

THE CHARITY COMMISSION AS A SOURCE IN ENGLISH ECONOMIC HISTORY

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The Charity Commission (the Brougham Commission) of 1818-1837 published 26,987 pages of material on the charities of England and Wales. A second set of inquiries, with about 20,000 published pages, updated some of these reports in the years 1889-1912. These enquiries give a mass of evidence on the return on various types of capital assets from 1500 to 1912, on land and house values in this period, and on the enclosure status of land. Yet the material has been rarely used as a source for economic history. This paper explores the potential value of this data to economic historians. It discusses how this data was compiled into data sets, what kinds of questions it can address, and various tests of the representativeness of the data for private market economic conditions.

INTRODUCTION

In 1818, as a result of debates and arguments that even now remain obscure, the Parliament of Great Britain launched a detailed and elaborate investigation into the activities of charitable trusts in England and Wales called The Charity Commission or The Brougham Commission.¹ This first inquiry eventually lasted for 19 years, and the 32 reports published contain 26,987 pages of material.² 28,880 endowments for charity were reported upon. These charities, for example, held 443,000 acres of land, out of a total for England and Wales as a whole of about 24.5 million acres of agricultural land, or about

¹ The commission actually consisted of a series of four commissions for the years 1818, 1819-30, 1831-34, and 1835-7. The enquiry was brought about through the lobbying of Henry Brougham, who later served as one of the commissioners. Tompson (1979), p. 117.

2% of all agricultural land.³ As initially conceived in 1818 the Charity Commission was an investigation into charities concerned with the education of the poor. But its mandate extended in 1819 to cover charities of all types. Since the Commissioners were concerned with the management of charitable assets the reports contain a wealth of information on land prices, land rents, returns on capital, house rents and house prices for the years between 1540 and 1837. Yet very little use has been made of this material by economic historians. The single instance I have encountered is John Habakkuk, who in a 1952 article on the rate of return on land, quotes a few rent charge interest rates from the Charity Commission reports.⁴

2. THE PROCEDURES OF THE INQUIRY

Throughout the nearly twenty years of its operation the first inquiry was conducted using basically the same procedures. Though there were 20 commissioners any two were empowered to form a board of inquiry until the last stages of the Commission in 1835. Then, when the imperative was to complete the inquiry quickly, any one commissioner could form a board. Except for London where a permanent board was stationed, the inquiry into charities in each of the roughly 10,000 parishes of the country was conducted by traveling boards consisting until the final stages of two commissioners and a clerk. These boards would conduct the inquiry into charities in a given parish by first trying to establish what charities existed in the parish. They did this in part by consulting the

² There is even some more information which was never published. The Charity Commission has 392 boxes of records of the original investigations. A survey of 30 parishes in Bedford suggested that in a few cases there was further information on the value of land holdings which was not published in the reports.

³ Parliamentary Papers (1843), pp. 826-7.

⁴Habakkuk (1952), p. 45.

printed result of an earlier census conducted on charities in 1786 called the Gilbert Return, which were reprinted in 1816. They also sent out in advance of their visit to the parish a standard letter to the local clergyman asking him for a list of the local charities, which had the following form:

Sir, I am desired by the Commissioners for enquiring into Charities in England and Wales to request that you will favor them with a list of all the Charities in your parish, stating by whom and when they were founded, and for what purpose; and likewise, that you will state what persons, as trustees, or otherwise, will be best able to give information with respect to each charity.⁵

Armed with this information, and sometimes with additional information from published local histories, the commissioners would set a date for a board meeting for a group of adjacent parishes at a local inn or meeting place and write to invite those believed likely to have information or documents concerning the charities to attend.⁶ Witnesses could in principal be compelled to attend, but since the boards were generally in a given area only for a short time those who wished to evade the commission by feigning illness or other pressing business would generally be able to avoid testifying.

The procedures of the board in investigating each specific charity were generally the same and were as John Wrottesley, one of the commissioners, described in 1835:

Having taken the abstract of the original deed or will, the first point is to trace the legal estate into the then existing trustees, and that

⁵ Tompson (1979), p. 132.

⁶ They would also place advertisements in the local press inviting any member of the public who had information about charities to attend, but the response to these general invitations was generally meager.

completes one part of the report. Then we examine into the property, the tenants, the rents at which the property is let....and also examine the leases of the property. The next point is the application of the revenue.⁷

It appears that frequently only one person with knowledge of a charity would be called to these meetings. For example, on Saturday, August 30, 1828, the Commissioners in Suffolk met at the Queen's Head in Lowestoft with representatives from 9 nearby parishes. 8 of these parishes were represented by only 1 person, one by 2 people. Of the 10 people examined, 5 were churchwardens, and 5 overseers of the poor.⁸ Thus though the commissioners frequently comment that land is well let, or is poorly let, it is not clear on what authority they did this.

After the hearing additional information was sometimes gathered by corresponding with other witnesses, by looking at the contents of tables set up in churches memorializing charities, by examining manor court rolls, or by meeting with local authorities. When the commissioners returned to London they would turn the raw data gathered into the published report. Where the original deed of trust had been lost the commission would try and locate the will of the founder. They could also gather information about charities from records of Chancery court proceedings. The Chancery court was frequently called in to regulate charities when the income exceeded the requirements of the donations specified by the original founder, or when the purposes of the donor could no longer be carried out (for example a charity whose purpose was to ransom English captives of Turkish pirates).

⁷ Quoted in Tompson (1979), p. 136.

To carry out this work the staff of the commission consisted of 8 paid commissioners, a secretary, 4 clerks, 4 messengers, and two other officers in 1818, raised to 10 commissioners, a secretary, 5 clerks, a messengers and a housekeeper in 1819, and finally to 20 commissioners, a secretary, 20 clerks, a messengers and a housekeeper 1835. The paid commissioners were expected to work 2/3 time up till 1835 when they were expected to be full time.⁹ The charity commission reports thus represent 317 person years of work.

A typical, but unusually terse and simple, product of their procedures is shown in the following account from the 30th report of the Poor's Land in the parish of Okeford Fitzpaine in Dorsetshire, which occupies only about a half page of the text.

POOR'S LAND

By indentures of lease and release, bearing date 30th April and 1st May 1706, Giles Mitchell and George Pashen, in consideration of £65, granted and released to John Freke, and 16 others, and their heirs, a close of meadow or pasture ground, called Linch, in the parish of Haslebury Bryan, containing, by estimation, three acres, upon trust, out of the yearly rents to buy so much linen cloth for shirts or shifts, to be given away yearly, at Christmas, to so many poor persons, men or women, as should not receive relief from the parish of Okeford Fitzpaine, so that all such persons might in course receive the benefit of the charity, with directions that, when the number of the trustees should be reduced to five, the survivors should appoint 16 new trustees, together with themselves, and convey the said premises to them accordingly, upon the trusts aforesaid; and with a further proviso that the rector or incumbent for the time being of the parish of Okeford should be present at the yearly distribution of the said charity, and should record, in the parish book, yearly, the names of the poor persons who should receive the charity.

The next and only trust-deed is dated 20th May 1746.

The late Edmund Moreton Pleydell, esq., is understood to have been the heir-at-law of the survivor of the trustees last appointed.

⁸ Charity Commission Records, Box 419, Commissioner's Minute Books.

⁹ Tompson (1979), pp. 120-1.

The premises consist of a field containing (by the measurement of Mr. Poole in 1833) 2A. 3 R. 21 P., let to _____ Collins, as yearly tenant, at a high rent of £9, which is paid to the rector.

There is also in the hands of the rector a sum of £20, which is supposed to have been derived from the a sale of timber about 70 years ago, and has been handed down to the successive incumbents; £1 is paid as the interest, which is added to the rent of the field, and appropriated at the same time.

With these sums is purchased linen cloth of the value of about 1s. a-yard, which is given away in pieces of about four yards each to between 25 and 30 poor families, as many as four pieces being occasionally given to a family. Lists of the names are kept, and those who receive parish relief are excluded from the charity, except in peculiar cases.¹⁰

The account here follows the standard format. There is first the information on how the charity got established and what its endowment was. There is the concern with who is now authorized to act for the trust. There is the account of what the current assets of the charity are, and how well they are being managed. Finally there is the report on how the proceeds of the charity are distributed.

Here the commissioners are satisfied with the management of the charity and make no recommendations. In other cases they complain of the application of the proceeds, or of the management of the assets currently held, or of the loss of charity property over time. Thus, for example, they note that of the Church lands in Halstow the Lower in Kent that,

The rest of the premises consists of a house, garden, and about two acres of land, let to Mrs. Manser, a poor widow with a large family, as yearly tenant, at £5 a year, being about half the yearly value.¹¹

The distribution of charitable bequests across the country does not seem to have been uniform. The coverage of counties in terms of how many pages the Charity

¹⁰ Parliamentary Papers (1837), pp. 133-4.

Commission devoted to reporting upon them was not uniform in respect to their populations in 1800 or to the agricultural areas of the county in 1866. Table 1 shows the number of pages devoted to each county in the reports, the number of pages per 1000 inhabitants in 1800, and the number of pages per 1000 acres of agricultural land. The range in terms of pages per thousand agricultural acres is from 6.5 for Middlesex down to 0.2 for Northumberland and South Wales. For pages per thousand of population in 1801 the range is from 6.3 for Middlesex to 0.4 for Cornwall.

After the completion of the 1818-1837 “domesday” of charities, there was a period of considerable inaction. A permanent Charity Commission was only established in 1853, but this board had few resources. By 1861 with augmented resources the permanent commission decided to update the general digest of charities formed as a result of the 1818-37 enquiry. This new digest of charities was issued between the years 1868 and 1875 and aspired to be a complete list of charities, listing their lands, annuities, and securities and the incomes from each. In the case of charities which consisted only of land this gives an observation on the current rent of that land sometime in the period 1868 to 1875. By 1875 the recorded land holdings of charities had swelled from 442,915 acres in 1818-1837 to 524,311 acres.¹²

The permanent commission also launched a parish by parish update of the Brougham Commission enquiry in the year 1889. This new enquiry lasted till 1913, but succeeded in covering only Berkshire, Devon, Durham, Lancashire, London, Wiltshire, and the West Riding of Yorkshire in England and Anglesey, Carmarthen, Carnarvon,

¹¹ Parliamentary Papers (1837), pp. 213-4.

¹² Owen (1964), p. 301.

TABLE 1: THE AMOUNT OF MATERIAL IN THE 1819-1837 ENQUIRY ON EACH COUNTY

County	Code	Pages	Pages/Acre	Pages/Population
Bedford	BD	220	0.9	2.3
Berkshire	BE	466	1.3	3.2
Buckingham	BU	499	1.3	3.4
Cambridge	CA	332	0.7	2.3
Cheshire	CH	409	0.8	1.2
Cornwall	CO	125	0.3	0.4
Cumberland	CU	246	0.5	1.5
Derby	DY	709	1.5	3.0
Devon	DV	1499	1.6	3.0
Dorset	DO	281	0.7	1.8
Durham	DU	249	0.6	1.0
Essex	EX	658	0.8	2.1
Gloucester	GL	1235	2.1	3.2
Hampshire	HA	498	0.8	1.6
Hereford	HE	345	0.9	3.1
Hertford	HT	505	1.6	3.5
Huntingdon	HU	111	0.6	2.1
Kent	KT	608	0.9	1.5
Lancashire	LA	1127	1.6	0.8
Leicester	LE	499	1.2	2.5
Lincoln	LI	725	0.5	2.3
Middlesex	MX	710	6.5	6.3
Monmouth	MO	130	0.6	1.3
Norfolk	NF	867	0.9	2.2
Northampton	NH	430	0.8	2.4
Northumberland	NU	135	0.2	0.6
Nottingham	NT	526	1.3	2.3
Oxford	OX	575	1.5	3.7
Rutland	RU	60	0.8	3.2
Shropshire	SH	473	0.8	2.2
Somerset	SO	889	1.2	2.2
Stafford	ST	764	1.4	1.9
Suffolk	SF	441	0.6	1.5
Surrey	SY	570	2.0	3.6
Sussex	SX	294	0.5	1.1
Warwick	WA	1033	2.3	3.1
Westmoreland	WE	247	1.2	4.5
Wiltshire	WI	587	0.9	2.5
Worcester	WO	628	1.7	2.8
YER	YE	333	0.5	2.0
YNR	YN	370	0.5	1.9
YWR	YW	686	0.6	0.7
N. Wales	Z_	504	0.5	1.4
S. Wales	Z_	314	0.2	0.7
London	MX	2077	-	1.3

Sources: The population of each county in 1801 is from Parliamentary Papers (1852-3), p. lxxxix. The agricultural area is from Parliamentary Papers (1866), pp. .

