Introduction

Over forty years ago I struck numismatic history a glancing – and very oblique – blow by way of a little book on the extraordinary waves of private tokens issued after 1787.¹ My main interest then lay in the visual images which the tokens offered of an industrialising and commercial society at a fascinating point in its evolution: a land of shops of all kinds, of mines, foundries, factories, looms, ploughs and ships, as well as of a society in vigorous political debate. I was always looking through the eyes of an economic historian rather than a numismatist – as I still am. Hence I still feel, on an occasion such as this, like a mere lion in a den of Daniels. The lion, however, is deeply grateful to all the Daniels who have come to the circus, particularly to Dr. David Dykes, its organiser, who has investigated regional token issues more thoroughly than I.² I much appreciate the invitation.

In this lecture I hope to explore the uses, and the problems of usage, of a small-denomination currency, principally copper, to extend somewhat, by this means, the discussion of how this side of the economy operated. Alas, it does not offer the same visual delight as views of the tokens themselves, but I trust it conforms to the remit of the Linecar lectures as being ‘not primarily numismatic but conveying to a numismatic audience an economic, historical or artistic background to their discipline’.

It is appropriate to begin with a brief – and necessarily incomplete – sketch in the aggregate of token issues at the end of the eighteenth century. Their rationale, as for token issues in earlier times, was to provide the means of payment for small transactions in the face of a recurrent short-age of low-denomination regal coins, particularly in copper.³

Problems of Aggregation

There are several inescapable major failings in any ‘numismatic’ analysis of these issues. It is possible to list all known variants of coins issued, and numismatists have done this meticulously to the limit of surviving examples. This covers the different metals in which coins were struck (even if the overwhelming majority were in copper), denominations, exact comparisons of inscriptions and other features (including edge inscriptions, milling etc) with the least indication of where a new die had been used noted. Of course, minor variations abound. The major unknown is the extent of minting of individual variants, save for the few cases where this is known about (or claimed) or derived from a known weight of copper, from other sources. J Fielding, of Manchester, struck more than two million halfpenny tokens for general circulation in the late eighteenth century – that is sold in bulk by the manufacturer who had struck the coins to others who would circulate them, both parties seeking profit from the trade.⁴ Fielding’s vast issues were

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remarkable also in the sense that they do not appear to have attracted forgeries. Similar issues for general sale by T. Clarke of Liverpool totalled over one million; Lutwyche, of Birmingham, issued ‘mules’ which attracted five tons of forgeries (i.e. over 500,000 halfpennies). Other large issues of individual tokens (usually for general circulation) included Manchester (2.2 million), Brightton Camp (one million); Warwickshire (one million), Birmingham (one million), Edinburgh (one million from Hutchinson), Glasgow (Shearer) and other nodal urban and industrial regions. These issues, large though they were, do not compare with the resources which could be brought to bear when the state took the initiative for a recoinage of copper for national distribution. Matthew Boulton coined more than 4,000 tons of copper coins for the government between 1797 and 1805. They were issued at ‘full weight’ (i.e. the denominational or ‘face’ value of the coin being equal to the intrinsic value of the metal it contained, less the cost of manufacture and, possibly, an allowance for distribution costs, the latter being a source of much contention). The nominal value of Boulton’s issues, all of copper in this instance, was £800,000. In contrast one million halfpenny tokens would have a nominal value of £2,083. The aggregate weight of issues depended on the price of refined copper at the time of issue, which varied greatly, the purity of the metal used, and whether ‘full weight’ was upheld.

The most prolific issuer of tokens, in the late eighteenth-century series (before Boulton’s massive re-coinage of regal copper in 1797–1805 drove private tokens out of circulation) was undoubtedly the Parys Mines Company of Anglesey. The fine quality of their tokens, issued at ‘full-weight’ policy (although necessarily varying with the level of copper prices when struck), and their elegant design made them also, deservedly, the most famous. The scale of minting was encouraged by the fact that they produced their own raw material at Parys Mountain and that their tokens were much in demand outside their ‘natural’ circulating area in the nexus of Anglesey (where the copper was mined). Liverpool (where the copper was smelted on the Lancashire coalfield), at first Holywell and then Birmingham (where the tokens were struck) and London (where much of their copper was marketed). Between 1787 (the date when the new wave of private tokens was initiated by the Parys Mines Company) and 1791 they issued 250 tons of pence and fifty tons of halfpence, representing almost nine million penny tokens and over 3.5 million halfpennies.5

Even though it may be of limited value - the equivalent of seeking to reconstruct the life of a vanished archaeological artefact, or the jawbone of a human ancestor – it is worthwhile noting some conclusions of this aggregate analysis undertaken by A.W. Waters for the 1787–1799 token issues, as well as listing their inadequacies. About forty million tokens feature in these estimates, documented, calculated or asserted by contemporary commentators, or derived from a calculated (or asserted) weight of copper used in their manufacture. This is a vast number, but it must be seen as just the ‘floor’ for such quantifications. Less than ten per cent of known token issues have such quantities proposed for them: the size of the great majority of token issues remains unknown. One might assume, however, that most of these unquantified issues were small – from local retailers for limited local circulation, or small specialist issues for collectors, mules, specialist collections recording London public buildings and the like.

Looking into the distribution of all known eighteenth-century token issues (using the analysis of Tom Hill, based on the Dalton and Hamer listings scheduled by counties), certain other conclusions can be drawn with a fair degree of reliability.6 Taking all known variants, except for identifiable forgeries, irrespective of the size of issues, over 6000 issues have been identified for England, Wales and Scotland - 4739 for England, 638 for Wales (555 of these being Parys Mines issues for Anglesey) and 698 for Scotland. Variants include all denominations, all identifiable design variants (however small), different edge readings, ‘mules’, but not known forgeries. This

5 J.R. Harris, The Copper King: A Biography of Thomas Williams of Llanidan (Liverpool University Press, 1964); Parl. Papers, 1st Series (1799), Vol.X, report on the State of the Copper Mines and the Copper Trade; Parl. Papers (1837), Vol. XVI, Select Committee on Royal Mint, Appendix 34. There is extensive coverage of the token issues of Parys’s Mines Company in the secondary literature. Most of the conversions of weight of copper into numbers of tokens struck are crude estimates from Pye, Provincial Copper Coins or Tokens issued between the years 1787 and 1796 (second edition, London, 1801), reckoning 103,400 halfpenny tokens to the ton.

seems a reasonable reflection of the relative scale of the regional economies. Of this total about thirteen per cent were pennies, seventy-three per cent halfpennies and thirteen per cent farthings (more than half of which were issued in Scotland). Almost all (except for ‘specimens’) were struck in copper at this time.

