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Some Tudor Merchants' Accounts

Peter Ramsey*

By the middle of the sixteenth century there were sufficient treatises on double-entry book-keeping for any English merchant to instruct himself in its mysteries if he so chose. It is doubtful, however, whether many Tudor merchants could read the works of Pacioli and Manzoni in the original Italian, and the direct influence of these works must not be exaggerated. It is true that from the 1540's there was available an increasing number of English treatises and English translations of Italian and other foreign books—Oldcastle's work appeared in 1543, and the English translation of Ympyn in 1547—but practical experience was none the less probably more important than theoretical instruction. Italian merchants had long been resident in England before the sixteenth century, and some had practised double-entry book-keeping there. The ledger of the Borromeo Company of London, covering the years 1436–1439, is an example of an advanced technique that was adopted by English merchants only a century later. It has been suggested, indeed, that even the English authors of treatises may have learned from the example of Italian merchants resident in London rather than from textbook writers resident in Venice; the work of Peele has a number of features to be found in the Borromeo ledger and in the accounts of other Lombard merchants but not in the treatises of Pacioli and the Venetian school.¹

Accountancy might equally well be learned abroad. The first known example of an English ledger in double entry was in fact written in Spain. Spain rather than Italy seems to have been regarded in England as the home of advanced commercial technique in the sixteenth century. Marine insurance was thought to have originated at Barcelona, and even double-entry book-keeping was apparently thought of as a Spanish rather than an Italian invention. In a will dated 1543 an English merchant enjoins his executors to "call oon of them that be parfite in the Reconynges of Spayne to see my bokes and accountes," and the probable implication of this phrase is that these books were kept in double entry.² But it was undoubtedly Antwerp rather than Seville that acted as a commercial college for

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¹ P. Kats, "Double-entry Book-keeping in England before Hugh Oldcastle," *The Accountant*, LXXIV (1926), pp. 91–93.

² Will of J. Kydermyster, P.C.C. 37 Pynnyng.

most aspiring young English merchants. It was here that the English cloth trade was mainly concentrated in the first half of the sixteenth century, and here young apprentices came from England to reside while acting as servants or factors to their London principals. Undoubtedly they were sent partly with a view to their business education. As late as 1569, when the connection between London and Antwerp was coming to an end, nine young Englishmen were reported as being in Antwerp "pour aprendre la langue et aucuns pour aprendre tenir livres de comptes."³ In Antwerp, too, the professional accountant had made his appearance before the end of the century: in 1573 John Waddington begged the intervention of the Antwerp magistracy to help him recover his fees for more than a hundred days' work on the books of a certain Baptist van Achelen.⁴ If, then, English merchants of the sixteenth century failed to obtain adequate theoretical and practical instruction in the technique of book-keeping, it was not for lack of opportunity.

It is doubtful, however, whether many in fact availed themselves of their opportunities. Ympyn remarks that he had seen in his country merchants' books "so grosly, obscurely and lewdely kept, that af er their desease nether wife, seruaunt, executor nor other, could by their bokes perceiue what of right apperteigned to them to be receiued of other, nether what iustly was due by them vnto other."⁵ Some exaggeration may be suspected here, since Ympyn was naturally anxious enough to sell copies of his book, and was thus led to enlarge at some length on the evil consequences of negligent book-keeping. It must be admitted, however, that as far as English merchants of the period are concerned, the available evidence largely bears out his strictures. Of the many wills of English merchants of this period only a few refer to accounts in a way that suggests that these may have been kept in double entry.⁶ Surviving specimens of actual account-books, even those of the most successful and eminent merchants, often show very elementary technique and slovenly execution. The account-book of Henry Tooley, the most important merchant of Ipswich in the sixteenth century, was little more than a rough-book, whose erasures and cancellations make it nearly indecipherable to the modern researcher.⁷ Much the same might be said of the "Boke of

³ O. de Smedt, *De Engelse Natie te Antwerpen in de 16e Eeuw, 1496-1582* (Antwerp, 1954), vol. II, pp. 487-488.

⁴ *Ibid.*, p. 489.

⁵ Quotations from Ympyn are taken from the English translation of his treatise in *Economisch-Historisch Jaarboek*, 18 (1934), pp. 10-58.

⁶ Matthew Boughton (P.C.C. 14 Bodfelde) refers his executors to folio 150 of his "grete boke" for a statement of his assets. Robert Tempest (P.C.C. 30 Buckle) refers to his "Jornall and Legere with other bokes of the Cheste and charges parde oute," and gives a detailed statement of his financial position at the time of making his will in 1550.