Denbigh, Flint, Glamorgan and Montgomery in Wales. These new enquiries often contain information about land values and returns on capital even in the years before 1837. This information takes the following forms:

(1) If there were waste enclosures subsequent to the date of the earlier report, which would be sometime between 1819 and 1837, then the area of waste attributable to earlier plots is given.

(2) Accurate measurements are given for plots where previously only an estimated measurement or a customary measurement was given. This information is particularly useful for Lancashire, where land was measured in both statute acres, and in customary acres that were 1.62, 1.86 and 2.12 times the statute acre.

(3) The history of charities not reported on in the previous report is given. These include non-conformist foundations, such as Quaker charities, as well as charities accidentally missed.

(4) The tithe status of land is often given for 1889 or later, since by then the landlord generally paid the tithe rent charge. If there is tithe in the later period it can be inferred that the tenants paid tithe earlier.

(5) Mistakes in the earlier report are corrected.

In addition the later enquiries give information on the rental value or sale price of charity land, typically at two further dates. The latter is when the commissioners examined the charity officials at some time in the period 1889-1913. These reports are generally of very high quality, though the detail varies depending on what county was being inquired into. If the charity still owned the land the rent at the date of the inquiry is

given, and generally details about when the rent was formed. If the land was sold generally the year and the sale price is given. These reports also give the details of the general digest that was made of all charities in the 1860s and 1870s for that parish. In many cases the current rental value of the land at some date in the 1860s or 1870s can be inferred from this digest.

3. ECONOMIC INFORMATION GENERATED BY THE INQUIRIES

Though the focus of the inquiries was the conduct of the officers of charities, the commission as a byproduct discovered and reported a great deal of information of economic interest. Charitable trusts owned, purchased and sold land, houses, tithes, rent charges, mortgages, personal bonds, government bonds, and turnpike mortgages. Thus there is information on the price and rental value of land and houses, and on the rate of return on land, houses, rent charges, bonds, and mortgages all the way from 1540 on. The information is particularly rich for the period 1818 to 1837. There is also information on whether land was open or enclosed, on the costs of enclosure, and on land use. Further the parish that the assets are located in is generally specified.

This information has been coded into 3 data sets. These are:

1. THE CAPITAL DATA SET. This gives information on the purchases or sales of capital goods such as land and houses by charities, and the rates of return on different types of capital implied by these transactions, or expected by donors in wills. The original Charity Commission enquiry yielded 2,963 such observations for the years 1540-1837. This information has been supplemented in the data set by 74 observations drawn for subsequent enquiries of the charity commissioners, 78 observations from reports on the

Crown estates for the years 1799-1828, and 159 observations from the Parliamentary enquiry into the assets of the South Sea Bubble Directors for the years 1715-1721. Table 2 summarizes the type and coverage of this data for the years before 1845.

Charities invested in a variety of assets, so that we get returns on all kinds of capital including land, houses, tithes, rent charges, private mortgages, mortgages of turnpike tolls, and personal bonds. The rent charge was a perpetual obligation to pay a fixed nominal amount secured by land or other real property. It could only be redeemed if both the land owner and the person who owned the right to the fixed annual payment agreed to its termination.¹³ Thus rent charges were similar to land in being long term secured investments. Many pieces of land had some kind of rent charge attached to them. Land, houses, tithes and rent charges were all not subject to usury laws so that the return could vary freely, while mortgages and bonds were always subject to laws limiting the maximum rate of return. We also get many accounts of the return people expected from assets such as land or rent charges, because they would specify in their will what return they expected their money invested in land or some other asset to command.

Land in England was held “freehold” or “copyhold.” Copyhold land was held by a customary tenure that had to be renewed by a fine paid to the manor court when the land changed hands. Thus it was less valuable than freehold land. Most of the land purchased

¹³Rent charges were sometimes also referred to as “fee farm rents”. The rent charge existed from at least the twelfth century. Rent charges were still being created in the eighteenth century. Later the main transactions involving rent charges were their sale to third parties, or to the owner of the land. When tithes were commuted in 1839 and later they were often replaced by “tithe rent charges” which were fixed money payments to the tithe holder in perpetuity from the land. The legal properties of the rent charge were largely unchanged between the middle ages and the twentieth century. See Edwards (1904), Cheshire (1962), Pollock and Maitland (1895).

TABLE 2: COMPOSITION OF RATE OF RETURN OBSERVATIONS

TYPE	Pre-1689	1689-1769	1770-1845	ALL
<u>Real Assets</u>				
Land:				
actual	113	195	198	506
expected	257	130	2	389
Tithes	9	3	10	22
Houses:				
actual	24	27	76	127
expected	31	35	0	66
<u>Nominal Assets</u>				
Rent Charges:				
actual	371	235	122	728
expected	100	53	3	156
Mortgages	7	39	192	238
Mortgages (turnpike tolls)	1	32	69	102
Personal/Bond:				
actual	30	118	494	640
expected	49	41	12	102
Unspecified (expected)	76	56	15	147
<u>ALL</u>	1068	964	1193	3223

Notes: The number of observations drawn from each source is: First Charity Commission Reports, 2985; Second Charity Commission Reports, 53; Crown Estates, 78 (1799-1828); South Sea Bubble Directors, 159 (1715-1721).

Sources: See official publication sources below.

was freehold, and we have assumed that unless otherwise stated land was freehold. But where explicitly stated as copyhold land is recorded as such in the data set.

The data set shows for each asset the purchase price and the current return on the asset. The purchase price is given where possible inclusive of any amounts paid for standing timber.¹⁴ The current return in the case of land or other real assets is if possible the newly formed rental on the purchased land. Where this is not available a statement of the “value” of the land is used. Where this is not available the current rent of the land (which may be under a rental contract formed some time before is used). For real assets these different types of current values are noted in the data set. In the years 1795 to 1815 where there was rapid inflation in rental values observations were not included in the data set if only the current rental value of the land was known.

The data set also shows the calculated rate of return on the asset. If the rate of return only is given then the current return column is left blank.

We have given a geographic location to these returns in the following way. For land, houses, tithes, rent charges and private mortgages the location is the parish the asset, or the asset securing the financial instrument is located in. For personal bonds the location is the parish of the borrower. For turnpike mortgages the location is that of the parish doing the lending (since a turnpike could pass through several parishes). In the case of expected returns the location is the parish of residence of the person making the will. Most of the observations could be located to a given parish or town, and most of these locations can be mapped to modern day coordinates. Thus of the 3,222 observations, 3,198 can be traced to a place, and 3,183 of these given coordinates.

2. THE LAND VALUE DATA SET. This gives information on the price or rental value of plots of land owned by charities. Table 3 summarizes the coverage of this data set by decade. This data forms a very incomplete panel. That is many pieces of land are observed more than once. The frequencies of multiple observations is:

Number of times plot observed	Number of cases
1	11,828
2	3,284
3	891
4	339
5	159
6	75
7	26
8	20
9	13
10	4
11	2
12	1
14	1

Almost all of these observations can be assigned to a parish or manor, and most of these places can be matched to parishes recorded in the 1851 population census, and also to the modern coordinates of the parish or location. The method used was to take the name of the parish or township given and to try to match it to a parish in the data set of parishes and townships in 1851. If there was no match then places were checked by hand to see if they were merely spelling variants of the later parish name. If this failed then I checked to see if the place listed as a parish was really a township of another parish or a

¹⁴ The legal and other expenses of sale or purchase were not deducted from the purchase price since these were not always reported.

TABLE 3: THE NUMBER AND TYPE OF OBSERVATIONS IN THE LAND**VALUES DATA SET**

Decade	Observations with land area ^a	Observations without area	Land Use	Enclosure Status
1500	8	0	1	8
1510	2	0	0	1
1520	10	0	4	7
1530	1	1	0	1
1540	6	1	2	3
1550	23	2	9	10
1560	13	1	6	7
1570	18	1	4	8
1580	15	1	3	10
1590	32	1	10	18
1600	40	1	9	23
1610	90	2	29	61
1620	132	4	32	87
1630	133	6	36	92
1640	102	5	31	62
1650	143	5	41	104
1660	110	3	31	79
1670	194	14	57	130
1680	208	5	67	161
1690	235	11	64	167
1700	233	7	59	165
1710	261	3	67	195
1720	308	9	76	231
1730	360	9	86	274
1740	268	10	70	188

Decade	Observations with land area	Observations without area	Land Use	Enclosure Status
1750	232	8	56	184
1760	228	8	39	177
1770	216	8	34	163
1780	487	13	81	359
1790	333	10	71	251
1800	984	6	160	767
1810	2,613	15	534	1,947
1820	7,103	34	1,470	5,624
1830	5,726	25	1,633	4,372
1840	28	0	4	22
1850	60	1	5	51
1860	362	5	43	340
1870	255	2	26	245
1880	219	1	42	217
1890	747	3	187	739
1900	718	3	220	716
1910	39	0	6	39
all				

^aIncluding land measured in cowgates or sheepgates.

manor. By this method all but ---- of the places listed were matched to parishes in the PAR1851 data set. The X and Y coordinates of these 1851 parishes (or combinations of parishes in the cases of towns) are given in the data set where these were identifiable.

The physical characteristics of the land holding are also often given. In about 99% of cases recorded the land area is given. Two problems arose with land areas. The first was the measurement of land areas in non standard acres. Local measures were used for land in Lancashire, Cheshire, Devon, Dorset, Lincolnshire. In Lancashire, for example, while the standard acre used a perch of 5.5 yards (1 ac = 40×40 perches), there were local measures based on perches of 7, 7.5 and 8 yards. The Cheshire acre had 8 yards per perch. The first reports sometimes failed to state whether the measure was customary or not, or did not specify the size of the customary acre. Here the procedure adopted was to use the perch measure of other land in the same parish if that was stated. Otherwise a measure of 7.5 yards was used for all land seemingly measured in customary acres in Lancashire.¹⁵ Another problem was that open field land was often measured in acres that were much smaller than standard acres. Where it was clear that open field land was not measured in standard acres but the actual acre size was not given, the acre size of other open field customary acres in that county was used. (where “outbuildings” were counted as equivalent to one barn).