The spatial distributions within England, Wales and Scotland (following the county-designated listings of Dalton and Hamer) are as follows: for England, Middlesex (i.e. including London) is by far the greatest source of token issues - 1792 from a total of 4739 (thirty-eight per cent), followed by Warwickshire 783 (seventeen per cent), Lancashire 281 (six per cent), Yorkshire 239 (five per cent), Hampshire 210 (four per cent), Somerset 208 (four per cent), Norfolk 122 (2.5 per cent), Suffolk 121 (2.5 per cent), Cheshire 121 (2.5 per cent) – listing only those counties with more than 100 issues. Counties immediately adjacent to London, such as Surrey, had higher issues because of this (i.e. including Lambeth, Southwark, Bermondsey etc.). Welsh token issues were totally dominated by Anglesey - the Parys Mines series - with 555 issues (eighty-seven per cent) out of a total of 638; in this case dominant by the number of variants on the basic design of the Druid’s Head and the company’s cipher as well as by the tonnage of copper coined. Some of the rest are imitations of Parys Mines issues and the others from Camarthenshire and Glamorgan, industrial centres where copper was smelted. In Scotland the number of issues (as well as their size) was dominated by Lothian (i.e. Edinburgh) with 183 (forty-five per cent) out of a total of 408 with specified place of issue, and by Lanark (i.e. the Glasgow area) with eighty-five (twenty-one per cent).

In addition to the multiple uncertainties mentioned above concerning token issues, there are answers to other questions that the economic historian, more perhaps than the historian of money and numismatics, would wish to have resolved. The length of time in circulation, the velocity of circulation, the subsequent range of their circulation once issued and – above all – the detailed economic/commercial functions served by this informal currency, as well as the regal copper coinage, are the principal items on this list. If conclusions to be drawn from the issues of tokens themselves remain largely indeterminate, some rough indications of the regions from which most demands for copper coin derived can be gleaned from data about the deliveries of tokens from the Soho Mint, following Boulton’s large-scale recoinage of copper in 1797 and in subsequent years in pursuit of the objective of keeping this ‘official’ copper in circulation in an attempt to discourage private tokens. Details were regularly reported to the Committee of the Privy Council on Coin.  

In Scotland Glasgow, Edinburgh and Aberdeen dominated requests for supplies of copper. In England shortages of copper in 1802 were principally felt in London and ‘from the Northern parts of the Island’. Between 1797 and 1807 Boulton sent out 17,500 casks of copper coin worth £340,000 from the Soho Mint: of this total 2,654 casks (£77,702) went to Lancashire, 1,141 (£31,784) to Yorkshire, 1,212 (£33,972) to Staffordshire, 1,204 (£34,425) to Warwickshire and 1,452 casks (£48,787) to the London area (where some demands were being met by local re-distribution from the brewers). When the Bank of England allocated the issue of its silver tokens in July 1811 the towns which received the largest amounts were, in descending order (apart from London), Manchester, Liverpool, Birmingham, Glasgow, Bristol, Leeds, Plymouth, Newcastle, Bath, Portsmouth, Sheffield, Hull, Paisley, Dundee – as well as smaller allocations to lesser towns. This confirms the general picture that the most rapidly growing industrial and commercial towns, particularly in the Midlands and the North, were generating the greatest demands for circulating media in the form of low-denomination coins. A count of the private issues of copper tokens in the early nineteenth century also shows a concentration from the industrial Midlands and the North East, with very few emanating from the more agricultural regions.

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7 PRO BT 6-7. See below in text.
8 For example BT 6/127: 2 March, 2 April, 6 May, 22 October 1802.
9 BT 6/127: 2 April 1802.
10 BT 6/121. 1807 Matthew Boulton. For the importance of the London brewers in this connection see below.
Tokens Issued by the Copper Companies

The tokens issued by copper mining and manufacturing companies form a special case. They were major issuers but, if they were led in scale of issue and the prestige of the coins themselves by the Parys Mines Company of Thomas Williams, other copper manufacturers of Birmingham, London, Bristol and South Wales soon followed suit – the Birmingham Mining and Copper Company, the Crown Copper Company, the British Copper Company of Walthamstow, the British Brass and Copper Company, the Rose Copper Company and others. These issues underline the diversity of motives in issuing private tokens. The main interests of the copper manufacturers lay in getting their coins into general circulation. As producers of refined copper they had obvious incentives to set up coining presses (‘integrating forward’ as it would now be called) and to move into ‘higher valued added’ finished products where they could set their own prices, and gain greater profits, doubtless, than in selling copper wholesale to other large users. Given that mining, smelting and refining, processing and subsequent markets, were usually on widely disparate sites – the mining areas of Cornwall and Anglesey, smelting on coalfields nearest to the mines (usually S. Wales and Lancashire), manufacturing in the Birmingham area (not just for coins), London as the most important single market – they were in a good position to push their tokens into circulation. Some carried legends which documented their main distribution points: Parys Mines Company coins had edge-readings ‘[Payable] on demand, in London, Liverpool or Anglesey’; the Bristol Brass and Copper Company’s tokens were current in Bristol, Swansea and London; the British Copper Company had ‘rolling mills at Walthamstow; smelting works at Landore’; The Birmingham Copper Company’s tokens were ‘Payable at Birmingham, Redruth and Swansea’. Various Birmingham-based copper companies made their tokens current in Birmingham and South Wales for similar reasons. Because of their interest in getting and maintaining their tokens in general circulation they were, in the main, ‘honest’ coins approaching full-weight relative to the current price of copper. Internal conflicts of interest in the copper industry were revealed by some of these firms established by Birmingham manufacturers (consumers of copper) to curb the high prices being forced upon them by independent copper producers (such as the Parys Mines Company) taking advantage of war-time scarcities. They moved back into mining and smelting as others moved forward into token issuing. Such jockeying for advantage was characteristic of the copper industry, where large-scale firms had the capital and commercial awareness to take such initiatives in the rapidly changing war-time market. Token issuing became one aspect of these ploys by the copper companies. It is unlikely that wage payments were seen as a major objective for such issues nor, in most cases, would their tokens have absorbed a major part of the copper which they produced.

Tokens in Wage Payment

A question of which the daily reality was evidently more complicated than most generalisations suggest concerns the use of copper coins, particularly tokens, in the payment of wages. The problem centres on the disparity between weekly wage rates and the low denominational value of the copper coins in circulation. This is one aspect of the general assumption that it was ‘industrialisation’ that produced the great demand for small change in copper coinage, regal or informal, and that at the heart of the process of industrialisation lay the proliferation of mines, mills and factories, employing a money-wage-earning proletariat bereft of any source of income other than their daily or weekly wage. Thus the demand for copper coinage grew in the shadows of dark satanic mills. This was not without foundation, as much evidence recording the use of copper tokens for wage payment testifies. But it is far from the whole truth and is certainly not the only, and possibly not the main, basis for the functions which the copper coinage served. Some further discussion can finesse these arguments.

13 For the general context see H. Hamilton, *The English Brass and Copper Industries to 1800* (London, 1926); Harris, as in n.5; *Parl. Papers, first Series* (1799), vol.X., as in n.5.
On the positive side we know, as one example among many, that Samuel Fereday, proprietor of a large iron works at Bilston, Staffordshire, was said to drive over in his coach to Birmingham every fortnight to collect a load of his own tokens (excellent coins) from Edward Thomason’s manufacture, having ordered over two million of them to pay his work force of 5000 men. Lord Liverpool wrote in 1805 in his Treatise on the Coins of the Realm that ‘Many principal manufacturers are obliged to make coins or Tokens to enable them to pay their workmen and for the convenience of the poor employed by them . . . ’. The one million tokens issued at ‘Brighton Camp’ were presumably linked initially with the payment of troops there. There is plenty of such evidence.

