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THE ENGLISH INFLATION OF 1180–1220 RECONSIDERED*

It would be difficult to overstress the impact of P. D. A. Harvey's 'The English Inflation of 1180–1220' on historians' views of the economy of that period and of the effect of that economy on society and politics. Before Harvey's article appeared in 1973, significant price changes had been acknowledged, but had been seen only as part of a much longer-term movement of prices in the thirteenth century, or in a 'long thirteenth century' stretching back into the second half of the twelfth and even on into the fourteenth. Primarily in response to the detailed price data produced by D. L. Farmer, Harvey did not completely overturn this wider context, but concentrated attention on what he saw as a particularly rapid change in prices in the forty years from 1180 onwards, which he saw as having important consequences. He further argued that the period was one of a general or monetary inflation caused by a trade-driven influx of silver.¹ Not everyone has been totally convinced by Harvey's arguments, particularly as to causes. Doubts too have been expressed about the reliability of the underlying price data. However, no one can deny that Harvey's article has shaped the subsequent debate.

Since 1973, as well as much comment on Harvey's suggestions, there has been considerable additional work on constituent elements of the inflation — prices, wages and money — allowing much greater precision as to its course. I have recently argued that it is misleading to talk about a forty-year period of significant price increases; that most of these price increases can be placed in the first six years of the thirteenth century, with only a rather

* My thanks go to J. L. Bolton and N. J. Mayhew for reading and commenting valuably on an earlier draft of this article.

¹ P. D. A. Harvey, 'The English Inflation of 1180–1220', *Past and Present*, no. 61 (Nov. 1973). The underlying price data for Harvey's article were drawn largely from D. L. Farmer, 'Some Price Fluctuations in Angevin England', *Econ. Hist. Rev.*, 2nd ser., ix (1956–7); D. L. Farmer, 'Some Grain Price Movements in Thirteenth-Century England', *ibid.*, x (1957–8); D. L. Farmer, 'Some Livestock Price Movements in Thirteenth-Century England', *ibid.*, xxii (1969). This was supplemented with information from T. H. Lloyd, *The Movement of Wool Prices in Medieval England* (*Econ. Hist. Rev.* suppl., vi, Cambridge, 1973), 38–9, 45, 50.

gentle and uneven increase to follow; and furthermore that there was no definite trend in prices much before 1200. These conclusions were supported by a positive reassessment of the reliability of Farmer's price data, together with new evidence concerning other prices. This confirmed that price increases were not restricted to food commodities or food production, a significant factor to be considered when discussing the inflation's causes.²

The scale and apparently general nature of the price increases thus seems even more striking when we consider the short period over which most of them had taken place. The price of wheat between 1206 and 1250 fluctuated around a level something more than twice that prevailing in the second half of the twelfth century. Oxen prices continued to rise slowly in the period 1206–50, but they had already approximately doubled in the few years since the beginning of the thirteenth century. Between 1198 and 1206, sheep prices, wine prices and the price paid by the exchequer for its regular supply of cloth all indicate a steep and sustained increase. Intermittent price evidence for linen, for wax, for lead and for palfreys is also compatible with the notion of a substantial price surge in this period.³

Further work on wages has confirmed Harvey's suggestions that they shared in the inflation. While, except in very few cases, we cannot be so sure about timing and degree, it does seem that many types of wage rate were higher in the early thirteenth century than in the twelfth century.⁴

On the question of the role of money in the inflation, it has at least become clear since Harvey wrote that the increased availability of silver in England was a reality, though not limited to England as Harvey suggested.⁵ Additionally, considerable efforts have been made to establish the degree and timing of the increased availability of coined silver in England over the period. These, in conjunction with the more precise delineation of the price

² Paul Latimer, 'Early Thirteenth-Century Prices', in S. D. Church (ed.), *King John: New Interpretations* (Woodbridge, 1999). D. L. Farmer repackaged and extended his price data, adding some wage data and discussing causes and consequences, in his 'Prices and Wages', in H. E. Hallam (ed.), *The Agrarian History of England and Wales*, ii, 1042–1348 (Cambridge, 1988).

³ Latimer, 'Early Thirteenth-Century Prices', 42, 53–4, 69–73.

⁴ Paul Latimer, 'Wages in Late Twelfth- and Early Thirteenth-Century England', *Haskins Soc. Jl*, ix (2001 for 1997); Harvey, 'English Inflation', 13–17.

