

THE IRISH EXCHANGES AND MINTS IN THE REIGN OF EDWARD I

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THE coins produced in Ireland during the reign of Edward I (1272–1307) are reasonably well-known and classified, thanks particularly to the researches of R.H.M. Dolley, D.W. Dykes and J.J. North.¹ It has sometimes been assumed that little documentation survived concerning this coinage; one of these authorities stated that only one Irish mint account was extant from this period.² This assumption may derive from a disaster in 1922: the destruction, during the Irish civil war, of all of the records of medieval Irish government that still survived in the Irish Public Record Office. In fact, some records had been sent to London in the thirteenth century for auditing; they were retained there, and are now in The National Archives. In addition, summaries of some of the records then remaining in Dublin were printed in the nineteenth and early twentieth centuries. These include the Irish pipe rolls, which recorded some audited accounts of the exchanges. From these sources, it has been possible to reconstruct hitherto unknown details of the activities of the Irish mints and exchanges. In particular, there are accounts, in more or less detail, covering the periods in Table 1.³

TABLE 1. Surviving Irish exchange accounts from the reign of Edward I

<i>From</i>	<i>To</i>	<i>Keepers</i>	<i>Output (£ by weight)</i>
Dublin			
8 June 1278	1 May 1279	Richard Olof	162
1 May 1279	30 May 1280	Walter Unred	368
30 May 1280	24 Feb. 1281	H. de Ponte and J. Donati	3,176
29 Mar. 1281	4 June 1282	A. Spersolt and J. Donati	30,710
4 June 1282	29 Sept. 1284	A. Spersolt and J. Donati	2,140
15 Oct. 1284	18 Mar. 1286	A. Spersolt and J. Donati	260
7 May 1300	5 June 1300	T. Donati and R. Bretoun	361
16 June 1300	23 June 1301	Thorosianus Donati	11,041
Waterford			
15 June 1281	29 Mar. 1282	? R. Lomb and W. Russell	? 22,050
Cork			
28 Feb. 1295	2 Feb. 1297	W. Reith and N. Heyne	400

These accounts cover most, but not all, of the periods when coins were being produced. Fortunately, they do cover the Dublin exchange during the recoinage of the early 1280s, when the mint must have been busiest. That period is particularly well-documented, because detailed records of exchange activities were sent to London for scrutiny. There was a long-running investigation into alleged corruption within the Irish administration, including the exchanges. This involved repeated examination of the accounts, and some of these records survive in London. The chief suspect was Stephen of Fulbourn, the dominant figure in Irish government finance in the late 1270s and 1280s. Fulbourn became bishop of Waterford in 1274, and in the same year was appointed treasurer of Ireland. Despite the suspicions about his activities, in 1281 he was promoted to justiciar, the head of the Irish administration, as well as

¹ For example: Dolley 1968; Dolley and Seaby 1968; Dykes 1964; Dykes 2013; North 1991; North 1997.

² Dolley 1968, 287; Dolley and Seaby 1968, xlv. On the other hand, Mate 1972 and Mayhew 1988 made use of several accounts for the 1279–84 period.

³ The details of these accounts and references for the figures are in the text below.

retaining the post of treasurer until 1285. He became archbishop of Tuam in 1286, and died in office in 1288.⁴

The Irish administration was a replica of the English system. The Exchequer produced similar records to its English counterpart, such as pipe, memoranda, receipt and issue rolls. There was an Irish Red Book of the Exchequer, recording precedents, oaths and statutes, and a book called Domesday, containing evidence of fees and the rights of the king; this was taken out of the Exchequer by the justiciar's clerk, Henry de Ponte, who placed it at the head of his bed, where it was damaged by fire, together with writs ordering payments from the Treasury, which he had also taken.⁵ This anecdote is worth mentioning here, because Henry de Ponte, a careless or perhaps criminal clerk, also turns up as one of the keepers of the exchange.

A document from the 1280s records the accounts of the Dublin exchange for the first three periods listed in Table 1.⁶ There is evidence that the first of these accounts had been copied from a pipe roll, and the other two also take the form of pipe roll accounts, and can be assumed to have been copied from rolls now lost, as part of the investigation into the bishop of Waterford's murky finances. The pipe rolls recorded the audited figures for receipts and expenditure by sheriffs and by officials like the keepers of the exchanges. Incidentally, these accounts also tell us, or allow us to estimate, how much coin was produced. As was also the case in England, the accounts take a fairly consistent form: the keepers of the exchange declare how much money (or silver) they had received, how much they had paid out, and how much they still owed. The figures for bullion received and coins produced are shown by weight, either explicitly or by implication, with a few stated exceptions. Some of the fuller accounts give figures for the number of coins, more than £1 by value, produced for each pound by weight. From this the cash equivalents for mint output could be calculated. As noted below, some accounts show whether the exchanges or their customers received the benefit of this increment, but this is not always the case.

The keepers were not professionally experienced in exchanging or minting, so far as we know. The first and second, Richard Olof and Walter Unred, were both significant citizens of Dublin: Olof was mayor in 1256–57 and Unred in 1276–77 and again in 1283–86.⁷ In the third period, Henry de Ponte, as we have seen, was a clerk in the administration of doubtful reliability, while James Donati was a representative of the Italian merchants who were to dominate Irish government finance, including the exchanges, for the rest of the reign. Donati had been collector of customs in Ireland from 1275 to 1277.⁸

Coins had last been minted in Ireland in 1251–54, when the Long Cross coinage was introduced. The first steps towards resuming activity were taken soon after Fulbourn's appointment as Irish treasurer. In February 1275, the English treasurer was ordered to let Fulbourn have two dies to take with him to Ireland, to make money there. It is natural to assume that minting began shortly after Fulbourn's arrival, as the evidence of surviving coins might suggest.⁹ There is, however, no written record of production until 1278: the first mint accounts for this reign are those of Richard Olof, as keeper of the Dublin exchange, from 8 June 1278 to 1 May 1279. (A reference to these accounts in a 19th-century summary was misdated to 1276–79, and this error was followed by several later writers.)¹⁰ About this time, the

⁴ Connolly 2004; Richardson and Sayles 1963, 81, 99.

⁵ TNA: E 101/234/19 m. 1. Connolly 2002, 18–23, gives a useful overview of the Irish Exchequer, as well as a guide to the surviving records.

⁶ TNA: E 101/230/9.

⁷ Berry 1910, 52–3.

⁸ O'Sullivan 1962, 64.

⁹ *Calendar of the Close Rolls (henceforth CCR) 1272–1279*, 146. Dykes 1964, 73–6, and Dykes 2013, 245–6, for the stylistic characteristics of the coins and their relation to their English counterparts.

¹⁰ TNA: E 101/230/9 m. 1. The same details appeared in the audited accounts in the 1278 Irish pipe roll, summarized in the *36th Report of the Deputy Keeper of the Public Records in Ireland (henceforth RDKPRI)*, 42. These both show the opening date as Wednesday before Trinity, sixth year of the reign (i.e. 1278). There is a reference to these accounts with the same dates in TNA: E 101/234/19 m. 3. This was calendared in *Calendar of Documents Relating to Ireland (henceforth CDRI) 1285–1292*, no. 2, with the opening date given as 8 June 1276. This may just have been a printing error, but 1276 rather than 1278 was then used in the two articles specifically concerned with Olof's coins (Dykes 1964, 77; Dykes 2013, 245), and in other works, such as Dolley and Seaby 1968, xliii, and Mayhew 1988, 87.

king's council in England was asked to send experienced moneyers to Dublin, with dies (*coyn*) and equipment, because no such craftsmen were to be found in Ireland. In Dublin in the autumn of 1278, one Richard the goldsmith was paid for various utensils and necessary items for use of the mint. The payment to the goldsmith was listed in a later investigation into payments from the Irish Treasury by the bishop of Waterford, under writs which had not been found in the Treasury but in the treasurer's own hands.¹¹ Such writs, known as *liberate* writs, were of course the sort which Henry de Ponte had taken from the Exchequer and lost in a fire. Their retention by the bishop himself, rather than in the Exchequer filing system, indicates a casual approach to accountability, at the very least.

