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## Durham grain prices, 1278–1515

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## SUMMARY

*This is the first time grain price data from north-east England for the whole period 1278–1515 have been published. Prices have been extracted from the Durham Priory accounting material and the nature of this material, and its relationship with the business activities of the monks, are discussed. The difficulties in producing a price series are also considered before presentation of the data in tabular form.*

**G**RAIN PRICE DATA are important evidence for many aspects of economic history. For example, years of high and low prices have been used as indicators of harvest quality, price trends permit the identification of important sub-periods, and price differentials help the analysis of markets.<sup>1</sup> A number of important ‘national’ sets of price data have been extracted from documents including those by Rogers, Farmer and Clark.<sup>2</sup> However, economic history represents a ‘dialogue between the general and particular’ in which local and regional developments must be examined, compared and set in a wider context if we are to understand change.<sup>3</sup> Whilst in many ways north-east England was comparable with parts of southern and midland England, there were some important and revealing differences in development during the late middle ages. For example, the late continuation of expansion of the cultivated area into the early fourteenth century was suddenly curtailed by the devastating impact of warfare and bad weather.<sup>4</sup> Likewise, the region was particularly severely affected by poor harvests at the end of the 1430s.<sup>5</sup> Price data represent one of the most readily comparable sources for work of this kind and such work on north-east England has already proved illuminating. Threlfall-Holmes observed that prices around Durham ‘could operate quite independently of those affecting the rest of the country’. In particular, she noticed the severity of the dearth of the early 1480s — so serious that the monks had to buy grain in southern England. By contrast, the region was apparently unaffected by the dearth of 1520–1.<sup>6</sup> Schofield’s analysis of price movements in the North-East by comparison with elsewhere reveals ‘some indications that a different regime may have operated here’. He suggests a number of factors peculiar to the regional economy which might have created vulnerabilities.<sup>7</sup> It is the purpose of this paper to make medieval north-eastern price data from the thirteenth to the sixteenth centuries available to the scholarly community for further research.

*Research on the Durham data*

This paper brings together grain price data from the north-east of England from the period 1278–1515 for the first time. It arises out of a number of separate research projects. Most

important was an ESRC-funded project carried out in the mid-1980s on which Elizabeth Gemmill was employed as a research assistant. The purpose of the project was to verify the price data extracted from a number of archive repositories by members of the research team working on Lord Beveridge's prices and wages project. The Beveridge team were at work in the period 1921–1963, and the aim was to publish series of prices and wages from the twelfth century to 1830. In the end, only the volume for 1550–1830 was published,<sup>8</sup> and the material for the medieval period, or as the team called it, the manorial era, along with the data for the published work, remain in the Beveridge Archive in the London School of Economics.<sup>9</sup>

From among the various institutions whose accounts for the medieval period are represented in the Beveridge Archive, the research team chose Durham for a special study. This was because of its exceptional interest in relating to the north-east of England, for which detailed price data are badly needed. In addition, the material for Durham in the archive seemed to be at a stage near to completion for publication. Nevertheless, it became clear that the task of reconciling the figures in the Beveridge Archive with those in the original accounts would not be a straightforward one. The decisions made by the Beveridge team regarding which entries ought to be used and which should not, and concerning the methods used to achieve a single average price for any given year, were not readily apparent from the materials in the Beveridge Archive. Moreover, the accounts themselves had undergone changes since the time when the Beveridge team consulted them. Above all, many of the accounts had been catalogued thanks to the meticulous work done by the archivist, Alan Piper, to date them on the basis of internal evidence.<sup>10</sup>

It seemed in view of these considerations that the best approach would be to create a new series of prices up to 1350, based on newly extracted material from the original accounts then in the Prior's Kitchen in Durham cathedral cloister. That task was completed as part of the Beveridge prices project.

Subsequently, as part of a separate Oxford University and ESRC-funded project dealing with medieval Scottish prices, Gemmill extracted price material from the accounts from 1350 up to 1367. The significance of the new end date is that the latter project aimed to compare prices in Durham with those in Scotland in the hundred years to 1367, during which the coinages of England and Scotland operated at parity.<sup>11</sup>

The compilation of price data from the period 1367–1515 arose from separate research projects undertaken by Phillipp Schofield and Ben Dodds. Whilst no other modern project on north-eastern prices has been carried out on the same scale as that undertaken by Gemmill, the price data from the period 1367–1515 were collected by the Beveridge team of researchers and this has been used for the price series printed here.<sup>12</sup> For the earlier period, as indicated above, Gemmill compiled an entirely new price series because of changes in the archived accounting material, including repair and cataloguing. However, the greater regularity of the late fourteenth- and fifteenth-century series of accounts in the Durham Cathedral Muniments permits more reliance on the work of the Beveridge team.<sup>13</sup> The datasheets filled in by Beveridge's archive assistants have been used to compile the price series although they have been supplemented by thorough checking in the original documents.<sup>14</sup> Within the confines of this smaller project, only the prices of the four major grains have been collected and only the series of bursars' accounts have been used.

## SOURCES AND CONTEXT, 1278–1367

*Elizabeth Gemmill*

The prices published here are taken from the accounts of Durham Priory's obedientiaries (that is, the accounts of the various officers within the priory) and the dependent cells of the house. The archive is a rich repository of information about the north-eastern region in the medieval period. Indeed, the monks themselves, in 1436–7 drew on the figures from their archive of bursars' accounts to chart the decline in their spiritual revenue between the later thirteenth and the fifteenth centuries.<sup>15</sup> A few years earlier, however, in 1430, the monks had admitted that many of their records had been destroyed, partly by rain, and partly by rats and mice. There was also a tendency to re-use parchment.<sup>16</sup> Despite these losses, the archive includes a vast quantity of materials: chronicles, registers of correspondence, charters, rentals, statutes, court records, and estate accounts. Only a small portion of these has been published.<sup>17</sup> It is recognised that the obedientiary accounts form only a part of a much larger collection and that investigation of other materials would yield further data. In particular, Durham manorial and proctorial accounts are also extant for this period, but time constraints preclude the possibility of undertaking a study of these at present. Moreover, it should be emphasized that the obedientiary accounts form a cohesive section of the whole in that they are the priory's household accounts. They reflect, therefore, the monks' needs as consumers. While there are certainly some sales figures (notably for wool), much of the produce of the monastic estates was, as we shall see, sent to the priory, and the monastic officers purchased goods from local merchants, in local markets, and at the regional fairs of Boston, Darlington and elsewhere.