⁷ J. G. Webb, *Henry Tooley, Merchant of Early Tudor Ipswich*, unpublished London M.A. thesis (1953), pp. 181-182.

Remembrance" of Sir Thomas Kitson (1485-1540), a sheriff of London and one of the wealthiest members of the Mercers' and Merchant Adventurers' Companies; though this is not disfigured in the same way as Tooley's book, it is very ill-written and unmethodical—little more, in fact, than a series of jottings.⁸ The accounts of John Smith of Bristol are a good deal more tidy, consisting of a number of personal accounts with the debit and credit entries on opposite pages. But though the format thus has something in common with that of a double-entry ledger, the absence of any impersonal accounts as well as the form of the entries makes it improbable that Smith was in fact using a double-entry system.⁹ Merchants of any substance must undoubtedly have kept books of some kind, and in this period they were acquiring increasing importance as evidence in courts of law. Ralph Goodwin of Ipswich told the High Court of Admiralty in 1538 that the "merchantes of the towne of Ippeswicke do use to kepe bokes of their Reconynges wherin they do enter all bargaynes that they do make; unto whiche bokes credence is gevyn because that merchauntes have allways kept such bokes."¹⁰ On another occasion it was even suggested in the Admiralty Court that merchants might keep duplicate sets of false accounts in order to conceal their goods from their creditors in case of bankruptcy.¹¹ But though the principle and practice of keeping accounts may have been well established, it seems clear that in the great majority of cases these accounts were of a very simple nature, little more than mere lists of purchases and sales. Even undoubted specimens of double-entry accounting were often crude by the best contemporary standards, and their aims were, as will be seen, rather different from those of modern book-keeping.

The earliest known example of a double-entry ledger in England—over two centuries later than the first extant Italian example—is the ledger of Thomas Howell, preserved at Drapers' Hall, London. Howell was a member of the Drapers' Company, and traded chiefly to Spain, where he was resident during the period covered by the ledger. The entries in this relate to the years 1522-1527, though a number of accounts in it open with balances brought down from a previous book (with folio references to the old ledger) and refer to transactions as far back as 1517.¹² In the Public Record Office are to

⁸ Cambridge University Library, Hengrave Hall Deposit 78(2). This collection also includes a most interesting series of statements of account presented by Kitson's factor in Antwerp, though these do not appear to relate to a double-entry system.

⁹ My thanks are due to Mr. T. G. Wyatt for allowing me to see his photostat copies of John Smith's accounts.

¹⁰ Webb, p. 183.

¹¹ B. Winchester, *The Johnson Letters (1542-1552)*, unpublished London Ph.D. thesis (1953), p. 468.

¹² My thanks are due to the Drapers' Company for permission to examine this

be found a ledger and some fragments from the accounts of John Johnson, a merchant of the Staple of Calais in the mid-sixteenth century. This ledger covers the years 1534–1538, when Johnson was acting as factor to Anthony Cave at Calais, and the fragments, all from the years 1543–1545, include two parts of journals and one of a ledger for Johnson's own business.¹³ Also in the Public Record Office are some accounts of Thomas Laurence, a Merchant Adventurer in the reign of Elizabeth I. These include part of a journal for the years 1565–1569 and a part of the corresponding ledger for 1565–1567—this being the only case where both the two main books of account for the same period have survived. There is also a ledger of Laurence's for the years 1574–1581, and a book of expenses for 1581–1582.¹⁴ All these last are in good condition, but the extreme brevity of the entries in the second ledger make it very difficult to use in the absence of the accompanying journal. Finally, in the day-book of Sir Thomas Gresham (1519–1579), now in the possession of the Mercers' Company in London, we have the best-preserved and most interesting example—both from the technical and the historical point of view—of sixteenth-century book-keeping. Its two hundred closely written folios give a detailed and precise picture of the business activities of one of the greatest merchants of the age and at the same time throw much light on the aims and methods of contemporary accountancy.¹⁵

It is, then, upon these four merchants' accounts that our understanding of Tudor double-entry book-keeping must be based until more account-books of the period come to light. It is unfortunate that we have among them no examples of two of the four main books of accounts used at this time. It is clear that the opening 128 entries in Gresham's day-book were derived from an inventory, but the inventory itself has not survived. It is possible that the archives of Somerset House may some day yield up further examples of inventories that once were part of sets of accounts, but the inventories there are not at present accessible to the researcher. It would in any case not be easy to determine whether any particular inventory was part of a set of double-entry accounts or not unless it contained specific references to a journal or ledger—a mere list of stock and debts might

document. A non-technical description of its contents is given by G. Connell-Smith, "The Ledger of Thomas Howell," *Economic History Review*, second series III (1951), pp. 363–370.