⁵ Peter Spufford, *Money and its Use in Medieval Europe* (Cambridge, 1988), esp. ch. 5; Harvey, 'English Inflation', 26.

increases, have raised questions about the nature of the relationship between an increased money supply and increased prices.⁶ So it is clear that, after more than a quarter of a century, it is time for a reassessment of the consequences, nature and causes of this inflation.

In the late twelfth and early thirteenth centuries a change from leasing to direct management occurred on a significant number of landed estates.⁷ Harvey suggested that this was primarily a result of the 'English Inflation', and worked out his arguments concerning the effects of inflation on a predominantly lease-based system in considerable detail.⁸ In a further article in 1974, Harvey used pipe roll evidence to work out a provisional chronology of this shift to direct management.⁹ He was not the first to suggest that inflation might be a factor in this, but he was the first to stress it as the primary factor and to confine the inflationary stimulus to such a relatively restricted period.¹⁰ Yet the coincidence which he thereby established between the period of high inflation and the shift towards direct management now seems illusory. If the inflation did not seriously begin until around 1200, it could not have been responsible either for the start of the tendency to adopt direct management of demesnes, nor even for a substantial part of that shift, which was well under way long before 1200.¹¹ One would not necessarily want to absolve inflation

⁶ See particularly N. J. Mayhew, 'Money and Prices in England from Henry II to Edward III', *Agric. Hist. Rev.*, xxxv (1987). See also Paul Latimer, 'The Quantity of Money in England, 1180–1247: A Model', forthcoming in *Jl European Econ. Hist.*

⁷ Recent work has tended to play down the extent and the decisiveness of this change, though not to deny it altogether. See, for example, Christopher Dyer, 'Lords, Peasants and the Development of the Manor: England, 900–1280', in Alfred Haverkamp and Hanna Vollrath (eds.), *England and Germany in the High Middle Ages* (Oxford, 1996), 311–13.

⁸ Harvey, 'English Inflation', 4–9.

⁹ P. D. A. Harvey, 'The Pipe Rolls and the Adoption of Demesne Farming in England', *Econ. Hist. Rev.*, 2nd ser., xxvii (1974).

¹⁰ See, for instance, the best starting point to the long debate on leasing versus direct management: Edward Miller, 'England in the Twelfth and Thirteenth Centuries: An Economic Contrast', *Econ. Hist. Rev.*, 2nd ser., xxiv (1971), 9, 11, 13.

¹¹ Even dating the beginning of serious inflation to 1180 caused Harvey to worry about the speed of the reaction he was suggesting. He tried to lay these doubts to rest by arguing that the exchequer was slow to allow purchases at market prices that had already moved upwards. This opinion did not sit easily with the variability of grain purchase prices on the exchequer pipe rolls. Moreover, where we have livestock prices laid down for the itinerant justices, some actual purchase prices are lower, which one would hardly expect if market prices had already moved far above the officially approved prices. Harvey, 'English Inflation', 5; A. L. Poole, 'Livestock Prices in the Twelfth Century', *Eng. Hist. Rev.*, lv (1940), 285, 295.

of all responsibility; it could have acted as a contributory factor, especially in the early 1200s, reinforcing a trend already in progress, but it cannot be given prime responsibility.

Harvey argued that the crown was particularly vulnerable to inflation, because it found it impossible either successfully to switch from leasing to the direct management of estates, or permanently and sufficiently to increase the value of those leases. Although the crown did manage to increase its revenue, he argued that it was only by means that became politically unacceptable, thus contributing to the disaster of 1215.¹² The argument over the degree to which royal financial exactions contributed to the rebellion of 1215 or Magna Carta belongs elsewhere. The relevant questions here are whether, when, and to what extent inflation, by necessitating greater royal exactions in monetary terms, prompted a switch to less politically acceptable means of raising revenue than the established ways of exploiting of royal estates.

If we simply have regard to the general movement of prices, then we cannot show that Richard I faced any significant general inflation. The increases in revenues that he exacted from England were not needed to restore the crown's real income, but to meet increased commitments in France and beyond.¹³ Even if we look particularly at the military wages the crown had to pay, there was no significant change to these in Richard's reign, though there had been a change in the course of Henry II's reign. This indicated, I would suggest, not incipient general inflation, but the pressure of increased demand in an individual market.¹⁴

The picture in John's reign, however, was very different in both respects from that of Richard's. Not only was there a great surge in prices generally during the early years of John's reign, but there was also an increase in the military wages paid to knights and mounted soldiers. Also, this was at a time when the king's revenue was roughly equivalent to that of Richard's later years, and was broadly static.¹⁵ From 1203 onwards, John made

¹² Harvey, 'English Inflation', 9–15.