Details of the accounts from which the prices are taken are given below.<sup>18</sup> Of all the obedientiaries, the bursar was the most important in terms of command of revenue and purchasing responsibility, and it is, accordingly, in his accounts that we find the most copious and wide-ranging price data.<sup>19</sup> The bursar's office, established by Prior Hugh of Darlington between 1258 and 1263, was a sort of central receivership, accounting for most of the receipts from the priory's demesne lands, rents, tithes from appropriated churches, sale of produce, and profits from jurisdiction and from manorial appurtenances such as mills, mines, and fisheries. On the expenditure side, the bursar was responsible for buying cloth, furs, spices, wine, grain, horses, and oxen, materials for repair work and building, for provisioning the prior's household, and making payments to servants. The concentration of revenue in the hands of one officer was in line with a move in the late thirteenth century among larger Benedictine houses to centralise monastic revenues.<sup>20</sup> Durham did not put all revenues in the bursar's hands, for other obedientiaries, notably the almoner, the hostiller, and the sacrist, retained manors which supported their specific offices. Dobson has estimated that the bursar received more than two thirds of the total monastic revenues.<sup>21</sup> For the period to 1300 the bursars' accounts are almost the only source of price data, save for some grain prices in the account of the granator (the bursar's subordinate in charge of the monastery's grain supply) for 1295–6. The granator did not usually account in cash in this period and so prices from this series are rare. Between 1300 and 1367 the records of other obedientiaries, those of the almoner, cellarer, chamberlain, hostiller, infirmarer, and sacrist, have survived, and there are also records produced by certain of the priory's cells in this period: Coldingham, Farne, Finchale, Holy Island, Jarrow, and Monkwearmouth. As well as yearly accounts, we have so-called *status* or inventories. These served as a means of ensuring that the obedience or cell was well-stocked and not in a state of dilapidation. The obligation to produce *status* each year originated in a

decree of 1235.<sup>22</sup> Grain, animals, and equipment might not be actually priced, but noted simply as being sufficient for the cell's or office's needs for an estimated period. When valuations of goods were made, they are important in signifying what was considered a fair price for a particular commodity at the time. Because the *status* are not always matched with surviving accounts we cannot know, however, exactly how these valuations related to actual purchase prices.

The availability of several series of accounts broadens the basis of the price series and also reveals many facets of the priory's existence. The accounts of the endowed obedientiaries and those of the cells provide prices of goods issuing from, and needed for, their estates and, in the case of the obedientiaries, of the particular goods required for their specialized offices. Thus, for example, the accounts of the sacrist, who was responsible for the fabric of the church, reflect the centrality in the monastic life of attendance at divine service: they record purchases of wheat and wine for preparation of the Eucharist, oil for anointing, wax for candles, and lead for roofing. Particularly intriguing entries are found in the account for 1359–60 when the sacrist purchased gold and silver leaf and colours (perhaps for applying to glass) and three glass panels for the round window, adding to the 50 pounds of glass of divers colours which he had in stock.<sup>23</sup> The routine life of the ordinary monks is evoked in the cellarer's painstaking record of the fairly plain and somewhat monotonous food bought for their consumption each week. The cellarer would often note the presence of royal or noble visitors, the advent of the justices, or the fact that the prior was in residence, apparently in order to explain his purchases, thus providing a sort of calendar of the events which punctuated the monks' existence. The simplicity of the monks' usual daily fare is paralleled in the austerity of their habit as recorded in the accounts of the chamberlain. In the account for 1347–8 is recorded the chamberlain's purchase of large quantities of 'russet' blanket for the monks' tunics, cowls, socks and slippers.<sup>24</sup> Yet, we are reminded forcibly in the bursars' accounts that the priory was a great household which offered hospitality and gifts to important visitors, and within which there was a recognized hierarchy of status. The bursars' purchases of luxurious furs, fine cloths, wines, and exotic spices are evidence of the fact that this was the most important religious establishment in England north of York, where the king, archbishops, bishops, earls, barons, and royal justices were among the regular visitors, to say nothing of pilgrims to the shrine of St Cuthbert. The king's presence seems especially noteworthy during the 1330s when Edward III was campaigning in Scotland in support of Edward Balliol. In the account for 1335–6, for example, the bursar accounted for 59s 1d received for 11 quarters 5 bushels of wheat sold to the king from Wardley manor. Gifts of wine were made to the king, the Earl of Warwick, Sir John de Sturmy and other visitors from the royal court. 21¾ gallons of wine were bought for William de la Pole's stay at Durham and Bearpark for 14s 6d, and de la Pole made a gift to the prior and convent of two tuns of wine; the gift appears in the bursar's account as the priory had to pay for its carriage and ulnage expenses at Hartlepool. An intriguing entry records the purchase of a gallon of wine for the queen's horse; since this occurs under the section of bursar's and terrar's (a senior monk who assisted the bursar) gifts to the royal servants, however, perhaps the horse itself was not the recipient. Nevertheless, the choice of wine as an appropriate form of present to honour visitors and to acknowledge hospitality seems very clear.<sup>25</sup>

The sources for the priory's purchases depended on the nature of the commodity being bought. For imported, manufactured items, such as cloth, furs, spices, wax, and luxury

groceries such as almonds, rice, and sugar, the bursar at the outset of the period was prepared to travel to the fair at Boston in Lincolnshire. Boston fair was the nearest to Durham of the great fairs which Bishop Robert Grosseteste, in his 'Rules' on the management of estates and household, had commended to the Countess of Lincoln in the mid-thirteenth century, the others being Winchester, Bristol, and St Ives.<sup>26</sup> The Durham bursars did not at any stage use Boston exclusively, however. In 1303, for instance, the bursar bought a range of wardrobe items (cloths, furs, spices, wax, and other items) at Boston, but in that accounting year he also bought at other locations on or near the east coast: cloth in London, Lincoln, York, Darlington, Durham, and Newcastle, furs in York and Durham, wax, wine, figs and raisins in Hartlepool and wine in Hull.<sup>27</sup> The prices of cloth and furs bought in Boston are consistently lower than prices paid farther north where comparison of entries for the same kinds of cloth and furs can be made, and the costs of carriage of wardrobe items from Boston does not seem to have been very great. These considerations, together with the fact that the monks were also using Boston as the outlet for wool they were producing on their estates at this stage, must have been major incentives for making the long journey. There were, however, certain commodities — wine, livestock, and fish — which generally were purchased locally, doubtless because of the difficulties of transport. Moreover, as Fraser, in her study of trade in the north-east of England in the late thirteenth and early fourteenth centuries, has shown, the Durham monks came increasingly to rely on local merchants, both for purchases of wine and groceries and for sales of wool and grain, and they abandoned the fair at Boston.<sup>28</sup>

#### GRAIN PRICES, 1278–1367

*Elizabeth Gemmill*

In the late thirteenth and early fourteenth centuries, the Durham monks usually seem to have had enough wheat from their own estates — whether in the form of tithes in hand or demesne produce — to supply their own needs.<sup>29</sup> In some years there was even a surplus of wheat which they were able to sell. In 1306–7 they sold over 100 quarters, and in 1313–14 over 120 quarters. There were, however, a few occasions when they needed to buy, as in 1295–6, when the granator purchased over 182 quarters (the need to purchase may explain why in this year the granator accounted in cash, which he did not usually do), and 1309–10 when the bursar bought over 148 quarters.<sup>30</sup> The monks were also hit by the notorious famine years of the second decade of the fourteenth century: in 1316–17 the bursar bought 17½ quarters of wheat from four vendors at an average price of 17.48s per quarter (all prices in the tables below are given to two decimal places); while in 1317–18 he paid more than 20s per quarter for a very large quantity, over 193 quarters. In that year the bursar reported losses of income from farms and tithes because of waste.<sup>31</sup>

The quantity of data for wheat in this early period is not great, however, because the monks, for the most part, did not make a practice of selling grain commercially. The wheat from manorial demesnes and from tithes was delivered to the granator who did not account in cash.<sup>32</sup> This made him different from the cellarer who had to pay the bursar in cash for what he bought from him and it is because of this that we know the prices of livestock produced on the priory's estates but we do not know the price of the grain so produced.