In most cases there is some indication what buildings were on the land. These I divided into houses (where “messuages” were counted as houses), cottages and barns. A farm that was occupied by the tenant was counted as having 1 house and 1 barn if no other information was given. The land use is also given in many cases. 11 types of land use

were recorded: arable, pasture, meadow, garden, orchard, wood, osier, hops, fen, marsh, and “waste”. The “fen” and “marsh” descriptions of land are a little unclear, but since they were used by the compilers of the Charity Reports we utilize them also here.¹⁶

Where land was described as just “arable and pasture” or “pasture and meadow” or “garden and orchard” I divided up the area equally between these uses (but I did not divide up the area of other combinations such as “arable and meadow” or “arable and garden” where one type might be expected to predominate). Land that was used only for unrestricted communal grazing or fuel gathering was assigned to the waste category. Communal pastures where the grazing was regulated by “stints” such as “cowgates” and “sheepgates” I counted as pasture. The categories “osier,” “hops,” “fen,” and “marsh,” were infrequent enough that I assumed that any land not explicitly stated as such was not in these categories. The numbers of plots recording at least some of each type of land use before 1838 are as follows:

land use given	4,886
arable	1,576
pasture	1,933
meadow	1,815
garden	379
orchard	150
wood	223
osier	20
hops	14
fen	113
marsh	169
waste	62

The enclosure status of land was recorded by dividing land into the following statuses. Land which was under the exclusive private use of one or two parties was

¹⁵ Lancashire, fortunately, was one of the counties which was reported on by the later permanent Charity Commission, so that often we can correct the acre measurements from the later reports.

counted as “enclosed.” That is land held in “severalty” was counted as enclosed whether it was fenced or not. Land subject to any communal rights was counted as “common”, even if the land was fenced as in the case of some lammas land. Thus common land includes all lammas, half year, and michaelmas land, as well as stinted pastures. Common land which was used only for rough grazing and fuel gathering was counted as “open waste”. Sometimes common grazing land was measured in “cowgates,” “beastgates,” cattlegates,” “horsegates,” and “sheepgates.” In this case we observe in many cases what amount of land was allocated for each of these units on enclosure. From this I inferred that on average a sheepgate equalled 1.27 acres and the other gates averaged 2.49 acres.¹⁷

The numbers of observations of land in each category was:

enclosure status known	15,843
“common” land	1,983
“open waste”	387
“lammas” etc.	79
“cowgates” etc.	112

In the data set, however, when land includes these “gate” measures they are kept separate and neither the total area nor the open area includes any allowance for these gates.

The data set records for each plot the implied “annual value” of the land. This value could be derived in one of four ways, where the ways were used in order of their availability:

(a) From a rental contract made in that year where the only consideration for the contract was occupancy of the land. Where contracts included fines or subsidies these were converted into an equivalent annual basis using the formula

¹⁶ The reports talk of “fresh marsh” and “salt marsh,” for example.

$$v = \frac{rF}{1 - (1+r)^{-n}}$$

where v is the implied annual value of the fine per year of the contract, F is the initial fine or subsidy, n is the length of the contract in years, and r is the rate of return on land holding. r was derived for 10 year periods using the information on land purchases in the CAPITAL data set, and the decadal values used are reported in the data set.

Sometimes land was let on rolling leases where the lease was renewed each time on payment of a fine before the end of the old lease, typically keeping the rent fixed at the old level. For example if the lease was for 21 years, a new lease might be taken out at the old rent at the end of each 7 years in return for a fine. If m is the number of years left on an old lease when it is renewed, and n is the number of years in the new lease term, then the annualized value of the fixed fine is now:

$$v = \frac{rF(1+r)^m}{1 - (1+r)^{-n}}$$

Where the term of the tenancy was for “three lives” the expected length of the term was taken as 61 years, based on calculations of the life expectancy of the tenants from Wrigley and Scofield (1981), assuming two of the lives were 10 at the time of the contract and one was 40.¹⁸

¹⁷ This is based on 14 observations of the acreage equivalent of beastgates and 8 observations of the acreage equivalent of sheepgates.

¹⁸ That is I assumed that the typical three lives contract was made by a father with young children he wanted to inherit the tenancy.

(b) From a sale of the land in that year. The land price was annualized using the same rate of return by decade as in (a). Any burdens associated with the land (rent charges on it, or ground rents paid, or customary rents for copyhold premises) were recorded and added to the annualized price to calculate the implied annual rental value of the property.

(c) From a valuation of the land, or from a statement of the “annual value” of the land, which in the latter case might just be a statement of the amount paid under an existing rental contract for the land.

(d) From a statement of the current rent paid for the land, where however, the year the rental contract was formed is not known. Current rents were not recorded for the years 1795 to 1815, since this was a period of rapid land value inflation. For the years after 1815 they were only recorded if there were indications that the contract was a short term one.

In interpreting the rental value of land an important consideration is that land was subject to various burdens and charges. The chief of these were the tithe, local rates, land tax, repairs, and drainage rates. But there was also other benefits to be added to the rent paid by the tenant. The chief of these was occasional income from sale of timber from land. The correct concept of rent to use will depend on the purpose we intent for the number. To calculate the productivity of agriculture, for example, the correct concept would be

$$\begin{aligned} \text{RENT} &= \text{TENANT'S RENT PAYMENT} \\ &+ \text{AVERAGE TIMBER INCOME} \\ &- \text{AVERAGE REPAIR COST} \end{aligned}$$

+ TITHE OR TAX PAYMENTS BY TENANT

Study of a sample of rentals in the early nineteenth century suggests that on average the timber income generated by holdings then roughly equalled the repair costs, both being about 5% of the rents paid by tenants. Thus the most important factor influencing the true economic value of the land were payments by tenants for tithe and taxes.

When tithes were replaced by land allotments in the late eighteenth century the usual equivalence was that on arable land the tithe owner got one fifth of the land allotted, while on pasture he or she got one ninth and on meadow one eighth. This implies that on arable land that was tithe free would rent for 25% more than land that was burdened by tithe, while on pasture and meadow the corresponding percentages would be 12.5% and 14%.¹⁹ This suggests that on average tithe free land would rent for 20% more than land burdened by tithes.

Some land was tithe free because the owner of the land also owned the tithe. Enclosures of cultivated land in the eighteenth and nineteenth centuries was frequently used as an opportunity to buy out the tithe (typically by giving the tithe owner land). Evans estimates that 60% of Parliamentary enclosures included at least partial exoneration of the tithe.²⁰ In only 1,354 cases do we know whether the tenant paid tithe. For land that was subject to tithe it was generally the case in the years before 1838 that the tenant paid the tithe. We are more likely to know the tithe status of the land in cases where the landlord, the charities, paid the tithe. Yet in 77% of the cases where we know tithe was paid before 1838, the tenant paid the tithe.

¹⁹ Evans (1976), p. 99.

This means that in cases where nothing is directly recorded about whether tenants paid tithe we can infer they did so if we know the land was subject to tithe. We have two sources of information on whether land paid tithe in the years before 1838. The first is the second set of reports of the charity commission. In later years when tithes were commuted for a tithe rent charge, the landlord typically paid that rent charge. Thus if such a payment is recorded for land in 1890, we can infer that the land paid tithe in the years before 1838, and the tenants paid the tithe themselves. The commissioners who carried out the Tithe Commutation Act of 1836 kept records of which parishes or townships paid tithe at that date. Thus again we can infer that tenants paid tithe in a parish before 1838 if there were some tithe payments in the parish as a whole after 1836. If no tithe was paid this was typically as a result of an enclosure act. Thus we can infer that tenants did not pay tithe between the date of the last enclosure act for the parish before 1837 and 1837. These inferred tithe statuses, rather than directly observed statuses are recorded in a separate column.

Another burden on land was the land tax. By the nineteenth century this was a much smaller share of the rent than the tithe. In cases where land tax was still paid between 1800 and 1837, it averaged only 3.2% of the rental value of the land. Earlier before the great rise of rents between 1790 and 1815 the land tax would have been a larger share of rents, amounting to as much as 10% of land rents in 1692. The land tax, however, was overwhelmingly paid by landlords in the years before 1838. Thus in only 16% of 1,793 cases where we can observe who paid the land tax, and the tax was not redeemed, did the tenant pay the tax.

²⁰ Evans (1976), pps. 95, 111.

The poor rate was almost always paid by the tenant. In the years after 1795 poor rates became a very substantial burden on tenants in much of the south of the country. The Charity Commission reports, however, give almost no information on these.

3. THE ENCLOSURE DATA SET. This gives information on the enclosure status of land owned by charities. There is considerable overlap with the LAND VALUES data set, but many of those observations are missing because the enclosure status is not given. Also there are many observations on land included here which are not given in the values data set because even though the land is described at a given date the value is not given. An observation was created for each plot for each time a piece of land was described in sufficient detail that its enclosure status could be inferred. There are 17,663 observations in this data set in England for the years 1394 to 1837.

It is often apparent from these details of the history of the property whether it was “open” or “enclosed” at the time of the inquiry, and what its status was at some earlier period. The definition of “open” land used here is all land that all land that was subject to multiple ownership rights.²¹ This definition is chosen since economists believe that exclusive private property rights are necessary for efficient use of land.

Thus open land in the samples includes land in common arable fields, common grazing, and waste lands. But we also counted as open both “lammas” land, “half year” land, and “michaelmas” land. Such land might be physically enclosed by fences, but was open to common grazing after Lammas Day, or Michaelmas, until the spring. This was a relatively infrequent description of land however. Open land was sometimes given in such units as cow gates, beast gates, ox gates, horse gates, sheep gates, or just common rights.

Where the later enclosed area of the land was given or the land was all open anyway this was not a problem. Otherwise these units were converted into equivalent acres by taking all but a sheep gate as 2.49 acres, and a sheep gate as 1.27 acres.²²

The following six descriptions of land from the tenth report illustrates the kind of information available with which to classify land as open or enclosed, and how it was coded in the data set.

1. “By indentures of lease and release, bearing date 1st and 2nd January, 1774,.....the said field, called Rushmore, containing, by estimation, five acres.....The field called Rushmore is now in the occupation of Aaron Floyd, under an agreement for a lease for seven years, from Lady-day 1816” (Devon, pp. 158-9)²³

Coded: 1774, 5 A. enclosed. 1816, 5 A. enclosed.

2. “By indenture, dated 20th March, 4 Henry VII (1489), reciting that *Robert Warren* conveyed a croft of land lying in the parish of Finchley....The house and croft, forming the first parcel in Robert Warren’s gift....are now on lease, together with a small allotment, added on the enclosure of Finchley common,....for 21 years from Michaelmas 1815. They consist of - A small messuage, barn and out-buildings, with a yard and piece of ground, containing 1 A., 3 R., 37 P. A parcel of meadow or pasture called Great John’s Field, 6 A. 3 R. 8 P. Ditto called Little John’s Field, 3 A. 2 R. 5 P. Allotment, 2 R. 11 P.” (Middlesex, pp. 318, 320)

Coded: 1489, 12 A. 1 R. 10 P. enclosed, 2 R. 11 P. open (waste).
1816, 12 A. 3 R. 21 P. enclosed.

3. “By indenture, dated 16th May 1611, Robert Tyffin,...granted and conveyed...all that close of land or pasture called Haycroft, containing four acres by estimation, lying in Marsh field in Kingston..... Upon the Kingston inclosure, an allotment of 1 R. & 28 P. on Surbiton common, was awarded to this charity.” (Surrey, p. 611)

²¹ Land held by only two or three parties was, however, not counted as common land. Such limited multiple ownership often came about as a result of heirs inheriting undivided shares of land.

²² This is based on the amount of land on average allocated when these common rights were extinguished. It is very inexact, but there were only 140 such cases out of 17,444 observations.

²³ One acre (A.) = 4 roods (R.) = 160 perches (P.).

Coded: 1611, 4 A. enclosed, 1 R. 28 P. open (waste)

4. “By indentures,...dated 11th April 1702, conveyed...by the description of all those several parcels of pasture and arable ground, lying dispersedly in the common grounds called Brown’s meads and Rusby grounds, in the parish of Iver; containing, by estimation, eight acres.” (Buckingham, p. 601)

Coded: 1702, 8 A. open.

5. “By an indenture, dated 22nd December 1707,.....Samuel Bailey...did thereby grant, enfoeff and confirm...all those three yards of arable land, lying in the west field of Norton aforesaid, in a furlong there called Windick; and also, all those three yards of arable land, lying in the same field, in a furlong there called Colforde; and also, all those three yards of arable land, lying in a field called Upper Hamdon, ... There are now the same nine yards of land, making about 2 A. 1 R. in the possession of the parish, ..., which answers in quantity and situation to the description in the deed above abstracted.” (Gloucester, pp. 587-8).