However, this is the beginning of the story rather than its end. Tokens which entered circulation through wage payments were then passed on in purchasing and joined the general means of payment in a locality, and wider afield in many cases. This was the major use for copper coinage – to supply the necessary circulating medium for local and retail transactions. Wage payments were only one, if an important, means in some locations for supplying local liquidity. The legends on many of the coins embody this: ‘For Change not Fraud’, ‘To Facilitate Trade’, ‘For General Convenience’, ‘For the Accommodation of the Country’, ‘a Remedy for the Shortage of Change’ and many similar messages.

The popularity of the excellent tokens issued en masse by the Parys Mines Company reinforces this conclusion. Several local authorities, magistrates and public meetings of traders and shopkeepers, a long way from any copper works, declared their confidence in the Anglesey company’s tokens, as did the magistrates and traders of Stockport in 1789.

It would – almost inevitably – have been the case that any token (with its variants and forgeries passing current on equivalent terms to the original issue) which achieved large-scale circulation would have fulfilled the general function of supplying local liquidity for general purposes, above all that of retail trade. To be drawn into general circulation in this way clearly demonstrated response to need, with acceptability conditional upon the tokens being regarded as ‘honest’ coins, weight broadly responsive to denominational value, although established popularity and credibility could then carry much departure from the norm. The forger has always traded on credibility, not to say gullibility, and if a coin, notwithstanding its inadequacies, could be successfully passed on, any temporary holder would live on unscathed. Because tokens fulfilled the need for exchange rather than as a store of value (as would be more the case with gold coins) – and being in demand for immediate purchasing by the poorer people not holding savings, if they had any at all, in the form of very low denomination money – rapid circulation discounted most of the risk of accepting them in the first place.

Only dramatic intervention in day-to-day local transactions, such as a regal re-coinage of copper, would undercut these assumptions, which supported the credibility of private tokens as a precondition for their circulation. Formal legal prohibitions were impractical until alternative acceptable regal copper coins were widely available, which was not fully the case until 1817. Hence the repeated sequence which followed the deterioration of token issues. Unscrupulous issuers, seeking profit from their coining activities and protected by the absence of legal sanctions against private issues of copper coins which did not exactly resemble regal coins (the so-called ‘evasive half-pence’), issued debased tokens, trading upon the established credibility of original issues. Beyond a critical point of deterioration, public acceptability of debased tokens brought local public protests and demands for prohibition and a new issue of regal copper. Given the legal and the functional context of token issuing this was, over time, an inescapable sequence, which brought the whole concept and practice of an informal coinage into disrepute.

But first some other comments are needed to underline doubts about the primacy of wage payments as the motivation for token issuing as a whole in the country. Wage rates (and take-home wages) varied greatly across the country and between skilled and unskilled workers. However, the range of these variations does not prevent generalisations concerning the function of regal and token copper coinage as a vehicle for wage payments. Similar considerations apply to piece-work

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14 Quoted in Mathias, as in n.l, p. 18
rewards when grossed up into probable earnings per week. Much indeterminacy remains over the regularity of employment and the continuity of earnings, of course, but the argument can be contained within all these parameters. Conclusions also have to be drawn within the context of inflation and deflation, particularly because the problems of the copper coinage (official and informal) were much enhanced by the rise in prices during wartime – the generation-long span of the Revolutionary and Napoleonic wars between 1792 and 1815 – which saw the rise and fall of many token issues. War made particular incremental demands on the copper industry, so that price fluctuations for the basic raw material of the copper coinage were intensified. In 1797 the price of copper was £105 per ton, in 1807 almost double that, and after a decline then reached £140 per ton in 1811. Such price changes could be accommodated, at a cost, by reminting and reissuing at new weights, reflecting variations in the cost of raw material (directly for coins issued at ‘full weight’ policy and indirectly and to a lesser degree for other issues). Most of the extant token issues seem to have been melted once Boulton’s contracts were effected.

Price changes more than short-term changes in money wage rates governed changes in purchasing power for the masses of the nation as wage-earners. During the years of war-time inflation prices, led by food prices, advanced faster than wages for most workers. Rising money wages, however, despite a deteriorating standard of living, had to be expressed in an expansion of the circulating medium, in denominational terms as well as in the requirement of more coins in circulation. Longer-term structural changes in the economy, in urbanisation and in employment patterns impacted on these wartime trends.

Carpenters, bricklayers, masons and equivalent skilled men were able to earn 17s.-18s. per week in London by 1800, rising to c. 31s. per week by 1810. Oxfordshire agricultural labourers were being paid c.1s. 4d. per day in 1800; London labourers 1s. 10d. – 2s. per day and, and labourers in Lancashire 2s. per day (having risen greatly since 1780) — a range of 8s.-12s. per week; agricultural labourers having the lowest rate of money wages. In Lancashire in 1810 handloom weavers were reportedly earning 16s.-19s. per week and young women spinners 9s. 6d. – 10s. per week.

At these levels of remuneration it is impractical to suppose that the main means of wage payments were in copper coin of a halfpenny or one penny denominations. By far the majority of tokens were issued as halfpennies in the last decade of the century. A greater proportion of one penny pieces featured in the issues of the early nineteenth century in response to the continuing war-time rise in prices, while a brief flurry of silver (mainly shilling) tokens appeared in 1811–12 following the renewed burst of rapid inflation in 1810–14. Supplementing the regal silver and the countermarked Spanish dollars issued by the Bank of England (subsequently reminted by Boulton) silver coins doubtless had the major role in wage payments. Being weighed down with several hundred copper halfpenny and penny tokens in weekly wages is most unlikely to have been the norm for wage earners. Even payment by way of Boulton’s massive ‘cart-wheel’ twopenny pieces of 1797 – with only eight to the pound weight – over 1000 tons of which were minted, would have proved a burden, as would the twopenny pieces of John Hendrickson’s Lemmingsley Cotton Mill near Lichfield.

It must be remembered, too, that employers and tradesmen showed great resource in coping with the problems of economising on cash when settling accounts for their regular customers and suppliers. The shortage of cash for wages invoked equivalent stratagems. Payment could be made by the issue of ‘chits’, or credit notes, for obtaining supplies at the ‘tomy’ shop or with a compliant local retailer. Or groups of workmen might be paid in larger denomination notes or coin for changing in local ale-houses or shops. Both methods offered greater scope for exploitation or the dissipation of wages than payments in tokens which passed current in local or regional circulation. Of course, light-weight tokens of low intrinsic value could also become a means of binding employees, if only redeemable for goods at a designated shop.