¹³ Public Record Office, State Papers 1/185, ff. 100–127; 1/196, ff. 97–165; 46/5, ff. 2–31

¹⁴ Public Record Office, Exchequer Accounts Various, 520/24–25; 521/10; 521/15.

¹⁵ My thanks are due to the Mercers' Company, not only for permission to examine this document, but also for their generous loan of the microfilm copy that has made possible a full examination.

be composed in many different ways and serve many different purposes. Likewise we have no surviving example of a "memorial," the book in which the merchant made a rough note of his transactions before making the more formal entries into the journal and ledger. It is just possible that Kitson's "Boke of Remembraunce" served this purpose, but throughout its length there is no reference to any journal or ledger, and it seems therefore unlikely that it formed part of a double-entry system. As in the case of the inventory, it would be hard to identify an isolated "memorial" as part of any system, since it was essentially only a book of rough jottings, and such a book would be unlikely to have much technical interest from the accounting point of view.

The accounts of Gresham and Laurence, on the other hand, afford good examples of the day-book or journal in the sixteenth century. It must be remembered that in this period the journal contained a great deal more than its more recent counterpart; it contained the entries for *all* transactions. In addition, Gresham journalises all the opening balances for his new ledger, and also the transfer of balances from one impersonal account to another within the ledger (though not, of course, the transfer of balances from one page to another of the same account). The narrative of the entries gives a good deal of detail, though this would probably not be repeated in the ledger. It is, indeed, this wealth of detail that makes possible a reconstruction of Gresham's business from the journal alone.

The journals of both Gresham and Laurence follow a similar pattern. Gresham's, the more elaborately kept of the two, has a long formal dedication that is absent in Laurence's book: "In the name of God, Amen. This present boke shalbe the Journall called + apperteyning to me Thomas Gresham of London mercer for therin to wryte with my owne hande or els with the hand of my prentys Thomas Bradshawe alle my hoole trayne and doynge and out of the said Journall to wryte it into the greate booke called the Leger which shalbe holden by poundes shillinges and pence of money of Englonde. Pleaseth God to geve me profytt and prosperitee to defende me from evell fortune losse and damage. Amen." (See Plate VI.) Such pious expressions are indeed a marked feature of sixteenth-century accounts. Thus Kitson likewise refers to all his cloth shipments as being "by the grace of God," and it was normal practice to inscribe a cross by the date; Ympyn instructs his reader to begin his inventory with the sign of the cross "and writeth by it the name of Jesus for a difference betwene the Turckes and Jewes, whiche do not so."¹⁶ The formal dedication apart, Laurence's book closely resembles Gresham's in its general lay-out. On each folio both books have one column reserved for folio

¹⁶ Ympyn, *loc. cit.*, p. 17.

references to the ledger, given in the form of a vulgar fraction of which the indicator gives the folio to be debited, the denominator gives the folio to be credited. Gresham, but not Laurence, has a further column in which the journal entries are numbered serially from 1-6572. In both books there is a further column containing the narrative, each entry beginning with the formula "A oweth unto B," indicating the accounts of A and B to be respectively debited and credited. On the right is a single column for amounts. Thus the first entry in Gresham's day-book reads as follows:

1 $\frac{1}{2}$ Chest oweth unto Capital, which Dlxv li. viiijs. j d.
is for ready money, £575-9 1.

This indicates that the cash account (on the first folio of the ledger) is to be debited, and the capital account (on the second folio) to be credited with £575 9s. 1d., this being the ready money in Gresham's hands at the time of opening his accounts. It will be seen that no column is supplied for dates, these being entered in the middle of the page above an entry or group of entries. It is also interesting to note that the amount in the right-hand column is written in Roman numerals, while the same sum is stated in the narrative in Arabic numerals. (See Plate VII.) In the mid-sixteenth century it was still apparently felt that Roman numerals, for all their obvious disadvantages, were more proof than Arabic against error and fraud. Johnson, in a fragment of his journal, reverses Gresham's procedure, using Roman for the narrative and Arabic for the amounts column. Laurence, on the other hand, uses Arabic throughout, and it is possible that the use of Arabic numerals in merchants' accounts was becoming more general in England towards the end of the century. The entries in these journals are separated from each other by a line drawn across the page. It is also usual to find that each entry has been cancelled by two short diagonal lines drawn through it, these being made when the posting from journal to ledger had been completed.

