THE TUDOR COINAGE FOR IRELAND

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In the sixteenth century the Irish economy was relatively primitive and underdeveloped compared with that of England, and though commerce and industry flourished neither these nor agriculture, which was largely for subsistence purposes, generated any great demand for money. When, in 1552, lord deputy Croft wrote that: 'The Yrishemen ar in best case, for he hath least nede of money, he carethe onely for his bealy and that not delicately' he clearly based his opinion on more than economic analysis but the accuracy of his assessment of how little the Irish of his day were touched by a money economy seems incontrovertible.

What coin there was in Tudor Ireland came, of course, from two main sources—England and the Continent—and was supplemented from time to time possibly by some admixture of Scottish specie and certainly by coin struck on the island itself. As far as continental coin was concerned we may suppose that, though it was probably most abundant in the later years of Elizabeth's reign, it may well have circulated in some areas of Ireland for a considerable part of the entire Tudor period. Continental silver certainly found its way to Ireland in small denominations in the early period while gold coins such as ducats, crowns of the sun, and florins were proclaimed legal tender in Ireland as well as in England and Wales in the 1520s and 1530s. Some of this coin possibly came as a by-product of its circulation in England but undoubtedly a good deal must also have travelled direct from the country of origin. Throughout the sixteenth century Ireland carried on a healthy foreign trade, especially with Spain—exporting fish, hides, and meat in return for commodities such as iron, salt, and wine—and along these trading links foreign specie must gradually, if not continuously, have trickled through. The outbreak of hostilities between England and Spain in 1585 did not destroy this connection, for Ireland continued to trade with Spain throughout the war, and though some branches of the trade, such as wine, may have decreased, others, such as re-exports to England, may even have grown during the war period. Whether the Armada, its ships going down or seeking refuge in Irish waters, resulted in an appreciable and permanent influx of

1 Calendar of State Papers, Ireland, 1509-73, p. 125.
4 A. K. Longfield, Anglo-Irish Trade in the Sixteenth Century (1929), passim.
Spanish money is far from clear but later on, at the turn of the century, when Spanish money was said to be (after sterling) 'the coin that most aboundeth, and is chiefest reckoned on in that realm', Tyrone's rebellion may have achieved just such an effect. Reliable estimates of the size of this inflow do not seem possible and there is some evidence that the pieces of eight and four reals which came the rebels' way did not circulate as easily as had been hoped even though Tyrone had proclaimed that the Spanish money should pass current as other coin did, under penalty of death. Nevertheless, the impression remains that considerable quantities of Spanish coin did enter Ireland during the last great Tudor rebellion and the possibility that this significantly, if temporarily, affected the circulating medium of at least part of Ireland cannot be overlooked.

The English coin which found its way to Ireland and the Irish coin which was specifically made for circulation there are in large measure two sides of the same problem—the financing of English government in Ireland—and are best considered in that context. Ireland certainly produced revenues to support government but though, as in the reigns of Edward VI and Mary, these might effectively leave a balance once the cost of the civil establishment had been met, they were insufficient to pay for the garrisoning of Ireland, let alone to meet the cost either of restoring law and order should a rebellion occur, or of promoting a forward policy designed to bring the whole of Ireland firmly under English control. Each military effort needed financial succour from England and it was this financial strain which lay at the root of currency changes in Ireland under the Tudors. That the Irish currency should be manipulated for fiscal purposes is not surprising when seen against the background of late fifteenth- and early sixteenth-century continental Europe but compared with England the alterations came sooner, extended over a longer period of time and, certainly on occasions, had a more disruptive effect on the economy which the currency served. The Tudors, of course, were not the first to tamper with the Irish currency, for long before their rule began it had been declared in the parliament at Drogheda (1460) that coins with a sterling value of 3d. should be struck in Ireland and pass current there for 4d. This proportion of 3:4 was that proclaimed by Elizabeth in 1561 and restored by James I in 1603, but during the early Tudor period and the debasement of the Irish currency in the mid and late sixteenth century far greater differentials obtained. In 1487, as in 1540, the English pound had a

1 CSP Ireland, 1600–1, ccvii (6), no. 133.
2 In January 1601 one contemporary thought that 40,000 crowns had been received from Spain, whereas in October of the same year another report put the amount of Spanish money at half a million in coin. CSP Ireland, 1600–1, ccviii (1), no. 171; ibid. 1601–3, p. 126.
3 CSP Ireland, 1600–1, ccviii (2), no. 24; ibid. (1), no. 171: Dolley appears to equate pieces of two rials and one rial with the Elizabethan sixpence and threepence but such a valuation seems at variance with documentary evidence, e.g. in 1554 the rial was valued at 6½d. and in 1570 at 6d. If the latter values are accepted then the remark made in 1601 that 'O'Neill and O'Donnell have sent into Spain to send all shillings and sixpences, for all their money are pieces of eight and four rials' suggests that the rebels were anxious to receive supplies of two and one rial pieces. M. Dolley and A. Gunstone, 'The Cloncreen Bog (Clonbulloge) Find of Elizabethan Coins from the Co. Offaly', BNJ xxxviii (1969), p. 112; Hughes and Larkin, op. cit., no. 408; PRO SP 12/67, no. 33; CSP Ireland, 1600–1, ccvii (2), no. 24.
value of £1-50 Irish, in 1552 of £2 Irish, and in 1601 of £3-82 Irish. As one might expect, the market and psychological reactions to these manipulations bred confusion and uncertainty which in turn meant that the temptation to refuse the new coin altogether, raise prices, or stipulate in what coin payment was to be made proved difficult to resist. In the proclamations of the Government we can read of its attempts to prevent such abuses but, if the more fully documented events of the later years of Elizabeth’s reign are any guide, it seems clear that its endeavours were ever uphill and never entirely successful. Nor does the Government seem to have met with any greater success in seeking to prevent trafficking in coin between England and Ireland. The exportation of coin or bullion from England had, of course, been prohibited by statute long before the Tudor period, but in the reign of Henry VII this general prohibition had been particularized as far as Ireland was concerned when, in 1504, the export of bullion, plate, or coin from England to Ireland above the amount of 6s. 8d., or from Ireland to England above 3s. 4d., was prohibited under pain of forfeiture and imprisonment.

This regulation continued in force throughout the sixteenth century and technically, therefore, sterling should not have circulated in Ireland except in so far as sums were sent there by or with the consent of the English Government. Just how much sterling did find its way to Ireland is difficult to estimate but it seems plausible that in the 1530s, 1540s, and 1550s, when a special coinage for Ireland was produced, the sums were not exceptionally great. Even in this period, however, we should be careful not to minimize the role of sterling for in 1561 the Government found it necessary to regulate the revaluation of English money in Ireland as well as in England and this can only have been worth while if sterling had enjoyed reasonable passage there. After 1559, when the last of the billon coin to be made for Ireland until 1601 was put out, the amount of sterling flowing to Ireland must have steadily increased. True, an Irish coinage was struck in 1561 but this was token in size and in no way met the cost of Elizabeth’s expenditure in Ireland which in quiet times, as between 1586 and 1595, for example, might amount to £25,000–£35,000 per annum, but which might rocket to a very much higher sum during an emergency, as in the year ending 31 March 1601, when £206,673 was sent over.

At the same time as the Government worried about what was regarded as a loss of sterling to Ireland, it fretted too about the movement of coin in the opposite direction. Merchants and gentlemen were blamed for denuding the circulating medium in Ireland by defying the prohibition and exporting their coin to England:

the merchants, by one means or other, and likewise divers gentlemen convey the same privily out of this realm in this trunk or that trunk, which must not be searched (they say); for this gentleman allegeth it is his provision of apparel, and this merchant saith that he hath licence to carry his money.

The kind of coin in which this class of men dealt was presumably the larger sterling and foreign pieces which came their way, for it is difficult to see what use they can have had

2 Tudor and Stuart Proclamations, 1485–1714, ed. R. Steele (Oxford, 1910), ii, nos. 42, 44, 162, 166.
3 19 Henry VII c. 5 (Statutes of the Realm, ii, pp. 650–1); Hughes and Larkin, op. cit. iii, no. 811; Steele, op. cit. ii, nos. 43 and 45.
4 Ibid., nos. 35, 40, 41, 44; CSP Carew, 1575–88, no. 61, fol. 173; CSP Domestic, Addenda Edward VI, iv, p. 412.
5 Dietz, op. cit., p. 432. The pattern of sterling use briefly indicated here is supported by the hoard evidence listed in I. D. Brown and M. Dolley, Coin Hoards of Great Britain and Ireland, 1500–1967 (1971), Part II.
6 CSP Carew, 1575–88, no. 573.
in England for an Irish currency which was often badly debased. That some of this poorer coin did find its way into England is well attested, and hardly surprising when one remembers the number of soldiers who served overseas and the amount of small-scale trading which went on between England and Ireland. From the very beginning of the Tudor period there is evidence that Irish coin circulated from time to time in many parts of England, including London, supplying the want of small sterling moneys. In 1556, for example, Irish rose pence circulated in England as half-pence.

This last constituent of the Irish circulating medium—coin made specifically for circulation on the island—has received detailed epigraphical and documentary analysis by many distinguished numismatists in the last century or so, with the result that the main outlines of both the coin issues and coin types now seem reasonably clear. Within this broad framework, however, many problems still remain, and as more and more coins are discovered and a larger corpus of manuscripts is examined the opportunity of rounding out or modifying the accepted picture inevitably presents itself. In this paper I hope to indicate how a fresh look at the English and Irish documentary sources may serve its turn.