The presumed dominance of silver, supplemented by copper, for wages raises another doubt about the primacy of this function as the explanation for most issues of tokens, virtually none of which were struck in silver as ‘genuine trade tokens’ before 1810 and which then generally ceased to be struck after 1812.\(^17\)

A partial exception needs to be acknowledged in the privately issued countermarked silver dollars, in denominations of 4s. 6d., 4s. 9d. and 5s.,\(^18\) produced, it seems, mainly in Scotland but also for a few industrial and mining centres in England. The twenty-seven known Scottish issuers of countermarked silver coins were almost all mining and textile concerns, with the name of their mine or mill within the countermark and the denominational value impressed on the coins. In England, only five issuers of countermarked silver coins are recorded by Manville, the main source being Arkwright and Co. of Cromford, Derbyshire – Richard Arkwright’s firm, although these silver issues were probably at his son Richard’s initiative. Over fifty variants are known, mainly issued in 1815 or shortly afterwards, at 4s. 6d. and 5s.\(^19\) The other issuers in England were Donald, hosiery/hat manufacturers of Birmingham, Major John Cartwright’s Worsted Mill at East Retford, Nottinghamshire, Percy Main Colliery at North Shields, Northumberland, and the Cark Cotton Mill in Cumbria.\(^20\) The provenance of these countermarked silver tokens in Scotland and England certainly suggests that they were produced for wage payments. The extent of the various issues remains unknown, and the phenomenon is also remarkable for being so confined in time and so limited in extent (at least for England). The rationale for wage payments utilising silver coins was much more extensive than this.

The Committee of the Privy Council on Coin remarked, perhaps optimistically, in the 1790s that ‘Silver is the coin which the poor principally use’. Several explanations can be put forward to account for the fact that this did not induce more widespread and sustained issues of silver tokens.\(^22\) Regal silver, issued at full weight policy, was exposed to attrition when silver prices rose, just as was copper, and token issues of silver in 1811–12 could more easily adjust the weight to maintain viability from their issues. Silver, as a precious metal, enjoyed greater legal protection against outright forgeries than the copper coinage, with the authorities being quicker to act, through the Mint or the Bank of England, when a breakdown of regal silver on a similar scale to that of the regal copper coinage threatened in 1797 and subsequently. Mint issues of silver were seemingly haphazard, and certainly just occasional in the second half of the eighteenth century, apart from a major issue in 1787, so that the silver regal coinage suffered serious deterioration; but it was never deficient on the same scale as mint issues of copper. More important for maintaining the circulation of regal silver was the fact that it flowed through the banking and commercial system with much less inertia than copper: transport and handling costs were much less relative to weight and value. Manufacturing interests concerned with profit by pushing their products into circulation were much less powerful in the silver trade than in the copper industry. Trades people and employers could be more insistent that their local bankers supply them with silver. Nevertheless tradesmen commonly paid a premium of 2s. in the pound (£) to their bankers for this service.

When the Earl of Lauderdale was making local enquiries about the state of the coinage in 1810–12, the main complaints from shopkeepers and tradesmen were focused on the inadequacies


\(^{19}\) The issues of the Cark Cotton Mill of Cartmel, Cumbria, evidently began in 1787, counter-marked for 4s.6d. (Manville, as in n.18, pp. 201–202).

\(^{20}\) Manville, as in n.18, pp. 203–207.

\(^{21}\) Manville, as in n.18, pp. 201–213. Revd Edmund Cartwright, inventor of the – then unsuccessful – power loom was John Cartwright’s brother.

\(^{22}\) Mathias, as in n.1, pp. 25–27.

in the circulation of silver.\textsuperscript{23} From Bristol, he was told that ninety per cent of the silver in circulation was not regal and that the mint silver was much more deficient in weight than the silver tokens (which nevertheless could proportion their weight to the price of silver). The proprietor of Rudston and Preston, of Hull, ‘two considerable wholesale and retail firms’, claimed that the means of carrying on his trade had been ‘crippled ... for want of silver to give in change ... In this situation I and my partner were reduced to issue tokens. The relief this gave was incalculable ... and had it not been for their introduction, I do not know what this populous town and neighbourhood would have done.’ A similar case concerned a token issuer in Bridlington, whose testimony encapsulates both the problem of an inadequate regal silver coinage and its temporary resolution by tokens (before they, in turn, deteriorated). In September 1812, he claimed, tokens comprised four-fifths of the circulating silver money. Bank of England tokens invariably disappeared ‘after their first circulation’. Because the premium which he had to pay to get silver from London increased, ‘I was compelled to discontinue it, my trade not allowing me to pay so dear for the accommodation: and until the issuing of local tokens I was daily under the necessity of refusing goods to my customers, from being unable to furnish them with change, whilst I sustained great loss by giving credit to people who came to my shop, knowing I could not give them change for a note’. Clearly the issue of silver tokens (shillings and sixpences) in 1811–2 rapidly, if temporarily, helped to resolve a shortage of circulating media critical for local economies across the country.

The fact that the constraint affected shopkeepers and tradesmen most immediately reveals the most important function that tokens fulfilled and that, in turn, offers an insight into processes of economic change at a critical juncture in the evolution of the economy. This was much wider than just providing a medium for wage payments and underlines reassessments about the nature of industrialisation in Britain. Essentially the course of this reassessment – now of long standing – is to broaden the whole analysis of the process, of which the changes within the industrial side of the economy, although integral with the whole and adding momentum, were but one dimension of a much more complex dynamic. In this sense, using the word ‘industrial’ to characterise the whole process, the concept of the ‘Industrial Revolution’, is seriously misleading in the absence of awareness of how widely ranging sources of the changes which sustained the momentum really were. The immediate focus here lies with the commercialisation of relationships demanding coin in the economy at the local and regional level (quite apart from international linkages). This, in turn, is integral in this period with urbanisation and the spread of ‘fixed-point’ retailing – shops – with a whole spectrum of commercial and financial intermediaries associated with this kind of business structure supplying needs in goods and services. Commercial specialisation lay at its heart.

In this progressive articulation of local commodity markets, linked with the expansion of economic activities based on towns, England, with Holland, was well in advance of these trends anywhere else in Europe. The momentum created by the process demanded the exponential expansion of low-denomination coinage as an essential means of enabling the process to continue. It was a new form of monetisation, the spread of a new cash nexus, which earlier forms of satisfying local needs had not required, or not nearly to the same extent. The irresistible demand for trade tokens revealed this new imperative, in the absence of an effective, regular, progressive supply of regal silver and copper coins to cope with this structural transformation of the ways in which local economies operated, despite many stratagems to economise on the need for cash. The process of transformation was unprecedented in scale and in its progressive momentum, so there is little surprise that the response of public authorities was belated and inadequate. It is one of many instances of lagging public provision in eighteenth- and early nineteenth-century Britain in the face of newly evolving urban, industrial, commercial and financial structures and systems, towards a future then unknown. The progressive development of retailing provides one of the most visible manifestations of this transformation, while the necessity of token issues provides dramatic, if temporary evidence of its existence.\textsuperscript{24}
The power of the momentum behind these developments was such as to demand a spontaneous private solution in the absence of public provision in a field normally reserved for state monopoly provision. It would not be an exaggeration to claim that this was ‘the rise of a money economy’ in a new dimension. The paradox was that it was coterminous with the evolution of new credit instruments in a great enhancement, elaboration and diversification of the financial system of the country. The ‘rise of a money economy’ has been a much abused term and a much misunderstood concept. Over the centuries from the early medieval period, when mints and coinages proliferated, as did credit, it would be as accurate to claim that the various roles of money, so early established, were being increasingly overtaken (supplemented is too weak a term) by the roles of credit. ‘The rise of a credit economy’ might be as good a term to use. This was also the case in the process of change being experienced in late seventeenth-century England and afterwards. By the end of the eighteenth century, quantitatively, coin and paper currency — the latter expanding powerfully — provided a progressively smaller percentage of money stocks, the means of payment, and transfers by way of bank deposits and other credit instruments. All this, however, in the macro-financial flows of the economy does not subvert the simultaneous progressive importance of small denomination coin, as the differentiation of the economy enhanced mass transactions in retailing and wage payments. It was the progressive differentiation of the economy which makes these contrasting trends compatible.