As has already been suggested, the contents of a sixteenth-century journal were rather different from those of its more recent successor. One journal only was used for both purchases and sales, and included in it were entries that today would appear only in the cash-book, bill-books, or other specialised books of first entry. The entries appear simply in chronological order, no attempt being made to group them under logical headings in such a way as to facilitate posting to the ledger. Nor was the chronological order very strictly observed in practice. In Gresham's day-book the date above a group of entries indicates the date on which they were inscribed in it, which was not necessarily the date of the actual transactions recorded. Gresham, moreover, was decidedly lax in his dating; entries often run for a page

and more without any date at all, though it is clear from the narrative that in some cases the transactions in question took place after the last date indicated. This, incidentally, creates difficulties for the researcher attempting to reconstruct Gresham's ledger and to draw up balance sheets based upon it. It is, for example, not uncommon to find that goods were apparently shipped abroad before being purchased, or sold before arrival in London from abroad, and on some dates there may even be a credit balance in the cash account. Sixteenth-century journals were clearly not as meticulous as the textbook writers would have wished.

Howell, Laurence and Johnson all supply examples of the sixteenth-century ledger. Their books show a general resemblance in form, though it is Laurence who comes nearest to modern practice. In the ledgers of both Howell and Laurence the left-hand page is used for debit entries, the right-hand for credit entries, but Johnson's 1534-1538 ledger oddly reverses what was already the standard practice and puts the debit entries on the right-hand page. All the three ledgers have columns on each page for narrative, references and amounts; Laurence has two further columns on the left of the page for the date of the month, and his column rulings therefore closely resemble those of a modern ledger. (Howell and Johnson put the date above the entry in the middle of the page.) These differences in lay-out, as well as certain differences in the form of the narrative, are perhaps best shown by examples:

An entry on the debit side of a personal account in Howell's ledger will appear somewhat as follows:

J'hus the 11 May anno 1522

Robert Wheeler oweth to give for 5 broadcloths sold	8	L. xv s. - d. -
him at £3, to pay ready money.		

The same entry in Laurence's ledger would appear as:

11th May	Robert Wheeler is debtor to cloths	8	015	00	0
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The corresponding entries on the credit side of the cloths account would read respectively:

J'hus the 11 May anno 1522

Broadcloths oweth to have for 5 sold to Robert	14	L. xv s. - d. -
Wheeler at £3.		

and:

11th May	Cloths is creditor by Robert Wheeler	14	015	00	0
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In both examples the column between those for narrative and amounts gives the reference to the corresponding folio in the ledger, not the folio in the journal. It has here been assumed that Robert Wheeler's personal account is on folio 14 and the cloths account on folio 8. In

the case of Laurence it has further been assumed that the entries are the first in the two accounts; subsequent entries in the same account omit the title and begin simply "to" or "by," as became the standard practice later. (Howell repeats the title in each entry, but in the first entry it is written in large characters to act as a heading for the account.) Johnson's ledger differs from the others in that it gives references to the entry in the journal, not the corresponding ledger folio, and that these references are given in the narrative, not in a separate column. None of the three uses a column for quantities of goods, though this was recommended in some of the textbooks and is to be found in some contemporary ledgers abroad—for example, in the ledger of the Affaitadi at Antwerp.¹⁷

Laurence's ledger thus comes nearest of the three to modern practice in the lay-out of his accounts, in the form of his narrative, and in his use of Arabic numerals. It is also noticeable that his entries are considerably less informative than those of Howell, since he reduces his narrative to the bare minimum. This again comes nearer to modern practice, but makes the accounts much less helpful to the modern researcher, more especially as Laurence makes use of comprehensive accounts of a very general nature—"Wares" and "Account of Antwerp"—so that the brevity of the entries makes it impossible to ascertain the nature of the transactions recorded in them.

The ledger in this period consists usually of a single book for all the accounts, and there is as yet little attempt to group them. Each new account is normally entered in the next vacant double page, with no distinction between personal and impersonal accounts. When one page is full the balance on the account is simply transferred to the next empty page, so that the major accounts appear at scattered intervals throughout the ledger. Alone of the three merchants here discussed Johnson makes a slight concession to orderliness by leaving blank pages available for the major accounts, and by keeping his cash account in a separate book; but he is not consistent in this and like the others is quite ready to have more than one account on a page where space permits. This lack of orderliness was apt to make the ledger unwieldy for purposes of quick reference, and the textbook writers therefore recommended the use of an alphabetical index. There is no index extant for any of these three ledgers, though it is possible that they may once have existed. But as none of the three is very large, it is likely that someone familiar with the contents would not have felt the need for an index very seriously. Nor, it

¹⁷ The Affaitadi ledgers, of which four volumes survive for the 1550's, are magnificent specimens of sixteenth-century book-keeping at its most advanced level, and give a detailed picture of the workings of a great international trading and banking house of the period. They are preserved in the archives of the city of Antwerp (Stadsarchief Antwerpen, Insolvente Boedelkamer 1097).

might be added, are modern ledgers necessarily kept in better order than those of the sixteenth century, in spite of the advent of the loose-leaf book.