Coded: 1707, 2 A. 1 R. open.
1820, 2 A. 1 R. open.

6. “by an inquisition,....., on the 15th January 1660, it was found that....Julian Walter devised a messuage or tenement, with the garden and orchards thereto belonging; a close of pasture, called Owse Close; one lay, called the Maids Close Lay; a moeity of another close or pasture, called the Thames close, and a moeity of a house thereon standing; a moeity of a little plot of coppice woods; the moeity of a ham adjoining to a close of E. Stevens, late called Five Acres; a moeity of two yard lands, arable, meadow, and pasture, sometime called Dubbers..... The estate consists of a good farm house, with a garden and out buildings, and a small paddock, a close of pasture containing about an acre and a half, and about 24 customary acres, or eighteen statute acres in the common fields, with three cow commons and a right of pasture for sheep. It is now let to ____ Busby as yearly tenant.” (Berkshire, p. 350)

Coded: 1660, 1.5 A. enclosed, 18 A. open, 3 cow gates, common rights
1822, 1.5 A. enclosed, 18 A. open, 3 cow gates, common rights.

Examples 2 and 3 illustrate how the fact that the charity commission reports generally described land both in 1819-1837 and at an earlier date allows us to infer the amount of common waste attached to holdings at an earlier date. Though the original property deeds often give no hint of the common land, when it is enclosed later and added to the holding we can infer its presence earlier as unenclosed waste. Examples 4, 5, and 6 illustrate the various ways in which land is inferred to be open. Here land was assumed to be open if it was called “common field land,” but also if it was measured in units typical of the open fields (yardlands, oxgangs), or was described in terms such as “diverse small plots of land scattered in the South Field.”

About one third of the land descriptions in the charity commission reports do not allow us to judge how much of the land was open or enclosed. Mainly this is because the land is described in very terse ways: “10 acres of land,” “a messuage and tenement,” “a farm.” But the fraction of land in this unclear category is higher in some counties, such as Norfolk and Suffolk. This is because there is much scattered land in small units in these counties, but it is not clear that this is “common” land in our terms of land of joint ownership.²⁴ Since we want to infer the proportion of open and enclosed land in the country as a whole, if this incompletely described land is of one type or another in a different proportion to the described land then we shall not get an accurate estimate. We guard against this possibility by validating the sample in the way described below.

From the charity commission data we can calculate the fraction of each plot in each year that is open or enclosed, z_{it} . z is the open area attributed to each plot divided by

²⁴ This seemingly reflects the complexity of the situation in these areas. Tate and Turner note that many Parliamentary enclosures in these counties may have just consolidated plots which had already lost common property rights.

the total area. If some of the common and waste land in the parish the plot is located in has not been enclosed by the time it is last observed, then the extent of remaining common and waste land attached to the holding will generally not be stated. Thus z will understate the fraction of the land that is open. We can, however, correct for this omission. First we constructed for each county the fraction of land which was common grazing or waste at each date between 1818 and 1872.²⁵ Define θ_i as the fraction of common grazing or waste in the county of plot i at the time of the report on the charity. Then if z_{it} is the observed fraction of the plot which is open at time t , the best estimate of the true fraction, \hat{z}_{it} , will be:

$$\hat{z}_{it} = z_{it}(1-\theta_i) + \theta_i$$

z_{it} has to be multiplied by $(1-\theta_i)$ in this formula since we have to adjust upwards also the estimate of the true size of the plot, as well as add estimated unobserved waste. For England overall, the fraction of land that was common grazing or waste in 1837 is estimated as .0388. That means that this adjustment of the upwards of the raw fractions of open land will generally be of only about .025. The fraction of land which is common grazing or waste in 1837 varies from as little as .001 in Leicester to .185 in Westmoreland.

Table 4 shows the calculated unadjusted and adjusted fraction of land which is open in different periods between 1475 and 1837.

²⁵ This was done using the information in Tate (1978), and from Hoskins and Stamp (1962), pp. 93-4. The amount of common grazing and waste land enclosed in each county between the date of the report and 1872 was calculated from Tate, and was added to the area of common grazing and waste in 1873 given in Tate. This was calculated as a fraction of the area of each county excluding unimprovable mountain and waste.

TABLE 4: SUMMARY OF THE CHARITY COMMISSION DATA

Decade	Observations	% OPEN (RAW)	% OPEN (ADJUSTED FOR MISSING WASTE)
1475-1574	172	33	35
1575-1624	397	31	34
1625-1674	837	26	29
1675-1724	1469	25	28
1720-9	385	24	26
1730-9	404	23	25
1740-9	228	23	26
1750-9	237	21	24
1760-9	216	18	22
1770-9	219	14	18
1780-9	452	15	18
1790-9	320	11	15
1800-9	762	6	10
1810-9	1810	4	9
1820-9	5490	5	8
1830-9	4229	7	9

4. LINKED DATA SETS

Since the charity commission generally reports the parish and even the township of plots of land, the charity data can be supplemented by other information giving the characteristics of the places where the land is located such as the population density, the soil type, and the distance from large urban areas. To help do this a data set was created using the 1851 population census as a base, which records the characteristics of places using a number of different sources.

The basic unit used in this data set is the parish, but the irregularity of local government arrangements, where parishes were subdivided and combined over time, and where non-parochial areas existed means that while most places listed under “parish or place” were parishes in 1851, some were not. In many towns there was no information on the area of individual parishes, since parish areas were collected by the Tithe Commutation Commission, and they would have no interest in the area of urban parishes. In these cases the parishes were combined into the smallest units giving areas. In other cases places were non-parochial areas.

The parish data set records where possible the location of parishes as an X,Y coordinate, the area, the population in 1801 and 1841, the soil type, the Parliamentary enclosure history, the tithe status of the parish in 1838, the distance of the parish to the nearest market circa 1600 and 1700, and climate characteristics of the area the parish was in. Clark (1995c) gives the details of this data set.

5. THE QUALITY AND REPRESENTATIVENESS OF THE CHARITY DATA

How representative is the charity commission data of private asset and rental markets in the economy? Since charities were being investigated because they were suspected of malfeasance of various sorts, can the information on the rates of return they earned on capital and on the rental value of land tell us anything about conditions in general in England and Wales from 1540-1837? Similarly even if the data reveals the economic value of charity assets, does this constitute information about private assets in the economy?

1. How representative is charity land of all agricultural land in the country?

Most agricultural land in England and Wales in the years 1500 to 1850 was owned by large estate owners. Thus Thompson (1963) estimates that by 1873 61% of the land in England was in estates of more than 1,000 acres in size. Most of the charity land was small pieces of land less than 30 acres in size. How good an indication will the charity land provide of general agrarian conditions?

The charity holdings turn out to be much less unrepresentative of typical land holdings than the above might lead us to believe. For a start while large estates owned most land in England these estates typically let out most of the land to tenant farmers. Thus the size distribution of operating farming units is not indicated by the distribution of land ownership. Robert Allen attempts to estimate the distribution of farm sizes in the south midlands in 1790 by using the records of land tax assessments. By summing the total amount of land tax owed by each occupier of land in each parish, and calculating the implied area occupied he gets the distribution of farm sizes for 636 parishes in the south

midlands shown in table 5. As can be seen, holdings of less than 30 acres represent 58% of all holdings. Allen notes that this procedure tends to exaggerate the size of the smallest plots since these would often be attached to cottages which would raise the value.

Another thing which would tend to exaggerate the size of small holdings in Allens sample is that small pieces of land tend systematically to be much more valuable per acre than large pieces. But this all implies that small holdings may be an even larger share than is indicated in Table 5.

Table 5 shows in comparison the size distribution of the plots of land rented by charities between 1750 and 1819 in all of England and Wales. As can be seen there are more small plots of land than the land tax records studied by Allen indicate. 72% of plots are less than 30 acres. But this disparity is not particularly dramatic. Also many of the pieces of charity land may have been rented by those either owning other land of their own, or renting other land (in many cases it is indicated that the tenant also rents or owns other land).

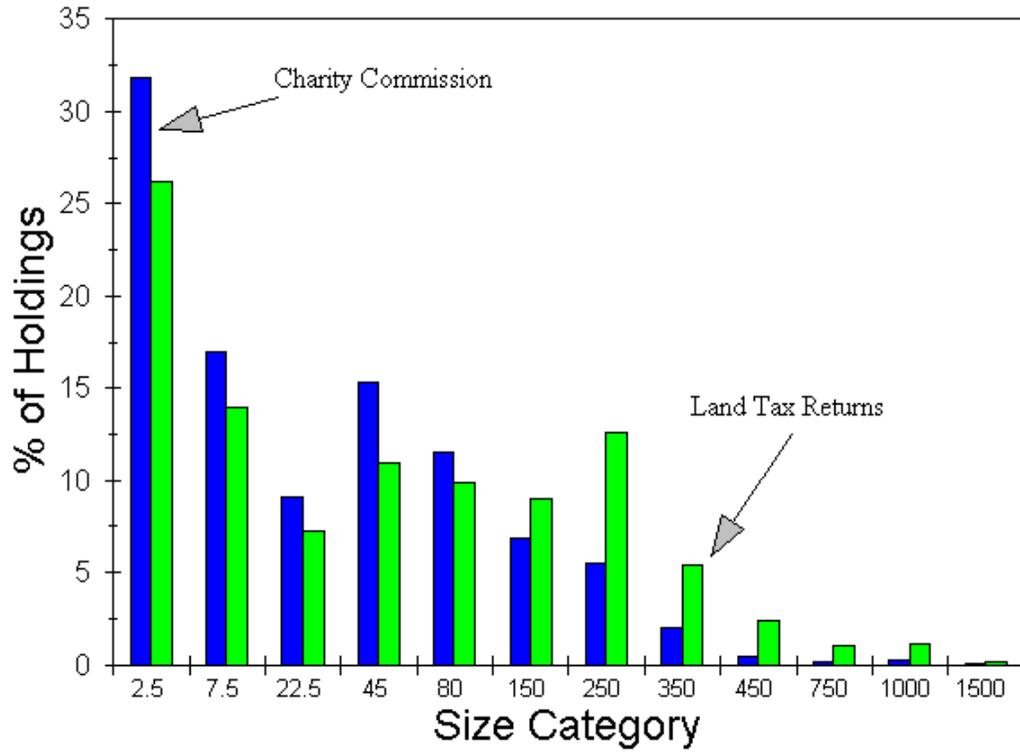
The charity data is not uniform in its geographic coverage, in part because population was not distributed uniformly. Thus if we divide the country into five regions - the north, Wales, the midlands, the south west and the south east - we find that the number of observations we have on land values varies across regions as Table 6 shows. Wales and the North are consistently underrepresented relative to their agricultural areas.

**TABLE 5: PLOT SIZE DISTRIBUTION: CHARITY DATA COMPARED TO
LAND TAX ASSESSMENTS**

Size (acres)	Charity Commission Data 1760-1819		Land Tax Assessments, South Midlands, c. 1790	
	N	%	N	%
<5	914	31.8	3,409	26.2
5-10	489	17.0	1,828	14.0
10-15	261	9.1	949	7.3
15-30	439	15.3	1,425	10.9
30-60	331	11.5	1,292	9.9
60-100	200	6.9	1,166	9.0
100-200	159	5.5	1,640	12.6
200-300	58	2.0	698	5.4
300-400	15	0.5	307	2.4
400-500	7	0.2	137	1.0
500-1000	9	0.3	152	1.2
1000+	3	0.1	29	0.2
all	2,878		13,032	

Source: Allen (1992), p. 82.

FIGURE 1: THE DISTRIBUTION OF LAND OCCUPANCY, 1760-1819



Source: Table 5.