Tokens, the Commercialisation of Society and Retailing

The token issues of the eighteenth century, as those of the seventeenth century, and the insistent demand for low-denomination regal coins were evidence of the commercialisation of society at the local level more than just of industrialisation in the form of mines, mills and factories, although, as acknowledged, in certain nodes of industry the demand for wage payments did prompt the large-scale issue of tokens. Changes in the structure of production, however, with large-scale output from large plant employing the new technologies and a large wage-earning proletariat in each plant, certainly did not characterise the growth of industry in general but remained exceptional throughout the times of token issuing and after. Although often identified as issued for wage payments initially, most issues were principally destined to enter general circulation, that is, to join the momentum for commercialisation rather than for the growth of industry tout court. The commercialisation of English society had been proceeding gradually but steadily over preceding centuries. For example by the early eighteenth century two-thirds of the revenue produced by taxation came from indirect taxes through excises (on home produced articles) and customs (through imports). Raising large revenues in this way required that basic internal commodity markets, for such things in widespread consumption as malt, beer, spirits, tobacco, sugar and tea, were already fully commercialised and articulated. The first retailing dimension of this had been of long standing: the ale-house from at least the thirteenth century, as a place for cash sales if also usually integrated with short-term personal credit. It is no wonder that innkeepers featured so prominently as token issuers in the sixteenth, seventeenth and eighteenth centuries. Something more is said of this below.

This spread of fixed-point retailing from London and the largest provincial cities such as Bristol and Norwich into smaller towns across the country, particularly after the Civil War, widened the range and depth of commercialisation. Many changes lay behind this: an explosion of information media in the form of price currents and then newspapers; improvements in land transport with a national network of turnpike roads linking all significant towns, together with main strategic routes to London. The mail services of the post office after the 1660 Act were integral with this

development of information flows – information about markets and prices (above all information from the London markets, with feed-backs to the metropolis) and confidential commercial and financial intelligence. The first half of the eighteenth century saw the establishment of many turnpike trusts (by 1750, 143 trusts were operating over 3,400 miles of road), whose efficiency for high-speed travel was much enhanced by new road surfaces. Efficient systems of commercial organisation of coaching and carrier services expanded further after the 1760s, with high-speed coaches after 1784. The commercial system, growing in scale and complexity, was much dependent on improved communication by road; it is a far cry from the industrial revolution just being dependent on the new canals. The spread of local banks after 1750 to all the main provincial and county towns further integrated the commercial system by adding a financial dimension to these commercial linkages, through the London correspondent banks of the country bankers.

Much more could be said of the progressive development of the commercial and financial systems, the progressive articulation of the national economy and, in this case, the internal market. It must be subsumed here in favour of a discussion of the spread of retailing, as a primary manifestation of the market economy at the local level and the principal rationale for a plentiful regal copper coinage and private tokens. The essence of the matter is that these commercial developments and urbanisation, particularly the spread of retailing, were – nationally – more important than ‘industrialisation’ (using the term in the narrow sense of the growth of industry) in revealing the functions of a copper coinage and underlining its necessity. The overwhelming dominance of Middlesex (i.e. London) as a source for the number of token variants in the eighteenth century emphasises this, as did the seventeenth-century issues. The distribution (by county) of the numbers of token types for the eighteenth century issues broadly follows the general national development pattern (where locations of issue are attributed), as indicated above. Retailers and tradesmen dominate as issuers of tokens (if not in the extent of their issues) and, being co-joined in the processes of development of the economy, there is also broad coincidence between commercial and industrial regions/districts. For the early nineteenth-century issues, not included in the earlier listings, the weighting of issues from the Black Country, Staffordshire and the North-East coast would have been higher.\(^\text{28}\)

In principle a tax levied on all retail shops in 1759, plus a national listing of retail tea licences in 1785, when coupled with data from the excise and published estimates by such as Joseph Massie in 1760 and Patrick Colquhoun in 1794, should enable some quantitative correlation to be made between the distribution of retail shops and token issues – an intriguing prospect.\(^\text{29}\) But, alas, the different basis for the compilation of the shop data (construed by excise collections), with the county break-downs of token issues, together with problems over dates and major discrepancies in the shop data, make this impossible in practice. Only the crudest aggregations can be made and they, unsurprisingly, reinforce the broadest of conclusions about commercialisation and the use of copper coinage.

According to the 1759 data (it was evidently thought that retail shops were sufficiently numerous to be worth taxing) 141,700 shops other than ale houses existed in England and Wales, of which over 21,600 were in London. The count included all shops and houses ‘wherein anything whatever is sold by retail, exclusive of ale houses and farmers’ and labourers’ houses, unless they keep shops’.\(^\text{30}\) In 1797, by a count based on the level of rents, just over 23,700 shops existed in London, although the exact area and categories were not identical.\(^\text{31}\) In another count retail licenses for the sale of tea, undertaken in 1785, of 53,000 in England and Wales almost 4,000 were in London.\(^\text{32}\) These figures originate from excise data and property assessments (usually based on levels of rent), being confined to ‘fixed-point’ retailing (i.e. shops), but there are extraordinary inconsistencies. Probably most derive from the exclusion in some calculations of small premises

\(^{28}\) Davis, as in n.12.


\(^{31}\) Mui, as in n.30, p. 109.

\(^{32}\) Mui, as in n.30, pp. 301–303. For several reasons, not least variations in regional taste, the distribution of tea retailing cannot stand as a proxy for retailing in general.
or premises not being used as shops continuously. The same discrepancies apply to estimates of the number of itinerant sellers – only licensed hawkers can be counted and their numbers ranged from c.1500 in 1750, to c.2000 in 1756/7. However, numbers in England and Wales had reached 1,290 in 1784/5 and were over 6,000 in 1820.33 It may well be that their distribution is as misleading as their total numbers – for example, in 1782–3 there were 242 licensed hawkers registered for Staffordshire, 221 for Middlesex, but only sixty-five for Lancashire and forty-three for Somerset. No evidence can be given about the scale of itinerant selling and its distribution relative to ‘fixed-point’ retailing from this data.

Equally bleak conclusions result from official data concerning ale houses and licensed victuallers, gin shops and places which, although unlicensed, still contrived to sell drink. The absence of comparability in these national surveys does not even allow reliable comparisons of changes in the number of shops over time. With licensed victuallers, however, there is a basis for such comparison, and the results are unexpected.34 Numbers of licensed victuallers in most provincial towns surveyed declined gradually, despite rising urban populations, and in the urban centres of industrialising regions, where numbers of licensed victuallers rose gradually, that rise was much more than offset by rising populations in the same towns. This trend was true of Middlesex, the home counties and most regions: the general trend was a fall in numbers per licensed premises after 1750. Ineffective policing of the licensing, with widespread evasion, growth in numbers of gin-shops, and a more restrictive licensing policy by magistrates combine to explain the paradox.