The fact that we do not have bursars' accounts for the ten years between 1319 and 1328 is frustrating, especially as, once we do have bursars' accounts again, they seem to show that a

shift in practice had taken place, although there was still flexibility in what was done. In 1329–30 and 1330–1, the bursar bought very large quantities of wheat, but rather less in 1332–3. In the account for 1333–4 we are told quite explicitly that no wheat was bought because nineteen tithes from 'between the waters' (from locations between the Tyne and the Tees) were in hand for sustaining the needs of the house. We are again told explicitly in 1334–5 that none was bought, and there were apparently no major purchases until 1339–40 when the bursar purchased 262 quarters.<sup>33</sup> Large quantities were bought again in 1340–1<sup>34</sup>, but no purchases were recorded in the surviving accounts for the remainder of the 1340s. Fairly large quantities of wheat were bought in 1350–1 and 1351–2 but for the next few years purchases were modest or not made at all.<sup>35</sup> But starting in the 1357–8 account the quantities bought again became larger and the bursar was buying wheat in large amounts in each year for which there are accounts until the end of the period covered in this section.<sup>36</sup> This may represent the beginning of the use in the accounts of a system of fictitious purchasing which is described in full below.<sup>37</sup> Overall the trend seems to have been towards purchasing wheat in larger quantities and the evidence of the 1333–4 account suggests that self-sufficiency depended on tithes being kept in hand. Purchase was needed when tithes were sold.<sup>38</sup>

The position with barley malt was distinct from that for wheat in that purchases of large quantities of barley malt were regular in the later thirteenth and the early fourteenth centuries. In the famine year 1316–17 the bursar bought more barley malt than he did wheat. The incompleteness of the account for the following year makes it difficult to know whether malt was purchased. However, the seven chaldrons of barley malt received from the tithe of Hylton in Monkwearmouth parish and entered in the same account were valued at £20 12s, showing that prices remained high.<sup>39</sup> Again, the lack of bursars' accounts in the early 1320s is frustrating. But from 1329–30 onwards the bursar was buying malt — predominantly barley, but also mixed and oat malt — in far larger quantities than previously. Even in 1333–4, when it was explicit that no wheat was bought, the bursar purchased 434 quarters of barley and unspecified malt. He also paid one John Haw a total of 8s 4d for making 28 quarters of oat malt from the priory's own grain, and the wife of John Alman 8s for making 27 quarters of oat malt of unspecified origin.<sup>40</sup>

In some years, the priory bought large amounts of ale as well, a noticeable year in this regard being 1335–6 when 6,004 gallons were bought in town on occasions, for a total cost of £39 7s 8d.<sup>41</sup> Some of the so-called vendors will have been farmers of the priory's grain tithes and its tenants, but some of them were local merchants, such as Robert of Newcastle, a regular supplier of large quantities of malt in the later 1330s. He alone sold 536 quarters of barley malt to the bursar in 1340–1. The impression for oats, bought mainly by the priory for fodder but also used for malting, is less detailed, although in the later 1330s the bursar was needing to purchase these, too, in larger quantities than before. It seems clear that a key change in the pattern of supply, noticeable particularly for wheat and malt, had happened well before the plague. It may also be suggested that the monks gave such priority as they could to self-sufficiency in wheat (and there are no purchases of bread to parallel the purchases of ale), but were ready purchasers of malt.

The obediendary accounts were very pragmatic documents. The individual accountant's overriding concern was to balance his books, and every penny of cash or piece of merchandise that passed through his hands had to be accounted for. The accounts clearly show an awareness of prices. Most obviously, we are often told the price of the individual unit (e.g. the quarter of wheat or the individual animal) as well as the total quantity purchased and the



total price. We sometimes find an explanation of anticipated income which was not after all forthcoming including tithes and farms which did not come in because of waste. The accounts therefore reveal vulnerability to, and awareness of, changing economic circumstances. The records were not, however, intended to explain the formulation or development of policy. Lomas was intrigued by the fact that the Durham monks did not cultivate all their demesnes in the early fourteenth century, and did not seek to make a commercial venture out of corn sales, and explained this in part in terms of the fact that this was a monastic community, and considerations of profitable estate management were not paramount.<sup>42</sup> So long as the monks had enough income and produce to support their own needs, that was sufficient. Certainly, the tone of some of the statutes setting out the accounting obligations of the cells and obedientiaries suggests that the main concern was to maintain the existing estate, rather than to augment it. The obedientiaries were Benedictine monks, not merchants like Francesco di Marco Datini, merchant of Prato, with his characteristic address 'In the name of God and profit'.<sup>43</sup>

We tend to study medieval prices through information derived mainly from the estates of large and, on the whole, ecclesiastical landowners because these are the records that have come down to us. We use them to demonstrate the experience of the community that produced the records but we also hope and expect that they will shed light on more general circumstances which were shared by others in the vicinity. The fact that Durham Priory was a large and powerful ecclesiastical community makes it possible that the monks were to some extent protected from market forces. This relates first to the prices they paid for goods bought in markets and fairs. Since the monks bought regularly and in bulk, they may have done better than others buying on the open market. They and the bishop of Durham were the main consumers in the area. Moreover, the fact that they were able to produce so much of their own food may have protected them from price fluctuations. Yet, the fact that they needed to buy grain at high prices in the famine years of the second decade of the fourteenth century is telling, as is their dependence on local merchants for loans and, increasingly, for supplies of imported goods.

With these points in mind we may consider the main trends in prices which the evidence of the accounts seems to display. Grain demanded high prices in the famine years of the second decade of the fourteenth century. 1330 was a dear year (and the fact that the price of salt is also high suggests that this was associated with a lack of sun), but prices in the 1330s and 1340s are somewhat lower, making the rise in prices after the Black Death of 1348–9 more noticeable.

Such is the general picture offered by the evidence of these accounts. One is always left with the feeling of much more to do and, at Durham, there is plenty of scope for further research. Most especially, investigation of the copious manorial accounts would yield further price data and would reveal more about the organization of supplies in this period. Nonetheless, it is hoped that the prices published here will shed light on the economy of the North-East in the fourteenth century, and that their appearance in print will encourage further study of Durham's magnificent archives.

