.6
Total	14.5	13.0	3.2	4.1	7.1	9.8	9.0	11.4
1790–99								
Males	16.9	15.5	2.8	3.7	6.9	9.8	9.6	10.0
Females	14.6	16.1	4.4	2.5	9.0	7.1	7.7	8.3
Total	15.7	15.8	3.6	3.1	8.0	8.4	8.6	9.1

Basis of calculation: LA Kbh., Helligånd parish register.

60–69 years	70–79 years	80–89 years	90–99 years	100 + years	Unstated
6.9	6.1	0.6	0.0	0.2	0.2
8.5	7.4	2.6	0.2	0.0	0.0
7.7	6.7	1.6	0.1	0.1	0.1
8.0	3.5	2.5	0.0	0.0	0.5
9.3	7.8	4.7	0.6	0.0	0.6
8.6	5.5	3.6	0.3	0.0	0.6
9.0	6.8	2.1	0.3	0.1	0.6
9.0	8.3	5.4	0.8	0.4	0.0
9.0	7.5	3.7	0.5	0.3	0.3
9.4	5.7	2.8	0.4	0.1	0.3
7.3	8.2	6.3	0.8	0.0	0.2
8.4	6.9	4.5	0.6	0.1	0.2
11.1	6.4	2.3	0.6	0.0	0.6
7.6	7.1	3.7	0.7	0.2	0.7
9.4	6.7	3.0	0.7	0.1	0.7
11.6	9.0	3.7	0.4	0.0	0.0
11.8	11.0	5.0	0.6	0.0	3.8
11.7	9.9	4.3	0.5	0.0	1.8
11.2	8.8	4.5	0.2	0.0	0.0
11.0	12.6	5.4	1.3	0.2	0.0
11.1	10.8	5.0	0.8	0.1	0.0

Appendix 5.31
Helligånd parish. Causes of death within the various age-groups 1730–39.

Cause of death	Under 1 year	1–4 years	5–9 years	10–19 years	20–29 years	30–39 years	40–49 years	50–59 years
Internal causes	144	20	5	7	4	3	2	1
Maladies of the teeth	41	57	–	–	–	–	–	–
Smallpox	16	43	7	1	1	–	–	–
Measles	6	12	2	–	1	–	–	–
Fever	7	7	4	9	15	8	13	6
Causes associated with childbirth[1])	–	–	–	–	2	7	1	–
Chest ailments	18	24	9	10	19	26	38	60
Dropsy	–	–	1	1	–	4	7	3
Wasting sicknesses[2])	–	3	4	3	6	14	26	16
Accidents	–	–	–	1	–	–	–	3
Old age	–	–	–	–	–	–	–	2
Other causes	5	2	3	4	10	6	5	11
Unstated	–	–	–	–	–	–	–	–

Basis of calculation: LA Kbh, Helligånd parish register.
[1]) Comprises only the mothers.
[2]) Including tuberculosis.

Appendix 5.32
Helligånd parish. Causes of death within the various age-groups 1790–99.

Cause of death	Under 1 year	1–4 years	5–9 years	10–19 years	20–29 years	30–39 years	40–49 years	50–59 years
Internal causes	57	24	6	1	5	9	12	5
Maladies of the teeth	18	21	1	–	–	–	–	–
Smallpox	16	39	8	3	2	–	–	–
Measles	7	8	–	1	2	1	–	–
Fever	5	18	7	11	20	9	14	8
Causes associated with childbirth[1])	–	–	–	–	8	11	2	–
Chest ailments	8	13	2	3	12	11	16	21
Dropsy	–	2	2	1	5	3	5	11
Wasting sicknesses[2])	4	8	2	3	12	12	19	25
Accidents	–	1	1	2	2	2	1	2
Old age	–	–	–	–	–	–	–	1
Other causes	18	12	3	6	9	18	13	13
Unstated	29	17	5	1	5	11	7	8

Basis of calculation: LA Kbh, Helligånd parish register.
[1]) Comprises only the mothers.
[2]) Including tuberculosis.