During these eleven months in 1278–79, Olof accounted for: £36 20*d.* from silver ingots delivered by the treasurer, Fulbourn; £10 18*s.* 8*d.* from ingots delivered by the keeper of the silver mine in Tipperary; and 115*s.* profit from £115 3*s.* 3*d.* exchanged, at 12*d.* per pound. This indicates a total output of £162 3*s.* 7*d.* by weight. Olof paid £10 8*s.* 4*d.* into the Treasury, was allowed 12*s.* 8*d.* for losses in smelting silver, and passed £29 2*s.* 2*d.* of purchased silver to his successor Walter Unred. Olof owed £12 12*s.* 2*d.* at the end of his term of office, and this debt was still outstanding in 1282, when he paid £4 into the Treasury. The Exchequer was still querying some details of this account in the 1280s, asking where the 115*s.* profit and £36 in silver ingots came from. In 1284, Olof was allowed £4 for the hire of his buildings to house the exchange. The profit of 12*d.* per pound matches the rate (6*d.* for seigniorage and 6*d.* for mintage) which applied in England prior to the recoinage of 1279.¹²

Olof's is the only account that mentions silver deriving from Irish mines. The silver that was coined at the mints, in Ireland as in England, came mostly from the customers of the exchanges. In normal times, outside the recoinage campaigns, these were presumably merchants bringing ingots or foreign coins. Merchants from England, with English coins, would not need to exchange their silver, as English and Irish pennies were meant to be interchangeable, identical in weight and purity. The Irish mines were something of a disappointment, and the Florentine merchants who were involved paid them little attention. For the Irish Exchequer, the mines seem to have produced requests for expenditure, rather than revenue.¹³

Olof's successor as keeper of the Dublin exchange, Walter Unred, accounted for a little over a year, from 1 May 1279 to 30 May 1280.¹⁴ Unred's account shows two figures for profit. One is a profit of £11 7*s.* 5½*d.* from £170 11*s.* 8*d.* received from the merchant Percival of Lucca and others, which was exchanged at one time. This is equivalent to 16*d.* per pound, less than the 17*d.* or 19*d.* charged in England in 1279.¹⁵ The other profit figure is £13 3*s.* 5*d.*, described as arising from silver melted and manufactured to make money. If this profit was the result of charging at the same rate of 16*d.* per pound, it would relate to an output of £197 11*s.* 3*d.* On this assumption, total output under Unred could have been £368. These two sums for profit, plus the £29 received from Olof, total £54. Unred paid £38 to the Treasury, and was allowed the remaining £16 for his expenses in melting and manufacturing silver to make money, and for his custody of the king's die. From this, it would appear that the profit of 16*d.* per pound was intended to cover both the king's seigniorage and the costs of minting, including Unred's own compensation for his activities. The Exchequer later queried this account, alleging that Percival of Lucca and his associates paid £400 in all, from which the king could have had 16*d.* per pound. Percival Gerarduci was then the leading representative in Ireland of the Italian merchant bankers, the Riccardi of Lucca. At the time when this account began, in May 1279, Percival was accused of clipping money and imprisoned in Ireland, but released when his fellow-merchants provided bail.¹⁶

¹¹ Sayles 1979, no. 26. Connolly 1998, 23. TNA: E 101/230/12 m. 1.

¹² *CDRI 1252–1284*, no. 2330; *36th RDKPRI*, 65, 76. A later transcript of Fulbourn's accounts for 1277–78 includes the payment of £36 20*d.* to Richard Olof in eleven pieces of silver (TNA: E 101/230/4 m. 8). English minting charges from Allen 2012, 176, table 6.1.

¹³ O'Sullivan 1962, 99–100. *CDRI 1285–1292*, nos 483, 498, 499, 533, 633.

¹⁴ TNA: E 101/230/9 m. 2.

¹⁵ Allen 2012, 176, table 6.1.

¹⁶ *CDRI 1252–1284*, no. 2330. Kaeuper 1973, 16. *CCR 1272–1279*, 530.

The next account, from 30 May 1280 to 24 February 1281, shows a different approach to the administration of the exchange, as well as a marked increase in the level of activity.¹⁷ There was a division of responsibilities between the exchange, with its keepers Henry de Ponte and James Donati, and the mint, headed by Walter Unred and Humphrey le Gaunter, described as keepers of the die and the foundry. Each side of the operation presented accounts, showing their transactions with each other and with the Treasury. The only source of silver recorded was £3,529 paid from the Treasury to the exchange. This could simply be cash that the Treasury had collected as taxes, but the Exchequer also paid £1 13s. 4d. in the autumn of 1280 to Elias of Winchester, for his expenses of going to various towns to change money for the king's use, to maintain the king's mint in Ireland.¹⁸ This may have been the beginning of the recoinage process, although that did not really take off until the next accounting period. Some of the Treasury cash was described as good money, and the exchange profited from exchanging it by weight, rather than having it recoined. The exchange passed £3,176 to the mint. The keepers of the mint delivered £3,003 in new money, part of which was paid directly to Fulbourn, the rest via the exchange. In all, Fulbourn received £3,603 from the new money, plus the profits of exchanging, and the remaining old money which had not been passed to the mint. The keepers of the mint also took £100 as the fee for melting and minting, at 8d. per pound, and paid £52 directly to the Treasury. There were also sums deducted for expenses, or retained by the keepers until a future account.¹⁹

A puzzling aspect of this account is the profit attributed to the exchange, rather than the mint. There was £146 profit from exchanging £2,027 of good old money (nearly 14d. per pound), and £150 profit from exchanging £1,421 of new money (more than 25d. per pound). These figures are remarkably high, particularly as they appear to be the profits simply of exchanging, as distinct from the 8d. per pound taken for minting. They may indicate that there was some reason to be dubious about the accounts of the exchanges at this time. Such suspicions were set out in a report of grievances concerning the state of the administration in Ireland, which is essentially a denunciation of Fulbourn's regime, covering the customs, escheats, the Chancery and the Exchequer, as well as the exchanges, dating from about 1284. According to this report, the three audited accounts described above had been disavowed or disowned (*disadvocata*) by the Barons of the Exchequer, the clerks and all of the Exchequer, because it appeared that nobody had any advantage from those exchanges except Fulbourn. It also states that the treasurer ordered one Peter de Balimor to write the account of the exchange, despite Peter admitting that he did not know how to audit the account. He therefore wrote as Fulbourn dictated. The report specifically draws attention to Fulbourn's debt of £3,603 received from the exchange, which had been paid directly to him rather than into the Treasury.²⁰ The practice of paying cash directly from the exchanges to Fulbourn continued over several years, and was clearly a major concern to those trying to audit the accounts. The auditors who viewed his accounts in 1283 listed numerous 'foreign' receipts, meaning money received outside the Exchequer's system of recording and checking, including several sums from the exchanges. Similarly, the account for Fulbourn's activities as treasurer, in the English pipe roll of 1291, shows a number of payments from the exchanges outside the Exchequer, between 1279 and 1284, which are difficult to reconcile with the exchange accounts.²¹ At this distance, it is probably impossible to determine precisely what was going on, but it certainly looks suspicious. There was a general belief in Ireland that there was a conspiracy between the bishop of Waterford and the Florentine merchants to defraud the government.²²

The questions about Fulbourn's possible peculations may cast doubt on the reliability of the figures for exchange revenues, but they did have the incidental advantage for historians of

¹⁷ TNA: E 101/230/9 m. 3. Also in E 159/70 m. 45–6. Mayhew 1988, 88, interpreted the closing date of this account as 21 September (feast of St Matthew), and thus thought that there was an overlap with the following account. It seems more likely that the feast of St Mathias, 24 February, was meant, so that this account closed a few weeks before the next began.