¹³ Nick Barratt is currently working on the revenues of Richard I and has kindly allowed me a look at his figures. These suggest a significant increase in his regular revenue totals from 1194 onwards.

¹⁴ There are some examples of increased military wages in connection with the great revolt of 1173–4, and even one example connected with Henry II's substantial campaign against the Welsh in 1165. The last years of Henry II's reign suggest wages at the level of Richard's early years: Latimer, 'Wages in Late Twelfth- and Early Thirteenth-Century England', 197–203.

¹⁵ *Ibid.*; Nick Barratt, 'The Revenue of King John', *Eng. Hist. Rev.*, cxi (1996), 839.

determined efforts to increase his revenues from all possible sources, including his experiment with demanding profits rather than fixed farms and increments from the shires. In view of the new chronology of the inflation, this particular experiment could have been an attempt to exploit the suddenly higher agricultural prices. Even though John did not persist with the experiment, he did succeed in increasing considerably the nominal value of the county farms by returning to increments at a higher level. This was a success with apparent political costs, as Magna Carta's prohibition of increments suggests.¹⁶

As the greater part of the inflation was concentrated in John's early years, rather than being spread evenly over the period 1180–1220, this necessarily makes that inflation a more important factor in the admittedly complex relationship between prices, wages, finance and politics in John's later years. Some of the objections that have been raised to making inflation significantly responsible for John's problems lose their force.¹⁷ However, one would not wish to go too far in this direction. Given that John managed to accumulate an impressive war chest in the years 1204–14, in spite of military expeditions to France, Scotland, Wales and Ireland, it is hard to see John's exactions as simply a matter of trying to cope with inflation, however much the reduced purchasing power of money may have made things more expensive for him.¹⁸

One can hardly argue with Harvey's claim that peasants paying fixed money rents, with or without light labour services — generally those peasants who were in the process of being defined by the courts as 'free' through the legal developments of the late twelfth century and beyond — benefited from the rise in the prices of their products.¹⁹ Many other peasants still owed relatively heavy labour services, and had not commuted these in return for a fixed rent, or could still be forced to perform labour services, where fixed rent and labour services were seen as

¹⁶ Barratt, 'Revenue of King John', 848.

¹⁷ For example, J. C. Holt, in a passage generally minimizing the political consequences of the inflation, uses the chronology of the inflation implied by Harvey's article to calculate very modest average rates of inflation for John's reign: 'Magna Carta, 1215–1217: The Legal and Social Context', in J. C. Holt, *Colonial England, 1066–1215* (London, 1997), 304–5, repr. from Edward B. King and Susan J. Ridyard (eds.), *Law in Mediaeval Life and Thought* (Sewanee Mediaeval Studies, v, Sewanee, 1990).

¹⁸ Barratt, 'Revenue of King John', 839, 842–3, 845.

¹⁹ Harvey, 'English Inflation', 19.

customary alternatives. These peasants, in the process of being defined as 'unfree' and with their 'real' burdens, were, relatively at least, harmed by the rise in prices. If, however, the period 1180–1200 is to be seen as the 'crucial period' in these legal developments, it is difficult to argue as Harvey did, agreeing with R. H. Hilton, that inflation was a major cause of these legal changes through the pressure that it put on landlords. Nor, incidentally, is the other major factor suggested by Hilton — 'the intense fiscal pressure' — very convincing.²⁰ The price increases certainly came too late, and the fiscal pressure could scarcely be described as intense until the very end of the 1180s at the earliest. Even then, it was generally moderate in comparison with that of John's reign after 1204.