60–69 years	70–79 years	80–89 years	90–99 years	100 + years	Not stated	Total
2	1	–	–	–	–	189
–	–	–	–	–	–	98
–	–	–	–	–	–	68
–	–	–	–	–	–	21
1	1	–	–	–	–	71
–	–	–	–	–	–	10
28	11	–	–	–	–	243
1	1	–	–	–	–	18
1	–	–	–	–	–	73
–	–	–	–	–	1	5
25	49	15	1	1	–	93
8	–	–	–	–	–	54
–	–	–	–	–	–	0

60–69 years	70–79 years	80–89 years	90–99 years	100 + years	Not stated	Total
9	2	2	–	–	–	132
–	–	–	–	–	–	40
–	–	–	–	–	–	68
–	–	–	–	–	–	19
9	4	–	–	–	–	105
–	–	–	–	–	–	21
24	13	1	–	–	–	124
9	3	–	–	–	–	41
23	5	–	1	–	–	114
1	–	–	–	–	–	12
13	72	48	7	1	–	142
20	4	–	–	–	–	116
6	8	–	–	–	–	97

Appendix 5.33

Helligånd parish. Causes of death 1730–99.
Percentage distribution by 5-year groups.

Cause of death	1730–34	1735–39	1740–44	1745–49	1750–54	1755–59
Internal causes	16.52	21.83	22.67	28.01	25.87	23.42
Maladies of the teeth	9.69	10.67	8.94	3.46	2.28	0.83
Smallpox	7.41	7.00	8.03	6.17	10.59	12.96
Measles	1.71	2.50	0.13	2.56	1.34	2.26
Fever	11.97	4.83	12.82	8.13	5.63	7.25
Causes associated with childbirth[1])	1.14	1.00	1.04	1.66	2.28	1.90
Chest ailments	26.50	25.00	18.91	23.49	22.12	18.19
Dropsy	1.99	1.83	1.42	3.77	1.88	1.55
Tuberculosis and wasting sicknesses	5.98	10.00	8.16	8.43	10.86	11.53
Accidents	0.28	0.67	0.26	1.36	1.61	1.07
Old age	9.97	9.67	11.79	4.82	5.23	4.16
Other causes	6.84	5.00	5.57	6.78	8.85	13.91
Unstated	0.00	0.00	0.26	1.36	1.47	0.95
Total%	100.00	100.00	100.00	100.00	100.01	99.98
Total deaths	351	600	771	664	764	841

Basis of calculation: LA Kbh, Helligånd parish register.
[1]) Comprises only the mothers.

1760–64	1765–69	1770–74	1775–79	1780–84	1785–89	1790–94	1795–99
27.03	23.60	24.80	23.02	15.79	15.74	11.62	14.03
0.54	0.85	0.78	1.62	1.69	5.00	4.19	3.56
4.48	8.49	1.95	7.55	5.26	7.96	7.43	5.73
0.41	0.00	5.66	0.00	1.32	0.00	3.05	0.59
13.18	8.49	14.06	13.13	14.47	11.67	8.95	11.46
2.45	2.38	1.95	1.62	3.57	2.22	2.48	1.58
18.75	15.45	11.33	11.15	14.10	12.22	11.81	12.25
1.77	2.21	2.15	2.88	3.20	5.19	3.62	4.35
12.91	15.62	18.75	17.63	16.17	16.48	11.24	10.87
0.54	0.34	0.78	1.08	2.07	0.37	0.76	1.58
5.16	7.98	6.84	8.81	9.59	10.19	13.90	13.64
11.14	12.22	7.81	9.71	9.59	11.85	13.71	8.70
1.63	2.38	3.13	1.80	3.20	1.11	7.24	11.66
99.99	100.01	99.99	100.00	100.02	100.00	100.00	100.00
736	589	512	556	532	540	525	506

Appendix 5.34

Helligånd parish 1730–99.
Causes of death of deceased infants aged under 1 year.
Percentage destribution.

Causes of death	1730–34	1735–39	1740–44	1745–49	1750–54	1755–59	1760–64
Internal causes	53.6	64.7	67.5	80.7	72.9	78.9	74.2
Maladies of the teeth	17.9	17.0	18.0	5.8	4.8	2.3	1.8
Smallpox	7.1	6.5	7.7	4.1	9.0	9.7	4.3
Measles	4.8	1.3	0.5	1.8	2.4	0.0	1.2
Fever	7.1	0.7	2.1	0.6	0.0	0.0	0.0
Chest ailments	7.1	7.8	1.0	4.7	4.2	2.3	10.4
Tuberculosis and wasting sicknesses	0.0	0.0	0.0	0.0	0.0	0.0	0.6
Other causes	2.4	2.0	3.1	0.6	2.4	5.1	4.3
Unstated	0.0	0.0	0.0	1.7	4.2	1.7	3.1
Total deaths aged under 1 year	84	153	194	171	166	175	163