¹⁸ Connolly 1998, 52.

¹⁹ Unred and Gaunter accounted for £18 arrears in the 1282 Irish pipe roll: *36th RDKPRI*, 66.

²⁰ TNA: E 101/234/19 m. 3, 1.

²¹ TNA: E 101/230/10 m. 9; E 372/136 rot. 35; similarly in E 159/70 m. 47, schedule; discussed by Mayhew 1988, 88–90.

²² O'Sullivan 1962, 68.

bringing documents concerning exchange activities to London for examination. Some of these documents survive, particularly for 1281–82. These give an unusually detailed picture of the whole range of transactions involving both the exchanges and the mint. By a fortunate coincidence, they relate to the period of the greatest activity in the Irish exchanges, when the recoinage was under way. They also cover a year in which Italian merchants began to play a much greater role.

Edward I needed cash, particularly for his wars in Wales, and borrowed from Italian bankers. The company of the Riccardi of Lucca played the leading part in providing loans, in return for the security of future government revenues, notably from the customs on the English wool trade. The Riccardi were also given the task of collecting the Irish customs from 1275.²³ They were brought into the affairs of the Irish exchange early in 1281, when the treasurer and Barons of the Dublin Exchequer were ordered to pay monthly all the profits from the Dublin and Waterford exchanges to Bendino Panici and Reiner Broccholi, the Riccardi agents in Dublin. The archives of Dublin castle, now lost, said that Edward I established a mint at Dublin with four furnaces, with Alexander Normanni of Lucca as master of the mint. He was to coin money at Dublin and Waterford for one year from Easter.²⁴

This appears to be the first indication that minting was to be extended to Waterford. The mint was evidently soon in operation, for on 10 May 1281 Fulbourn received £200 at Waterford from the sheriff, which he delivered to the Waterford mint.²⁵ It may be more than coincidence that the second mint was sited in the town where Fulbourn, in his other role, was bishop.²⁶ As with the establishment of the Waterford mint, we do not now seem to have a formal announcement of the extension of the recoinage to Ireland. It had begun in 1279 in England, and it has sometimes been assumed that Ireland followed in 1280, when several English provincial mints were opened.²⁷ It seems more likely that the recoinage, at least on a large scale, should be associated with the new appointments to the Irish exchanges early in 1281, and with two payments from the Irish Exchequer in the first few months of 1281: the very large sum of £124 16s. to Walter Unred and his associates at the mint, for making dies (although on other occasions dies seem to have been sent from England, rather than manufactured locally); and £6 13s. 4d. to Bartholomew the goldsmith, for his service to the king in the foundry and mint.²⁸ In addition, the wardens of the London exchange incurred expenditure related to Irish mint activities during the period from October 1280 to April 1281: for balances, weights, copper and basins to be sent to Ireland; the wages and expenses of eighty-two workers and moneyers going from London to Ireland; and the hire of two carts to carry their equipment from London to Bristol.²⁹ This would suggest that, as recoinage activities slowed down in England, skilled workers were available for sending to Ireland.

The report of grievances about the administration naturally included complaints about the recoinage, which was seen as another opportunity for Fulbourn to skim off the profit. He was regarded as personally liable for the policy: the new money was called *Scaldings*, or bishop's money, or *Stephenings*, from his name. It was alleged that good large coins were picked out from old money brought to be exchanged at a cost of 16d. per pound, while small (presumably worn and clipped) coins were only taken by weight. The small coins were then paid out to the king's creditors in place of good money. Anyone might have become rich from such an exchange, but the profit had disappeared. The old money was later completely forbidden. The

²³ Prestwich 1972, 204–8; Kaeuper 1973, 48–55.

²⁴ *CPR 1272–1281*, 423; *Calendar of the Fine Rolls Edward I*, 141; *CCR 1279–1288*, 76. The names of the Riccardi agents are spelled as in Kaeuper 1973, 58, table I. Brewer and Bullen 1871, 449; Davies 1762, 71.

²⁵ Connolly 1998, 59.

²⁶ This suggestion was made in Dolley 1969, 49–50. On the other hand, there is no evidence for the suggestion that 'the wily Stephen had so arranged things that there would be an episcopal seigniorage on every pound of silver that passed through the Waterford mint.' (Dolley 1972, 11)

²⁷ Mate 1972, 51. Dolley 1972, 11, stated that the recoinage began in Dublin in 1280, and in Waterford in the winter of 1280–81; Dolley 1987, 820, said that the recoinage began in Dublin in 1281, with Waterford soon afterwards.

²⁸ Connolly 1998, 56, 57.

²⁹ TNA: E 372/132 rot. 3d.

land of Ireland was damaged beyond measure by the exchanges, and almost destroyed, so people said.³⁰

It is hard to know whether such allegations were widely believed, or indeed true. It would be understandable that people would resent paying 16*d.* per pound to change their money, even if the impact on the general public might have been limited. The Irish economy was a long way behind those of England and Scotland in its use of money. One estimate of money supply per capita, for around 1290, gives 64*d.* for England and Wales, 47*d.* for Scotland and 12*d.* for Ireland. Even within the Lordship of Ireland, the more urbanized area where the English crown exercised some authority, the money supply per head might have been only about 24*d.*³¹ The more remote parts of Ireland appear to have used cattle rather than coin for payments. The pipe rolls record numerous debts calculated in terms of cattle, and these debts were actually paid in cattle too: the 1287 pipe roll shows several fines of 100 cows for having the king's peace; such a fine was collected in Kilkenny county by seeking out the cows and bringing them to Kilkenny.³² In regions like that, a change to the coinage would have little impact. This would not be the case for the merchants in the cities, part of a common currency area in which English, Scottish and Irish coins were meant to be interchangeable. For them, there could be benefits as well as costs, if the recoinage produced a currency which could be relied upon to meet English standards.

The bulk of recoinage activity must have taken place during the period covered by the first accounts of Andrew de Spersolt and James Donati as keepers of the Dublin exchange, from 29 March 1281 to 4 June 1282. Spersolt was another important burgess of Dublin; he was one of the bailiffs who accounted for the city's revenues in 1276, and he farmed the mills near Dublin castle.³³ The division of responsibilities between exchange and mint continued, and is exceptionally fully documented. We can see the detail of the first part of the process in a roll of exchanges by Spersolt and Donati, covering the period from 9 April to 20 July 1281.³⁴ This shows the exchanges which were made on each working day, in three columns: the name of the customer; the amount by weight; and the amount by number (marked *T.* for tale). For each day, this is followed by a daily total. A single day's business, by weight, could range from £12 to, exceptionally, £1,046, on a day when the exchange handled £612 from the Exchequer. The total for this period was £6,053 by weight. An extract showing one day's business may illustrate the way in which transactions were recorded:

Wednesday 23 April 1281

From Gilbert son of Robert de Keyli	£17 7 <i>s.</i> 8 <i>d.</i>	T. £16 4 <i>s.</i> 5½ <i>d.</i>
From Edward Colet	£11 14 <i>d.</i>	T. £10 6 <i>s.</i> 5 <i>d.</i>
From Adam Herford	£18 5 <i>s.</i>	T. £17 8 <i>d.</i>
From master John de Penlee	£22 13 <i>s.</i> 8 <i>d.</i>	T. £21 3 <i>s.</i> 5 <i>d.</i>
From John Small, chaplain	£10 17 <i>s.</i> 11 <i>d.</i>	T. £10 3 <i>s.</i> 4 <i>d.</i>
Total by weight	£80 5 <i>s.</i> 5 <i>d.</i>	Total T. £74 18 <i>s.</i> 3½ <i>d.</i>

Each of these transactions shows a customer bringing an amount by weight, and receiving an amount by number, or tale, which is what remains after deducting 16*d.* per pound weight. From these figures, it is clear that customers were not receiving the benefit of the mint's production of more than 240 pennies per pound weight. A customer who brought in £1 by weight of old silver coins would receive 18*s.* 8*d.* by number of new coins, while, as we will see below, the mint manufactured £1 5¼*d.* in pennies. This increment was not shared with the customers, but went entirely to the exchanges (or perhaps to their officials, lost in the opaque exchange accounts). In addition, some days' totals have a comment showing that the amount calculated is incorrect: the last day, 20 July, for example, has a total by weight of £12 9*s.* 8*d.* and 'Total

³⁰ TNA: E 101/234/19 m. 3.