Of the actual accounts to be found in these books little need be said of the personal accounts, which were not materially different from those in a modern system. The most distinctive feature, perhaps, is that entries for goods may appear on both sides of a personal account—that is to say that in the case of a customer who was also a supplier the sixteenth-century book-keeper used only the one account to cover both aspects of his relationship with the business, a natural consequence of the fact that there was only the one ledger for both customers and suppliers. Another feature is the slowness with which Tudor merchants seem to have settled their debts, and the fact that a considerable number seem never to have been paid at all. Howell's ledger opens with thirteen balances brought down from a previous ledger, totalling £126 11s. 3d., which appear never to have been settled; Gresham's book likewise opens with a long list of debts already overdue. But this was not, of course, due to the accounting methods in use, nor was it an exclusively sixteenth-century failing.

The impersonal accounts show greater differences. The cash account is the only one kept on lines closely similar to those of modern book-keeping. It is variously styled "Cash" by Howell, "Chest" by Gresham and Johnson, and "Money" by Laurence, and all except Johnson keep it as an account within the ledger, not in a separate cash-book. The entries in it are for the most part very brief and the sums entered often very small—in some instances only a few shillings. Since, however, the total number was small as compared with the cash entries of any modern firm it was not necessary to keep a separate petty cash account. Gresham does, however, appear to have kept something of that nature for his household expenses, for which substantial sums are credited to the cash account at intervals of some months, but without any details being given.

The treatment of purchases and sales was substantially different from modern practice. There was more than one trading account in the ledger. In each of these related purchases, sales and expenses were recorded, the basis of the classification taking one of two forms. In the one case an account was allotted to a particular venture or to a particular consignment of mixed goods sent to or received from a given market. Thus a consignment of soap, oil and iron from Spain might be allotted to an account headed "Voyage of Seville." This account would be debited with the purchase price of the goods on arrival, and credited with the selling price of the various articles as they were disposed of. When all the soap, oil and iron had been sold the account would be closed, and the balance on it would represent

the profit or loss realised on this particular venture. Such an account had the disadvantage that it was difficult to ascertain the relative profitability of different commodities comprised in it; on the other hand it was very suitable to the needs of a merchant who was experimenting with new markets and was therefore interested in the relative profitability of markets rather than goods. This, of course, was the case with at least some of the Tudor merchants, as it was later to be the case with the earlier settlers on the North American continent, whose accounts employed similar devices.

The other method was to assign an account to each of the commodities in which a merchant regularly dealt, regardless of their provenance or destination. An English merchant of this period might have separate accounts for the cloths and kersies that he exported, and likewise for the velvets, linens and fustians that he imported. In this method too the account would be debited with purchases and credited with sales, with the difference that the account would run continuously throughout the period covered by the ledger. The use of the two forms of account was not mutually exclusive. Howell used both, having a continuous account for the broadcloths that he exported to Spain, but also an account entitled "Voyage of Danzig" for a particular shipment of goods. Gresham, on the other hand, kept separate accounts for each commodity in which he dealt, even for those of which only one small consignment is recorded, and Johnson and Laurence follow on similar lines, though without Gresham's meticulous differentiation. It is probable that the general trend was from the first to the second form of trading account. The latter would be more appropriate to the needs of merchants trading to fixed markets, like the Merchant Adventurers and members of the later Tudor trading companies.

A further distinctive feature of the accounts is the inclusion in them of certain expenses. All charges specifically relating to the venture or commodity in question are debited to the account. Freight charges and customs duty on exported cloths, for example, would be debited to the account for cloths. Rebates might also be charged or allowed to these accounts, though here the practice seems to have varied. Thus the balance on one of these accounts, after due allowance had been made for stock in hand, represented the net profit or loss made on the venture or commodity in question. Similarly, if all the balances on these accounts were taken at a given date the sum total represented the net trading profit or loss of the whole business.