**TABLE 6: GEOGRAPHIC DISTRIBUTION OF CHARITY COMMISSION
OBSERVATIONS**

REGION	FARMLAND AREA, 1866 (1000 acres)	OBSERVATIONS PER 1,000 ACRES OF FARMLAND AREA			
		1500-99	1700-99	1800-37	1838-1913
North	5,431	.03	.09	.44	.23*
Midlands	5,490	.08	.16	1.01	.04*
Wales	2,285	.01	.05	.23	.14*
South West	5,317	.06	.14	.61	.08*
South East	4,961	.10	.13	.87	.07*

Notes: The areas are composed as follows

North - Cheshire, Cumberland, Durham, Lancashire, Northumberland, Westmoreland, Yorkshire.

Midlands - Bedford, Buckingham, Derby, Huntingdon, Leicester, Lincoln, Northampton, Nottingham, Oxford, Rutland, Stafford, Warwick

South West - Cornwall, Devon, Dorset, Gloucester, Hereford, Monmouth, Shropshire, Somerset, Wiltshire, Worcester.

South East - Berkshire, Cambridge, Essex, Hampshire, Hertford, Kent, Middlesex, Norfolk, Suffolk, Surrey, Sussex.

*Not all the data has been collected yet for these years.

Sources: The farm acreage in each county is from Parliamentary Papers (1866).

Since trends in land rents differed across the country with rents in the north rising much more than those in the midlands or south this implies we must be careful in using the data to reweight for these regional imbalances.

Another issue of representativeness arises with respect to the use of land. In 4,800 instances the charity plots are described in terms which allow us to infer the land use. If we consider just the division of land between arable and pasture we can compare the county level proportions of arable to all land implied by the Charity Commission data with that implied by other sources. The alternative source we have for the county level land uses is the evidence of the Tithe Commission which collected information on land uses in many parishes between 1836 and 1845. Figure 1 shows the fraction of arable land implied by the Charity data for each county compared to the fraction implied by the tithe data. As can be seen there is a clear correlation between the two results even though by construction the Charity data on this issue is very “noisy.” It is noisy because large plots get a very large weight in determining the overall fraction of land which is arable, and there are relatively few of these for each county. If we define *FACC* as the fraction of all arable and pasture land which is arable by county in the Charity Commission data, and *FATITHE* as the fraction of all land which is arable in the tithe sources, then the estimated connection between the two is:

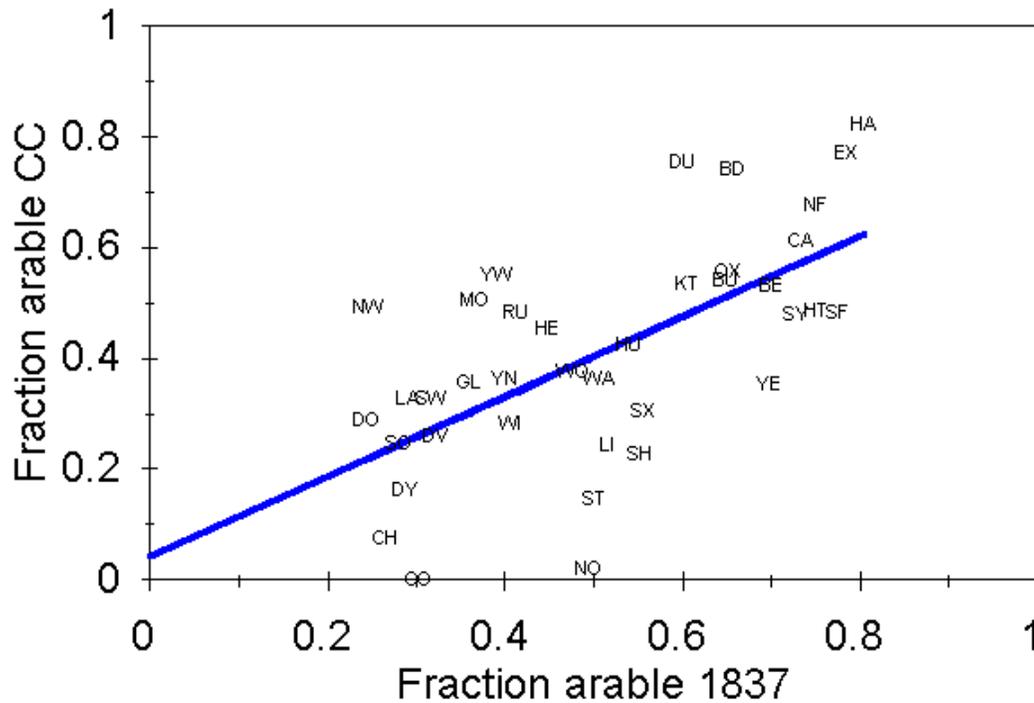
$$FACC = .042 + 0.725FATITHE$$

(.147) R² = .404

n = 38

FIGURE 2: THE FRACTION OF LAND ARABLE BY COUNTY, CHARITY

LAND VERSUS TITHE ESTIMATES



The Charity data somewhat underpredicts the amount of arable in each county, though there is a strong connection between the amount of arable revealed by tithe sources and that shown by the Charity Commission. The reason the Charity Commission underpredicts the amount of arable is that larger pieces of land tend to be more arable, and the charity commission data, as we noted above, tends to be for smaller plots.

The second issue with the charity commission data is whether it is likely to be representative of the average frequency of openness even once we have corrected for geographic oversampling. How much was charity land like the average land in England in this respect? To validate the charity commission data we rely on one crucial assumption, which is that between 1740 and 1873 the overwhelming majority of enclosures were by Parliamentary Acts. This is the assumption of Wordie (1983), and of Gonner (1912). Chapman (1984, 1995) disputes this but as noted Allen finds 96% of the area enclosed in the south midlands after 1750 was enclosed by Parliamentary means. Also the Charity Commission reports themselves strongly support this assumption. While there are thousands of references to land having been altered by Parliamentary enclosure in the years 1740 to 1837, there are very few references to non-Parliamentary enclosure of plots in this period.

Assuming that the Parliamentary process was the overwhelming one for enclosure after 1740 we construct estimates for each year from 1720 to 1837 of the average fraction of each county which was open land at each date. For the set of observations we have in the period 1720 to 1837 we can then compare their average openness by decade with what we would expect for these counties based on the parliamentary data. Figure 3 shows the results of this test.

As can be seen, while not perfect the charity commission sample gives a fairly accurate portrayal of what was happening to common land in the years after 1740 when Parliamentary enclosure was the norm. There is a persistent tendency for the Charity Commission sample to slightly underestimate the degree of openness in the period 1750-1819, but the difference on average here is only 2%.

Another test of the representativeness of the Charity Commission data is to ask whether open land shows up in the right proportions in the right counties at any given date. Taking the period 1720-1759 we can estimate the average percentage of the county enclosed in the Charity Commission data, and the average percentage open as measured by the extent of Parliamentary enclosure. Figure 4 shows the connection at the county level between these measures of enclosure. If we regress the percentage open in the charity data by county (*FOPENCC*) on the percentage open as measured by Parliamentary enclosure for the same years (*FOPENPP*) the estimated relationship is,

$$\begin{array}{rcl}
 FOPENCC & = & .0008 + .9996FOPENPP \\
 & & (.028) \quad (.088)
 \end{array}
 \qquad
 \begin{array}{l}
 R^2 = 0.76 \\
 n = 42
 \end{array}$$

Thus at the county level the Parliamentary data on average predicts well what is observed in the Charity Commission sample. These two tests suggest that if we accept that Parliamentary enclosure was the overwhelming source of enclosure after 1740 then the Charity Commission data is a good indicator of the amount of common land in each

FIGURE 3: THE FRACTION OF LAND OPEN: PARLIAMENTARY RECORDS
VERSUS THE CHARITY COMMISSION SAMPLE, 1720-1837

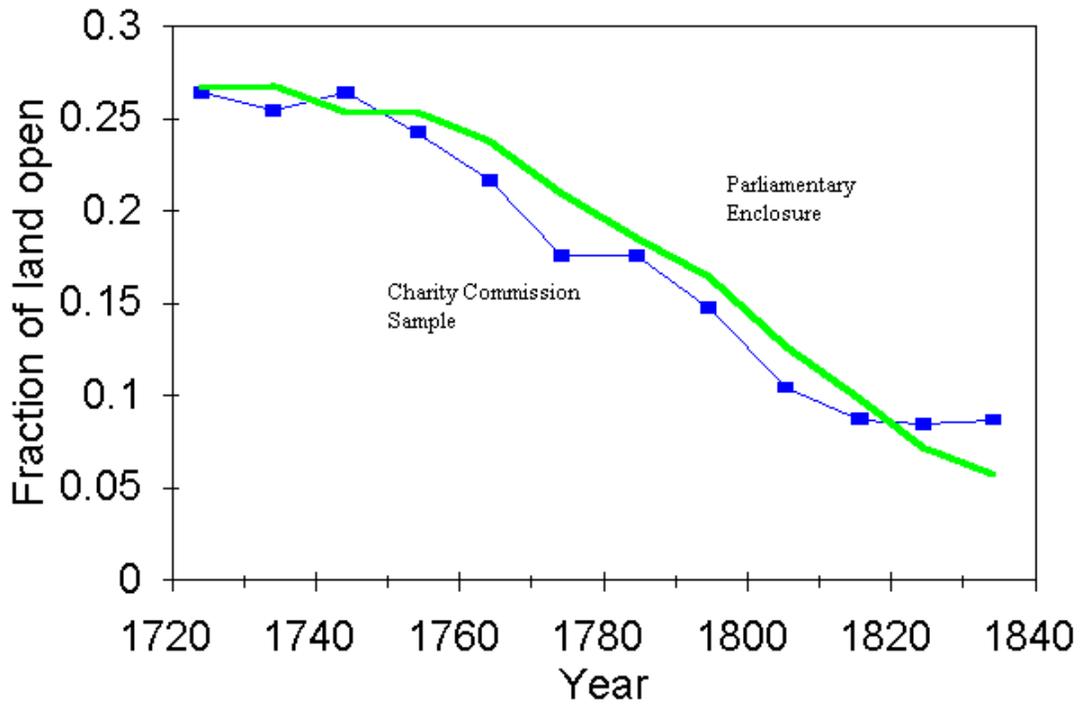
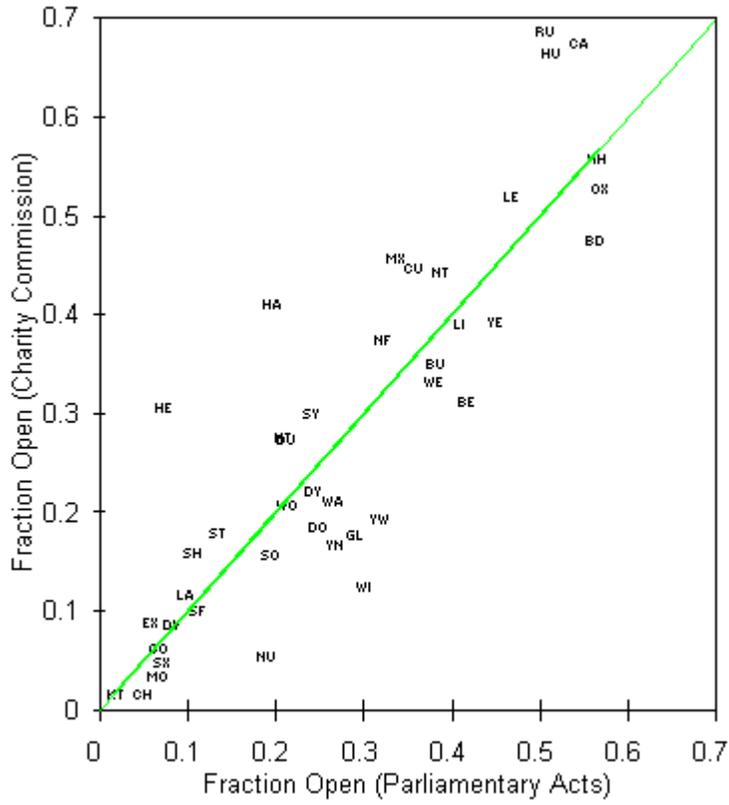


FIGURE 4: FRACTION OF LAND OPEN IN CHARITY SAMPLE, VERSUS
FRACTION OPEN FROM PARLIAMENTARY ACTS, 1720-1759



county in each year after 1740. There is no reason to expect that it will be any less reliable a guide for the years before 1740.