*Note on methods used for compilation of price series*

The price series were compiled from Durham Priory obedientiary and cell accounts. The obedientiary accounts used were as follows:

Almoner, accounts and *status*, 1338 or 1339 to 1367–8  
 Bursar, accounts 1278–9 to 1367–8  
 Cellarer, accounts and *status*, c. 1300 to 1366–7  
 Chamberlain, accounts 1334–5 to 1367–8  
 Granator, accounts ?1295–6 to 1315–16  
 Hostiller, accounts and *status*, 1318 to 1367–8  
 Infirmarer, accounts 1353–4 to 1362  
 Sacrist, accounts and *status*, 1318 to 1367.

Extracts from the above are available in print, as follows: *Extracts from the Account Rolls of the Priory of Durham, 1303–1541*, ed. J. T. Fowler, SS 99, 100, 102 (1898–1901).

The cell accounts used were as follows:

Farne, accounts 1357–8 to 1367–8  
 Finchale, accounts and *status*, 1311 to 1367  
 Holy Island, accounts and *status*, 1326 to 1367–8  
 Jarrow, accounts and *status*, 1303 to 1367–8  
 Wearmouth, accounts 1343–4 to 1367–8.

Some of the above accounts are available in print, as follows: *The Charters of Endowment, Inventories and Account Rolls of the Priory of Finchale*, ed. J. Raine, SS 6 (1837); *The Inventories and Account Rolls of the Benedictine Houses or Cells of Jarrow and Monk-Wearmouth*, ed. J. Raine, SS 29 (1854).

Prices from Durham's other cells at Coldingham, Lytham, Oxford, and Stamford were omitted; Coldingham because it was Scottish, the others because they are farther south and the purpose of the series is to reflect prices in the North-East. All material relating directly to Scotland has been omitted. Entries in accounts straddling two calendar years have been included in the figures for the opening year of the account. Thus, the figures in the bursar's account running from 12 October 1278 to 2 July 1279 have been entered under 1278. Where accounts run for periods of more than a year, the entries have been included under the opening year of the account unless they can be dated later by means of internal evidence. In the cases where the account for a particular year has been broken down into shorter accounts, the entries from each have been assigned to the opening year of the group. Thus, the prices in the hostiller's account for 22 May 1354 — 11 April 1355 and from 11 April 1355 — 14 May 1355 have been entered under 1354. Figures derived from *status* have been entered under the year previous to that in which they were made, on the basis that the prices they contain relate to purchases and sales made in the previous accounting period.

'Remainder' entries, where the accountant found goods in his office and priced them, have not been used. *Status* figures have been used except where they duplicate entries in the preceding account. Transactions between obedientiaries have been used, although every effort has been made to avoid duplication of material when it clearly occurs in more than one account.

The price series were calculated using an arithmetic mean, and the prices have been given to two decimal places. Where there is uncertainty about whether the long or short hundred was intended, two figures are given. The two figures reflect the largest possible range within



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which the actual arithmetic mean must be, although there may be more than two possible prices, depending on the number of entries where use of the long or short hundred is uncertain.

Assumptions regarding weights and measures are as follows:

- 4 quarters = 1 chaldron for grain and salt
- 4 rasure = 1 quarter
- 16 kennen = 1 quarter
- 32 pecks = 1 quarter

Table 1: Cereal Price Data, 1278–1367

All prices given are in shillings.

KEY

\* = derived solely from a *status* (which may, therefore, be regarded as a valuation rather than a transaction).

( ) = alternative price when the use of the long hundred is uncertain

YEAR	WHEAT	BARLEY	BARLEY MALT	OATS	OAT MALT
1278				1.55	1.56
1279					
1280					
1281					
1282					
1283					
1284					
1285					
1286					
1287					
1288					
1289					
1290					
1291					
1292					
1293					
1294					
1295	9.93		7.65 <sup>a</sup>		3.78 <sup>a</sup>
1296					
1297	8.00				
1298	4.80				

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## DURHAM GRAIN PRICES, 1278-1515

Table 1: Cereal Price Data, 1278-1367 (continued)

YEAR	WHEAT	BARLEY	BARLEY MALT	OATS	OAT MALT
1299					
1300		5.00		2.50	
1301					
1302		4.00	3.61		2.07
1303					
1304					
1305			4.31		2.32
1306	4.83 (4.03)			1.46	
1307				2.00	
1308					
1309	14.00 (12.34)				
1310		5.50		3.28	
1311					
1312	6.17				
1313		6.00	4.86	4.00	
1314	9.02		6.59	2.99	4.35
1315	17.01	13.33		5.47	3.73
1316	14.97	10.00*	17.26	5.00*	
1317	20.32	9.00*	14.71	4.00*	
1318	9.67 (8.25) <sup>b</sup>			3.05	
1319					
1320					
1321					
1322					
1323		6.36		3.77	
1324		6.00			
1325	4.00*	3.00*		2.00*	
1326	2.75*			1.81	
1327		5.00*			
1328					
1329	6.98	6.21*	6.12		
1330	9.62	7.18	6.84	4.17	4.00

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Table 1: Cereal Price Data, 1278–1367 (continued)

YEAR	WHEAT	BARLEY	BARLEY MALT	OATS	OAT MALT
1331					
1332	8.85	6.00	6.54	3.08	2.73
1333			6.12	2.16	
1334		4.62	5.08	2.00	2.67
1335	4.58 <sup>c</sup>	5.67	5.86	2.75	3.41
1336		5.67	5.60	2.26	3.08
1337	4.00	4.00	4.14	1.84	
1338			3.80	1.56	
1339	4.36	3.27	3.37	1.92	
1340	5.39	3.98	4.00 <sup>d</sup>	2.09	
1341	3.72	4.00 <sup>d</sup>	4.12	1.67	
1342	5.93 <sup>e</sup>	3.55	4.50	1.78	2.00
1343			4.10		
1344	4.68 <sup>f</sup>	2.50	3.26	1.37	1.67
1345	3.00	2.92	3.42	1.13	
1346	4.32	3.53		1.87	
1347		4.50 <sup>g</sup>	4.50	2.25	3.00
1348	6.00	4.25 <sup>g</sup>	4.51		
1349	5.71	4.47	4.84	1.53	
1350	5.90	6.86	5.33	2.00	
1351	7.83	5.47	6.56	2.00	
1352		4.29 <sup>h</sup>	5.72	2.43	
1353	3.83 <sup>i</sup>	3.64 <sup>h</sup>	4.74	1.90	
1354	6.07 <sup>j</sup>	4.57	5.70	1.91	3.83
1355	6.78	4.68	5.04	2.23	
1356	7.17	5.00	5.22	2.66	2.83
1357	8.70	6.05	6.26	2.34	
1358	3.98	4.06	4.54	2.46	
1359	5.07 (4.64)	4.95 (4.26)	4.95	2.10	2.41
1360	5.77	4.90 (4.53)	4.70	2.45	2.50
1361	5.03	5.58		2.44	
1362	6.11 (5.65) <sup>k</sup>	5.16 (4.57)	5.56	2.12	

Table 1: Cereal Price Data, 1278–1367 (continued)