Some expenses, however, could not be conveniently allocated in this way, and some other account had to be used for them. The treatment of these miscellaneous expenses forcefully illustrates one of the most radical differences between Tudor and modern accountancy. In

the earlier system no distinction is made between the private affairs of the merchant and those of his business, and the identification of the two affected not only the treatment of expenses, but also, as will be seen, the estimation of profit and loss. Howell's "Expenses" account consists chiefly of his personal and household expenses. Gresham, though keeping a separate account for household expenses, includes other personal expenses in an account which contains also the wages of servants and the travelling expenses of his factors besides much other miscellaneous matter. Johnson likewise keeps a separate account for household expenses, but combines all the rest in an account called "Expenses ordinary and extraordinary." Laurence has a single account for "Charges" in his second ledger, but the brevity of the entries makes it impossible to determine what exactly was included under this heading; his first ledger seems to have no separate provision for expenses at all. Thus all the English double-entry accounts of this period show some confusion in their treatment of expenses, and in this respect are inferior to the best contemporary examples abroad. The ledger of the Affaitadi, for example, distinguishes clearly between business and household expenses, and even has separate accounts for household furniture and for postal charges. Nor was this a recent Italian innovation; the ledgers of the Borromeo Company of London had the same subdivisions more than a century before.

A further account had to be provided for miscellaneous incomings and outgoings—such items as gifts and bequests and the interest on loans—which could not logically be entered in any other impersonal account. This was provided by the Affaitadi in an account called "Avanzi di nostro conto," by Gresham in a "Damage and Gain" account, by Johnson in a "Gains" account, and by Laurence in an account called "Profit and Loss." (It must be noted that this last had practically nothing in common with the modern account of the same name.) All four merchants use this account also for balances transferred (at irregular intervals) from the other impersonal accounts—the trading accounts. The account is thus made to serve two distinct purposes; profits and losses are confused with all manner of miscellaneous entries, though it is true that if the posting of balances were done systematically the balance on this account would represent the net profit or loss of the merchant over a given period. None of the four merchants did transfer his balances in anything like a systematic manner, however, so that in practice the account served simply as a dumping-ground for items that the book-keeper could not fit in anywhere else. Gresham's account is peculiarly unsatisfactory in that it includes more diverse matter than any of the others; into it went many of his business and personal expenses (the latter include

even his gambling losses), gifts donated or received, income from manors, interest payments and bad debts written off. This accumulation cannot be held to have served any useful administrative purpose. It is worth remarking, however, that as late as the eighteenth century a writer referred to the profit and loss account as a repository for "refuse and dregs."

Gresham's ledger is the only one of the four with a capital account, and even in his case it serves only a very limited purpose. The opening entries in the ledger (journalised in the day book) are debited or credited to "Capital." Thereafter no further use is made of this account, beyond the addition of a few items apparently omitted when the books were opened. On the one occasion that he tries to calculate his profit the resultant figure is not posted to "Capital," and it must therefore be concluded that this account did not serve the same purpose as the modern capital account. It is also interesting to note that in the opening entries no accounts are raised for the fixed assets, such as manors, in Gresham's possession. In thus omitting fixed assets, however, Gresham was only following a practice illustrated in at least some of the early textbooks; one published in 1586 showed that it was quite possible for a non-commercial institution such as a monastery to show a negative capital in the ledger.¹⁴ However, fixed assets, such as houses, bought by Gresham during the period of the account-books are entered to the debit of appropriately titled asset accounts, presumably to act as a double-entry counterweight to the required credit entry in the cash account. On the other hand, lands in Yorkshire inherited from his father, Richard Gresham, do not give rise to the opening of an asset account, presumably because there is no pressing need to credit any account as neither cash is paid nor a debt incurred. Though some of the fixed assets are excluded from the ledger, all incomes derived from them are recorded and find their way into the "Damage and Gain" account. It would therefore be inappropriate to compare the recorded net income with the value of the recorded net assets since this would overstate the rate of return on his capital.

The character of Tudor accounts suggests that they were intended to serve purposes rather different from those of a modern double-entry system. The difference is most marked in the calculation of profit and loss, and here the sixteenth century merchants do not seem to have made full use of the double-entry system. One of the main features of this system today is the preparation of a periodic profit and loss account and of a balance sheet, both of which indicate the position of the business as distinct from that of the proprietor in his

¹⁴ P. Kats, "Early History of Book-keeping by Double Entry," *Journal of Accountancy*, XLVII (1929), pp. 206 and 275.

personal capacity. These documents are normally cast after the accuracy of the book-keeping has already been checked by the trial balance. None of this applies in sixteenth-century England.