³¹ Campbell 2008, 931.

³² 37*th* RDKPRI, 27.

³³ 36*th* RDKPRI, 29. Spersolt's name is spelled in numerous ways in the records, including Spersholt and Persolt: perhaps from Sparsholt, Berkshire?

³⁴ TNA: E 101/230/18.

by tale £11 12s. 5½*d.* and thus they paid 6¾*d.* less.’ The total at the end of the roll is followed by a comparison of the correct tale sum with the tale amount actually paid to individuals, ‘and thus was paid 70s. 5½*d.* less than is right.’ This is a trivial error (if it was an error) in a tale total of £5,650, but interesting as an example of the scrutiny which the accounts received.

Another roll shows how the silver received at the exchange was passed to the other side of the operation, the mint. This roll, of deliveries of bullion from the exchange to Alexander, master of the Dublin mint, covers the period from 21 March 1281 to 8 May 1282.³⁵ Alexander is shown to have received a total of £30,730. It begins with four deliveries from the treasurer, Fulbourn, totalling £2,297, between 21 and 29 March. This may have been the bullion needed to provide a stockpile of new coins, ready for the opening of the exchange itself. The roll then continues as a list of deliveries to Alexander, one or two per working day, showing the source of the bullion. The next few entries are:

Also to the same [Alexander], on [Tuesday] 1 April, £321 16s. 8*d.* received from bullion exchanged on the preceding Monday.

Also to the same, on Wednesday following, £348 14s. 4*d.* from the exchange of the preceding Tuesday.

Also to the same, on the same day, £48 12s. 6*d.* from the remainder of the preceding Tuesday and from the exchange of that Wednesday.

Also to the same, on Friday 4 April, £250 from the exchange of the preceding Thursday and from the exchange of that Friday.

Also on Saturday following before lunch, delivered to the same £84 17s. from the exchange of Saturday before lunch.

And on Monday, Alexander received the bullion from the exchange of Saturday afternoon. The roll continues, although not always with this level of detail, but incidentally showing that the mint sometimes worked on Sundays, and even on Good Friday. From late in April, it distinguishes between bullion received from the keepers of the exchange, and bullion from Peter de Munbron (or Munbrun), the exchanger. It also shows a few other sources of bullion, such as £470 from the bishop of Clonfert, and £200 by number, sent from Connacht by the justiciar. Alexander also received £219 from the keepers of the new customs on wool exports, in Cork. This is presumably the transaction shown in the accounts of the collectors of customs in Cork for 1280–81; they were allowed £16 ‘computed as loss in exchanging and blanching £207 old money received before the proclamation against receiving it’ (that is, 18½*d.* per pound), plus 16s. for testing that money, selecting the good and retaining the bad.³⁶

The deliveries of bullion to Alexander, and thus the production of new coinage, were concentrated towards the beginning of the process (see the chart of weekly bullion deliveries in Figure 1). As we have seen above, in April 1281 there were deliveries nearly every day. By the autumn, they were less frequent – only nine in October – and there were none between 4 November and 19 January. The roll ends on 8 May 1282 with the delivery of £605 from the Roscommon exchange. There are other references to an exchange at Roscommon, which operated from 9 March to 2 May 1282, and the accounts of the keepers of the Dublin exchange mention expenses for carrying treasure to Roscommon for exchanging.³⁷ It seems to have been a short-term operation, towards the end of the recoinage process, in which new coin was taken from the Dublin mint to provide an exchange facility in a fairly remote area.

There is further detail about the relations between exchange and mint in another roll, which is divided into two columns, one headed ‘Deliveries of new money made to Peter de Munbron for exchanging at Dublin by Andrew Spersolt and James Donati, beginning 31 March 1281’, the other ‘Receipts of bullion from Peter de Munbron, exchanger of Dublin, the same year.’³⁸ The second column repeats some of the information from the previous roll, showing the bullion delivered by Munbron (rather than by the keepers or the Treasury), with entries for each working day. These entries are grouped together, often covering a week or two, and linked to the corresponding entries in the first column, with sub-totals for each group. The

³⁵ TNA: E 101/230/20.

³⁶ 36th RDKPRI, 55.

³⁷ TNA: E 101/234/19 m. 3; E 159/70 m. 54; E 101/230/22 m. 3.

³⁸ TNA: E 101/230/22.

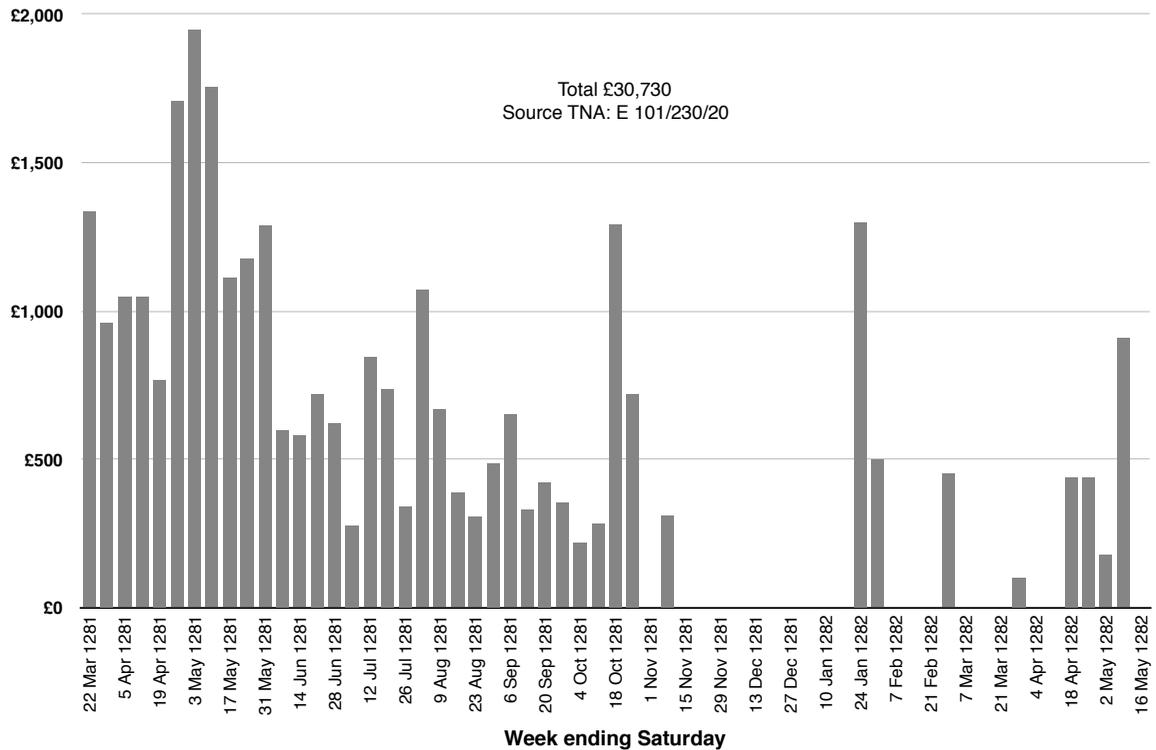


Fig. 1. Weekly bullion deliveries to the Dublin mint, 1281–82

first column shows the quantities of new money sent to be exchanged, on each working day, usually in round figures, as in the following example:

The same Peter received ...