There is no doubt, on the other hand, that numbers of retail shops were expanding – a dramatic increase in numbers and in retail shops per head of local population is fully documented after 1820. This trend can be extrapolated with confidence and covered all provincial towns surveyed by David Alexander.35 Numbers of shops increased three to five times as fast as the urban populations, while population per shop halved or fell to a third between 1822 and 1848/51. The total number of assessed shops in York, for example, was eighty-eight in 1784, 176 in 1797 and 430 in 1822/3. Population per retail shop fell from 200 to seventy in Bolton, from 175 to fifty-five in Manchester, eighty to forty-five in Leicester and ninety-five to thirty in Nottingham. Tradesmen listed as manufacturers or wholesalers, and traders in food who might have been retailing from markets, have been excluded from this count, which therefore underestimates the general growth of retailing in the period.

Although these aggregate calculations of shop numbers, with change over time, are so fallible, the distributions revealed within the aggregates at one point of time may deserve greater credence. London maintained its long standing lead with the highest number of shops and the highest ratio of shops to population – being both by far the largest urban centre and the target for specialist purchasing for visitors and residents outside the capital.36 London had 21,600 regular shops in 1759 and over 23,700 paying assessed taxes in 1797, which represented a ratio of population per shop of thirty in 1759 when the average for England was forty-two and for Wales 110. On this basis London had almost sixteen per cent of all England’s shops. London’s dominance is much less apparent in 1785, using retail tea licences as a proxy: London had about eight per cent of the total for England (3,982 out of 50,791). Indeed, London on this count seems to have had fewer licensed tea-retailers relative to population than any of the English regions (217 persons per licence against the average for England as a whole of 169).37 The ratio of shops in relation to population suggests that fixed-point retailing spread out from London, with the counties round the metropolis in the lead, the density of shops thinning out in northern counties, the South West and in Wales. Drawing a diagonal line from north east to the south west through Lincolnshire, Leicestershire, Warwickshire, Gloucestershire and Somerset, for example, saw counties to the south and east of

34 Clark, as in n.27, pp. 51–59, 254–67.
35 Alexander, as in n.33, chapter 4 (pp.89–109); Mui, as in n.30, p. 124.
36 Mui, as in n.30, pp. 40, 109, 295–97, 301–303.
37 Mui, as in n.30, pp. 197, 302–303.
38 Mui, as in n.30, pp. 40, 93–95, 298–99.
the line, excluding London, averaging 35.5 persons per shop in 1759 while counties to the west and north of the line averaged 58.8 persons per shop.\textsuperscript{38} Although the distribution based on numbers of assessed shops in provincial towns in 1785 is not comparable to the 1759 data based on excise collections, the broad pattern seems to have been maintained.

Given that retailers and tradesmen were the dominant issuers of tokens over the country as a whole there is some consistency, although with important discrepancies, with the regional distribution of shops discussed above. London and Middlesex predominated both in the density of shops and the number of token issues. Lancashire and Yorkshire were more prominent in token issues and in demands for Boulton's coins than in numbers of shops. It is unfortunate that the paucity of systematic data on the evolving number of shops during the period of token issues does not allow a more definitive discussion of possible correlations between the coinage and retailing, given the strength of the assumptions about the links between them.

‘Micro-evidence’ from the accounts of individual shopkeepers adds some comforting complications to the easy conclusions drawn from correlating the supposed number and distribution of retail shops with the demand for coins thus generated. There is reason to suppose that the following examples are not unusual of the provincial established shopkeepers in the period.

The accounts of Abraham Dent, a general shopkeeper in the small Cumbrian town of Kirby Stephen (population 1,141 in 1801) reveal how complex were the demands made by his business on the means of payment.\textsuperscript{39} He was a grocer and seller of a wide variety of eatables, mercer, haberdasher, hosier, wine merchant and brewer, a seller of hardware, stationery and paper, books and magazines, patent medicines, gunpowder and tobacco, amongst other things – all in bewildering variety. He operated in a regional and national market for purchasing and a mainly local market for selling. Almost all supplies and deliveries were by road, organised with carriers, apart from sales from the shop. Nor did his business suffer, although in a small remote town in a hilly region a long way from his main sources of supply, from any serious interruptions to transport, even in the winter months. It was the cost of carriage not the state of the roads which concerned him.\textsuperscript{40}

From the 1760s to the 1780s he makes no special mention of problems of the shortage of cash; nor did he ever issue tokens, as far as is known, when many fellow retailers and tradesmen had adopted the practice. However, Dent’s accounts and correspondence do not cover the years when this problem had induced widespread token issues. In the nature of the case no detailed evidence survives about cash sales over the counter in Abraham Dent’s shop – they did not leave a trail behind them in the ledgers, cash books or correspondence. The crucial evidence is therefore lacking. Banknotes, bills of exchange and ‘bills on London’ are pervasive as means of settling accounts with loans to established customers and some bartering. Also pervasive is ‘ledger credit’ for established customers, with wide variations in the length of credit periods before settlement, and then often the actual form in which accounts were settled is usually not revealed. Many accounts were settled in a fortnight but with many others settlement came six months or more in arrears. A complex web of such arrangements encompassed the business dealings of Dent himself, his suppliers and customers. Little emerges about a shortage of small denomination cash or the role of small denomination cash in transactions over his own counter. It does not appear that Dent actually ran an inn or ale house with cash sales at the bar (he was not registered as an ale house keeper or licensed victualler), but sold casks of beer and materials for home brewing to retail customers for consumption in their home.

Equivalent complexity in payments is shown in the accounts of Peter Stubs of Warrington, a notable file-maker and employer of out-workers in this business, but also proprietor of the White Bear Inn in the town.\textsuperscript{41} Barter seems to have been characteristic in his dealings with Sheffield steel-masters – paying for his steel supplies with files – while payment to the out-workers making the files was suffused with loans and debts, often settled after months of being on the books.

\textsuperscript{39} Willan, as in n.39, pp. 41, 109-10.
\textsuperscript{40} T.S. Ashton, \textit{An Eighteenth-Century Industrialist: Peter Stubs of Warrington, 1756–1806} (Manchester, Manchester University Press, 1939).
Those buying files normally paid in cash, but loans and credit also featured prominently. Short-term credit was also run up at the inn for the ‘delivery’ trade but, given the scale of purchasing barley, malt and hops, there was evidently a large cash trade from retail sales within the inn – many dozens of glasses and tumblers were being bought to sustain this side of the business. Peter Stubs also kept the ‘kitty’ for a club of his regular customers in the inn (an important local amenity which also consolidated custom). As with Abraham Dent, Peter Stubs also enjoyed a flourishing ‘off-licence’ trade based upon the inn, with customers running up credit accounts settled in arrears, and a wide variety of transactions involving barter and loans as well as normal shop credit. He bought supplies mainly with bills of exchange, a prime means of settling accounts in Lancashire. Such limited ‘micro’ evidence from individual shopkeepers and tradesmen reveals how complex – indeed, how ingenious – were the arrangements for carrying on business in contexts of risk and uncertainty (compared with later times). In particular practices which minimised the need for cash were prominent.