In the first place there is no evidence in any of the accounts here discussed that the accuracy of the postings was ever checked. Pacioli recommended that two apprentices should between them carry out such a check either every year or whenever a new ledger was opened, and that each entry in the journal should be marked with two ticks to show that the postings to both debit and credit accounts had been checked and found correct. There are no such physical marks to indicate a check in the journals of Gresham and Laurence, and it is therefore at least doubtful whether any check was ever made. Perhaps their apprentices found, to quote Ympyn's phrase, that "it should bee to painfull and busy to kepe a reonyng after suche maner."¹⁹

Sixteenth-century textbooks did provide a means to calculate profit and loss, but only if certain rules were strictly observed. First the stock in hand had to be checked, and then after due allowance had been made for this the balances on the trading accounts could be transferred to some form of "Damage and Gain" account. To this account must also be transferred the balances on other impersonal accounts such as those for expenses and miscellaneous incomings and outgoings. (In Gresham's accounts these were in any case all grouped together.) The balance on this account would then represent the increase or decrease in the net assets at book values. It would not, however, represent profit or loss in the modern sense, since included among the expenses and miscellaneous accounts were many entries relating to the private and domestic affairs of the merchant. In other words, money drawn from the business by the proprietor is reckoned into the profit and loss account and not entered separately into the capital account.

This process also seems to have proved "to painfull and busy" for sixteenth-century book-keepers. Gresham did at intervals ascertain the balance on one or several of his trading accounts—for this purpose stock seems to have been valued at cost price. But he never did this systematically for all the accounts on a single day—at least he never journalised such a proceeding—and it would therefore not be possible for him to estimate his profit or loss in the way indicated. In any case, the result thus obtained would have been most unsatisfactory in the eyes of a modern accountant. For one thing Gresham habitually anticipates profits, crediting the "Damage and Gain" account with rent payments six months and more before they are due

¹⁹ Ympyn, *loc. cit.*, p. 57.

and entering interest payments in it at the time the loan is made.²⁰ It might be inferred that Gresham was more concerned with having a suitable record of the moneys due to him than with calculating his profit accurately. As for Howell's ledger a number of the columns are not even totalled, and there is no positive evidence that either Johnson or Laurence made the attempt. Some other method of calculating profit and loss must have been used in the Tudor period if any such calculations were made at all.

One possible method, and perhaps the most likely one, was the compilation of periodic inventories analogous to the modern balance sheet. In his will of 1568 Henry Becher refers to the "Inventaryes I have kepte from yere to yere for sixtene yeres paste Excepte that from Anno 1565 untill Anno 1568 there was none made The laste of the same Inventaryes beinge finisshed and made the laste daye of December Anno Domini 1567 The whiche I used to make yerely for the better understandinge of myne estate."¹ Other merchants may well have done likewise, though whether this was a general practice, and whether December 31 was the usual date chosen, we have no means of knowing. To compose an inventory the merchant had only to value his stock and to compile a list of the debts owed to and by him. Successive inventories would enable the merchant to ascertain directly the increase or decrease in his net assets from time to time, provided the personal accounts had been properly kept. There are, however, three points to observe. In the first place the sixteenth-century inventory supplied no statement of the profit or loss of the business as such. Secondly, there was in this method of ascertaining profit no inherent check on the accuracy of the book-keeping, and if errors had been made in the personal accounts the final result might be a great deal out. Since, however, the accounts were few and simple by modern standards the possibility of error was probably not very great in practice. Thirdly, if this was indeed the method used by Tudor merchants, then the use of double entry was a quite unnecessary complication, since all the book-keeping information necessary for an inventory could be derived from a single-entry system with a cash account and personal accounts. It must be suspected that those English merchants who did adopt double entry in the sixteenth century did so without any clear idea of the advantages to be derived from it. And since most merchants could obviously well afford to do without it, it is hardly surprising that it was not widely adopted.

It remains to be considered whether these accounts could be used by the modern researcher for the preparation of final accounts.

²⁰ For example, Day Book entries nos. 1715, 1716 and 723. No adjustment is made for such items in the only profit calculation recorded in the day-book.

¹ Will of Henry Becher, P.C.C. 10 Holney.

Howell's ledger lacks any account for those miscellaneous items that we should expect in any business, and it must therefore be suspected that it does not contain all the relevant information required. Johnson's ledger of 1534-1538 lacks a cash account, though it is just possible that this might be reconstructed from the entries in other accounts; his other books are far too fragmentary to be serviceable. There remain the accounts of Gresham and Laurence.