Also 21 July before lunch £120
 Also the same day after lunch £200
 Also Wednesday following £110
 Also Thursday following £80
 Also Saturday following £140 before lunch
 Also the same day £100 after lunch
 Total £750

The same Peter delivered bullion exchanged ...

Also Wednesday 23 July £340
 Also Sunday 27 July £450
 Also the same day £14 2s. 2d.
 Total increment as above 10s. 7d.

Total £804 2s. 2d.

Such entries, in groups with sub-totals as in that example, continue to 2 May 1282, including the exchange at Roscommon. Some of the deliveries are shown as being made to John de Munbron or to William de Arraz, also exchangers. At the end of the roll, it shows the total transactions involving the exchangers: in the first column, 'Total of totals of money delivered to Peter de Munbron by the keepers. Total of new money paid for that bullion £19,424 3d.'; in the second column, 'Total of totals of receipts of bullion from Peter de Munbron £20,826 20³/₄d.' It then refers to another roll, now lost, covering the similar transactions made by Spersolt and Donati: £5,649 10s. 10¹/₂d. delivered to them, and £6,053 20d. received from them. The closing calculation adds together the totals for both rolls, and 'Total increment of bullion £57 18s. 1¹/₂d.' The increment appears to be the adjustment necessary to make the totals balance, so that the amount of new money delivered to Munbron and the keepers matches the amount of bullion received, minus the charge of 16d. per pound. The roll then adds in the bullion received from the Treasury at the beginning of the process, £2,297 'by exchange weight', to reach the final totals: 'Total bullion both bought and received from all sources with its increment, £29,293 12s. 10¹/₂d.', 'Total cost £27,217 4¹/₂d.' and 'Total money made and minted in that exchange for that time, £30,710.'

Some of the calculations are hard to follow, with possible changes in weight standards. On the face of it, it seems that the exchange paid out £27,217 to its customers in new money, while manufacturing nearly £3,500 more, to cover both the repayment of the initial float and its expenses. The problem of understanding quite where the money went also afflicted contemporaries, as can be seen from the several versions of the keepers' accounts for the period from 29 March 1281 to 4 June 1282.

The earliest is contained in an order from the king to the English Exchequer dated 5 July 1282, only a month after this period ended.³⁹ Fulbourn had sent the Dublin and Waterford keepers' views of account to the king. The king forwarded them to the Exchequer, to be inspected in the presence of Gregory de Rokesley, warden of the London exchange, together with pyxes of Irish coins to be assayed. In the Dublin view, Spersolt and Donati recorded the receipt of £2,297 from Fulbourn. They had returned £1,936 to him, retaining £361, and they had received £200 from the Waterford exchange. The Dublin exchange had made £30,710. The revenue from this, £1,855 at 14½*d.* per pound, had been paid to Fulbourn.

A fuller, and somewhat different, version is on a roll containing the accounts as presented by the keepers, together with notes of the keepers' claims for their expenses and of the discrepancies discovered.⁴⁰ The roll is described as the account of Andrew de Spersolt and James Donati (represented by his brother Thorosianus Donati) for the revenues of the Dublin exchange from 29 March 1281 to 4 June 1282. It gives separate figures for pence, halfpence and farthings (Table 2).

TABLE 2. Account of the Dublin exchange, 29 March 1281 to 4 June 1282

	<i>Pence</i>	<i>Halfpence</i>	<i>Farthings</i>	<i>Total</i>
Output by weight	£27,770	£1,260	£1,655 5s.	£30,710
Output by number	£28,377 9s. 4½ <i>d.</i>	£1,299 7s. 6 <i>d.</i>	n.a.	n.a.
Output, per pound weight	245½ <i>d.</i>	247½ <i>d.</i>	n.a.	
Mintage charge	£778 18s. 11½ <i>d.</i>	£47 5s.	£75 5s.	£903 10s. 7½ <i>d.</i>
Mintage per pound	6¾ <i>d.</i>	9 <i>d.</i>	11 <i>d.</i>	

The mintage figures do not add up to the total shown, and the figure calculated for mintage (*pro operagio et monetagio*) of pence is slightly too low. The figures for farthings and the total by number have been lost, due to a hole in the parchment.

The keepers had paid out £27,217 in new money for the bullion purchased. The king's share of the revenue was £1,932, including £1,191 for 'issues of the exchange and foundry' at 9¼*d.* per pound and £384 increment, at 3*d.* per pound (both figures seem to be slightly too high). After all the deductions, the sum remaining was calculated as £1,382. Against this, the keepers claimed that they should be allowed £1,855 delivered to Fulbourn, and various small expenses, including £17 for the enforced idleness (*pro chumagio*) of the moneyers. The roll ends with queries concerning the keepers' figures: the roll of the foundry shows that the keepers delivered there £1,495 more bullion than was contained in the rolls of purchases, coming from various men whose names were not found in the rolls; the keepers retained £561 of bullion, including £200 from Waterford, for which they should answer in their next account.

This account was clearly not satisfactory, and the keepers had further expenses that they wanted to claim. There is a petition from the keepers of the Dublin exchange, asking that they should be reimbursed £12 6s. 8*d.*, for ½ mark each paid to 37 workers and moneyers, as well as various small expenses. They also asked for the stipends from 17 March 1281 to 4 June 1282 for two keepers, a clerk, a die-keeper and a clerk who was over the cutter of the dies (*ultra*

³⁹ TNA: C 54/99 m. 3 schedule. Calendared in *CCR 1279–1288*, 164–5. A separate order of 1 July instructed the English exchange to receive two pyxes from Donati, with money to be assayed: *CCR 1279–1288*, 161. There is a somewhat damaged draft letter from the king to Fulbourn from about this time, instructing the bishop to send Alexander, the master of the mint, to England with a pyx (TNA: SC 1/13/43).

⁴⁰ TNA: E 101/230/21. The same, or similar, information appears to be in E 101/301/2, but that is faded and crumpled, with part of its final membrane torn away

cissorem cuniorum).⁴¹ This gives an indication of the scale of the operation, and incidentally confirms that dies were cut locally, rather than being imported. Another source shows that Peter the chaplain of Dublin castle was paid £2 for his stipend from 25 March 1281 to 25 March 1283, when he was keeper of the cutting of the king's dies in the castle.⁴²

The process of investigation and audit of the exchange, and of Fulbourn's finances, continued for some years. The suspicions centred on the bishop and the Donatis, while other officials were absolved; in 1283, Alexander Normanni and the exchangers Peter and John de Monbrun were acquitted of all accounts, because of their faithful service. There are references to auditors being appointed in 1283 and 1284, and disputes continued in 1289, when James and Thorosianus Donati petitioned to be released from prison, claiming that they were being held for a debt which they had already paid to Fulbourn. There is a long report on Irish finances in the English memoranda rolls as late as 1296–97, which includes, among much else, two further versions of the Dublin exchange accounts for 1281–82.⁴³ The first version must have come from some stage in the audit process, as it still included unresolved questions. There had been revisions to the figures for output of farthings, so that the amounts given for the three types of coin now added up to the total of £30,710 by weight, £31,434 by number. The mintage rate for farthings had been reduced to 10³/₄d. per pound. The cost of bullion purchased remained at £27,217 in new money, but the account now states that, according to Robert the founder (*funditor*), the master (of the mint, presumably) received from various men £1,475 in bullion over the total contained in the roll of purchases. At the end of this account, the keepers still retained £561 in bullion, including £200 which came from Waterford.⁴⁴

The second memoranda roll version of the Dublin exchange account for 1281–82 seems more settled, with some of the dubious points having been resolved.⁴⁵ The keepers accounted for a total of £30,710 bullion by weight, delivered to Alexander Normanni of Lucca, master of the mint, for making money. The key figures given for the three coins produced are summarized in Table 3.