Where then, was the need for increased cash generated? The greater than pro-rata increase in transactions lay at the base of this rising demand. Cash became a balancing item when accounts were settled and credit transactions called in. This could, of course, imply settlements by way of bills of exchange, which circulated virtually as notes in the North West, local bank notes, Bank of England notes as well as coin. Settlement of balances by personal cheques does not seem to have been a recourse.

There remains the question of the cash trade. Where retail transactions passed between shopkeeper/tradesman and customer personally known to each other, and the customer was of known residence and status, particularly in a village or small town settled community, then credit could be safely given and accepted. Most business transactions were effected in a world of face-to-face personal relationships within a nexus of personal trust, supported within a network of such interpersonal contacts, sustaining by indirect as well as direct linkages the essential bonds of confidence, the pre-condition for sustained commercial dealings in this period, as before and since. The weaker the institutional infrastructure (from a whole range of reasons) the greater was the risk and uncertainty, with a correspondingly higher premium on personal trust. These conditions did not apply – or not nearly to the same degree – amongst poor wage earners, in rapidly growing new urban centres, with much local migration. Where daily necessities, mainly of food and drink, were being bought on a daily basis from a number of shops or from daily/weekly markets the average unit of transaction was small and cash sales were the key. Trading at markets and with itinerant sellers also would be more likely to be in cash. The same logic applied to purchasing in the bars of ale houses and inns. None of this precludes the existence of petty retail credit in these contexts, of course – there is plenty of evidence of drinks being put on the ‘slate’, of book debts being incurred, and of regular customers forming ‘clubs’ for festive or sickness and burial reasons. A credit hold in all sorts of business transactions anchored custom, as at the other end of the spectrum of retail trade. This remained true at the humblest level for known regular customers. But cash transactions offered the greatest protection to shopkeepers and traders who were uncertain of the reliability of their customers in any credit transaction. This was the essence of the complaint (cited above, p. 75) of the Bridlington tradesmen for whom the lack of Bank of England tokens forced them to give credit to unsuitable customers or lose their trade. But generally, in petty trading, with large numbers of customers, being poor wage earners for the most part, without accumulated savings, strict control of credit, with regular cash settlement, was the key to successful shopkeeping. Here, then, was a basis for the rising urban demand for low denomination coinage, whether regal or informal. In this sense, at least, the wheel comes full circle: the means of payment in coin – some but not all of it generated initially through wage payments – became a general circulating medium for a rising tide of retail trade.

The economic historian and the numismatist are allies in seeking to understand this process in

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greater depth and to document it more fully. Much still remains to be done. Even so, the clearest
evidence of the direct connection between cash retailing and the demand for copper coins is pro-
vided by the largest and most concentrated urban market of all – the London market for beer. It is
noticeable that the large London brewers were the quickest to petition the Committee of the Privy
Council on Coin whenever there was too much or too little copper in circulation for the conven-
ience of their trade. They controlled many hundreds of public houses by ‘tying’ the trade in
London (over three-quarters of the publicans they served were subject to a tie by 1800) and hence
were greatly affected by the state of copper coinage.44 With much political leverage arising from
the importance of the beer excise in national tax receipts, they were in a good position to make
effective representations to government. The scale of their trade, primarily in cash sales, had
major implications for the circulation of coin in London. For example, a surfeit of farthings
appeared in London in January 1807, when an increase in the price of porter meant that it was no
longer sold at a price involving farthings.45 In 1800 the output of common brewers in London was
more than 256 million quarts, the standard unit for retail sale over the counters at 4d. per quart for
ordinary porter in 1797–1801.46 This formed by far the largest single cash retail trade in the
country. One of the implications of this was that the London brewers found themselves the unwitting
but instrumental intermediaries in recycling copper coins when London was in surplus. In
February 1809, for example, Boulton’s agent John Woodward took in almost £10,000 in copper
from Whitbread, Barclay Perkins, Goodwyn and Clowes for redelivery elsewhere. The Committee
of the Privy Council on Coin noted that ‘Brewers, Distillers and other Persons who, from the
nature of their trade are likely to be holders of considerable quantities [of coin], and are willing,
on being paid for them, to deliver them at the Mint’.47 In Glasgow and Edinburgh the grocers took
the lead in petitioning (through the Lord Provost) according to circumstances, for either more copper
or to be relieved of surplus.48 In London, brewers, distillers and publicans led the protests. In
1808, for example, Whitbread had £1,800 in copper, ‘and £400–600 ready to come in’, sending
his senior clerk, Robert Sangster, to the committee to complain – and this was despite delivering
coin weekly to two workhouses in St Lukes and Cripplegate (all of it Boulton’s).49 Barclays and
Trumans also sent representatives to complain about excess copper in July 1808.50 Despite
Boulton’s plea that he only issued coins on demand, never forcing them into circulation, he was
told in June 1808 to stop London deliveries, which were then averaging fourteen tons per week.
To resolve the crisis ‘until the Brewers ... who complain of being overstocked, may have disbur-
dened themselves of the extraordinary quantity of copper tokens they now hold’, Boulton’s agent
put Whitbread in touch with the Soho firm’s own customers in London who could take
Whitbread’s surplus instead of ordering more coins from the Soho mint.51 Similar complaints of a
surplus of copper, all of it Boulton’s, came in from provincial centres.

The Travails of the Regal Copper and Silver

This excursion into the relations between cash-retailing and small denomination coin in London
encapsulates a more general story. The sequence of alternating surfeit and scarcity was played out
two or three times between 1797 and 1817. It was inevitable as long as regal copper was issued at
full weight, because every sustained rise in the price of copper gave profit in melting while a gen-
eral recoining with national distribution remained extremely expensive. Lack of effective legal
sanctions against token issues, particularly in copper, but also including silver in the extensive
issues of private silver coins in 1811–12, reinforced this logic. An effective supply of good regal

44 Whitbread, Barclay Perkins and Truman, as three of the major brewers, had ‘tied’ over two-thirds of their London trade by
1800–1810 (932 public houses out of 1,162 served). See Mathias, as in n 42, pp. 117–38, Table 5 (p. 133).
45 PRO BT 6/121 Matthew Boulton to the Committee on Coin, 12 January 1807.
46 This consisted of 1,359,400 barrels of strong beer and 421,000 barrels of small beer. The total included their ‘country trade’.
47 PRO BT 6/121, 2 March 1802, 2 April 1802, 6 June 1802, 22 October 1802.
48 PRO BT 6/127, 2 May 1808
49 PRO BT 6/127, 4 July 1808
50 PRO BT 6/127, 2 May, 18 June 1808
coins would always be preferable to the hazards of local token issues – the inevitability of deterioration of such issues over time and the inconvenience of not passing current nationally.