2. How competent were Charities as managers of land and other assets?

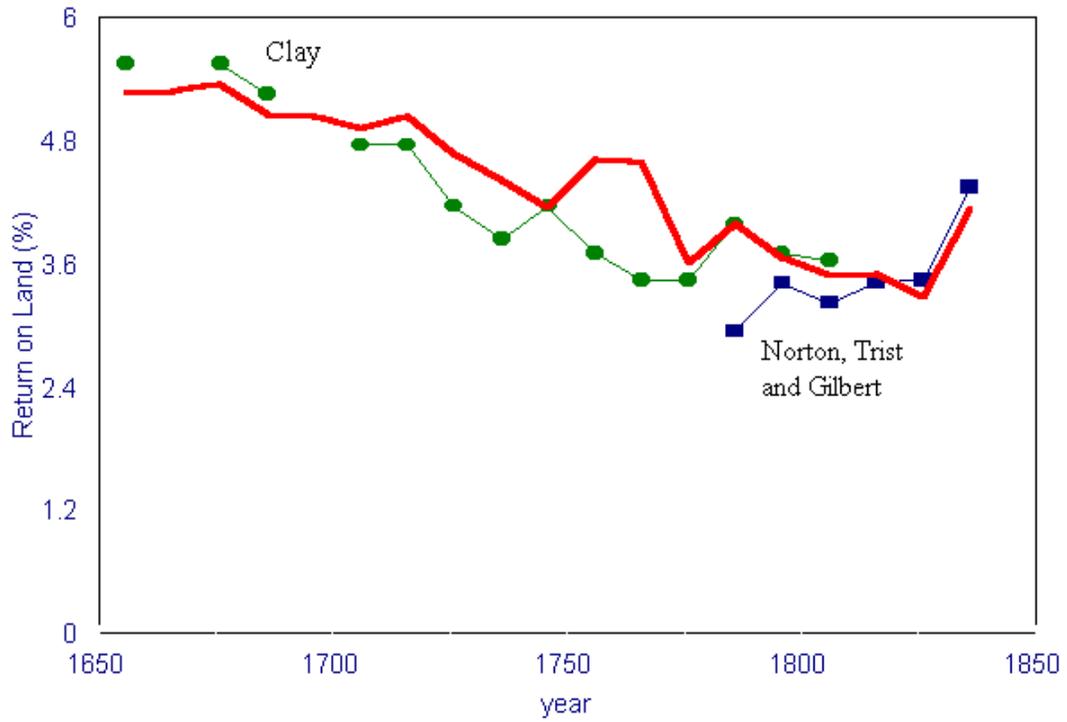
How did the return on charity investments compare with the return on private investments? There are several tests we can do on this. The first derives from the fact that people leaving money to charity would sometimes specify the investment their money was to be put into, and the return it should earn from that investment.

Since the Charity Commissioners were interested to ensure that charities were being used for the purpose specified by the donor they also frequently give details of these wills, including what stipulations donors made as to what the rate of return would be on land and other assets bought with their gift: a person would, for example, specify in their will of 1621 that they were leaving £100 to buy land of the current yearly value of at least £5 to be used for bread for the poor. When I compare the returns people expected on land and rent charges as expressed in their wills with the actual returns charities achieved when they purchased land or rent charges I find that for both land and rent charges the actual returns are insignificantly different from the expected returns, both quantitatively and in terms of statistical significance.

I can also compare the returns charities achieved on land purchases with the returns achieved by private purchasers of land in the eighteenth century and early nineteenth century. Clay (1974) gives information on the rate of return on land for the years 1650-9, 1670-1689, and 1700-1809 (238 observations in all) drawn largely from estate sources. As figure 5 shows his series is broadly consistent with the series derived above. On average for the decades where our data overlap the returns he reports are 0.21% lower than the returns reported by charities, but this difference is not statistically

FIGURE 5: THE RETURN ON CHARITY LAND COMPARED TO PRIVATE

RETURNS



significant. This supports the notion that the returns drawn from the Charity Commission reports are a good indication of returns on land in the estate sector as well. Norton, Trist and Gilbert give a series for the rate of return on farmland from 1781 to 1880 based on a sample of land sales by auction.²⁶ Again as the figure shows where the series overlap the two series are broadly consistent.

6. WHAT DO WE LEARN FROM THE CHARITY COMMISSION SOURCES?

These sources offer many insights into the English economy in the crucial years of the early Industrial Revolution and before.

If we consider the agrarian sector, for example, it has been believed that English agriculture in the years 1760 to 1830 underwent a large scale institutional transformation in the “enclosure movement”, where land held in common was changed to land held privately, which resulted in rents per cultivated acre doubling. Thus,

Everyone agrees that rents rose precipitously immediately after enclosure.

The data indicate that they commonly doubled and tripled and in some cases rose even more (Blum (1981), p. 503)

Jack Purdum in a study of 5 villages in England in the late eighteenth century reports that rents increased on average by 135%, implying rates of return on the capital invested in the enclosure in each village that averaged at a minimum 15.5%, well above the interest cost of capital actually borrowed for the enclosures of 5% (Purdum (1978)). Here was profit without risk. Gold coins were littering the soil of northern Europe for hundreds of years and no-one was bothering to pick them up. F. M. L. Thompson, for example, in a study of estates in England concluded that on the Fitzwilliam estates the average rate of return on capital in 12 enclosures in the 1800s was 16%, and on 17 enclosures between 1787 and 1799 on the estates of the Duke of Rutland the average return was 19%. The calculated

²⁶Norton, Trist and Gilbert (1962).

range of returns on the estates of the Duke of Rutland was between 10% and 33%, which means that even the least successful enclosures were enormously profitable.²⁷ These profits suggest that the common field institutions of much of northern Europe were significantly inefficient, and also very resistant to change since they persisted for at least 600 years in most countries. There have been many attempts to explain this anomaly.

The presence of land value data in the Land dataset for thousands of pieces of open and enclosed land between 1500 and 1913, often with the same piece of land observed before and after enclosure, allows us for the first time to carefully measure the effects of enclosure on land values. One relatively simple procedure is to estimate the following regression,

$$\ln(VPA_i) = \mathbf{S}a_t DUM_t + \mathbf{b}_1 \ln(AREA_i) + \mathbf{b}_2 DMX_i + \mathbf{b}_3 DTFREE_i + \mathbf{g}FRACO_i + \mathbf{g}FRACOW_i + \mathbf{g}FRACEW_i + e_i$$

where VPA = the value of the plot

DUM_t = dummy variables which equal 1 for each 10 year time period from 1610-9 to 1910-19, 0 otherwise

$AREA_i$ = area of the plot in acres

DMX_i = dummy variable which is 1 if the plot is in Middlesex, 0 otherwise

$DTFREE_i$ = dummy variable which is 1 if the land rented tithe free

$FRACO_i$ = fraction of land held in common

$FRACOW_i$ = fraction of land common “waste”

$FRACEW_i$ = fraction of land enclosed “waste”

²⁷ The term “enclosure” for the change of property rights from common property to purely private property is the traditional one, but it is an unfortunate term. Some purely private land in the arable parts of the east of the country was physically open, and some land enclosed by fences was still held in common.

The dummy for Middlesex was put in since land close to London rented for much more than land elsewhere. The dummy for land which was tithe free was included because such land should have rented for 12-20% more than land burdened by tithe (though often tithe was collected at less than the full rate). The time dummies are included since the level of rents varied greatly over time. The area term was included since there is a very consistent pattern that small pieces of land rent for more than large pieces. The estimated values of the coefficients β , γ , δ suitably transformed, reveals the estimated value of different types of land.

The equation above can be estimated with 17,864 observations. It reveals the following estimates for the value of different types of land.

	Common	Enclosed
Cultivated	0.71	1.00
Waste	0.19	0.60

This implies that there was only a 40% gain from enclosing land already cultivated, as opposed to the 100% claimed in the literature. For waste land there was a much larger gain in percentage terms, but the absolute rent gain was not much greater than for cultivated land. The precision of the estimate of these rent differences is high. For cultivated common land we can say with 1% confidence that it rented for no less than .68 relative to enclosed land, so that the rent gain had to be less than 47%. The other coefficients in the regression also have estimated values that are very reasonable. For example, land tithe free rented for 8.8% more than land burdened by tithe.

These estimated rent gains from enclosure imply that enclosure would generally be a marginally profitable activity. For the charity commission records also reveal in 131

cases the costs to charities of enclosing land. These costs, in administration and in fencing the new holdings, were substantial. Their amortized costs would absorb most of the gains in rent from the enclosure, leaving a net return that was little above the interest cost of the capital invested. Enclosure of the common fields did not offer a free lunch, but instead a modest and variable profit.

The charity commission records suggest that at the higher interest cost of capital in the seventeenth century there would be little economic incentive for enclosure. Yet the general view of historians is that the period between 1450 and 1750, when Parliamentary Enclosure began in earnest, witnessed large scale enclosure in England. Wordie, for example, concludes that at least 24% of the land was enclosed in the seventeenth century compared to 21% under the Parliamentary Enclosure movement in the 154 years between 1760 and 1914.

It is possible to use the charity commission records as a means of estimating the frequency of enclosure all the way back to 1500. For we can treat these records as a random sample of plots of land in England at benchmark dates such as 1575-1624, and estimate from the fraction of these samples that are open what the fraction of open land in the country as a whole was. To see how this works consider the case where we had a box with 1 million balls in it, some red, the rest black. Suppose we wanted to test the claim that half of the balls were black by drawing a random sample of balls from the box. How many balls would we have to draw to get a fairly accurate estimate of what fraction of the balls were black? Suppose the proportion black in a sample of N balls from the box is \hat{p} . Then the best estimate of the mean fraction black in the box is \hat{p} , and the estimated standard error of that estimate will be

$$\sqrt{\frac{\hat{p}(1-\hat{p})}{(N-1)}}$$

Suppose we took samples of 100, 300, 600, 1000, and 1500 balls and got an average of only 30% of the balls being black on each draw. Then based on the above formula for the standard error we could conclude for each sample size that the true fraction of the balls that were black lay within the following bounds 99% of the time as is shown in Table 7.

Table 7 implies that with a truly random sample as small as 600 plots of land we should be able to estimate the fraction of land in England open in any epoch to within a 5% margin with 99% confidence that the true fraction falls in that interval. With as few as 300 observations we should still be able to estimate the percentage to within 7% with the same degree of accuracy.

In practice, as we shall see, one fifth of the plots of land observed contain both open and enclosed land, and this mixing further improves the accuracy of our estimate, so that we can do even better than the bounds suggested here.

**TABLE 7: 99% CONFIDENCE INTERVAL WHEN SAMPLES OF DIFFERENT
SIZES ARE DRAW, WITH MEAN OF 0.3**

sample size	lower bound	MEAN	upper bound
100	.182	.3	.418
300	.232	.3	.368
600	.252	.3	.348
1000	.263	.3	.337
1500	.270	.3	.330

Source: See text.