II

At the very outset of the period the documents are suggestive rather than conclusive. In 1485 two grants—the first to Nicholas Flynt of the office of comptroller, assayer and changer in all places in England, Ireland, and Calais, and the second to Robert Bowley of the office of master of the king's coinage in Dublin and Waterford—suggest that Henry VII proposed to continue the coinage of his Yorkist predecessors and, indeed, in Bowley's grant the coins mentioned—the groat, half-groat, penny, half-penny, and farthing—were appointed to be made according to the weight, purity, and graving specified in the indenture of 1483 between Edward IV and Thomas Galmole. Whether this coinage actually began in 1485, how much was produced, and who received the profits from it is uncertain but that it was continued or replaced by another issue in 1490 is suggested by the reappointment in that year of both Flynt, this time as surveyor and comptroller, and Bowley, now joined with John Coton and termed graver as well as master, to the mints at Dublin and Waterford. According to the grant to Bowley and Coton they received their appointment on surrender of their patent dating from 1485, but no mention was made of the appointment in 1487 of John Estrete to be master of the coinage in Ireland and one wonders what was the relationship between this royal servant and councillor, who was salaried at £20 per annum, and the other two. Perhaps

4 By 1 Richard III c. 9 all profits of minting were granted to the Earl of Kildare (Quinn, op. cit., pp. 619–20) but it is not clear if Henry VII continued this privilege. By the late 1490s the king was certainly enjoying some, if not all, the profits himself.
6 Ibid., pp. 158, 169.
Estrete was the titular head of the mints and Bowley and Coton his working deputies, or perhaps he was in charge of a different establishment altogether.

In succeeding years what little we can glean concerning the Irish coinage is hardly more satisfactory. Thomas Garth, commander of part of the English forces in Ireland, was appointed master of the coinage at Dublin some time after 1491 and up to 25 July 1495 when he was replaced by Richard White, constable of Dublin castle; and at some point Richard Nangle was appointed comptroller to the same mint. Down to 4 March 1497 White seems to have coined 626 lb. 3 oz. 10 dwt. of silver at a profit to the king of £125·25. As the proclamations of 1491, 1497, and 1499 prohibiting the bringing in or use of Irish coin in England make plain, the Irish coin struck by Garth and White could be an embarrassment to the English Government and perhaps production of Irish coin lay suspended at the beginning of the sixteenth century. If this was so, it was not for long. On numismatic grounds it has recently been suggested that the striking of the facing-bust types of Henry VII started up again in 1503 while there is documentary evidence that in 1506 Thomas Galmole alias Archbold, goldsmith of Dublin, was appointed master of the coinage at Dublin. It is just possible that this was the man who had contracted with the Crown in 1483 and that his coinage went on until 1507, or even the end of the reign, but on the evidence available this is by no means certain. Within this broad framework of an Irish coinage possibly beginning in 1485 and possibly ending in 1507 there is obviously a great area of uncertainty in which, pending further documentary and numismatic analysis, we can for the moment tread only with misgiving.

A similar air of uncertainty surrounds the Irish coinage when it starts up again in the reign of Henry VIII, for the date of the first issue is still a matter of debate: Craig would put it back to 1526; Lawrence, Carlyon-Britton, and Whitton to 1533; Dolley to 1534; and Symonds to 1536. Of all these views perhaps that which favours an Irish coinage in the late 1520s is the most fragile, for it seems clear from a brief of the warden's account for the period September 1526 to September 1531, in which one would expect all coinage made at that time to have been listed, that no Irish coin was made before September 1531. That an Irish coinage started up some time after this date and before the commission of 6 March 1536 came into operation is certainly possible but, on balance, I think, unlikely. In the first place, it is important to stress that it seems as true now as when Symonds wrote over half a century ago that there are amongst surviving manuscripts no references to harp coins before 1536 but that in and from that year a steady flow of information emerges. Secondly, all three extant wardens' accounts in which coinage of Irish money is mentioned give the authority for striking as the letters patent of 6 March 1536 and, consequently, since an accountant always specified the original authority for his actions, there must be a strong presumption that these letters patent actually instigated the Irish coinage. Only if the order of 6 March 1536

1 Quinn, op. cit., p. 620.
2 Hughes and Larkin, op. cit., nos. 25, 38, 43, 44.
4 Quinn, op. cit., p. 621.
6 PRO SP 1/67, pp. 110-11 (LP v, no. 444).
7 Symonds, op. cit., pp. 194-5; PRO AOl/1595/1, 2, and 3.
superseded an earlier one would the accountant have bothered to quote it, and if this is
in fact what happened it is truly remarkable that seemingly not a single reference to the
earlier order or to the coins struck pursuant to its terms is now in existence. Thirdly,
there is every indication that in 1536 Henry VIII was counting the cost of his govern-
ment in Ireland and seeking to augment his revenues there. The king had spent over
£40,000 in putting down the Geraldine rebellion and now, as Cromwell told the lord
deputy and council in Ireland, he looked for ‘some direction to be taken for the yearly
payment of a revenue to repress such attemptates’ in the future.\(^1\) Henry duly had his
way and before long lands of attainted persons, first fruits and twentieths, and confis-
cated monastic lands more than doubled the ordinary recurring revenue to bring it,
potentially, in the neighbourhood of £5,000 per annum.\(^2\) That the reorganization of the
coinage in March 1536 was inspired by the same thinking which subsequently brought
about a general strengthening of the Crown’s resources in Ireland seems incapable of
absolute proof but it does seem plausible and, perhaps, more plausible than the notion
that the currency was adjusted at the outbreak of the rebellion.\(^3\) In 1534 Henry VIII
had no means of knowing what his commitment in Ireland was likely to be and, so far
as we know, he sought to meet it along traditional lines. In 1536, on the other hand, his
financial weakness stood glaringly revealed and called for immediate action. On balance,
then, the historical evidence still seems to favour 1536 rather than an earlier date for the
beginning of Henry VIII’s Irish coinage and it is perhaps not too fanciful to see the
issuing of the new harps as part of the general financial reorganization which was trig-
gerated off by the cost of suppressing the Geraldine rebellion of 1534–5 and largely
achieved by the attainder of the rebels and the extension of the Reformation settlement
to Ireland.

If the documentary sources and the financial exigencies of the Crown put a strong
presumption on 1536 as the starting-point for Henry VIII’s Irish coinage, epigraphical
research and coin content analysis indicates that this first coinage went on after Henry
VIII was styled king of Ireland on his coins. Symonds argued on the basis of assays that
the earliest coins in the series—those bearing the initials of Henry’s queens, HA, HI,
and HK—were all struck to the same standard, about 10 oz. fine, and, reluctantly, he
went on to concede that other coins, bearing initial-mark rose and legend king of Ireland,
might also be included in this issue.\(^4\) More recently Hackmann has lent plausibility to
this arrangement by suggesting as a result of his specific-gravity analysis that all four of
these coin types were in fact struck to the same standard.\(^5\) HA, HI, HK, HR with initial-
mark rose and HR with initial-mark crown (to which we shall return in a moment) seem,
then, to be types within a single issue beginning in March 1536 and ending some time
in the year which closed in September 1543, for it is in that year that the wardens’
accounts finally cease to mention Irish coin struck according to the letters patent of 1536.
The arrangement of the coin types within this first, long issue ought, I think, to follow the
lines indicated by Carlyon-Britton’s excellent epigraphical table—HA, HI, HR with crown,
HK, and HR with rose. An immediate difficulty which seems to threaten the acceptability
of such an arrangement arises in connection with coins bearing HA which are associated

\(^1\) LP x, no. 1051 (2).
\(^2\) Dietz, op. cit. i, p. 129; Quinn, op. cit., pp. 422–3.
\(^3\) Dolley and Hackmann, op. cit., p. 87.
\(^4\) Symonds, op. cit., passim; Symonds saw from his

\(^5\) Dolley and Hackmann, op. cit., pp. 100–1.
with Anne Boleyn. It has been argued in the past by no less an authority than Symonds that if Henry’s Irish issue began in March 1536 there was so little time between the date of the letters patent and Anne’s execution in the following May, an interval of only two months, that it is unlikely that the initial A on the coin is hers. Consequently he opted for Anne of Cleves.¹ But a period of two months would, I think, be more than adequate for an issue of Irish coins in 1536. What figures we have for production of Irish coin immediately after this date seem to indicate that coin was produced in short bursts—in production runs of a month at a time²—and, if the earlier pattern were similar, there seems no reason to suppose that coin pursuant to the commission of March 1536 could not have been produced before Anne was executed. Another argument which might seem to imperil Anne Boleyn’s connection with the letter A is that she had fallen so out of favour by March 1536 that the likelihood of her initial being placed on the coin would be remote. But here again the case is far from compelling. There are good examples in the reign of Henry VIII of the coinage lagging way behind political events—as when the portrait of Henry VII was retained on the early coins of Henry VIII, or the Irish title was only belatedly incorporated into the royal style—and there seems to be no evidence to suggest that things were radically different in 1536.