YEAR	WHEAT	BARLEY	BARLEY MALT	OATS	OAT MALT
1363	8.76 (7.84)	7.02 (6.51)	6.51	2.92	
1364	9.11 <sup>l</sup>	6.86		2.99	
1365	6.37 <sup>l</sup>	5.19 (4.73)	5.11	2.64	
1366	9.35	6.47	7.50	3.57	
1367	11.44 <sup>m</sup>	6.26	6.84	3.47	

## NOTES TO TABLE 1

- <sup>a</sup> Malt figures given in chaldrons.  
<sup>b</sup> Wheat price is from an entry including a quantity of beans and peas.  
<sup>c</sup> Wheat price is from sales.  
<sup>d</sup> Most malt unspecified this year.  
<sup>e</sup> All from Holy Island.  
<sup>f</sup> Many of the wheat entries are from Holy Island.  
<sup>g</sup> Barley price is from one entry only.  
<sup>h</sup> All barley entries are sales.  
<sup>i</sup> Many of the wheat entries are from the hostiller's sale of tithes.  
<sup>j</sup> Price is made higher by expensive purchase made by prior. If this were excluded the price would be 5.58s.  
<sup>k</sup> Wheat price excludes entry from Farne which includes a quantity in an unfamiliar measure and which may partially duplicate an entry from Holy Island.  
<sup>l</sup> Wheat price excludes entry from Farne which is uncertain, a summer purchase and produces an unusually high figure.  
<sup>m</sup> Wheat price includes a high figure from Holy Island in chaldrons and bolls.

## GRAIN PRICES, 1368–1515

*Ben Dodds and Phillipp Schofield*

In order to provide the user of the price series with the most accurate possible price data obtainable from the bursars' accounts, up to two separate entries are provided for each individual grain each year.

*Beveridge average*

The first of these entries represents the arithmetical mean of all the prices collected from the account from a particular year. This follows the method used by Gemmill in the present article (above) and the Beveridge team in their published volumes. No distinction is made between grain bought and sold and there is no attempt to weight the price averages according to the quantities involved in various transactions. The latter was justified by Beveridge on the grounds that a small purchase could be just as representative of market conditions as a large one.<sup>44</sup> In order to permit thorough checking of the Beveridge team's data entry and calculations, only data taken from bursars' accounts have been used. This approach is justifiable on the grounds that the bursar, with his assistants the cellarer and the granator, was responsible for provisioning a convent numbering over sixty for most of the fifteenth century, most of

whom were resident in Durham.<sup>45</sup> This, and the same obediary's responsibility for the purchase of fodder crops for the priory's horses, means this series of accounts contains large numbers of grain receipts.<sup>46</sup>

#### *Fictitious purchase system*

As observed by Gemmill for the earlier period, Durham Priory's grain purchasing policy changed over time, depending on factors such as the number of demesnes under direct cultivation. From the second half of the fourteenth century, a large part of the monks' grain needs was supplied by rents or tithes paid in grain. The precise proportions involved are difficult to calculate in many of the accounts because receipts of payments in kind are sometimes hard to distinguish from genuine purchases.<sup>47</sup> By the late fifteenth century, when we have a bursar's rental which gives details of the way in which payments were made, as little as two per cent of the bursar's grain purchases were made on the market.<sup>48</sup>

The bursar's grain turnover was very large. In 1449–50 alone the bursar accounted for the receipt of nearly 458 quarters of wheat, over 732 quarters of barley, over 263 quarters of oats and over 270 quarters of peas and beans. According to the monks, this was worth nearly £322.<sup>49</sup> The system of receipts in kind was a flexible one since assets could be used to supply grain whether they were managed directly or leased.<sup>50</sup> However, payments in kind did pose an accounting problem. Manorial accounts commonly included a separate grain section but monastic office holders accounted in cash. If the officeholder accounts were going to be effectively audited then some kind of acknowledgement of receipts in grain was needed. The solution was to express receipts in kind as cash sums by valuing the grain. From 1357–8, the bursars' accounts contain more extensive grain purchase sections and it appears that these apparent purchases contain valued receipts in kind.<sup>51</sup> At this stage, however, it is not easy to distinguish between rents received in kind and genuine purchases. In 1379–80, however, a new system emerged by which the receipt of rents as grain was entered in both the receipts and expenses sections of the bursar's account as cash sums. In other words, receipts for rent payments or tithes were entered as fictitious grain purchases. The receipt and expense entries cancel each other out but the payment in kind was recorded in a cash account for scrutiny by the auditors.

For this system to be operated, a valuation was needed of the grain received in kind. Moreover, in order to ensure that rent payments remained at the desired level, the priory had to ensure that grain received in this way was valued according to the market price. The fluctuation in the different valuation figures used for grain received, and the different prices used for each type of grain, indicate that this was the case. Indeed, Threlfall Holmes' examination of the varying quantities of grain received in lieu of a fixed cash payment from the same tenant from one year to the next demonstrates the care with which the price levels were fixed.<sup>52</sup> Unfortunately, no information has yet been uncovered to suggest how the monks calculated the grain prices used for valuation purposes. With very few exceptions, the price of each grain was uniform for every valuation of that grain in each account. This suggests that there may have been a custom of valuing grain according to the market price on one particular day. On a number of occasions, however, more than one fictitious price was recorded. Uncertainty over whether transactions represent real or fictitious purchases means that these years are not always easy to identify. Years for which confusion exists are marked with an asterisk in table 2.

Table 2 provides the prices at which the monks valued grain for their fictitious purchases as well as prices calculated using transactions. Given the monks used these data themselves, the fictitious purchase prices are likely to reflect trends more accurately than the artificial averages calculated by historians several centuries later.

*Accounting years*

The start and end dates of the bursars' accounts changed over this period. During the early 1440s, for example, the accounts run from Michaelmas (29 September) to Michaelmas. In the following decade, however, accounts run from around the time of the feast of Pentecost to the same date the following year. As in Gemmill's series, the opening year of the account has been used to date each price entry, following the method of the Beveridge team.<sup>53</sup> The changing start and end points of the accounting years create inconsistencies in the prices included. In practice, however, individual transactions are not dated in the Durham accounting material and are not dated in most other sources of medieval price data. A certain amount of inconsistency is unavoidable. Moreover, this is further justification for the inclusion of the monks' own annual price series. It appears to have been the monks' intention to use an annual average price and such a price would be unaffected by the timing of the accounting year, provided the account covered a full year.

Table 2: Cereal Price Data, 1368–1515

All prices given are in shillings.

KEY

FP = fictitious purchase price

AV = mean of all prices entered in bursar's account

\* = more than one fictitious price recorded for this year. Where a price is evidently a fictitious price but, as very rarely, more than one price exists, the standard practice has been to identify the most commonly recurring price and record this in the table rather than construct an average, e.g. in 1416–17 100 quarters 2 bushels of wheat were valued at 6s per quarter and 4 quarters at 5s 3d, so 6s was recorded in price table.