Causes of death of deceased infants aged 1–4 years.
Percentage distribution

Causes of death	1730–34	1735–39	1740–44	1745–49	1750–54	1755–59	1760–64
Internal causes	8.3	13.8	17.4	22.7	33.8	21.1	42.6
Maladies of the teeth	31.7	34.9	22.5	9.1	6.0	1.4	0.9
Smallpox	28.3	24.8	31.9	24.2	35.1	39.2	18.5
Measles	3.3	9.2	0.0	9.8	4.0	7.7	0.9
Fever	8.3	1.8	10.1	3.0	2.0	5.7	1.9
Chest ailments	18.3	11.9	11.6	23.5	11.9	9.6	17.6
Tuberculosis and wasting sicknesses	0.0	2.8	1.4	3.0	0.0	4.3	1.9
Other causes	1.7	0.9	5.1	3.8	2.6	11.0	14.8
Unstated	0.0	0.0	0.0	0.8	4.6	0.0	0.9
Total deaths 1–4 years	60	108	138	135	155	208	108

Bases of calculations: LA Kbh, Helligånd parish register.

1765–69	1770–74	1775–79	1780–84	1785–89	1790–94	1795–99
74.2	77.8	67.0	65.7	55.7	31.0	41.9
1.6	1.9	2.0	5.3	11.4	12.0	9.7
7.0	0.9	7.0	6.6	7.8	8.0	12.9
0.0	2.8	0.0	3.9	0.0	7.0	0.0
3.1	0.0	1.0	2.6	3.8	3.0	3.2
6.3	5.6	8.0	5.3	2.5	4.0	6.5
0.0	3.7	1.0	0.0	2.5	3.0	1.6
5.5	2.8	8.0	6.6	13.9	18.0	0.0
2.3	4.6	6.0	3.9	2.5	14.0	24.2
128	108	100	76	79	100	62

1765–69	1770–74	1775–79	1780–84	1785–89	1790–94	1795–99
25.0	30.6	32.7	15.3	16.3	13.2	16.1
0.9	2.4	7.1	8.5	22.5	11.8	13.8
29.6	7.1	27.6	30.5	27.5	29.0	19.5
0.0	25.9	0.0	6.8	0.0	6.6	3.4
3.7	9.4	9.2	16.9	10.0	7.9	13.8
22.2	7.1	6.1	10.2	11.3	9.2	6.9
5.6	12.9	6.1	3.4	2.5	6.6	3.4
10.2	4.7	10.2	8.5	10.0	10.5	8.0
2.8	0.0	1.0	0.0	0.0	5.3	14.9
108	85	98	59	80	76	87

List of abbreviations

fj	*fjerding*	See page 124.
fjkr	*fjerdingkar*	See page 124.
GenToldkamm	Generaltoldkammeret	The Customs Department
KB	Det kongelige Bibliotek	The Royal Library, Copenhagen
Kcal	Kilocalorier	kilo-calories
KommKoll	Kommercekollegiet	The Board of Trade
LA Kbh	Landsarkivet for Sjælland m.v.	The Zealand etc. Provincial Archives, Copenhagen
La Vib	Landsarkivet for Nørrejylland	The North Jutland Provincial Archives, Viborg
lispd	*lispund*	See page 124.
skp	*skæppe*	See page 124.
skippd	*skippund*	See page 124.
ott	*otting*	See page 124.
ottkr	*ottingkar*	See page 124.
P	Prishistorisk materiale på Københavns Universitets Institut for Økonomisk Historie	Price-history data. This refers to a collection of transcripts and manuscripts at the Institute of Economic, History, University of Copenhagen.
pd	*pund*	See page 124.
RA	Rigsarkivet	The Danish National Archives, Copenhagen
rd	*rigsdaler*	See page 123.
Rtk	Rentekammeret	The Treasury
sk	*skilling*	See page 123.
td	*tønder*	See page 124.
UB 1	Universitetsbibliotekets 1ste afdeling	University Library, Department No. 1, Copenhagen
VA II	Vejledende arkivrigistratur II, RA	Main registry of records II, RA
VA III	Vejledende arkivregistratur III, RA	Main registry of records III, RA

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