HA coins, then, were probably struck in March/April 1536 and were followed by those bearing HI, production of which began some time after Jane Seymour’s marriage to the king on 30 May 1536 but possibly not before August 1536,³ and ended with the issue of June 1537.⁴ No more Irish coin was subsequently produced until January 1540⁵ and though Henry married Anne of Cleves on the 6th of this month his repugnance for her was so immediate, enormous, and resolute that the chances of her influencing the epigraphical details of the Irish coinage seem remote. More likely, it would seem, the coins struck in January 1540 bore the initials HR and initial-mark crown. As Carlyon-Britton has shown, this type follows on naturally from an epigraphical standpoint from the HA and HI coins and is known to be rare; a fact which fits in well with the evidence that of the four issues of Irish coin at this time for which we have production figures it was easily the smallest—only 937 lb. 10½ oz. being turned out. It also seems on the evidence of Cromwell’s remembrances for 1539 that an issue of harps was being planned before the king remarried and if this were so it would have been natural to replace the initial of his dead wife, Jane, with his own royal R.⁶ With HR bearing initial-mark crown assigned to January 1540 and HR bearing rose and the legend king of Ireland placed at the very end of the series the only remaining coin type to be discussed is that with the initials HK. The dispute over which Katherine inspired the initial on these coins has gone on for as long as Henry’s Irish coinage has been discussed but, Lawrence’s and Whitton’s rearguard action in favour of Katherine of Aragon notwithstanding, the weight of historical and epigraphical evidence presented to date does seem to rest with the case for Katherine Howard and consequently HK coins must have been turned out sometime between the queen’s accession on 28 July 1540 and her execution on

¹ Symonds, op. cit., p. 197. ² PRO E 101/302/20; E 101/302/23. ³ On 28 July 1536 John Gostwyk, treasurer of first fruits and tenths, told Cromwell that the coinage of Irish money could not go forward for as yet he had received no bullion from Pope, treasurer of augmentations. LP xi, no. 174. ⁴ Jane died on 24 Oct. 1537, and since the only Irish coin produced after May 1537 and before her death was in June this must have effectively formed the end of this issue. PRO E 101/302/20. ⁵ Ibid. ⁶ LP xiv (2), nos. 494, 548, 549.
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13 February 1542. To argue that coins of this type which do not bear the king's Irish title, king of Ireland, continued to be produced after June 1541 when Henry VIII was proclaimed king of Ireland in Dublin, may seem to require a word of explanation, for recently a different case has been put:

The Irish student in particular [writes Dolley] is reluctant to accept the improbability of an arrangement of the material which asks us to believe that Henry was proclaimed King of Ireland with the maximum of ostentation, while successive consignments of literally brand-new coin from London continued to accord him the inferior title which implied his subordination to the Pope. Leaving aside the fact that the Supremacy issue in Ireland was a very live one, Henry was faced with the no less real problem that it was being represented in other quarters that the title of King of Ireland had not been assumed by him in virtue of his Kingship of England, but had been conferred upon him by the Irish Parliament. It is hard indeed to decide which would have been the more obnoxious to the Tudor sovereign at this juncture, the suggestion that Ireland was a Papal fief and liable to reversion on that account, or the innuendo that the Dublin Parliament had the Kingship in its gift, and we find it frankly inconceivable that the English king would have allowed a situation where his documents and his coins appeared to speak with two voices.¹

But what Dolley finds inconceivable is precisely what seems to have happened. To be sure, the king was proclaimed king of Ireland in June 1541, but it was not until 23 January 1542 that a second proclamation added the words king of Ireland to the royal style and commanded that after the last of April next following the new style be used.²

On 14 April 1542 Henry informed the lord deputy and council of Ireland of the change and directed them to alter his seals accordingly. Since no one of sufficient skill was to be found in Ireland to accomplish the task, however, wax impressions of the seals (which could not be spared from their daily round) were then made and sent to England so that the work might be undertaken there. It was not until March 1543 that the new seals were finally sent over and only in May of that year that the old defaced seals were sent back to England.³ Between the public announcement of Henry VIII's new title and the use of new seals in Ireland displaying the new style almost two years elapsed in which not only were the old seals proclaiming him lord of Ireland used but also, by analogy, there was sufficient time for the last of Katherine Howard's Irish coin, which also accorded him the inferior title, to have been put into circulation. Almost fifty years ago Brooke suggested that the changeover in the king's style on the coins did not come before May 1542 and the leisurely pace at which the seals were replaced argues powerfully in his favour.⁴ We still cannot say for sure exactly when the new style was adopted, but it may not be too unrealistic to suppose that the HR coins upon which it occurs were probably not issued before April 1542—the date when the changeover in the Irish seals was planned—and possibly no earlier than April/May 1543, when we know that the new seals came into use.⁵

¹ Dolley and Hackmann, op. cit., p. 88.
² Steele, op. cit., no. 4; Hughes and Larkin, op. cit., no. 208.
³ LP xvii, nos. 249, 367; LP xviii (1), no. 245; State Papers of King Henry VIII (1830-52), iii, p. 459; A. Smith, 'Irish Silver Coins of Henry VIII', NC 1879, pp. 178-80; Symonds, op. cit., p. 201; Bagwell, op. cit. i, pp. 258-60.
⁵ The exact day on which the seals were defaced is not clear. The lord deputy told Henry VIII that the changeover was performed in the presence of the Privy Council and other lords assembled in Parliament. Since the second session of Parliament was held at Dublin on 17 Apr. it may have been to that day that the lord deputy referred but if so one wonders why a whole month elapsed before Henry was informed of what had been done. LP xvii (1), no. 411; State Papers of King Henry VIII (1830-52), iii, p. 459.
TABLE I

Henry VIII's First Irish Coinage, 1536–43

<table>
<thead>
<tr>
<th>Period of production</th>
<th>Initial at side of harp</th>
<th>Initial mark</th>
<th>Known weight of coin produced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar. 1536–?Apr. 1536</td>
<td>HA</td>
<td>Crown</td>
<td>*</td>
</tr>
<tr>
<td>? Aug. 1536–June 1537</td>
<td>HI</td>
<td>Crown</td>
<td>2,345 lb, 0 oz (in June 1537)</td>
</tr>
<tr>
<td>Jan. 1540</td>
<td>HR</td>
<td>Crown</td>
<td>937 lb, 10 oz</td>
</tr>
<tr>
<td>? Aug. 1540–Feb. 1542</td>
<td>HK</td>
<td>Crown</td>
<td>1,830 lb, 0 oz (between Sept. 1541 and Feb. 1542)</td>
</tr>
<tr>
<td>? June 1542–Sept. 1543</td>
<td>HR</td>
<td>Rose</td>
<td>3,045 lb, 0 oz (between Sept. 1542 and Sept. 1543)</td>
</tr>
</tbody>
</table>

Source: Above, pp. 101–41. PRO E 101/302/20; A01/1595/1, 2, 3.

* According to Brabazon he had received £11,405 18s. in harps by October 1536 and if we could assume that all this was in HA coins the total production of this issue would be known. Since the issuing of HI coins may have begun as early as August 1536, however, part of the total recorded by Brabazon may have borne the later initial. LP xi, no. 934.

Thus far, the argument has said nothing about either coins with initial-mark trefoil or lis, which Carlyon-Britton placed between crown and rose, or the issue which Symonds termed the second Irish coinage of 1540. As far as Symonds could see the commission of 13 July in this year inaugurated a new coinage of 9 oz. silver and, notwithstanding the evidence that two rose harps bearing the title king of Ireland which he had had assayed proved better than 10 oz. fine, he argued in favour of all coins produced after July 1540 and before the next coinage in May 1544 being 9 oz. fine. The occurrence of this commission of 1540 roughly half-way through what I have termed the first Henrician issue is, at first sight, something of an embarrassment and the temptation to wish it away either by emending its date or by arguing that coin pursuant to its terms was never struck is great indeed: but neither course is justified. Rebellion had again broken out in Ireland in 1539, thereby necessitating fresh buttressing of Irish revenues from English sources, and we should expect a further issue of Irish coin at this time. Moreover, the date of the document as copied on to the patent roll seems incontrovertible, and the fact that an indented trial piece at this new standard was made argues strongly that coin whose worth was ultimately to be tried against it at the assay was in fact produced. This indented piece has yet to be clearly identified but was described in 1703 as being used at an assay on 16 June 32 Henry VIII (1540) of base silver for Ireland; these coins having the print of the harp, being two ounces worse than sterling, and worth 48s./lb. The existence of the trial piece used at this assay shows quite clearly that the new standard was 9 oz. 2 dwt., as the commission would suggest, and that

1 On the basis of Sir John Williams's accounts Professor Quinn has stated that there was an intermediate order dated 25 Nov. 1538, according to which coin was produced in June and Nov. 1540 and May 1541, but it seems clear that the indenture referred to in this source was intended to record the transfer of money from the Jewel House to the mint rather than to instruct the mint masters what coin was to be produced. Account of the Monastic Treasures Confiscated at the Dissolution of the Various Houses in England, ed. W. B. D. D. Turnbull (Abbotsford Club, Edinburgh 1836), pp. 85–7; Quinn, op. cit., p. 628.


3 PRO E 36/101, pp. 27–8. I hope to discuss this and other early Tudor trial plates in a future article.
though the commission made no provision for pyxing the coin an assay was in fact made. If the presumption that coin 9 oz. 2 dwt. fine was struck in accordance with the commission of 13 July 1540 is sound it would seem logical to transfer to this coinage coins with initial-mark trefoil which Carlyon-Britton placed between crown and rose and which Hackmann’s analysis suggested might be of a lower standard than rose yet higher than coins of any of the remaining marks. Production of this coin must have taken place some time between the date of the original assay, June 1540, and 31 March 1544, at which point the mints were reorganized, and the changeover in style from Dominus to Rex probably came, as on the other coins, no earlier than April 1542.