YEAR	WHEAT		BARLEY		OATS		LEGUMES	
	AV	FP	AV	FP	AV	FP	AV	FP
1368	9.85				3.38			
1369								
1370	10.26				2.67	2.50		
1371 <sup>a</sup>								
1372								
1373	6.79		5.11		2.50			
1374	11.13		5.91					
1375	10.70		6.62		4.36	4.25	8.00	
1376	5.27	4.00	4.83		2.82		2.83	2.83
1377	3.43		3.44		1.10			



## DURHAM GRAIN PRICES, 1278-1515

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Table 2: Cereal Price Data, 1368-1515 (continued)

YEAR	WHEAT		BARLEY		OATS		LEGUMES	
	AV	FP	AV	FP	AV	FP	AV	FP
1378	2.74		2.91				2.08	
1379	5.08	5.00	4.05	4.00	1.94		2.00	
1380	6.72	6.67	4.46	4.50	2.00		2.27	
1381	9.93	10.00	4.96	5.00	2.92		3.00	
1382								
1383	7.87	8.00	4.54	4.50				
1384	6.48	6.67	4.72	5.00	2.12	2.00	3.19	
1385								
1386	4.25	4.00	4.09	4.00	1.89		2.00	
1387	4.02	4.00	4.03	4.00	1.93	2.00	2.00	
1388	5.02	5.00			1.50		2.67	
1389	5.03	5.00			1.51	1.50		
1390	7.56	8.00			2.00		4.00	
1391	8.12	8.00			2.20	1.50	4.00	
1392								
1393								
1394	5.08	5.00	4.94	5.00	1.60		2.50	
1395	5.14	5.00			1.68	1.67		
1396	5.97	6.00	4.51	4.50	2.00	2.00	3.46	
1397	6.67	6.67	5.93	6.00	2.50	2.50	2.50	2.50
1398								
1399	7.00	7.00	4.13	4.00	2.00	2.00	3.56	
1400	10.00	10.00	4.25	4.25	2.00	2.00	3.33	
1401	13.63	13.33	6.83	6.67	3.29	3.33	5.00	
1402	10.50	10.00	7.00	7.00	3.33	3.33	5.00	
1403								
1404	4.50	4.50	3.77	3.75	1.50	1.50	2.00	
1405								
1406	4.44	4.33	3.44	3.33	1.56	1.50	2.00	
1407	3.73		3.32	3.33	1.50	1.50	2.03	2.00
1408	6.00	6.00	4.58	4.50	2.00	2.00	2.67	

## DURHAM GRAIN PRICES, 1278-1515

Table 2: Cereal Price Data, 1368-1515 (continued)

YEAR	WHEAT		BARLEY		OATS		LEGUMES	
	AV	FP	AV	FP	AV	FP	AV	FP
1409	9.80	10.00	7.34	6.00	2.72	2.50	4.50	4.50
1410	9.62	10.00	4.98	5.00	2.29	2.33	3.00	3.00
1411								
1412	5.93	6.00	3.98	4.00	1.68	1.67	2.50	2.50
1413								
1414	5.08	5.00	4.97	5.00	2.12	2.00	3.28	3.33
1415	6.54	6.50	4.59	4.50	1.95	2.00	2.90	2.50
1416	5.94	6.00*	3.93	3.67	2.00	2.00	2.40	2.00
1417								
1418	5.62	5.00 <sup>tb</sup>	3.16	3.00	1.68	1.67	2.03	2.00
1419	5.99	6.00	4.69	4.67	2.31	2.00	3.93	
1420	6.03	6.00		4.00	2.64	3.00	4.39	4.00
1421	6.00	5.25	4.00	4.13		1.67		2.00
1422	4.36	4.17	4.42		1.74	1.67	2.53	2.53
1423	6.52	6.67	4.46	4.46		1.67	2.99	2.67
1424	8.04	8.00	5.03	5.00	2.09		3.39	3.33
1425	6.67	6.67	4.51	4.50	1.00	1.67	2.97	2.50
1426	5.00	5.00		4.50	1.67	1.67	2.50	2.50
1427	3.33	3.33	3.35	3.33	1.00	1.67	2.00	2.00
1428	6.74	6.67	4.03	4.00	2.55	2.83	3.06	3.00
1429	9.62	10.00*	4.93	5.00*	2.65	2.21	3.33	3.33
1430								
1431	6.25	5.00	3.43	3.33	1.81	1.67	2.99	2.00
1432	12.36	13.33	5.10	5.00	2.32		5.33	5.33
1433	7.25	8.00	6.72	6.67	2.43	2.50	5.24	5.33
1434	5.75	4.00	3.11	3.11	1.64	1.67	2.78	3.00
1435	5.77	4.00	3.44	3.33	1.62	1.67	2.00	2.00
1436	8.49	8.00	4.00	4.00	1.69	1.67	2.97	3.00
1437	13.38	13.33	6.13	6.67	3.46	3.33	6.29	6.67
1438	16.16	16.00	8.36		2.67		7.67	
1439	7.69		3.96		1.88	2.00	2.00	

## DURHAM GRAIN PRICES, 1278-1515

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Table 2: Cereal Price Data, 1368-1515 (continued)

YEAR	WHEAT		BARLEY		OATS		LEGUMES	
	AV	FP	AV	FP	AV	FP	AV	FP
1440	3.75	3.33	2.72	2.50	1.46	1.16	1.34	1.67
1441	3.33	3.33	2.44	2.50	1.03	1.00	2.00	2.00
1442	3.57	3.33	4.00		2.18	2.00	4.00	
1443	5.42	5.00	4.19	4.00	2.04		2.00	
1444	6.67	6.67	4.00	4.00	1.88		4.00	
1445	5.59	5.33	3.15	3.00	1.66	1.67	3.00	3.00
1446	5.23	5.00	3.32	3.33	2.00	2.00	3.33	3.33
1447								
1448								
1449	5.29	5.33	3.48	3.50	1.66	1.67	2.49	2.50
1450								
1451								
1452								
1453	7.70	8.00	4.32	4.00	1.67	1.67	3.33	3.33
1454	5.13	5.00	3.33	3.33	1.49	1.50	2.50	2.50
1455								
1456	4.43	4.50	3.00	3.00	1.47	1.50	2.67	2.67
1457	4.98	5.00	3.29	3.33	1.49	1.50	2.50	2.50
1458	4.00	4.00	2.50	2.50	1.25	1.25	2.00	2.00
1459								
1460								
1461								
1462	5.00	5.00	3.33	3.33	1.67	1.67	3.33	3.33
1463								
1464	4.57	4.00	5.00	5.00	2.00	2.00	3.19	3.33
1465	8.00	8.00	5.47	5.50	2.37	2.33	5.33	5.33
1466	4.96	5.00	3.33	3.33	1.50	1.50	2.00	2.00
1467	6.67	6.67	3.63	3.50	1.67	1.67	2.67	2.67
1468	6.61	6.67	3.39	3.33	1.50	1.50	2.00	2.00
1469	6.57	6.67	3.05	3.00	1.50	1.50	4.00	4.00
1470	8.00	8.00	4.00	4.00	1.67	1.67	4.00	4.00