Table 4 above shows the derived estimate of the fraction of land held in common in each period starting from 1475. As can be seen, there is much less open land than would be expected from traditional sources in the years before 1700. In practice the charity commission data in earlier years also tends to oversample the more heavily open counties. To control for this I estimate the fraction of land open in each of the benchmark periods by dividing up the counties into three groups: those with the most open land in 1730 as estimated from Parliamentary enclosure, those with the most enclosed land, and those in the middle. The cutoff percentages were less than 15% open for the most enclosed, and more than 35% open for the most open. Table 8 and figure 7 show the

percentage of land open in each county in each period. As can be seen the most enclosed counties show no sign of any enclosure between 1500 and 1750. Those counties most open in 1730 are those that show most signs of enclosure between 1500 and 1750. Indeed for this group about 15% of the land is enclosed in the years 1525 to 1730 before Parliamentary Enclosure begins on a large scale. In the “mixed” group of counties about 5% of the land is enclosed in the period 1525 to 1730 before the onset of large scale Parliamentary enclosure.

TABLE 8: ESTIMATED FRACTION OF LAND OPEN

Period	“enclosed” counties		“mixed” counties		“open” counties		average
	obs.	% open	obs.	% open	obs.	% open	
1475-1574	41	9.5	74	29.1	57	60.9	30.5
1575-1624	119	11.6	135	29.4	143	56.3	30.2
1625-1674	272	10.6	323	29.8	242	48.6	28.1
1675-1724	395	11.3	610	22.7	464	48.7	25.4
1725-1774	445	10.6	549	22.8	392	41.6	23.4
1775-1824	2300	6.8	2418	10.1	1546	16.3	10.6
1825-1837	1490	4.6	2840	7.5	2570	10.6	7.3

Notes: The “enclosed” counties are Cornwall, Cheshire, Devon, Essex, Hereford, Kent, Lancashire, Monmouth, Shropshire, Stafford, Suffolk, and Sussex. The “open” counties are Bedford, Berkshire, Buckingham, Cambridge, Cumberland, Huntingdon, Leicester, Lincoln, Northampton, Nottingham, Oxford, Rutland, Yorks (East Riding), Westmoreland.

FIGURE 7: THE FRACTION OF LAND OPEN IN ENGLAND, 1474-1837

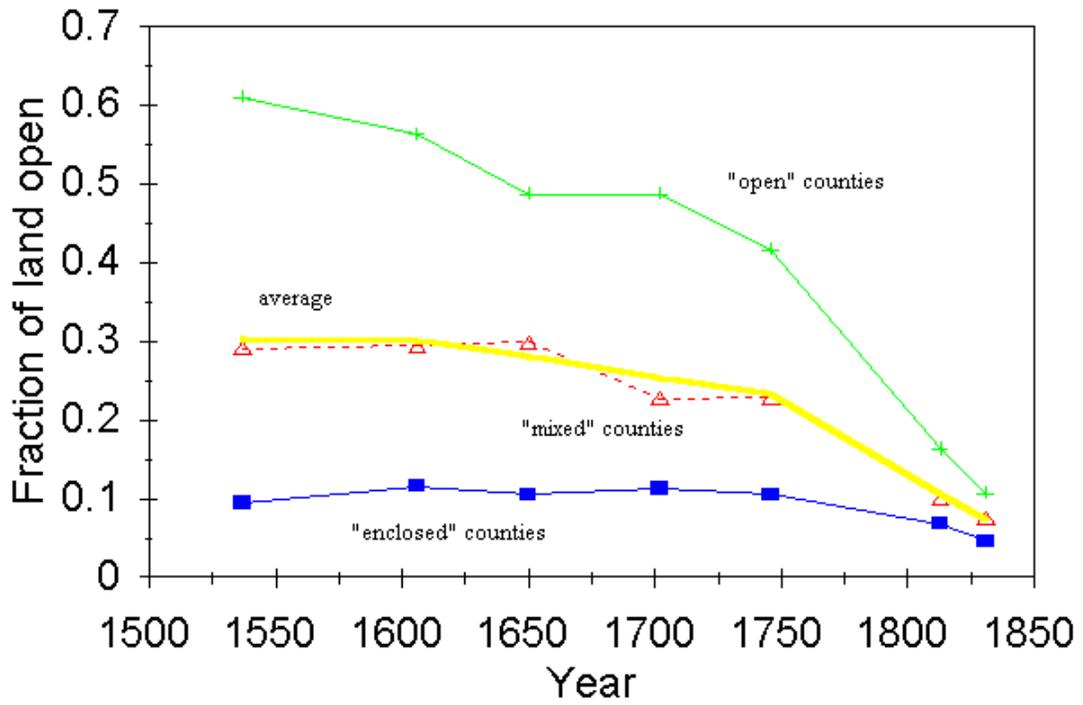


Table 8 and figure 7 also show the estimated average amount of open land in England in each period, weighting by the share of the land area in each group of counties. The “open” counties were 25.2% of the land area, and the “enclosed” 34.0% of the land area. It is estimated that in England in 1474-1575 30.5% of land was open, compared to the estimate of 24.5% open in 1720-59. Thus only 6% of the land was enclosed by non-parliamentary means in the 200 years before 1740. Also by the end of the middle ages England agricultural land was largely held as exclusive private property.

The charity commission data thus gives strong evidence for the claim that there was much less open land in England in the years before 1740 than has been previously thought. Indeed there is strong evidence that as early as 1525 the proportion of open land was at maximum .37, and probably only around .30. There was some enclosure in the years 1525-1740, but it was concentrated in the Midlands counties which still had the most open land in 1740. Areas which were largely enclosed in 1740 were just as enclosed in 1525.

These example using the LAND and the ENCLOSURES data sets, focus on the agrarian sector. But we can use the data from the CAPITAL and LAND data sets to ask much wider questions about the English economy in the years 1500 to 1840. One question, for example, is what was the rate of return on capital in different periods as we move from 1500 to 1840. Clark (1996b) gives decadal estimates of the rate of return on land holding and on private perpetuities between 1540 and 1840. It is widely believed that land in pre-industrial societies was sought for status and political power as well as for material returns. Were this true land prices would be bid up, and the monetary returns on land would be lower than on other assets. We can use these decadal estimates to show

that the monetary returns on land in pre-industrial England between 1550 and 1840 was the same as for the private perpetuities which gave no such psychic income. Land was thus purchased by at least the marginal buyer as a purely economic asset. In contrast in India from 1850 to 1960 the return on land was only half that of comparable assets. Land purchasers in pre-industrial England were thus unusual in being interested mainly in material returns. Since even in the middle ages in England land yielded a comparatively good return “capitalist” agriculture, in Marx’s terminology, had a long history in England.

In another example, North and Weingast argue that the political history of England in the period before the Industrial Revolution illustrates two important propositions. The first is that a necessary and sufficient condition for economic growth is the establishment of secure and stable property rights for private citizens. The second is that the establishment of such rights depended on the creation of a representative democracy. Thus they believe there was an intimate connection between the Glorious Revolution of 1688 and the Industrial Revolution of 1760 and after.²⁸ In a recently published article in the Journal of Interdisciplinary History I test this claim using the rate of return on capital in each year revealed in the charity commission sources, and the real value of agricultural land. If the Glorious Revolution represented a regime shift which gave much more secure property rights to people in England it should show up in a decline in rates of return on capital, and a rise in real land values. It can be shown that while rates of return on capital did fall in England between 1620 and 1740, there is no association between this fall and the Glorious Revolution. The decline was already under way in the darkest years of the Civil War, the Protectorate, and the reign of Charles II and James II. Nor did land values

²⁸North and Weingast (1992).

show any response to the Glorious Revolution. So the political events North and Weingast attach so much importance too had little effect in the eyes of private investors. Further, there is no sign that private investors were much perturbed in the years before 1689 by events such as the Civil War or the Restoration. Secure and stable property rights existed in England long before the Industrial Revolution.²⁹

A second economy wide issue we can use the charity commission data to examine is the effect of the huge public debt gradually created by the British government in the years 1689 to 1825 on the private economy. By 1824 as a result of the protracted struggle with France for dominance in Europe the market value of the British Government debt was almost 2.5 times GNP. Did the debt crowd out private investment one for one, as Williamson (1984) argues, thus greatly slowing growth in the Industrial Revolution period?

The debate about debt and crowding out has focussed on the rate of return on consols and East India Company short term bonds, both of which were essentially government debt. When we examine rates of return on a variety of private assets held by charities in England from 1727 to 1840 such as land, houses, rent charges, and mortgages, we find little evidence that either war expenditures or the mounting debt crowded out much private investment in the British economy. Rates of return on real assets indeed seem completely unaffected by the market value of government debt relative to GNP. For nominal assets there is some connection, but it is a weak one. Large increases in the ratio of debt to GNP cause only modest upward movements in nominal interest rates.

²⁹ See Clark (1996).

Using the PARISH database we can locate the assets which we have the rates of return on spatially. This means that we can also study the degree of geographic integration in the capital market in the years before 1720 and the so called Financial Revolution. We can also examine whether rates of return varied with the size of the asset.

The list of results suggested here by no means exhausts the potential of these data sets. They can also be combined with wage and price data to examine the productivity over time of agriculture, and regional differences in agricultural productivity. Since the plots are all located in space we can look at the effects of cities on land rents, and on agricultural productivity.

APPENDIX: THE DATA SETS

TABLE 1A: THE CAPITAL DATA SET

Variable	Description
Source	Gives the source of the return data. These are: CCI Charity Commission Reports CCII Later Charity Commission Enquiries RSG Reports of the Surveyor-General of Crown Estates RWF Reports of Commissioners of Woods, Forests etc SSB Inventories of the South Company Directors
Volume	Volume number for each source, where applicable.
Page	Page number
Year	Year of transaction or will.
Type	2 character code for the type of transaction: RH Rent charge secured by a house RL Rent charge secured by land RC Rent charge secured by assets of a corporation F Farmland H House T Tithes B Bond or personal security M Mortgage of land MT Mortgage of turnpike tolls XR Expected return on a rent charge XF Expected return on land XH Expected return on houses XT Expected return on tithes XB Expected return on bond XM Expected return on mortgage XI Expected return on money (unspecified)
Copy?	(for land) C = land is copyhold tenure
Renttype	(land or house) C = rent is current rent of land M = rent is market rent formed in this year V = rent is specified as the "value" of the land

Cnty	2 character code for the county or city (43 counties in England , 12 in Wales, plus London) the transaction is stated to have occurred in. For land, houses, rent charges, tithes, and mortgages this is taken as the place the asset is located in. For bonds and expected returns it is taken as the place where the transaction occurred.
Parish	Name of parish stated.
Township.	Name if township stated.
Price	Price of asset in £
Rental	Rental value of asset in £ (blank if return only given in % terms)
Rate of Return	Given in %
X co	3 digit X coordinate (in kilometers), based on the Ordnance Survey's grid system.
Y co	3 digit Y coordinate (in kilometers)
Mcnty	2 character code for the county or city (43 counties in England , 12 in Wales, plus London) that the transaction was determined to have occurred in.
Parish	Name of the parish or city that the transaction was determined to have occurred in.
Township.	Name of the township that the transaction was determined to have occurred in.
Note	Explanatory notes. These include the names of the turnpike roads turnpike investments were made in.

Note: The county codes for England are shown in table 1. The county codes for Wales are Angelsey (ZA), Brecon (ZB), Carnarvon (ZC), Denbigh (ZD), Flint (ZF), Glamorgan (ZG), Merioneth (ZM), Cardigan (ZN), Montgomery (ZO), Pembroke (ZP), Radnor (ZR), Carmarthon (ZT).