The second coinage of Henry VIII for Ireland at 9 oz. 2 dwt. fine can be regarded, then, as a parallel issue, proceeding side by side from 1540 with issues of Irish coins bearing initial-mark crown and rose. The similarity between what might be termed the parallel Irish issues and the concurrent striking between 1542 and 1544 of two standards for England is at once remarkable and puzzling. For whereas in England an experiment in debasement was carried on side by side with the striking of standard coins, in Ireland the debased issue 9 oz. 2 dwt. fine was apparently struck concurrently with other debased coin, 10 oz. fine. In seeking to explain why the Government manipulated the Irish currency in this way it should be stressed from the outset that, debased though the first harps undoubtedly were, both the degree of debasement and the level of production was modest and, consequently, the profits on issuing them were relatively small. As is well known, the extant evidence concerning the early issues of harps suggests that the new Irish pieces were made from melted-down sterling coins (or plate) and struck at the rate of 72s. Irish/lb. Assuming the sterling to be of full weight and fineness the gross gain in converting sterling into Irish harps 10 oz. 2 dwt. fine should have been about 17 per cent. And that a figure of roughly that order was achieved in practice is indicated by the accounts of two government officials who were connected indirectly with the making of Irish currency. The first of these men, Sir William Brabazon, treasurer of the army, charged himself in his accounts ending October 1536 with receiving £1,382. lis. profit made upon the manufacture of £11,405 18s. in harp groats—a profit of roughly 12 per cent—while the second, Sir John Williams, master of the jewels, recorded that out of £2,000 sterling disbursed by him to the mint £2,262 in harp groats had been made, or a profit of about 13 per cent. The fiscal element in the first Irish coinage is thus clear enough but before seeing this as the sole or, perhaps, the more important motive behind the new departure it is worth remembering that 1536 saw the introduction of coins which gave physical reality to the unit of account, the £ Irish. As the correspondence and reckonings of government officials show, it was perfectly possible to handle sterling coins and yet reckon their value in the money of account, £s Irish, but the advantages of handling Irish coins which were actually part of the £ Irish were too obvious to be missed, and it is perhaps to this logical progression that the Irish harp owes its origin. However this may be, it seems reasonably clear that, once inaugurated, this coinage was regarded as the standard Irish issue, for, as far as we know, the new

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2 LP xi, no. 174; LP xii (2), no. 90; LP xvi, nos. 211, 745, fol. 52, 1129; LP xvii, no. 48; LP xviii (1), no. 436, fol. 88; LP xviii (2), no. 231, pp. 128, 130 (bis). For other references to these issues see LP xv, nos. 226, 328; LP xi, no. 934: LP xvi, nos. 236, 237, 1245; LP xvii, nos. 241, 724; PRO E 405/112 m. 42, 44; LP xix (1), no. 368, fol. 54; APC 1542–7, p. 26.
3 LP xi, no. 934; Turnbull, op. cit., pp. 84–5.
coins proved fully acceptable in Ireland and continued to be made from time to time down to Michaelmas 1543.

If the 1536 issue is seen in this light, that of July 1540 which reduced the fineness of Irish coin to 9 oz. 2 dwt. fine is perhaps easier to understand. This second coinage which, as Sir John Williams's accounts again show, yielded a gross profit of about 23 per cent, does seem to have been a fiscal experiment pure and simple designed to explore the possibilities of debasement and to test the market, and for this reason was carried on concurrently with the first issue. The Government was, therefore, not running two debased series concurrently from which it sought to bolster its finances but rather one coinage which was regarded as the standard issue, and which we would associate with coins bearing initial-mark crown and rose, and another which explored the possibilities of the fiscal manipulation of the coinage.

Before leaving the problems which surround Henry VIII's first and second coinages for Ireland one further subtlety, by which the English Government sought to ensure that the £ Irish was accepted as equivalent to the £ sterling in Ireland, should also be mentioned. As we have observed, the £ sterling in the mid 1530s was worth £1.50 Irish and the possibility exists that the Irish harp was introduced in 1536 at the same rating as the £ Irish to turn the convenutions of the counting house into the practical realities of the circulating medium. No sooner had the new coin appeared, however, than it occurred to the government officials in Ireland that if the Irish could be induced to accept the new harp coins as being equal in value to sterling moneys a profit of one in three could be achieved. William Brabazon made this point quite plainly in a memorandum to the Government in England. He had, he said, disbursed about £1,500 Irish or the equivalent of £1,000 sterling and if Parliament would decree that only coins of the harp should be current in Ireland and that harps should be the equivalent of sterling he might have saved £500. That such a transparent fraud—the substitution for sterling of harps which were roughly only two-thirds the value of the coins they were to replace—should be contemplated seems strange indeed but the evidence seems clearly to indicate that the scheme was actually put into operation. As originally contemplated the scheme was to make the change effective by means of an Act of the Irish Parliament but, as Lord Gray told Cromwell in May 1537, though a Bill was introduced the Commons would not pass it "for fear that the Irish coin being damned and [there being] no mint here, they should have no coin". This minor setback does not seem to have deterred the Government from its path. Later in the same year the changeover was apparently made law by proclamation and thereafter the harp was for all practical purposes sterling in Ireland.

In comparison with Henry VIII's first and second Irish coinages those which came between 1544 and 1547 seem relatively straightforward, for the arrangement of coins here, once again suggested by Symonds, has stood the test of time and has proved acceptable to recent investigators such as Carlyon-Britton and Dolley. Only in respect of the fourth coinage struck in 1545 does any significant area of doubt remain, partly because a coin type not mentioned by Symonds (and presumably, therefore, unknown to him), i.e. lis rex S, seems on epigraphical evidence to come between the lis coins of 1544 and those bearing lis rex 37 of 1545 and, partly, too, because we are no more certain today than was Symonds at what standard the 1545 coins were struck. Without

1 Ibid., pp. 85–7.
2 LP xi, no. 521 (6).
3 CSP Carew, 1515–74, no. 98; LP xii (1), nos. 983, 1241, 1278.
4 Steele, op. cit., no. 2.
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a series of assays or firm documentary evidence coming to light this last problem must
remain but while it does it is just worth noting that though Symonds was quite correct
in stating that the Government's original intention was to coin Irish money at a 6-oz.
standard it is possible that in practice the shortage of bullion caused this standard to be
cut. When Wriothesley wrote to Paget on 1 September 1545 that the 'proportion ap-
pointed shall not be so great as was determined' he did not spell out what was happening

TABLE II

**Henry VIII's Coinage for Ireland: Second to Fifth Issues**

<table>
<thead>
<tr>
<th>Period of production</th>
<th>Mint</th>
<th>Initial-mint</th>
<th>Finess</th>
<th>Known weight of coin produced</th>
</tr>
</thead>
<tbody>
<tr>
<td>(2) June 1540–?Mar. 1544</td>
<td>Tower I</td>
<td>Trefoil</td>
<td>9 oz. 2 dwt.</td>
<td>2,886 oz (June 1540–May 1541)</td>
</tr>
<tr>
<td>(3) May 1544</td>
<td>Tower I</td>
<td>lis</td>
<td>8 oz</td>
<td>2,780 lb. 0 oz.</td>
</tr>
<tr>
<td>(4) Sept. 1545</td>
<td>Tower I, Tower II</td>
<td>lis rex S &amp; lis rex 37</td>
<td>6 oz</td>
<td>3,657 lb. 0 oz.</td>
</tr>
</tbody>
</table>

**Source:**
(2) Calculated from Williams's account (where £6,926. 1s. is said to have been made
in harp groats from £5,627. 6s. 8d. sterling between June 1540 and May 1541) on the
grounds that the margin of profit indicates a 9 oz. 2 dwt. rather than a 10 oz. 2 dwt.
standard. From 1540 there is a steady stream of orders for, and information about,
the conversion of sterling to harps (see p. 106 n. 2 for references) but whether this
relates solely to coinage of the second issue or also to some of the first issue is
difficult to determine. Because of this uncertainty no attempt has been made to
incorporate estimates on the basis of this information into either Table I or Table II.
(3) PRO E 101/302/23.
(5) PRO E 101/302/30.

but perhaps he had in mind a reduction of the standard to 5 oz. or even possibly 4 oz.
fine.¹ Perhaps, but we cannot be sure. Nor are we on firmer ground when we try to
assign coin type lis rex S to a particular mint, for although Carlyon-Britton suggested
that Southwark produced these coins Dolley has doubted such an attribution and clearly
prefers to think of them as products of the Tower. That the Tower mints or Southwark
did produce these coins is clear, for Tower I, Tower II, and Southwark were in produc-
tion at this time and indeed in his letter of 27 August 1545 Wriothesley spoke of all
three mints being occupied in the production of Irish coin.² If three mints did produce
this coinage, however, we should expect three coin types whereas apparently we have
only two and this being so I would guess that Tower I and Tower II were the mints
involved. In the letter just mentioned, Wriothesley said quite specifically that he had
been discussing the proposed Irish coinage with Mr. Cofferer (the high treasurer of the
mints), Mr. Bowes (under-treasurer of Tower I), and Mr. Knight (under-treasurer
of Tower II) and it seems logical that the two under-treasurers who had been in on
the planning of the coinage should in fact have been instrumental in carrying it through.

¹ *LP* xx (2), no. 268.
² *LP* xx (2), no. 231.
It may be, then, that lis rex 37 and lis rex S were two parts of a single coinage in 1545 and consequently that the problem which they raise is not, as has been suggested in the past, which type precedes the other but rather to which mint in the Tower ought each to be assigned.