TABLE 3. Revised account of the Dublin exchange, 29 March 1281 to 4 June 1282

	<i>Pence</i>	<i>Halfpence</i>	<i>Farthings</i>	<i>Total</i>
Output by weight	£27,770	£1,260	£1,680	£30,710
Output by number	£28,377 9s. 4½d.	£1,299 7s. 6d.	£1,757	£31,433 16s. 10½d.
Output, per pound weight	245¼d.	247½d.	251d.	
Mintage charge	£781 7½d.	£47 5s.	£75 5s.	£903 10s. 7½d.
Mintage per pound	6¾d.	9d.	10¾d.	

In this account, the figures, slightly revised from previous versions, now add up correctly. There are several other adjustments, showing that this account has been amended after scrutiny, such as £15 for which the keepers were charged by the auditors of their account in England, because of the weakness (*debilitatem*) of the pennies in the assay there. Other adjustments relate to the difference between the exchange pound and the Exchequer pound, an increment of 3d. per pound, and profit from producing halfpence and farthings because they were 'weaker' than pence. The mintage charges can be compared to rates of 6½d. for pence, 8½d. for halfpence and 10¾d. for farthings charged in England from December 1280 to May 1285. Ireland seems to have differed from England in another respect: in England, the weight standard of 243d. per pound was restored in February 1281, with the increment of 3d. paid to the owner of the bullion.⁴⁶ The keepers were given allowances for wages, including 40 marks

⁴¹ TNA: SC 8/43/2134.

⁴² TNA: E 101/230/12 m. 2 (another example of payment by a writ which Fulbourn kept in his own hands rather than in the Treasury); Connolly 1998, 81. Another reference, to repair works in Dublin castle in 1300–02, also indicates that the exchange was in the castle: 39th RDKPRI, 25.

⁴³ References to auditors and their queries in, for example, *CPR 1281–1292*, 66, 72, 127; *CDRI 1252–1284*, nos 2244–5, 2335–8. *CDRI 1285–1292*, no. 550. Memoranda roll TNA: E 159/70 m. 44–54.

⁴⁴ TNA: E 159/70 m. 48.

⁴⁵ TNA: E 159/70 m. 54.

⁴⁶ Allen 2012, 173–4, 176 (table 6.1).

for themselves, 100*s.* for Henry de Ponte, who was now described as the clerk who looked after the rolls of the exchange, and 100*s.* for Bartholomew the goldsmith, keeper of the dies. At the end of the account, the keepers were stated to have spent a total of £29,570 on bullion, minting and expenses. They owed £1,878, for which they would answer.

There is thus a confusing mass of documentation, not necessarily consistent, concerning the Dublin exchange in 1281–82. Unfortunately, there is much less information about the Waterford exchange, which was in operation at the same time. Even then, it was difficult to extract information from the keepers: allegedly, it took several writs to distrain the keepers to make a view of their accounts, because they did not want to come, and only one turned up. In one source, Thorosianus the Lombard (presumably Thorosianus Donati) is called the keeper at Waterford, and said to be a retainer (*familiaris*) of Fulbourn.⁴⁷ In other sources, the keepers in 1281–82 are given as Robert Lomb and Walter Russell, who delivered £1,415 from the exchange to Fulbourn (another example of payments directly to the bishop, outside the Exchequer system).⁴⁸ There is some indication of the scale of their operation: they petitioned for reimbursement of £17 paid to fifty-one workers and moneyers, plus the stipends of two keepers, a clerk and a die-keeper from 15 June 1281 to Easter (29 March) 1282. They also asked to be allowed the expenses of the one of them who went to Dublin to render their account.⁴⁹ All we have of their accounts is a brief view of account, made on 8 June 1282, sent to the English Exchequer for examination.⁵⁰ It says very little about revenues: ‘Money received by those keepers at the beginning of the exchange, £1,350 by weight of old pennies. From which the issue of the same is £1,332 15*s.* 10*d.* Total of both, £2,682 15*s.* 10*d.*’

This brief statement may mean that the Waterford exchange received £1,350 to provide a stockpile of silver when it began operations, which would have to be repaid at the end of the year. The issue, £1332 15*s.* 10*d.*, would derive from an output of some £22,050, if we assume that it was calculated in the same way as the revenue from Dublin which appears in the same document, at 14½*d.* per pound. The payments that the keepers made, as shown in the view of account, include several sums already mentioned above from other sources: £1,415 delivered to Fulbourn, £17 paid to the mint workers, and £200 to the keepers of the Dublin exchange. They also paid £40 to Peter and John de Munbron, the exchangers, as wages for the year, and £500 by the king’s order to ‘Bondinus Padwikus’, merchant of Lucca – perhaps Bendino Panici, head of the Irish branch of the Riccardi.⁵¹

That, unfortunately, is all the information given about the Waterford exchange of 1281–82. Taken together, the Dublin and Waterford mints may have produced something over £50,000 by weight during the year or so covered by their 1281–82 accounts. This appears to have been the peak of the recoinage in Ireland, and clearly shows a much higher level of activity than is found in the surviving records for the years before and after 1281–82. It is still a relatively small amount compared to the recoinage in England, where mint output in 1279–82 has been estimated as approaching £900,000.⁵²

Output fell markedly at the Dublin exchange in the next period, from 4 June 1282 to 29 September 1284. The keepers were still Andrew de Spersolt and James Donati, and there are two versions of their accounts in the 1297 memoranda roll.⁵³ The first is a view of account, which refers back to their account for the preceding period as having been rendered in England, and has some tentative entries concerning transactions involving Fulbourn and merchants. The second is more definite, and provides a clearer picture of exchange activities for these two years, when the main business of the recoinage was evidently complete. They received £1,577 bullion by weight from various men for exchanging, and £561 from Fulbourn, including the

⁴⁷ TNA: E 101/234/19 m. 3.

⁴⁸ TNA: E 159/70 m. 47; E 101/230/10 m. 9.

⁴⁹ TNA: SC 8/43/2134.

⁵⁰ TNA: C 54/99 m. 3 schedule. Calendared in *CCR 1279–1288*, 164.

⁵¹ Kaeuper 1973, 51.

⁵² Allen 2012, 311, table 9.11. Mayhew 1988 estimated Irish mint output 1279–84 as about £60,000, which is consistent with the figures shown here from the known accounts.

⁵³ TNA: E 159/70 m. 48, 54.

£200 remaining from the Waterford exchange. They paid £1,996 for this bullion, that is 18s. 8d. per pound (or, to put it another way, they charged 16d. per pound). The total cost of bullion was £2,139 12s. 10½d., which they delivered to Bartholomew the goldsmith, then master of the mint, for making new money. The mint produced only pennies and halfpence. Table 4 shows the key figures for mint output, as given in the account.

TABLE 4. Account of the Dublin exchange, 4 June 1282 to 29 September 1284

	<i>Pence</i>	<i>Halfpence</i>	<i>Total</i>
Output by weight	£2,029 12s. 10½d.	£110	£2,139 12s. 10½d.
Output by number	£2,074 10d.	£112 8s. 1½d.	£2,188 4s. 9½d.
Output, per pound weight	245½d.	245½d. (249d.)	
Mintage charge	£50 14s. 10d.	£4 2s. 6d.	£54 17s. 4d.
Mintage per pound	6d.	9d.	