Extensive evidence from the Committee of the Privy Council on Coin makes clear that the official recoinage of copper of 1797 and in subsequent years was the result of a conscious policy to drive counterfeit and token copper permanently out of circulation, but with some care being taken occasionally in attempting to do this gradually to prevent hardship to poor people holding the defective coin. Apart from responding to demand from private customers, Boulton’s new copper coinage was paid out by government departments and in dockyards, in payment to troops and sailors, and in poor relief. Once in circulation, went the claim, it would quickly drive out base coin, but once started on the copper recoinage, Boulton argued that it was ‘absolutely necessary now to continue the new coinage ’till all the old illegal Coin is driven out of Circulation, which will not be the case until the holders of it are convinced that that is the decided object of Government.”52 Competing demands for copper in war-time added to the problems of minting the new copper coinage following 1797. By December 1798 Lord Liverpool reported to Pitt that the new pennies (£80,000 had then been put in circulation) were proving “in general very acceptable to the People”, generating demands for halfpence and farthings ‘on the same Principle’. The Parys mines were now failing, producing less than a quarter of their peak output, with the Anglesey Company buying in 1,000 tons of copper a year (a sixth of total British production). The sheathing of merchant ships, as well as warships, had now become general.53 The East India Company was also exporting 1,500 tons a year (which Boulton sought to prohibit).54

With official issues distribution, apart from direct consignments sent to public establishments, remained problematical. After much badgering the costs of manufacture had been built into the coinage budgets (‘full weight’ now meant that the denominational value of the coins had to be equal to the intrinsic value of the metal less the costs of striking), but no dedicated allowance was made for distribution costs, which were so much heavier in weight-versus-value terms than with gold and silver. In August 1799 the Committee on Coin were reminded of the ‘insuperable Difficulty [which] has always occurred in getting them into Circulation in all parts of the Kingdom. Those who live at a distance will not send for them and it is owing probably to this circumstance that the Counterfeits have been made use of in preference to those hitherto coined at the Tower’.55 Whenever the price of copper rose, proposals quickly followed to cut more coins from a given weight to deter melting and counterfeiting. As with silver there was a limit on the extent of the charge that private customers were willing to pay to secure supplies of cash. The Committee of the Privy Council on Coin sought to keep a balance, but could only act in arrears to the conflicting demands coming in from the different regions.

After the initial surge of Boulton’s copper coinage of 1797–99, which created a surplus, complaints of shortages resurfaced in 1802.56 The Soho Mint produced 1200 tons of copper coins between April 1805 and January 1807, with a further 1200 tons by August that year.57 By February 1808 Sir Joseph Banks spoke of the ‘complete stop that was put to that nefarious practice [of counterfeiting] by the new copper tokens ... Ever since Mr Boulton’s coin has been fairly in circulation no other copper coin has been seen in circulation in the country to the north of Stamford’.58

By May 1808 the roundabout had turned again, with brewers and other tradesmen in Liverpool

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52 BT 6/118, 1798 evidence of M. Boulton.
53 400-500 tons of copper a year being taken for sheathing at Liverpool alone, according to Thomas Williams. BT 6/126, 16 March 1797.
54 BT 6/117, 8 December 1798; BT 6/118. To counter this fall in output the Macclesfield Copper Company was working one of the two large mines in Wirklow, smelting the ore in Swansea. The ore of the other, that of Hibernian Mine Company, was smelted in Ireland. (BT 6/118, 23 November 1798).
55 BT 6/126, 1 August 1799. See also BT 6/126, 30 January 1788, 28 March 1797, 1 August 1799; BT 6/127, 4 April 1798; See also Pari. Pappery 1837 Vol. XVI, Appendix 34 to Report of Select Committee on the Royal Mint.
56 BT 6/127, 2 March, 2 April, 6 May, 22 October 1802.
57 BT 6/121, 12 Jan 1807, 26 August 1807; BT 6/122, 24 April, 24 October 1807.
58 BT 6/119, 22 February 1808.
59 BT 6/122, 5 May 1808, February 1809.
60 BT 6/123, 3 August 1811.
as well as London complaining of too much copper. In August 1811, yet again, shortages were invoking more complaints. This time petitioners demanded a recoinage of regal silver, as well as copper, which was reviving long-established complaints about the deplorable state of the silver coinage. Apart from the isolated £55,000 in silver, coined in 1787, the Mint had produced virtually no issues of substance since 1758 and ‘no material quantities since 1717’. Lord Liverpool put forward plans in 1797 to complete the copper recoinage of Boulton with silver sixpenny pieces (of full weight) in the expectation that this would lead ‘by degrees’ to a general reform of all the silver coin. Paying for the old silver to be brought in would be too expensive, so the new and old coin were to be left to combat each other. The authorities, however, were reluctant to prejudice the poor, who were large users of lower denomination silver, by calling in all defective silver, so the whole question was shelved in favour of the Bank of England countermarking Spanish dollars, with a first issue of over two million between March and May 1797, and subsequently over-stamping Spanish dollars for issue as Bank of England tokens between 1804 and 1811.

These did not completely fulfil demands for new silver (particularly because, as ‘tokens’, the Bank of England issues could not invoke legal sanctions against forgeries). Hence the widespread issues of private silver tokens in 1811 which, in turn, precipitated legal action to prohibit such private silver tokens. An Act of Parliament determined this in July 1812, ineffective until confirmed by another Act in the following year, but it took almost another five years before the new issues from the Mint (newly equipped by Boulton) were distributed nationally. The 1813 and 1817 Acts formally prohibited the issue of both silver and copper tokens, but were not immediately effective in the case of copper issues. Penalties were savage: fines of £5–£10 per token at the discretion of Justices of the Peace to anyone circulating or passing silver tokens (save for returning them to their issuers, where known). The original issuers were liable in law to pay the sums listed on their tokens. Bank of England and Bank of Ireland tokens were exempted. The copper tokens, banned by law from being passed or circulated after 1 January 1818, carried penalties of 2s.–10s. per token, again at the discretion of magistrates.

Once systematic supplies of regal copper were struck from 1820 and distributed nationally – the Mint having been re-equipped for both silver and copper coins – token issuing was effectively ended save for limited ‘private’ issues for the relief of the poor, Scottish communion tokens, ‘medal-type’ coins, co-operative society coins, tavern tokens and similar exceptions to the general rule.

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61 BT 5/127, 4 April 1798. 62 BT 6/118, 1797; 6/127, 10 February 1798; 4 April 1798. 63 Kelly, as in n.11; BT 6/120, 18 August 1809, 23 November 1809. 64 Pari. Papers 1816, Vol VI, p. 403. Report from Committee ... on new silver coinage; 54 Geo III, Cap IV, 26 November 1813; 57 Geo. III, Cap XLVI, 27 June 1817. 65 The provisions of the Acts are given in Manville, as in n.18, Appendix C, pp. 249–50. 66 E.g. Welsh Industrial Tokens and Medals (Cardiff, National Museum of Wales 1973); N.B. Todd. Tavern Tokens in Wales (Cardiff, National Museum of Wales, 1980); Y. Stanton and N. Todd, Devon Tavern Tokens (Exeter Archaeology Group, Exeter Papers in Industrial Archaeology XI, 1982); R.N.P. Hawkins, Public Houses ... featured on Metallic Checks, 1830–1910 ... (Birmingham, Museum and Art Gallery, 1978). This bibliography is extensive.