III

In marked contrast to the Irish coinages of the reign of Henry VIII those which came under Edward VI, Mary, and Elizabeth have been little discussed. Neither the detailed epigraphical discussion of the kind undertaken in recent years by Carlyon-Britton nor the specific-gravity analysis performed by Hackmann has been applied to the post-1547 period and consequently the picture of these later coinages which is most familiar today is that which Symonds constructed from documentary research and coin assays over fifty years ago. As usual, what Symonds had to say was nearly always accurate, clear, and highly perceptive but, since he wrote, not only has further documentary evidence concerning these later Irish coinages come to light but also a greater understanding of the financial and historical background against which they should be set has been achieved. Consequently, here, as was the case with the early Irish coinages, it seems appropriate to re-examine some of the issues involved.

One of the more obvious and yet more puzzling features of the Edwardian coinages for Ireland is that they were struck in Dublin, for though at first glance it may seem that an economy was to be made by producing coin locally instead of bringing it the long and risky journey from London, it seems in practice that the Dublin mint was something of a white elephant. Broadly speaking, the cost of producing Irish coin in England was made up of coinage and mint expenses and the cost of transporting the finished product to Ireland. The former can be gauged reasonably well, for by chance an account has survived for the production of Irish coin in 1556 and in it are listed the expenses incurred by this particular coinage: the sums paid to the moneyers, the fees of the salaried officials, the cost of materials and equipment, and the diet of the officers. In all it cost £750 to produce £32,281 in Irish coin, or just under 2-5 per cent.1 The cost of transporting this particular sum to Ireland we do not know but if the evidence of 1564 is any guide, when Edward Hughes claimed £99 8s. 8d. for taking £10,000 from London to Dublin,2 we may put this figure at about 1 per cent of the face value of the coin transported. Allowing for the fact that some journeys would take longer than others, either by reason of the slightly different routes taken3 or the inclemency of the seasons, and that in some cases money was lost in transit4 a fairly realistic figure for the cost of making Irish coin in England and transporting it to Ireland would possibly be in the order of 5 per cent of the face value of the coin produced. With such a figure Dublin clearly could not compete. According to calculations made in 1557 of the cost of running

2 PRO SP 63/11, no. 93. Towards the end of the century the allowance for portage of treasure from London to Ireland was increased to £13. 6s. 8d./£1,000, e.g. PRO E 351/238, E 351/239, E 351/266, A01/289/1086. According to the patent appointing him master of the exchanges (1601), Sir George Carey was allowed £20/£1,000 for transporting base coin from England to Ireland. CSP Carew, 1601–3, no. 76.
3 In 1540 the route from London was north-west through Coventry and Lichfield to Chester and then west to Dublin via Conway, Beaumaris, and Holyhead. On another occasion it seems that the point of embarkation was West Chester. PRO SP 60/9, no. 8, SP 63/11, no. 93.
4 In 1566 the lord deputy lost £1,500 when crossing in rough seas. PRO SP 63/16, no. 41.
the Dublin mint 'according [to] the order of the last mint at Dublin, set forth by Mr. Thomas Agard' fees, wages, raw materials, diet, and the cost of provisioning the mint with bullion amounted to no less than £2,377 per annum. During Agard's entire under-treasurership from the opening of the mint in March 1548 to his death in August 1549, only £14,302 was produced, and if the period of production was spread, as seems possible, over only about twelve months within this longer period the cost of producing coin at Dublin at this time must have been in the order of 16 per cent, or three times the figure at which money could be had from England. When we recall that the sole object of producing base coin in the late 1540s was to increase the revenues of the Crown the folly of transferring production of Irish coin from England to a less efficient mint in Ireland is transparently obvious. Perhaps we shall never know for certain why the Government took the course it did in 1548 but one possibility which should not be overlooked is that special pleading by the two men who subsequently occupied the post of under-treasurer at Dublin ultimately won the day. Thomas Agard, the man who established the Dublin mint, had been servant to Thomas Cromwell in the 1530s and had risen to importance through his service in Ireland. In 1535 came the first of his many missions conveying treasure to Ireland and by 1537 he was clerk to William Brabazon, treasurer of Ireland, and surveyor of confiscated church lands there. By 1543 he was comptroller to Sir Anthony St. Leger, the lord deputy, and one of those authorized to search for precious metals and alum in Ireland. In short, Agard knew Ireland well, was closely associated with the running of government there, and was, through his connections with the higher echelons of both the English and Irish administration, admirably placed to plead the case for the establishment of the Dublin mint. The connections of Martin Pirry, the man who succeeded Agard at Dublin, were more clearly with mines and money than with Ireland. In November 1533 he shared in the lease of the lead mines in Dartmoor forest, Devon, for twenty-one years and in 1534 he was one of the jury at the trial of the pyx. By 1542 he seems to have fled from England for coining and clipping money, but had returned by 1544 when he and seven others were licensed to export 1,000 tons of woollen cloth, tin, and lead to Guernsey. In 1545 he attempted to gain a licence to take bullion to the mint, £2,000 monthly for four years, and have his return every month within four days, as well as proposing a scheme for establishing a mint at Boulogne or Calais. In his capacity as comptroller and surveyor Pirry was associated with the Dublin mint from the very start of operations so that when Agard died he must have appeared a natural successor.

If the two men who ran the Irish mint are of interest so too is the point in time at which they came into office. The desirability of a mint in Ireland was urged over and over again from the reign of Henry VIII onwards and in 1546 and again in 1560 the possibilities were seriously looked into. Optimistic predictions, such as those of lord deputy Perrott, who in 1573 forecast 'xx or xxx thousand poundes w(i)thin seven years... besyds Immortal fame', were tempting indeed to a Government ever short of money and on the lookout for new sources of revenue, but it is significant that it was only

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1 CSP Carew, 1515-74, no. 213.
2 BM Add. MSS. 40061, fol. 15.
3 LP ix, no. 392; PRO SP 60/3, fol. 79d; LP viii, no. 653; LP ix, no. 217; LP xi, no. 934; LP xii (2), nos. 762, 382, 1310; LP xviii (2), nos. 105, 165; LP xviii (1), no. 646; APC i, pp. 501-2; APC ii, p. 426; PRO E 150/758/11.
4 LP v, no. 220/25; LP vi, nos. 1457, 1615; LP viii, no. 169; LP x, no. 1257; LP vii, no. 1601/11; LP xvii, no. 55; LP xix (1), no. 610/51; LP xx (2), nos. 729, 746, 909/2, App. 16.
5 PRO SP 63/41, no. 76 ii.
during the minority rule of Edward VI’s reign that optimism was allowed to have its head. The corruption of the administration at this time and the plundering of the State by leading government officers is too well known to bear repetition here, but it hardly seems coincidence that it was precisely during these years that Agard and Pirry were found acceptable in the Government’s eyes.1

<table>
<thead>
<tr>
<th>Mint</th>
<th>Date of commission</th>
<th>Fineness</th>
<th>Value/lb.</th>
<th>Weight</th>
<th>Face value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tower I</td>
<td>Mar. 1555</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Accounts missing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tower I</td>
<td>28 Feb. 1556</td>
<td>3 0 40</td>
<td>6,510</td>
<td>13,020</td>
<td></td>
</tr>
<tr>
<td>Tower I</td>
<td>24 Mar. 1556</td>
<td>3 0 40</td>
<td>15,969</td>
<td>31,938</td>
<td></td>
</tr>
<tr>
<td>Tower I</td>
<td>17 Feb. 1559</td>
<td>3 0 40</td>
<td>19,828</td>
<td>39,657</td>
<td></td>
</tr>
<tr>
<td>Tower I</td>
<td>1 May 1559</td>
<td>3 0 40</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tower I</td>
<td>16 June 1559</td>
<td>3 0 40</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tower I</td>
<td>26 Mar. 1561</td>
<td>11 0 80</td>
<td>2,997</td>
<td>11,988</td>
<td></td>
</tr>
<tr>
<td>Tower I</td>
<td>2 Feb. 1601 Copper</td>
<td>16 0</td>
<td>36,250</td>
<td>29,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>16 0</td>
<td>89,677</td>
<td>278,000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: PRO A01/1670/497; CPR Philip & Mary, iii, pp. 82-3; PRO E 159/337 Rec. Mich. 245; CPR Eliz. I, i, pp. 38, 50, 71; PRO SP 65/6; E 159/342 Rec. Eas. 168; SP 65/6; E 351/2030.

Personal ambition and government ineptitude, then, probably lay more at the root of the erection of the Dublin mint than did sound fiscal or economic considerations and it was for this reason that production was so intermittent and was finally abandoned shortly after Pirry’s death. From 1553 the special coinages for Ireland were once more struck in London. Exactly how much coin was made for Ireland during the reigns of Edward VI, Mary, and Elizabeth cannot now be established with accuracy for few of the accounts survive, but sufficient evidence still exists amongst the State Papers to give a reasonable idea and it is perhaps worth gathering these together (Tables III and IV). As Symonds has indicated, production in Thomas Agard’s mint probably began in March 1548 soon after assymaster Williams had been sent over to Dublin with various workmen for ‘areth the thinges against the erection of the mynt’, and by 22 November 1548 it was estimated that 5,000 lb. of the new coin had been struck. Compared with the English mints such a rate of production was indeed modest but the difficulty

1 W. K. Jordan, Edward VI: The Young King (1968), passim.
2 Symonds, op. cit., pp. 212 ff.
3 The actual wording of the document is ‘fyve thousand pounds coyned’ and Symonds (op. cit., p. 213) interpreted this as £5,000. That 5,000 lb. would be a more fitting interpretation, however, seems clear from the later estimate of the total face value of coin produced by Agard, £14,302. 8s. This figure would represent the coinage of about 5,959 lb. of bullion at 48s./lb. and if 5,000 lb. of this had already been coined by Nov. 1548, the remainder could reasonably have been coined between then and the closure of the mint in 1549. However, if only £5,000 had been coined by Nov. 1548, then almost twice as much again would have had to be coined before the closure of the mint if total production of £14,302. 8s. were to be achieved, and such a performance would seem highly improbable in the face of the chronic shortage of bullion. PRO SP 61/1, 132i.
of obtaining bullion caused even this to dwindle still further, so that in January 1549 the council required the lord deputy to have coined the 1,000 oz. of plate still remaining in the custody of the Dean of St. Patrick’s and then, if no further way of maintaining production could be devised, to bring operations to an end. By March 1549 Coldwell had ceased to engrave dies and it was probably in August of the same year that Agard himself died, having coined during his brief under-treasurership no more than £14,302. 8s.