The total output by number includes small adjustments: 16d. profit for the ‘weakness’ of the new pennies, and 34s. 6d. profit from the weakness of halfpence, because the halfpence were 3¾d. per pound ‘weaker’ than the pence. This adjustment would explain why the output of coins, in pence per pound, appears to be the same for the two coins: the adjustment would bring the output of halfpence up to 249d. per pound weight. The charge for minting and working pence has been reduced from 6¾d. to 6d. per pound. That apart, this account shows that business was continuing on the same lines as in the previous account, but at a much lower level of activity.

Activity fell still further in the last account of Spersolt and Donati, from 15 October 1284 to 18 March 1286.⁵⁴ This view of account is fairly short and simple, showing that there was very little exchange activity, and that the mint was producing only pence. The keepers accounted for £260 by weight of pence produced, or £263 5s. by number, showing that they were now producing only 243d. per pound weight, some years after this change was introduced in England. The cost of bullion purchased was £242 13s. 4d., which indicates that the exchange was still charging its customers 16d. per pound (the same as the charge in England for English silver from May 1285). The account shows how this charge was divided: the working and mintage of £260 cost £7 10d., at 6½d. per pound; the king was to receive £10 5s. 10d. from the revenue of exchange and melting, which is 9½d. per pound, plus an increment of 3d. per pound to allow for the difference between weight and number (which in England was returned to the customer).⁵⁵

For several years from 1286, there is no indication of any exchange activity, and the resumption of minting in the late 1290s is unfortunately poorly documented. We have quotations from a memorandum recorded in the Red Book of the Irish Exchequer, destroyed in 1922. This indicated that minting may have resumed late in 1294 or early in 1295.⁵⁶ The Red Book said that on 7 November 1294, the warden of the English exchanges, William of Wymondham, by order of the English treasurer, sent the Irish treasurer twenty-four dies to make money: three piles (*pilas*) with six crosses (*crucellis*) for pence, the same for halfpence, and two piles with four crosses for farthings. Three clerks from the London mint were to use the dies to mint money in Ireland. But there is no further detail of output from Dublin, and only a short account from the mint set up in Cork.

⁵⁴ TNA: E 159/70 m. 44.

⁵⁵ Allen 2012, 176, table 6.1.

⁵⁶ Brewer and Bullen 1871, 449, and Davies 1762, 71–2. (These give the date as 1304, which would not fit with the reference to Wymondham and other officials mentioned.) Also cited by Dykes 1976, 45–6, who points out the problem with the date. A better version in Ferguson 1854, 47, with a fuller, and consistent, date. Frustratingly, Ferguson also noted that the Red Book included statements of the sums received for making coin, and of the proper weights of pence, halfpence and farthings, and a letter concerning strong and weak pence sent by Lapé, the exchanger of London (Lapus Philippi or Lapinus Roger?). We will now never know the details of what the Red Book said.

This account, for Walter Reith and Nicholas Heyne, keepers of the Cork mint, covers two years, from 28 February 1295 to 2 February 1297.⁵⁷ They had received: £21 from the municipal authorities, which had been transferred from mint revenues of John de Ely, a former keeper; and £26 6s. 9d. mintage fee (*monetagium*) for exchanging £400 9s. 2d. This is almost 16d. per pound, and would therefore be the total exchange fee, not just the cost of minting. Most of their revenue had been spent on supplies to be sent to Gascony for the king, but they also accounted for 8s. 2d. for three 'iron plates made anew' (perhaps dies), and £2 4s. 6d. for the 'expense of moneyers coming to Dublin, &c.' That is all that has been recorded from their accounts, but it shows that there was a very low level of activity. The former keeper John de Ely may be the goldsmith of the same name who was accused in 1299 of falsifying the assay of foreign money brought into Ireland from Germany. He was said to have added 4½d. of pure silver to 12d. of money to be assayed, but was found not guilty by a jury in Waterford.⁵⁸ It is not clear whether Ely had been keeper at some point before 1295, or early in the period covered by this account, but his revenues of £21 must have derived from output over and above the £400 exchanged by Reith and Heyne.

The remaining accounts from Irish mints in this reign come from the period of Edward I's campaign against foreign coins, the pollards and crockards produced in imitation of English sterlings. Initially, Edward prohibited the import of these coins, but allowed their use to continue, in August 1299, specifically directing the justiciar of Ireland to allow Bristol merchants to trade in Ireland with this money. The quantity in circulation was evidently considerable: the justiciar of Ireland seized £954 of pollards from merchants of Bruges, which was later returned to them. In March 1300, Edward withdrew his permission for pollards and crockards to circulate as equivalent to halfpence, and ordained that only sterlings from his mint should be current. This proclamation was sent to the justiciar, so that Ireland was included in this change of policy.⁵⁹ It was also enforced there. The 1301 Irish pipe roll records fines of up to £10 for exporting sterlings contrary to the prohibition, and fines of 10s. and 20s. for buying and exchanging pollards.⁶⁰

Also in March 1300, Edward ordered the warden of the English exchange to recruit mint workers overseas for both the English and the Irish exchanges, and committed the Irish exchange to the merchants of the Frescobaldi of Florence. Edward's close relationship with the Riccardi of Lucca had ended in 1294, and the Frescobaldi were now emerging as the dominant providers of finance.⁶¹ In April, the Irish Exchequer was ordered to appoint a clerk controller, to account for the revenues of the exchange, and to repair the buildings of the mint and exchange. The Frescobaldi were licensed to exchange and purchase silver, pollards and crockards in Ireland, and any 'white money' counterfeited for sterlings, which was to be brought to the Dublin exchange. Alexander Normanni of Lucca returned to the position of master of the mint, to strike the king's money at Dublin. He was to take four furnaces with him, and his charge of 6d. per pound should cover all his costs, including finding a die-cutter. Philipuchius del Beck and twenty-four associates were paid £3 each for going from London to Ireland to coin money.⁶²

The Dublin exchange produced two sets of accounts for the period when pollards were being exchanged. The first covers just a month, from 7 May to 5 June 1300, when the revenues of the exchange and the purchase of pollards were in the king's hands, before they were granted to the Frescobaldi.⁶³ The division of control was shown by the keepers: Thorosianus Donati, for the Frescobaldi, and Roger Bretoun, the clerk appointed by the justiciar to represent the royal administration. The keepers had begun their activities with two loans: £175

⁵⁷ *38th RDKPRI*, 51. Walter's surname is spelled Reyht in the summarized pipe roll account, but there are other references to him as Walter Reyth or Reith of Cork, which seems more likely: Mills 1905, 269; *38th RDKPRI*, 44, 59.

⁵⁸ Mills 1905, 268.

⁵⁹ *CCR 1296–1302*, 267, 270, 385–6. For pollards and crockards in England, Allen 2012, 193–5, 259–61.

⁶⁰ Mills 1905, 306, 330. *38th RDKPRI*, 52.

⁶¹ Prestwich 1972, 209–11.

⁶² *CCR 1296–1302*, 347; *CPR 1292–1301*, 504–5, 508. Johnson 1956, 63–5 (*iiij furnaises* in the French text, three in the facing translation). *CDRI 1302–1307*, no. 272.

⁶³ *38th RDKPRI*, 67.

sterling from another Italian company, the Spini of Florence, and £13 from the Treasury. They had spent £187 buying pollards from various persons at various prices. The pollards were put in eight sacks, and weighed £629 4s. 2d. in all. From these were smelted £361 7s. 2d. of pure silver, by weight, which implies that they were 57 per cent. The silver was delivered to Alexander Normanni to make money. The account divides the pure silver delivered to Normanni into two batches: '£216 23d. by weight, every pound to consist of 19s. 7½d., from whence issued £212 0s. 10½d. of sterling money; and similarly £145 5s. 3d. by weight, every pound to consist of 19s. 2d., delivered to said Alexander, produced £139 4s. 2½d. That is, the pure silver by weight from the said ballards [i.e. pollards] was £361 7s. 2d., from which was coined new money, £351 5s. 1d. by number.' Those figures all add up, and do actually result in production rates of 235½d. and 230d. per pound weight from the two batches of silver. As it is extremely unlikely that the mint was recording production of overweight coins, perhaps the 'pure silver' was less pure than it should have been for making sterlings.