TABLE 2A: THE LAND VALUE DATA SET

Variable	Number non-blank	Description
ID#	24,273	Unique number for each plot of land.
OBS#	24,273	The number of the observation of that plot.
Ob Type	12,267	Type of observation (1 = more than one observation on given plot, d = duplicate observation, o = linked observation on open land, no area given, e = linked observation on enclosed land, no area given, u = linked observation on land with no area or enclosure type)
Report	21,611	Number of the report (1-32.6). Blank if info from later enquiries.
Page	24,273	Page number (1-1,420)
Year	24,273	Year of observation (1500-1837)
Obsyear	24,273	Year information on the land is reported (1500-1912)
County	24,273	2 character code for the <u>recorded</u> county (43 in England, 12 in Wales)
Parish	24,273	Name of “parish” parcel is <u>recorded</u> to be located in.
Township	3,453	Name of township, hamlet or chapelry parcel is <u>recorded</u> to be located in
CNTY1851	24,273	2 character code for the 1851 county the observation is actually in.
PAR1851	24,201	Name of 1851 “parish” parcel is <u>actually</u> in
TOWN1851	3,140	Name of 1851 township, hamlet or chapelry parcel is <u>actually</u> in
XCOOR	24,201	3 digit X coordinate (in kilometers) of parish or township
YCOOR	24,201	3 digit Y coordinate (in kilometers) of parish or township
<u>Description</u>		
Decarea	1,521	Declared area of plot where different from later area.
Area	24,079	Area of plot (as determined by last reported area) in acres
Arable	5,587	Area of arable
Pasture	5,587	Area of pasture
Meadow	5,587	Area of meadow
Garden	5,587	Area of garden
Orchard	5,587	Area of orchard
Wood		Area of wood or coppice
Ozier	24,273	Area of ozier beds (presumed 0 unless other information)

Hops	24,273	Area of hops (presumed 0 unless other information)
Fen	24,273	Area of fen (presumed 0 unless other information)
Marsh	21,195	Area of marsh (presumed 0 unless other information)
Houses	23,048	Number of "houses" or "messuages" on land
Cottages	23,032	Number of cottages on land
Barns	22,790	Number of barns on land
<u>Value</u>		
Rent	21,459	Reported rent of land (in £)
Renttype	21,459	Type of rent: M = market rental C = current rent V = estimate of rental value by contemporary Z = rent renegotiated while land was under lease
Tenants	24,273	Number of tenants (unknown = -1)
Term	14,464	Length of lease in years (1 year if "at will", 62 years if 3 lives)
Fine	14,464	Amount paid by tenant at the beginning of the lease, or by landlord (£) (+ number if paid by tenant, - if paid by landlord)
Price	3,028	Reported sale price of land (in £)
Tenure	3,028	F is land was known to be freehold, C if known to be copyhold
Tithe	2,607	Y if land pays tithe, N if the land is tithe free.
Landtax	2,673	Y if land pays land tax, N if the land tax is remitted.
Burden	240	Amount of annual burdens attaching to land, such as rent charges (£)
Irate	24,273	Rate of return on land holding used to annualize land prices (%).
Anvalue	24,273	Estimated annual rental value of land (in £)
Clear	869	Rent is know to be free of all taxes, tithes, and repairs to landlord
Tpayer	1,290	"O" if the owner is known to pay the tithe. "T" if the tenant is known to pay the tithe.
Tithesum	415	Amount of tithe paid (in £).
Tithe39		Tithe status of matched parish in 1839 (1=tithe paid, 0=no tithe paid).
Ratepayer		"O" if the owner is known to pay poor and local rates, "T" if the tenant is known to pay these rates.
Ratesum		Amount of rates paid (in £).
Rpayer		"O" if the owner is known to repair fences and buildings, "T" if the tenant is known to repair.
Repairs		Average annual amount of repairs (in £)
Lpayer		"O" if the owner is known to pay the land tax, or the land tax is redeemed, "T" if the tenant is known to pay the land tax
Ltaxsum		The amount of the land tax (in £)
Dpayer		"O" if the owner is known to pay a drainage tax, "T" if the tenant is known to pay a drainage tax.
Draintax		The amount of the drainage tax (in £)

Enclosure Status

Common	19,041	Area of "open" or "common" land
Lammas	24,273	Area of lammas land (land physically closed but still grazed in common for part of the year, assumed 0 unless otherwise stated)
Carable	18,075	Area of "open" or "common" arable

Cmeadow	18,075	Area of “open” or “common” meadow
Cpasture	18,075	Area of “open” or “common” pasture
Cwaste	19,222	Area of “open” or “common” “waste” land
Beastgate	24,273	Number of common grazing rights for cow or horse attached to holding (assumed to be zero unless otherwise stated)
Sheepgate	24,273	Number of common grazing rights for sheep attached to holding (assumed to be zero unless otherwise stated)
Crighs	24,273	1 if unspecified common rights attach to holding, 0 if no such rights (assumed to be zero unless otherwise stated)
Encdate		Date of last enclosure of some or all of land
Encallot		Area of land known to have been previously held in common
Encopen		Area of land known to have been previously in open fields
Encype		Type of enclosure: O = enclosure from open arable, pasture, or meadow W = enclosure of waste
Areapre		Area of land before enclosure
Areapost		Area of land after enclosure
Remarks		Comments on any of the above

Notes:

“Rent”: Rents which are current rents, that is rents where the year the contract was formed is not known are only recorded for years before 1795 and after 1820 (if the year the contract was formed is known to be after 1815).

”Irate”: The average ratio of the rent of land relative to the price calculated for 10 year intervals from 1540 to 1837 from the charity commission and other data as reported in Clark (1995a).

“Anvalue”: This is calculated as the rental if the rental of of type “M”. If there is fine or subsidy that is annualized and added to the rent to calculate the annual value of the land using “Irate.” If the rental is of type “V,” “Z” or “C” and the price is also given then the annual value is calculated as the annualized value of the price using “irate.” Otherwise “anvalue” is calculated as the reported rental value.

“Term”: The term is taken to be 1 year when land is rented “at will.”

TABLE 3A: THE ENCLOSURE DATA SET

Variable	Number Non-Blank	Description
ID#	21,195	Unique number for each plot of land
Report	21,195	Number of the report (1-32.6)
Page	21,195	Page number (1-1,420)
Year	21,195	Year of observation (1394-1837)
Obsyear	21,195	Year information on the land is reported
County	21,195	2 character code for the <u>recorded</u> county (43 in England, 12 in Wales)
Parish	21,195	Name of parish or extra-parochial area parcel is <u>recorded</u> to be located in.
Township	2,281	Name of township, hamlet or chapelry parcel is <u>recorded</u> to be located in
CNTY1851	20,967	2 character code for the 1851 county the observation is actually in.
PAR1851	20,967	Name of 1851 parish or extra-parochial place parcel is <u>actually</u> in
TOWN1851	1,912	Name of 1851 township, hamlet or chapelry parcel is <u>actually</u> in
XCOOR	20,967	3 digit X coordinate (in kilometers) of parish or township
YCOOR	20,967	3 digit Y coordinate (in kilometers) of parish or township
<u>Description</u>		
Decarea	883	Declared area of plot where different from actual area
Area	20,915	Area of plot (as determined by last reported area) in acres
Common	16,019	Area of “open” of “common” land
Cwaste	16,162	Area of “open” of “common” “waste” land
Lammas	21,160	Area of lammas land (land physically closed but still grazed in common for part of the year)
Beastgate	21,166	Number of common grazing rights for cow or horse attached to holding
Sheepgate	21,166	Number of common grazing rights for sheep attached to holding
Crighs	21,166	1 if unspecified common rights attach to holding, 0 if no such rights
Fopen	18,000	Fraction of land common.
Fopenw	18,000	Fraction of land open waste.
Encdate	2,291	Date of last enclosure of some or all of land
Encype	2,599	Type of enclosure
Notes		Remarks on the observation

Note: Where a plot is in both the Land Values data set and the Enclosure data set, the same plot number is used.

TABLE 4A: THE PARISH DATA SET

Variable	Number Non-Blank	Description
CNTY1851	14,362	2 character code for the 53 counties of England and Wales in 1851 (43 in England, and 12 in Wales).
PAR1851	14,362	Parish or place names.
TOWN1851	3,850	Township or subplace names.
XCOOR	14,360	3 digit X coordinate (in kilometers) of parish or township
YCOOR	14,360	3 digit Y coordinate (in kilometers) of parish or township
AREA1841	14,362	Area of parish, place, or township as recorded in the tithe surveys
POP1801	14,362	Population in 1801
POP1841	14,362	Population in 1841
POPNOTE		Notes on parish population or location
TITHE	1,871	Tithe status of parish as recorded in the tithe commutation commission in the years 1837-46. (0 = no tithe paid)
DATETITHE	1298	Date from which parish presumed tithe free (1500 if the place is extra parochial, date of the last enclosure before 1837 if there was an open field enclosure in the parish before that date)
SOIL1	14,279	First soil type as recorded in Kelly's Directories
SOIL2	14,279	Second soil type as recorded in Kelly's Directories
SOIL3	14,279	Third soil type as recorded in Kelly's Directories
SOIL4	14,279	Fourth soil type as recorded in Kelly's Directories
SUBSOIL1	14,275	First subsoil type as recorded in Kelly's Directories
SUBSOIL2	14,275	Second subsoil type as recorded in Kelly's Directories
SUBSOIL3	14,275	Third subsoil type as recorded in Kelly's Directories
SUBSOIL4	14,275	Fourth subsoil type as recorded in Kelly's Directories
MARKET16	14,360	Name of nearest market town in 1600
MARKCT16	14,360	County of nearest market town in 1600
DIST1600	14,360	Distance to nearest market town in 1600
MARKET17	14,360	Name of nearest market town in 1690
MARKCT17	14,360	County of nearest market town in 1690
DIST1700	14,360	Distance to nearest market town in 1690
ENCDATE1	5,885	Date of first parliamentary enclosure (if any).
ENCAREA1	5,885	Area enclosed in first parliamentary enclosure (if any).
ENCTYPE1	5,885	Type of first enclosure: A, C, E = enclosures including open-field arable B, D, F = enclosures of common and waste only
ENCDATE2	1,175	Date of second parliamentary enclosure (if any).
ENCAREA2	1,175	Area enclosed in second parliamentary enclosure (if any).
ENCTYPE2	1,175	Type of second enclosure (A-F).

ENCDATE3	346	Date of third parliamentary enclosure (if any).
ENCAREA3	346	Area enclosed in third parliamentary enclosure (if any).
ENCTYPE3	346	Type of third enclosure (A-F).
ENCDATE4	143	Date of fourth parliamentary enclosure (if any).
ENCAREA4	143	Area enclosed in fourth parliamentary enclosure (if any).
ENCTYPE4	143	Type of fourth enclosure (A-F).
ENCDATE5	63	Date of fifth parliamentary enclosure (if any).
ENCAREA5	63	Area enclosed in fifth parliamentary enclosure (if any).
ENCTYPE5	63	Type of fifth enclosure (A-F).
ENCDATE6	41	Date of sixth parliamentary enclosure (if any).
ENCAREA6	41	Area enclosed in sixth parliamentary enclosure (if any).
ENCTYPE6	41	Type of sixth enclosure (A-F).
ENCDATE7	20	Date of seventh parliamentary enclosure (if any).
ENCAREA7	20	Area enclosed in seventh parliamentary enclosure (if any).
ENCTYPE7	20	Type of seventh enclosure (A-F).
ENCDATE8	9	Date of eighth parliamentary enclosure (if any).
ENCAREA8	9	Area enclosed in eighth parliamentary enclosure (if any).
ENCTYPE8	9	Type of eighth enclosure (A-F).
ENCDATE9	6	Date of ninth parliamentary enclosure (if any).
ENCAREA9	6	Area enclosed in ninth parliamentary enclosure (if any).
ENCTYPE9	6	Type of ninth enclosure (A-F).
ENCNOTE		Notes on enclosure information
ALTAVE	14,360	Average height of land in area of parish (in meters)
ALTMIN	14,360	Minimum height of land in area of parish (in meters)
ALTMAX	14,360	Maximum height of land in area of parish (in meters)
RAIN	14,360	Average annual rainfall in area of parish (inches)
GRAZSEAS	14,360	Length of grazing season (days)
DEGDAY10	14,360	Degree-days of temperature above 10° Centigrade
DAYSCAP	14,360	Number of days ground is water logged
EFFTRANS	14,360	Effective Transpiration (inches)

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