**TABLE IV**

*Estimated Production of Irish Silver, 1547–1603*

<table>
<thead>
<tr>
<th>Mint</th>
<th>Date of minting</th>
<th>Fineness</th>
<th>Value/lb.</th>
<th>Weight</th>
<th>Face value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>oz. d.</td>
<td>s. d.(st)</td>
<td>lb.</td>
<td>£</td>
</tr>
<tr>
<td>Dublin</td>
<td>10 Feb. 1548</td>
<td>4 0</td>
<td>48 0</td>
<td>5,959</td>
<td>4 14,302</td>
</tr>
<tr>
<td>Dublin</td>
<td>9 Aug. 1550</td>
<td>4 0</td>
<td>48 0</td>
<td>19,910</td>
<td>6 47,785</td>
</tr>
<tr>
<td>Dublin</td>
<td>27 June 1552</td>
<td>3 0</td>
<td>36 0</td>
<td>18,000</td>
<td>0 32,400</td>
</tr>
<tr>
<td>Tower I</td>
<td>Sept. 1553</td>
<td>7 0</td>
<td>60 0</td>
<td>6,666</td>
<td>8 20,000</td>
</tr>
<tr>
<td>Tower I</td>
<td>4 Sept. 1556</td>
<td>3 0</td>
<td>40 0</td>
<td>5,000</td>
<td>0 10,000</td>
</tr>
<tr>
<td>Tower I</td>
<td>19 May 1557</td>
<td>3 0</td>
<td>40 0</td>
<td>5,000</td>
<td>0 10,000</td>
</tr>
<tr>
<td>Tower I</td>
<td>6 Sept. 1557</td>
<td>3 0</td>
<td>40 0</td>
<td>2,500</td>
<td>0 5,000</td>
</tr>
<tr>
<td>Tower I</td>
<td>28 Feb. 1558</td>
<td>3 0</td>
<td>40 0</td>
<td>10,000</td>
<td>0 20,000</td>
</tr>
<tr>
<td>Tower I</td>
<td>30 Apr. 1558</td>
<td>3 0</td>
<td>40 0</td>
<td>4,000</td>
<td>0 8,000</td>
</tr>
</tbody>
</table>

*For the period from Christmas 1553 to Christmas 1555 Egerton’s account is extant for operations at Tower I, by then the only mint in existence, and since this lists production of Irish coin in March 1555 amounting to only £13,020 (Table III) this official figure has been preferred to the estimated production in PRO SP 63/1, no. 14 (£20,059. 6s. 4d.) which is here excluded.*

It was not until the autumn a year later that Dublin once again began production. According to an agreement sealed on 9 August 1550, coins of the existing denominations, standard, and rating were to be made under the quite novel condition of guaranteeing the king a net profit of 13s. 4d./lb., to a total yield of £24,000. The accounts covering the production of this new coin are not extant but the size of the output can be gauged to some extent by the profits which are known to have been paid to the receiver-general of Ireland, William Brabazon. The minimum estimate would put these profits at £13,273. 16s. 5¼d. which represents about 19,910½ lb. or £47,785 in coined money. The period during which this total was produced stretched from October 1550 to May 1551, and on this basis it has been asserted that the coinage of this issue, Pirry’s first, ended in May or July 1551.¹ However, in a letter to lord deputy Croft in August 1551, the king expressed the opinion that Pirry should continue coining according to his indenture, and it may well be, therefore, that coinage did not finally come to an end until Michaelmas 1551, the date appointed by the indenture.² The crucial factor affecting Pirry’s chances of successfully carrying on operations was, of course, the supply of bullion, and here undoubtedly he had no mean problem. In July 1550 the lord deputy had been asked to ensure that the surveyor of the mines in

¹ Symonds, op. cit., p. 218.
² PRO SP 61/3, no. 48; BM Cott. MSS. Otho E, x, 187.
Ireland should gather together and refine the ores which had been found and transport them to the mint, but try though they may the Germans and their English backers could find no Irish Potosi. Moreover, by the terms of his indenture Pirry had to furnish his mint with bullion bought outside England or Ireland and, as events at the London mint show, this could only be done at ever-increasing cost.

That Pirry satisfied the council that he had done his best to overcome these difficulties and perform his promises, and successfully withstood the complaints of the lord deputy, is demonstrably shown by his being reappointed on 27 June 1552 to coin more money at Dublin. Indeed, one of the avowed intentions of the new coinage was to allow Pirry some additional advantage as reward for his services in the past. At first it was planned that 1,500 lb. of fine silver should be coined into this new money to the king’s use, and a similar quantity to Pirry’s own advantage, but the words ‘the summe of one thousands and fytte hundred pounds weight of fyne sylver’ were subsequently ‘rased in the indenture’ and eventually production totalled an estimated £32,400, or the coined equivalent of about 4,500 lb. of fine silver. Exactly when this production took place is unknown but at least three-quarters of the total was probably coined by November 1552, and a further £8,000 pursuant to an order of 27 December 1552, early in the new year. With this coinage the activities of the Dublin mint ceased. Since the beginning of production in 1548 about £95,000 had been coined at a profit to the king down to Michaelmas 1551 of about £16,500.

That the English Government had originally intended better things for Ireland than the 3-oz. issue of 1552–3 has long been recognized. As early as November 1551 the possibility was being discussed of raising the standard of the larger Irish coins to 9 oz. fine and that of the smaller to the same standard as the base English pence, and in January 1552, in response to a request from the Privy Council, the lord deputy expressed the opinion that the Irish coinage ought to be restored to ‘lyke valuacyon weight and fynes, As in Englande. And also that small moneys may be coyned of lyke standarde in fynes onely, but in weight of suche rate that vid may way the grote sterling...’ Although a draft commission was subsequently drawn up to provide for the coinage of pieces of 5s., 2s. 6d., 1s., and 6d. at 9 oz. fine and 60s./lb., and pence, half-pence, and farthings at 3 oz. fine and 40s./lb. the scheme of 27 June was preferred.

Early in the next reign momentary good intentions did in fact result in the coinage in September 1553, of £20,000 at 7 oz. fine and 60s./lb., but the continuing financial embarrassment of the Crown meant that thereafter it was found necessary to continue the exploitation of the Irish coinage. In all, we know of eleven commissions ordering silver coin for Ireland between March 1555 and June 1559, and in each case the new

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1 CSP Carew, 1515–74, no. 193 (5).
2 APC iv, p. 104, 29 July 1552; how this total production was shared between Edward VI and Pirry is unknown but certainly 1,500 lb. of fine silver was coined on the king’s behalf—APC iv, p. 89; PRO E 405/119, m. 37 (666 lb. 8 oz.), E 351/2080 (10,000 oz. = 833 lb. 4 oz.). Dolley’s view that this indenture was not acted upon conflicts directly with documentary evidence, which states clearly that these 3 oz. sixpences (i.e. shillings) were made by Pirry’s mint in 6 Edward VI (i.e. 1552/3). M. Dolley, ‘Was There an Anglo-Irish Coinage in the Name of Edward VI?’, SNC lxvii (1969), pp. 274–5; BM Add. MSS. 40061, fol. 15.
3 The signet Bill authorizing the production of this last £8,000 cancels an earlier instruction restraining coinage and although the dating of this first order is unknown it may not unreasonably be taken as some time in Nov. 1552 because it was in that month that Pirry probably died, thus rendering void his indenture and the striking of coin pursuant to it. HMC Salisbury MSS. i, no. 416; APC iv, p. 177.
4 Challis, op. cit., p. 452.
5 Symonds, op. cit., p. 226.
6 PRO SP 61/4, no. 5, fo. 14; SP 61/3, no. 73.
coin was to be made from base English money to a standard of 3 oz. fine and at a rating of 40s./lb.\(^1\) The official accounts of the production of this coin appear to survive in only two cases—March 1555 and March 1556—but that of the latter is reasonably full and, since there is no reason to suppose it exceptional, it may be taken as a broad representative of all the issues. In the first place, the officers of the mint were empowered to convert base English money—in this case received from the Exchequer and amounting to £15,000—into Irish coin 3 oz. fine. Including £39. 6s. 4d. set aside in the pyx box the total new money coined amounted to £32,281. 11s. 4d. General mint expenses were £362. 18s. 0\(\frac{2}{3}\)d. and coinage charges £388. 0s. 5d. and so, allowing for the original cost of the base money, the net profit on the entire operation was £16,530. 12s. 10\(\frac{1}{3}\)d., or the equivalent of a little more than the original value of the base English money.\(^2\) Thus, on the basis of base English money yielding twice its face value when coined into even baser Irish money it is possible to put the estimated production of Irish money between 1556 and 1558 at £53,000, and this, together with the known production between March 1555 and June 1559 of £84,615 15s. would give a tentative figure of total Irish coin produced in the period between March 1555 and June 1559 of about £138,000.\(^3\)