The revenues of the exchange came to £357, including £5 for the waste (*cineribus*) sold. The keepers repaid the advances from the Spini and the Treasury, paid £8 for alloy and small expenses, and took wages for themselves of 60s. (Thorosianus) and 40s. (Roger). After all this, they were left with a handsome profit of £156 6s., for which Thorosianus was to account.

Unfortunately, the next account is described as 'very mutilated.' It covers the period from 16 June 1300 to 23 June 1301.⁶⁴ Thorosianus was the sole keeper, representing the Frescobaldi, as the merchants had been granted the profits of purchasing pollards and keeping the exchange for this period. All that is recorded is that Thorosianus 'accounts for £11,040 14s. 9d. by weight of silver in flat pieces bought from divers persons', delivered to Alexander Normanni to be coined. It was clearly a very busy year, with output at a high level as pollards and crockards were recoined, but that is all we know. But it was evidently a satisfactory operation, as in 1302 Alexander Normanni was said to have done his office well and faithfully. A pyx with pence, halfpence and farthings was sent to London for assay, and they were found to agree with English standards.⁶⁵

That is the last period in the reign to be covered by exchange accounts, so far as is known. It is of course possible that further records remain to be uncovered in the English archives, or in notes made in the Irish archives before their destruction. There is certainly more to be learned about the dubious dealings of the bishop of Waterford, although this would take us away from the exchanges and into the wider history of Irish government finance and relations with Italian merchants. It is also plain that there are gaps in the evidence for the Irish mints, particularly for Waterford and for Dublin in the 1290s. Nevertheless, the documents summarized here may help to throw some new light on the activities of the Irish mints and exchanges, and together with the evidence of the coins themselves provide a firmer basis for future studies.

BIBLIOGRAPHY

All references to unpublished records are to catalogue numbers of documents in The National Archives, London [TNA]. Photographs of the memoranda roll and pipe rolls mentioned in this article are available online at the Anglo-American Legal Tradition website: <<http://aalt.law.uh.edu./index.htm>>. The documents cited come from the following classes:

- C 54 Chancery and Supreme Court of Judicature: Close Rolls
- E 101 Exchequer: King's Remembrancer: Accounts Various
- E 159 Exchequer: King's Remembrancer: Memoranda Rolls
- E 372 Exchequer: Pipe Office: Pipe Rolls.
- SC 1 Special Collections: Ancient Correspondence
- SC 8 Special Collections: Ancient Petitions.

⁶⁴ 38th RDKPRI, 67–8.

⁶⁵ CPR 1301–1307, 58; CCR 1296–1302, 551. Dolley asserted that Dublin coins of this period 'exhibit a very heterogeneous appearance as though the mint was having quite literally to scrape the pot in its desperate quest for new parcels of bullion' (Dolley 1972, 14), but the assay results show that standards were being maintained.

- Allen, M., 2012. *Mints and Money in Medieval England* (Cambridge).
- Berry, H.F., 1910. 'Catalogue of the mayors, provosts and bailiffs of Dublin city, AD 1229 to 1447', *Proceedings of the Royal Irish Academy, Section C* 28, 47–61.
- Brewer, J.S., and Bullen, W., 1871. *Calendar of the Carew Manuscripts: Volume VI, The Book of Howth etc.* (London).
- Calendar of the Close Rolls, Edward I* [CCR], 5 vols (London 1900–8).
- Calendar of Documents Relating to Ireland* [CDRI], 5 vols (London 1875–86).
- Calendar of the Fine Rolls, Edward I* (London, 1911).
- Calendar of the Patent Rolls, Edward I* [CPR], 4 vols (London 1893–1901).
- Campbell, B.M.S., 2008. 'Benchmarking medieval economic development: England, Wales, Scotland and Ireland, c. 1290', *EcHR* 61, 896–945.
- Connolly, P., 1998. *Irish Exchequer Payments 1270–1446* (Dublin).
- Connolly, P., 2002. *Medieval Record Sources*, Maynooth Research Guides for Irish Local History No. 4 (Dublin).
- Connolly, P., 2004. 'Fulbourn, Stephen of (d. 1288)', *Oxford Dictionary of National Biography*, online edition, accessed 10 Nov. 2016.
- Davies, J., 1762. 'The case of mixed money', in *A Report of Cases and Matters in Law, Resolved and Adjudged in the King's Courts in Ireland* (Dublin), 48–77.
- Dolley, R.H.M., 1968. 'The Irish mints of Edward I in the light of the coin-hoards from Ireland and Great Britain', *Proceedings of the Royal Irish Academy, Section C* 66, 235–97.
- Dolley, R.H.M., 1969. 'Anglo-Irish monetary policies, 1172–1637', in J.C. Beckett (ed), *Historical Studies: Papers Read Before the Irish Conference of Historians VII* (London), 45–64.
- Dolley, M., 1972. *Medieval Anglo-Irish Coins* (London).
- Dolley, M., 1987. 'Coinage to 1534: the sign of the times', in A. Cosgrove (ed.), *A New History of Ireland II: Medieval Ireland 1169–1534* (Oxford), 816–26.
- Dolley, M., and Seaby, W., 1968. *SCBI 10. Ulster Museum Belfast, Part I* (Oxford).
- Dykes, D.W., 1964. 'The coinage of Richard Olof', *BNJ* 33, 73–9.
- Dykes, D.W., 1976. 'The Anglo-Irish coinage of Edward III', *BNJ* 46, 44–50.
- Dykes, D.W., 2013. 'Another Dublin penny of Richard Olof', *BNJ* 83, 245–7.
- Ferguson, J.F., 1854. 'A calendar of the contents of the Red Book of the Irish Exchequer', *Proceedings and Transactions of the Kilkenny and South-East of Ireland Archaeological Society* 3, 35–52.
- Johnson, C., 1956. *The De Moneta of Nicholas Oresme and English Mint Documents* (London).
- Kaeuper, R.W., 1973. *Bankers to the Crown: The Riccardi of Lucca and Edward I* (Princeton).
- Mate, M., 1972. 'Monetary policies in England, 1272–1307', *BNJ* 41, 34–79.
- Mayhew, N.J., 1988. 'Irregularities in the Irish mint accounts 1279–1284', in N.J. Mayhew and P. Spufford (eds), *Later Medieval Mints: Organisation, Administration and Techniques. The Eighth Oxford Symposium on Coinage and Monetary History*, BAR, International Series 389 (Oxford, 1988), pp. 87–96.
- Mills, J., 1905. *Calendar of the Justiciary Rolls, Ireland, XXIII to XXXI Years of Edward I* (Dublin).
- North, J.J., 1991. 'The early Irish pence of Edward I reclassified', *BNJ* 61, 23–30.
- North, J.J., 1997. 'The Anglo-Irish halfpence, farthings and post-1290 pence of Edward I and III', *BNJ* 67, 11–19.
- O'Sullivan, M.D., 1962. *Italian Merchant Bankers in Ireland in the Thirteenth Century* (Dublin).
- Prestwich, M., 1972. *War, Politics and Finance under Edward I* (London).
- Report of the Deputy Keeper of the Public Records in Ireland* [RDKPRI], 52 vols (Dublin 1869–1920).
- Richardson, H.G., and Sayles, G.O., 1963. *The Administration of Ireland 1172–1377* (Dublin).
- Sayles, G.O. (ed.), 1979. *Documents on the Affairs of Ireland before the King's Council* (Dublin).