Gresham's accounts are undoubtedly complete enough for the attempt to be made, but present considerable difficulties. For one thing, it is difficult to estimate his stock at any given date, though the entries in the day-book give sufficient detail for it to be possible to obtain reasonably accurate figures by laboriously totalling the quantities of all goods purchased and sold. It is impossible, however, to make any allowance for depreciation of stock or, of course, for the depreciation of fixed assets. Much more serious are the problems presented by the "Voyages" account. This was the account of Gresham's resident factor at Antwerp. To it were debited all goods shipped from London for sale in Antwerp, and to it were credited all goods received from Antwerp for sale in London. If this were all no great difficulty would arise; a credit balance on the account could be regarded as the profit realised on foreign trade, and though it would be impossible to assess accurately the value of the stock in hand at Antwerp this would not seriously affect the balance over a long period of time.

Unfortunately the "Voyages" account is also used for exchange dealings. When Gresham borrows money in London to be repaid in Antwerp by his factor, the cash account is debited and the "Voyages" account credited with the sum in question—the factor being answerable not to Gresham but to some foreign merchant for repayment of the debt. Similarly when Gresham repays in London money that has been taken up by exchange in Antwerp the "Voyages" account is debited and the cash account credited. In the former case, the more common of the two, there is no indication in the "Voyages" account when, if ever, the money was repaid. Most bills of exchange between London and Antwerp were repayable after one month, but it cannot be certainly assumed that repayment in fact took place after that time. Moreover, any debts contracted by the Antwerp factor that did not involve bills of exchange on London—for example, the purchase of goods on credit—do not feature in the account at all. It is therefore not only the stock but also the credit situation that cannot be ascertained with any certainty. A credit balance on the "Voyages" account may thus represent a combination of profit and liability from the point of view of the business, and can be regarded as pure profit only on the dangerous assumption that all debts payable in Antwerp

have in fact been paid at the date of closing the accounts. Hence a really accurate balance sheet cannot be constructed from Gresham's day-book, since essential information on stock and debts is lacking. The information was presumably available to Gresham, to whom the factor would periodically present detailed accounts—like those that Thomas Kitson's factor Thomas Washington presented for his dealings at the Antwerp marts. From these an accurate figure for profit or loss on dealings in Antwerp could be derived. It is interesting to note, however, that Gresham's one apparent attempt to calculate his profit is based solely on the London accounts—he in fact simply takes the balance on the "Damage and Gain" account, and he appears to have made no attempt to incorporate into the reckoning the profit or loss on dealings by the Antwerp factor. The resultant figure is inevitably quite out of touch with reality.²

Laurence's two ledgers could not, for different reasons, be used as a basis for final accounts on the modern pattern. The entries in the second ledger are far too brief to convey a clear idea of their meaning in the absence of the accompanying journal. The first ledger, where the accompanying journal is still extant, is unusable for another reason. Contrary to one of the most fundamental requirements of double-entry accounting—in the sixteenth century as today—Laurence uses two different currencies in this book, English and Flemish. It is true that he does not confuse the two in any one account, and the value of the ledger as a record of transactions is thus relatively unimpaired, but this confusion makes it virtually impossible to calculate Laurence's profits and cast balance sheets. It also reinforces the general conclusion that Tudor book-keepers regarded their double-entry books as records of transactions rather than as a basis for synoptic final accounts.

It would clearly be dangerous to draw any very hard and fast conclusions about Tudor accountancy from the fragmentary evidence available, but the foregoing discussion nonetheless suggests a number of interesting points. It seems fairly clear that the main principles of double-entry book-keeping were well known in sixteenth century England, even if there were few practitioners of it and the technique of those few imperfect even by contemporary standards. The books of account were fewer in number and more simply and crudely kept than those of a modern firm, but on the whole the differences in form are relatively unimportant. Much more distinctive is the confusion between the affairs of the business and those of its proprietor, a confusion which comes out strikingly in the treatment of expenses.

² Day Book, entry no. 1499. Gresham estimates his net loss for the period April 26, 1546-April 22, 1547, as £74 7s. 3d., though he states that this relates specifically to his trade in England.

The sixteenth century also had much to learn on the subject of balancing the books and casting final accounts, and its weaknesses in this sphere suggest not only a difference in aim in keeping accounts but also a failure to understand or make use of the particular advantages of the new technique of double entry. On the other hand, the distinction between business and private affairs would have seemed meaningless to a sixteenth-century merchant, who was not accountable to anyone but himself. The absence of the modern profit and loss account and balance sheet, in fact, mattered little before the advent of the modern shareholder and tax-collector. The experienced Tudor merchant undoubtedly had a perfectly clear idea of the progress of his affairs, whatever the technical deficiencies of his book-keeping. It would be presumptuous and absurd for the twentieth-century critic to suppose that he could conduct the affairs of Gresham and his contemporaries better than they themselves.