This mass of base money—in shillings, groats, and pence—it was intended to recoin at the same time as the English currency was restored in 1560–1.\(^4\) By 17 June 1561 it had been decided that the first harp groat of Mary’s reign (7 oz.) was to be current at 8d. (Irish), the shillings of Mary and Elizabeth at 5\(\frac{2}{3}\)d. (Irish), harp groats at 1\(\frac{2}{3}\)d. (Irish) (3 oz. fine, 40s./lb.) and 1\(\frac{1}{3}\)d. (Irish) (3 oz. fine, 48s./lb.), and rose pence at \(\frac{3}{4}\)d. These rates the Irish council thought to be too high in some cases and they were slightly adjusted before being proclaimed on 14 July 1561.\(^6\) While this proclamation was clearly designed to encourage people to take the decried coins to be reminted—for example, shillings were to be received at the mint at 5\(\frac{2}{3}\)d. (Irish) instead of 5\(\frac{1}{2}\)s. (Irish), and rose pence at \(\frac{1}{2}\)d. 1\(\frac{1}{2}\) mites (Irish) instead of \(\frac{1}{3}\)d. (Irish)—no date seems to have been set for the final demonetization of the base coins, and, in the event, less than £12,000 (measured at original face value) was taken to be recoined.\(^7\)

A large proportion of the Irish issues struck before 1559 thus continued to circulate in Ireland at the decried values long after the great recoinage was complete and the absence of any further attempts to call in the base money during the 1560s shows that in the beginning the situation was thought to be far from intolerable. Indeed, the token issue of fine Irish silver in 1561 apart, the situation in Ireland rapidly returned to what it had been long before the Tudor debasement had begun, as the English Government once more began to pay its way there in sterling which circulated at one-third above its face value.\(^8\) Why the new Irish coin of 1561 was so quickly abandoned in favour of sterling is something of a mystery. Though Dolley and Gunstone doubt that this coinage was above 8 oz. fine the original commission firmly specifies a standard of 11 oz. fine.

\(^1\) Tables III and IV; thus Craig errs in thinking that the Irish standard was raised to 4 oz. fine in 1556 and kept at that level for the 1559 issues. Craig, op. cit., p. 368.


\(^3\) Tables III and IV. More conservative estimates are contained in an Elizabethan document on the Irish currency (£125,000 and £135,000). PRO SP 63/2, fols. 114, 116.


\(^5\) PRO SP 63/4, fol. 10.

\(^6\) Ibid., fol. 37; Steele, op. cit. ii, no. 48 (SP 63/4, no. 181).

\(^7\) Calculated from the figures given in PRO E 351/2185 and SP 65/6.

\(^8\) PRO SP 63/14, no. 21; 17, no. 2; 21, no. 4; 20, no. 107.
and the correspondence of the queen and of mint officials, Thomas Stanley's draft account and the records of the trial of the pyx show incontrovertibly that this standard was kept.\(^1\) So far as we know, the coin was perfectly well designed and acceptable but for some reason which is not now apparent the Government would issue no more than £12,000 of it.

For forty years after the issue of 1561 Ireland survived without any special coin being struck for circulation there. As the years slipped by both sterling and continental coins were shipped over in increasing quantities, particularly towards the end of the century, and helped to augment the revalued Irish issues of former years which continued to form part of the circulating medium. In December 1600 the coins current in Ireland besides sterling, Spanish coins, and harp shillings 11 oz. fine were said to be testons coined at 12d., and now current for 4d. (st); the white groat coined at 4d., and now current at three for 4d. (st); the red harp coined at 4d., and now current at 1d. (st); and also dominie groats, Galway pence, and other ancient coins, though of these last there were said not to be very many.\(^2\) Before the winter was out, however, this situation was no more. In 1601 the Tudor Government embarked upon its final round of special coinages for Ireland and in so doing plunged the country into the worst monetary chaos of the entire period.

The issuing of billon coins 2 oz. 18 dwt. fine and small change in copper was instituted by the indenture of 2 February 1601 and continued until the end of the reign.\(^3\) The occasion of this last and most desperate debasement was, of course, the general rising under Tyrone and the immense cost incurred in reducing Ireland once more to law and order. Between 1 October 1595 and Elizabeth's death £1,845,696 was spent on the army in Ireland,\(^4\) and when one recalls that the ordinary recurring revenue of the English Government at this time was only in the region of £300,000 per annum the temptation to bolster Crown finances by debasing the coinage can be readily appreciated. As Sir George Carey put it when writing to Sir Robert Cecil in 1600, 'I see by experience that these Irish wars do exhaust the treasure of England, that the state of England doth even groan under the burden thereof, (and) that we expend faster here than you can gather it in in England.'\(^5\) The plan for the alteration was the brain-child of the brothers Hayes, men probably well versed in Irish affairs and certainly having the ear of the English Government for, as Thomas was later to assert, it was largely due to the plan being recommended to the lord treasurer by no less a person than secretary Cecil that the Government decided to act.\(^6\) On the face of it the advantages to the Crown were as attractive as they were obvious. One lb. of silver 2 oz. 18 dwt. fine had an intrinsic value of only 16s. \(\frac{1}{4}d\), and yet was planned to circulate at 62s./lb., while 1 lb. of copper which was valued at 6\(\frac{3}{4}\)d. was to have a face value as coin of 16s. From these gross

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\(^{1}\) Dolley and Gunstone, op. cit., p. 109; Symonds, op. cit., pp. 106-7; PRO E 159/342 Rec. Eas. 168; BM Add. MSS. 35830, fol. 115; CSP Carew, 1515-74, p. 311. However, Dolley is not consistent on this point. For a more considered judgement—that the 1561 issue of coin was affected by an adjustment of weight rather than of alloy—see M. Dolley, 'Anglo-Irish Monetary Policies, 1172-1637', Historical Studies, VII (1969), p. 58.

\(^{2}\) CSP Ireland, 1600-1, vol. ccvii (6), no. 133. For further reference to these base coins and money coined in local mints, as in Limerick, see CSP Ireland, 1601-3, pp. 224-34.

\(^{3}\) The details of this coinage have been set out by Symonds in op. cit., pp. 108-25.

\(^{4}\) Dietz, op. cit. ii, p. 433 n. 15.

\(^{5}\) CSP Ireland, 1600, p. 26.

\(^{6}\) CSP Ireland, 1601-3, p. 543. According to Camden, it was the lord treasurer who, in turn, persuaded Elizabeth to the temporary alteration. Simon, op. cit., p. 40 (Annals, p. 637).
profits/lb.—45s. 10d. and 15s. 5d. respectively—the cost of striking the coins into print and providing all things necessary for producing coins in general should be deducted in order to gain a true idea of the potential gain on the operation but there can be no doubt that if the base money could be off-loaded at its face value rather than at its intrinsic worth the Crown stood to gain enormously. Steps were taken to ensure that just such a situation obtained. According to the proclamation which publicly announced the new coinage, all moneys hitherto current in Ireland were, after 10 July next following, to be demonetized and replaced by the new billon and copper coins; the old Irish coin being exchangeable ‘money for money’ with the new, while sterling coin was to command a premium of 5 per cent when handed in. With the new coin introduced and its competitors banned it was clearly important that the former should not be taken out of Ireland and that no other coin should be allowed in to rival its passage there. Consequently, the Government also legislated in this behalf. All persons wishing to transfer money from Ireland were required to seek bills on England issued by an official exchange in Ireland and were to benefit from a 2½ per cent premium or suffer a 5 per cent discount depending on whether the sterling to be received in England was paid for in Ireland with English and continental coin, or the new base Irish coin. All those travelling in the opposite direction were also obliged to transfer money by means of bills, this time drawn in London on an official Irish exchange, and here too the premium for changing sterling coin for the new Irish was 5 per cent.\(^1\) To ensure that the exchanges were not circumvented the Government drew attention to the statutes still in force against transporting coin.

Taken together these regulations concerning the demonetization of the old coin, the introduction of the new, and the movement of coin into and out of Ireland should have achieved the Government’s desired end but, as is well known, what happened in practice was very different. To begin with, the new coin never seems to have gained acceptance and to have entirely superseded the old. At first glance this may seem surprising when one bears in mind that not only was the new coin exchangeable for the old without loss or even at a small profit in the case of demonetized sterling and foreign coin, but also that when debasement had last been tried in England debased coin had successfully driven out better. But it is essential to remember that the terms on which debasement was sold to the English public under Henry VIII and Edward VI were more favourable than those offered to the Irish in 1601. In England the new debased coin had driven out the good because the prices offered at the mint for bullion were sufficiently high to make it profitable to take the old coins in, notwithstanding the delays, inconvenience, and