## DURHAM GRAIN PRICES, 1278-1515

Table 2: Cereal Price Data, 1368-1515 (continued)

YEAR	WHEAT		BARLEY		OATS		LEGUMES	
	AV	FP	AV	FP	AV	FP	AV	FP
1471	6.67	6.67	4.00	4.00	2.00	2.00	4.00	4.00
1472	5.00	5.00	3.33	3.33	1.64	1.67	2.67	2.67
1473	4.00	4.00	4.07	4.00	1.70	1.67	2.67	2.67
1474	5.00	5.00	3.33	3.33	1.50	1.50	2.67	2.67
1475	5.00	5.00	3.04	3.00	1.25	1.25	2.00	2.00
1476	6.11	6.00	3.00	3.00	1.50	1.50	2.67	2.67
1477								
1478	6.00	6.00	4.00	4.00	1.67	1.67	3.33	3.33
1479	5.00	5.00	3.75	3.75	1.33	1.33	3.33	3.33
1480	6.67	6.67	4.25	4.25	1.50	1.50	4.00	4.00
1481	10.00	10.00	6.71	6.67	2.33	2.33	6.67	6.67
1482	13.24	13.33	7.84	8.00	3.41	3.33	8.00	8.00
1483								
1484	5.00	5.00	4.00	4.00	1.50	1.50	2.00	2.00
1485	5.00	5.00	3.50	3.50	1.52	1.50	2.00	2.00
1486	8.00	8.00	5.00	5.00	2.00	2.00	4.00	4.00
1487	6.00	6.00	3.96	4.00	2.00	2.00	3.33	3.33
1488	8.00	8.00	5.00	5.00	2.50	2.50	4.00	4.00
1489								
1490								
1491								
1492	5.33	5.33	5.00	5.00	2.00	2.00	3.33	
1493	4.67	4.67	3.50	3.50	1.33	1.33	2.67	2.67
1494	4.00	4.00	3.00	3.00	1.00	1.00	2.00	2.00
1495	4.00	4.00	3.00	3.00	1.25	1.25	2.00	2.00
1496	6.67	6.67	4.00	4.00	2.00		2.00	2.00
1497	6.67	6.67	4.69	4.50	2.00	2.00	2.00	2.00
1498	4.00	4.00	3.81	3.75	1.76		4.00	4.00
1499	4.00	4.00	3.75	3.75	1.67	1.67	2.00	2.00
1500	6.00	6.00	3.75	3.75	1.50	1.50	2.00	2.00
1501	5.33	5.33	3.50	3.50	1.67	1.67	2.00	2.00

## DURHAM GRAIN PRICES, 1278–1515

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Table 2: Cereal Price Data, 1368–1515 (continued)

YEAR	WHEAT		BARLEY		OATS		LEGUMES	
	AV	FP	AV	FP	AV	FP	AV	FP
1502								
1503	6.67	6.67	4.25	4.25	2.00	2.00	5.33	5.33
1504	6.87	6.67	5.07	5.00	2.00		4.42	4.00
1505	8.30	8.00	4.61	4.50	2.08	1.67	5.33	5.33
1506	5.33	5.33	3.33	3.33	1.25	1.25	5.33	5.33
1507	6.79	6.67	4.00	4.00	1.67	1.67	6.22	6.67
1508	5.33	5.33	5.00	5.00	1.67		5.58	
1509	4.00	4.00	3.00	3.00	1.25	1.25	4.00	4.00
1510	4.00	4.00	3.00	3.00	1.25		4.00	4.00
1511	5.33	5.33	3.65	4.00	1.67	1.67	5.33	5.33
1512	5.60	5.33	4.04	4.00	1.44	1.33	5.33	5.33
1513	5.58	5.33	4.63	4.00	1.42	1.33	5.33	5.33
1514	5.94	5.33	4.10	4.00	1.36	1.33	5.33	5.33
1515	5.74	5.33	4.10	4.00	1.48	1.33	5.33	5.33

## NOTES TO TABLE 2

<sup>a</sup> A bursar's account dated 15 December 1371 to 16 April 1373 survives but the prices it contains have not been included because of the unusually long accounting period

<sup>b</sup> Two prices are given for almost equal quantities: 157 quarters valued at 6s and 175 quarters valued at 5s.

## NOTES

<sup>1</sup> Examples using medieval prices include P. R. Schofield, 'Regional price differentials and local economies in north-east England, c. 1350–c. 1520', in B. Dodds and R. H. Britnell (eds.) *Agriculture and Rural Society after the Black Death: Common Themes and Regional Variations*, Hatfield (2008), 40–55; A. R. Bridbury, 'The Black Death', *Economic History Review*, 26 (1973), 577–92; J. A. Galloway, 'One market or many? London and the grain trade in England', in J. A. Galloway (ed.) *Trade, Urban Hinterlands and Market Integration, c. 1300–1600*, London (2000), 23–42; E. Gemmill and N. Mayhew, *Changing Values in Medieval Scotland: a Study of Prices, Money, and Weights and Measures*, Cambridge (1995), 361–81.

<sup>2</sup> J. E. T. Rogers, *A History of Agriculture and Prices in England*, 7 vols., Oxford (1866–1902); D. L. Farmer, 'Prices and wages', in H. E. Hallam (ed.) *The Agrarian History of England and Wales*, 2: 1042–1350, Cambridge (1988), 716–817; D. L. Farmer, 'Prices and wages, 1350–1500', in E. Miller (ed.) *The Agrarian History of England and Wales*, 3: 1348–1500, Cambridge (1991), 431–525; G. Clark, 'The price history of English agriculture, 1209–1914', *Research in Economic History*, 22 (2004), 41–124.

<sup>3</sup> M. Bailey, *Medieval Suffolk: an Economic and Social History, 1200–1500*, Woodbridge (2007), 7–8. For further discussion of the historiography of local and economic history, see J. V. Beckett, *Writing Local History*, Manchester (2007), 91–4.

<sup>4</sup> H. M. Dunsford and S. J. Harris, 'Colonization of the wasteland in County Durham, 1100–1400', *Economic History Review*, 56 (2003), 34–56; B. Dodds, *Peasants and Production in the Medieval North-East: the Evidence from Tithes, 1270–1536*, Woodbridge (2007), 45–70.

<sup>5</sup> A. J. Pollard, 'The north-eastern economy and the agrarian crisis of 1438–1440', *Northern History*, 25 (1989), 88–105; J. Hatcher, 'The great slump of the mid-fifteenth century', in R. H. Britnell and J. Hatcher (eds.), *Progress and Problems in Medieval England*, Cambridge (1996), 246.

<sup>6</sup> M. Threlfall-Holmes, *Monks and Markets: Durham Cathedral Priory, 1460–1520*, Oxford (2005), 165–71.

<sup>7</sup> Schofield, 'Regional price differentials', 50, 52–5.

<sup>8</sup> W. H. Beveridge et al., *Prices and Wages in England from the Thirteenth to the Nineteenth Century, 1: Price Tables*, London and New York (1939).

<sup>9</sup> The Beveridge Price History Archive (British Library of Political and Economic Science, London School of Economics).

<sup>10</sup> The accounts are part of Durham Cathedral Muniments, held in Durham University Library Archives and Special Collections. They were moved in 1950 to the Prior's Kitchen and are now in 5, The College, Durham. See A. J. Piper, *Muniments of the Dean and Chapter of Durham: Medieval Accounting Material*, Durham University Library Archives and Special Collections Searchroom Handlist (1995). Most of the information given in this handlist is available on the Durham University Library Archives and Special Collections webpages at <http://reed.dur.ac.uk/xtf/view?docId=ead/dcd/dcdmaccs.xml> (accessed August 2010)

<sup>11</sup> Durham prices for this period for wheat, barley, malt, oats, marts, cows, oxen, sheep, wool, cheese, wax, salmon, herring, salt, canvas, and coal are included in comparative tables in the book co-authored by Elizabeth Gemmill and Nicholas Mayhew which resulted from this project: *Changing Values in Medieval Scotland: A Study of Prices, Money, and Weights and Measures*, Cambridge (1995), 147–346. The data from Durham are compared with those for Scotland and published series for England.

<sup>12</sup> Boxes, C1, C2, C3, C4, C5, C6, C7, C8(i) and C8(ii), Beveridge Price History Archive (British Library of Political and Economic Science).

<sup>13</sup> A. J. Piper, *Medieval Accounting Material*.

<sup>14</sup> Durham Cathedral Muniments [hereafter DCM], bursars' accounts.

<sup>15</sup> B. Dodds, 'Durham Priory tithes and the Black Death between Tyne and Tees', *Northern History*, 39 (2002), 5–24 (5).

<sup>16</sup> R. B. Dobson, *Durham Priory, 1400–1450*, Cambridge (1973), 3.

<sup>17</sup> See Dobson, *Durham Priory*, 3, 392–5. Professor Dobson's bibliography includes details of the Durham Cathedral Muniments.

<sup>18</sup> See this paper, below.

<sup>19</sup> For a detailed discussion of the bursar's office and associated accounting material, see A. Dobie, 'An analysis of the bursars' accounts at Durham Cathedral Priory, 1278–1398', *Accounting Historians Journal*, 35 (2008), 181–208.

<sup>20</sup> For a discussion of centralisation and a wide-ranging analysis of monastic financial systems, see A. Dobie, 'The development of financial management and control in monastic houses and estates in England c. 1200–1540', *Accounting, Business and Financial History*, 18 (2008), 141–59.

<sup>21</sup> Dobson, *Durham Priory*, 257–8.

<sup>22</sup> *Historiae Dunelmensis Scriptores Tres*, ed. J. Raine, SS 9 (1839), Appendix, xxxix–xl.

<sup>23</sup> DCM, sacrist's account, 1359–60 (a).

<sup>24</sup> DCM, chamberlain's account, 1347–8 (a).

<sup>25</sup> DCM, bursar's account, 1335–6 (a) and (b).

<sup>26</sup> D. Oschinsky (ed.) *Walter of Henley and other Treatises on Estate Management and Accounting*, Oxford (1971), 399. 'I advise that you make your great purchases on two occasions in the year: buy your wine, wax and wardrobe at the fair of St Botulf (Boston), what you consume in Lindsey, Norfolk, or in the Vale of Belvoir; when in the country of Caversham and of Southampton buy at Winchester; when in Somerset at Bristol. Your robes purchase at St Ives.' A key difference between



the thirteenth-century monastic household and that of the lay magnate was that the latter was, as this extract shows, itinerant.

<sup>27</sup> DCM, bursar's account, 1302–3.

<sup>28</sup> C. M. Fraser, 'The pattern of trade in the North-East of England, 1265–1350', *Northern History*, 4 (1969), 50–4.

<sup>29</sup> See R. A. Lomas, 'The priory of Durham and its demesnes in the fourteenth and fifteenth centuries', *Economic History Review*, 31 (1978), 339–353 (342), and for an account of the importance of Durham Priory's tithe income, Dodds, 'Durham Priory tithes', esp. pp. 5–8.

<sup>30</sup> DCM, granator's account, 1295–6; DCM, bursar's account, 1309–10.

<sup>31</sup> DCM, bursars' accounts, 1316–17 (a) and (b), 1317–18.

<sup>32</sup> See also Dodds, 'Durham Priory tithes', 10 on the information about receipts from tithes in the bursars' and granators' accounts in this period.

<sup>33</sup> DCM, bursars' accounts, 1329–30 (b), 1330–1 (a), 1332–3, 1333–4, 1334–5, 1339–40.

<sup>34</sup> DCM, bursars' accounts, 1340–1, 1341.

<sup>35</sup> DCM, bursars' accounts, 1350–1 (a), 1351–2 (a).

<sup>36</sup> DCM, bursar's account, 1357–8.

<sup>37</sup> See this paper, below.

<sup>38</sup> For detailed discussion of the household grain supply, see Lomas, 'The priory of Durham and its demesnes', 342–4; B. Dodds, 'Managing tithes in the late middle ages', *Agricultural History Review*, 53 (2005), 125–40.

<sup>39</sup> DCM, bursars' accounts, 1316–17 (a) and (b), 1317–18.

<sup>40</sup> DCM, bursar's account, 1333–4.

<sup>41</sup> DCM, bursar's account, 1335–6.

<sup>42</sup> Lomas, 'The priory of Durham and its demesnes', 352–3.

<sup>43</sup> I. Origo, *The Merchant of Prato: Francesco di Marco Datini*, London (1992).

<sup>44</sup> Beveridge et al., *Prices and Wages*, xliii–xliv.

<sup>45</sup> Dobson, *Durham Priory*, 253–4; A. J. Piper, 'The size and shape of Durham's monastic community, 1274–1539', in C. D. Liddy and R. H. Britnell (eds.) *North-Eastern England in the Later Middle Ages*, Woodbridge (2005), 154, 161.

<sup>46</sup> For the quantities of various types of grain belonging to the bursar's office in the early summer of 1457, see *Extracts from the Account Rolls of the Abbey of Durham: 3*, ed. J. T. Fowler, SS 103 (1901), 636.

<sup>47</sup> Lomas, 'The priory of Durham and its demesnes', 342–4.

<sup>48</sup> *Durham Cathedral Priory Rentals, 1: Bursar's Rentals*, ed.

R. A. Lomas and A. J. Piper, SS 198 (1986), 129–95; Threlfall-Holmes, *Monks and Markets*, 142.

<sup>49</sup> DCM, bursar's account, 1449–50, *Empcio frumenti, Empcio ordei, Empcio avene pro braseo, Empcio prebende, Empcio pisarum et fabarum*.

<sup>50</sup> Dodds, 'Managing tithes', 133–4.

<sup>51</sup> Lomas, 'The priory of Durham and its demesnes', 343–4.

<sup>52</sup> Threlfall-Holmes, *Monks and Markets*, 143.

<sup>53</sup> Beveridge et al., *Prices and Wages*, xlii–xliii.