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\(^1\) Sir George Carey, treasurer of Ireland, was appointed in May 1601 to overall control of these exchanges. In return for £2,000 per annum he agreed to maintain exchanges at London, Bristol, West Chester, Dublin, Cork, Galway, Carrickfergus, or elsewhere if necessary. All the exchange officers were to be appointed and maintained by him and if we assume that he himself was responsible for Dublin we have a fair idea of who these men were. Mr. Pitt (city chamberlain) and Walter Willson served at Bristol, Thomas Watson at London, Richard Parkins at Chester, Robert Morgan at Cork, Thomas Hybottes and Edward Beere at Carrickfergus, and Robert Blake at Galway. One of Sir George’s many difficulties in provisioning his exchanges is graphically shown by his having to commit £10,000 being sent to Galway to the protection of 1,000 soldiers during the final stages of its journey. CSP Ireland, 1600–1, vol. ccviii (2), nos. 32, 33, 64, 82, 86; vol. ccviii (3), no. 40: CSP Carew, 1601–3, nos. 76, 104; CSP Ireland, 1601–3, pp. 45, 287, 400–1, 506; PRO A01/289/1086. After Carey’s death it was alleged that he had been guilty of fraud in his handling of and accounting for some of the base moneys but though his accounts were re-examined the case was finally dismissed on 11 February 1630. PRO E 126/3 fols. 339, 347, 352; H. Hall, Society in the Elizabethan Age (1888), pp. 128–32.
risk which this involved. In 1544, for example, when fine silver was being bought at the London mint for 52s./lb. and yet coins of the Wolsey issue rated fine silver at only 48-6s. /lb. there was a 7 per cent profit to be made in selling this coin back to the mint, while in 1545, when the mint price for fine silver became 56s./lb., the margin of profit rose to 15 per cent.\(^1\) Compared with this situation that in Ireland in 1601 was less attractive, and the offer of 'money for money' in the case of the old debased Irish coins or of a 5 per cent premium in the case of sterling, must be held partly responsible for the Irish clinging on to the existing coin and refusing to exchange it for new. When, in June 1602, the Government did seek to offer greater inducement—not only by increasing to 10 per cent the premium on sterling or coins of an equivalent standard being taken to the exchanges in Ireland, but also by introducing a premium of 5 per cent on all old base coin being exchanged for new—the quantity of sterling being taken to the exchanges remained disappointingly low.\(^2\)

The old specie, then, continued to circulate in Ireland despite the appearance of the new and this in turn brought trafficking in coin, the arbitrary raising of prices, and the abuse of the exchanges. The minimum rates at which merchants bought up sterling in Ireland seem to have varied from 18d. to 2s./lb.,\(^3\) i.e. a premium of between 50 and 100 per cent more than the Government was initially willing to offer, but much higher rates seem to have obtained in some places and we even hear of £100 sterling being able to buy £200 Irish.\(^4\) Indeed, so great was the respect for the demonetized specie that traders were tempted to stipulate in what coin payment was to be made or put up prices, sometimes as much as 300 per cent, to counteract what they thought to be their loss in receiving the new coin.\(^5\) As money passed from hand to hand with more regard for its intrinsic worth than its face value the temptation to manipulate the exchange was difficult to resist. Merchants gathered in the highly distrusted new coin at a fairly handsome discount and then exchanged it at the official exchanges at full face value, save only for the Government's 5 per cent discount. These bills were subsequently cashed for sterling in England and if this money were then returned to Ireland the whole process might be repeated. Such activities were, of course, extremely difficult to trace, much less stop, but, as a memorandum of November 1602 made plain, when Irish merchants were known to have received £20,000 out of the Bristol exchange and yet at the same time the profits on the customs at Bristol from goods exported home by the Irish had not amounted to £20 the presumption must be that coins rather than goods were being shipped over.\(^6\) But without effective organization presumption could not become fact, and without complete control of the country the Government could hardly have its way. It was one thing to force debased coin on to a relatively settled and much-governed land, as was England in the 1540s, but it was quite another to try the same experiment in Ireland which was still 'unstaid and wavering'.\(^7\)

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\(^2\) The amounts of sterling and old base coin received into the Irish exchanges in the period 2 May 1601-31 Mar. 1602 were £15,760, 12s. 4d. and £693, 17s. respectively. The comparable figures for the eighteen months between 1 Apr. 1602 and 30 Sept. 1603 were £21,591, 6s. 5½d. and £7, 12s. 6d. PRO E 351/239, E 351/366; CSP Ireland, 1601–3, pp. 248–9, 407–10, 432–3, 563–4.

\(^3\) CSP Ireland, 1601–3, pp. 58, 66–7, 69–70.

\(^4\) Ibid., pp. 280–2, 508–11.

\(^5\) Ibid., pp. 280–2, 355, 501, 551. For a dispute between merchants over the acceptability of the new coin see 'Le Case de Mint Moneys' in Sir John Davies, *Les Reports des Cases & Matters en Ley* (1674), pp. 18–28.

\(^6\) Ibid., pp. 508–11.

\(^7\) Ibid., p. 567.
The fate of the last Tudor coinage for Ireland was thus not a happy one and in trying to measure how far the whole operation was successful it is obviously necessary to distinguish between various sectional interests. For the soldiers and government officials who were the users of the coin in the first instance it was an unmitigated disaster, for outside their own small world they could prevent people neither from refusing to sell nor from putting up prices. 'All other servitors and ministers about the State [wrote the lord deputy in February 1603] are in the same position—unable to buy anything with the coin in which they are paid.' It was an unenviable position and small wonder that disillusionment set in and mutiny hung heavy in the air. The case of the merchants was often different. As has already been indicated, some soon found ways of exploiting the situation and not a few must have known handsome returns. Morgan, the exchange master at Cork, even went so far as to say that though the merchants complained of the new moneys 'yet (the wars excepted) they never gained so much by anything that was here established as they do thereby'.

As far as the Crown was concerned this last great Irish debasement proved to be a gross miscalculation. On paper the profit was clear enough, for the £307,281 in new billon and copper coin cost only £84,526 to produce, but in the last resort the real benefit to the Crown depended on just how much of the new coin was redeemed for sterling in England. According to the original plan, the government promised to take back the new coin in Ireland and give bills for repayment in sterling in England at the full face value of the coin, save only for a discount of five per cent, and consequently, this small discount apart, the government was committed to suffering as large a loss on receiving the money back as it enjoyed profit in issuing it. The Crown thus had a vested interest in trying to prevent as much as possible of the base money from being exchanged back into sterling and it is to this interest that there should be linked not only the delays at the exchanges in England and the refusal to exchange any of the copper moneys but also the attempt to force merchants seeking exchange to bring in part of the sum in sterling: at first the proportion asked was 25 per cent, then 20 per cent and, finally, 40 per cent, though at one time as much as 60 per cent was considered. At the outset of the debasement the government had no means of knowing how much new coin would in fact be presented at the exchanges but it seems clear from the terms of Sir George Carey's grant of the mastership of the exchanges, in which the queen undertook to deliver to him in the first instance English money amounting to one-quarter of the sum of debased coin sent over to Ireland, that a return of roughly one in four was anticipated. Once debasement got under way such a prediction proved unrealistic for within eighteen months the London exchanger believed that one in three of the debased coins was being exchanged back. But the full extent of the government's miscalculation was only revealed when the final reckonings of the exchange-master were drawn up early in James I's reign. In all, £231,046 15s. 5½d. was paid out at the English exchanges of London, Bristol, and Chester upon bills from Ireland: £77,813 12s. 7½d. going to the captains and others in the queen's pay, £29,347 6s. 5d. to gentle-

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1 CSP Ireland, 1601–3, p. 567.
2 Ibid., p. 281.
3 PRO E 351/2030. In order to arrive at a completely realistic production cost a portion of the general expense of running the mint ought to be added to the particular cost of making the Irish coin, but the make-up of the account prevents this.
5 CSP Carew, 1601–3, no. 76.
men and others not so engaged, and £123,885. 16s. 4½d. to merchants, tradesmen, and shipowners.¹ Towards the cost of this repayment Sir George Carey could supply only the £37,352 in sterling received into his exchanges in Ireland so that in the last resort the overwhelming proportion of bills presented in London were honoured with sterling disbursed by the English exchequer. If to the sum expended in this way (£192,600) are added those for the cost of producing the coin (£84,525) and of running the exchanges (£5,806),² it appears that the outlay by the Crown (£282,931) was not far short of the total face value of the base coin produced (£307,281) and in the end, therefore, the optimistic predictions concerning the profitability of the exercise were shown to be quite worthless.³ When the chaos and disillusionment which the appearance of the new coin caused are also taken into account it is easy to emphasise the futility of the whole Elizabethan exercise and to compare it unfavourably with the sounder policies of James I who revalued these base coins early in his reign.⁴ What the Elizabethan government did, however, it did only after being satisfied by the council in Ireland that a policy of debasement might be implemented,⁵ and because it seemed one way out of the almost insoluble problem of adequately financing government in Ireland. Throughout the Tudor period debasement was the product of desperate situations, and it was because the Irish problem was particularly acute at the end of Elizabeth's reign that the last Tudor coinage for Ireland was so utterly disreputable.

¹ PRO E 351/239, E 351/266, A01/289/1086.
² The cost of running the exchanges cannot be determined exactly since the second of Carey's accounts as treasurer at war in Ireland, in which he claimed his fee and allowances as exchange-master from Apr. 1602 to 30 Sept. 1603, seems not to be extant. The figure given here, which may be taken as a reasonable minimum, has been arrived at in the following way: Carey's allowance (£2,000 per annum) from 2 May 1601 to 30 Sept. 1603, £4,830; portage of debased coin from England to Ireland (£307,281 at £20/£1,000), £6,146; portage of sterling coin from London to the English exchanges (£192,600 at £13. 6s. 8d./£1,000), £2,568; portage of sterling from Ireland to the English exchanges (£37,352 at £10/£1,000), £373. 10s. Since the first and second items were paid in debased Irish coin these have been deflated to their sterling equivalent (£2,865) for the purposes of adding them to the other sums which were paid in sterling. PRO E 351/239, E 351/266, A01/289/1086, A01/288/1082.
³ As mentioned in the preceding note, one of Carey's accounts is missing and consequently it is not possible to give a precise net profit on the entire operation.
⁴ Steele, op. cit. ii, no. 172.
⁵ CSP Carew, 1601–3, no. 44.