Less needs to be said about the other consequences of the inflation that were suggested by Harvey — favourable conditions for burgesses and serious damage to the financial position of the Jews — because neither depends significantly on the timing of the inflation. One can agree that the financial position of burgesses, after the surge in prices of the early thirteenth century, depended on the degree to which they were 'tallaged', or fined for privileges, rather than on their largely fixed rents. Again, however, it seems doubtful that inflation can be credited with helping them to establish their freedom.²¹ For the Jews, the reduction in the real value of their working capital caused by the surge in prices clearly harmed them. Also, to the extent that inflation exacerbated royal financial demands on them, they were hit further by the effect of the rising prices.²²

Overall, it seems that we should be a little more modest in our claims for the consequences of the steep rise in prices at the beginning of the thirteenth century. With regard to the changing management of estates, it was at most a late, contributory factor. It may have added to King John's political difficulties concerning finance, but it was not the prime reason for those difficulties. Like most inflations, it had certain redistributive effects — in favour of those with fixed payments to make, against those with fixed incomes or in possession of large amounts of cash. However, it did not create any of those categories, being too late to share

²⁰ *Ibid.*, 22–3; R. H. Hilton, 'Freedom and Villeinage in England', *Past and Present*, no. 31 (July 1965), 13–14.

²¹ Harvey, 'English Inflation', 23–4.

²² *Ibid.*, 24–5.

substantial responsibility for the hardening definitions of ‘free’ and ‘unfree’, or of burgess status.

Concerning the nature of the price rises, Harvey argued tentatively that they were ‘one aspect of a general inflation of the currency’, not simply a ‘change in the price structure’ involving agricultural products.²³ To put it another way, the salient price change of the period was a reduction in the price of money, in terms of goods, wages and non-monetary assets. In this, he has been borne out by subsequent work.²⁴ This is important in terms of describing the inflation correctly, but also and especially in discussing the question of causes.

As Harvey was the first to suggest a specific period of inflation from 1180 to 1220, there was no existing theory of the causes of that inflation, particular to that period. Nevertheless, his argument did challenge, at least for that period, the then most favoured explanation of rising prices that had been applied to the ‘long thirteenth century’ as a whole: that they were caused primarily by demographic growth exceeding the growth of agricultural resources. This explanation had been championed, with some qualification, by M. M. Postan.²⁵ A concomitant of the demographic theory had always been that real wages should decline. This, with a view to the apparently static nominal wages for much of the thirteenth century, had been a mainstay of Postan’s argument.²⁶ If prices in general increased, and if wages too shared in this increase — as Harvey suggested and as is

²³ *Ibid.*, 15–19.

²⁴ Latimer, ‘Early Thirteenth-Century Prices’, 46–54; Latimer, ‘Wages in Late Twelfth- and Early Thirteenth-Century England’, 204–5. It is true that we know little about asset prices in this period. The coincidence between the steep increases in the prices of goods and a steep increase in the quantity and median level of proffers to the king for heirs and heiresses is suggestive, though it seems to begin somewhat earlier, around 1195. On the other hand, the steady level of median payments on these debts is difficult to interpret: Thomas K. Keefe, ‘Proffers for Heirs and Heiresses in the Pipe Rolls: Some Observations on Indebtedness in the Years Before the Magna Carta (1180–1212)’, *Haskins Soc. Jl*, v (1993).

²⁵ Postan accepted that prices could at times be influenced by monetary factors in addition to, or as opposed to, real factors, but he clearly came to the conclusion that the secular trend in prices in the ‘long thirteenth century’ was essentially a question of agricultural prices affected by real demographic pressure. M. M. Postan, ‘The Rise of a Money Economy’, in his *Essays on Medieval Agriculture and General Problems of the Medieval Economy* (Cambridge, 1973), 34, repr. from *Econ. Hist. Rev.*, xiv (1944); M. M. Postan and Edward Miller (eds.), *The Cambridge Economic History of Europe*, ii, *Trade and Industry in the Middle Ages*, 2nd edn (Cambridge, 1987), 215–16; M. M. Postan, *The Medieval Economy and Society* (London, 1972), 230–41.

²⁶ Postan, *Medieval Economy and Society*, 241–3.

confirmed by my own work — then there are no grounds for holding on to the demographic explanation.

What Harvey put forward instead was an argument that 'excessive imports of silver were really at the root of the inflation'. The argument was, as Harvey was well aware, highly conjectural. If the inflation was 'monetary', then it could be caused by an increased supply of silver, which could only come from abroad as a result of a favourable trade balance, and the most likely main constituent of this was England's export of wool.²⁷ There was, at the time Harvey wrote, little direct evidence of an increased supply of silver coins in England. It is not, perhaps, irrelevant that Harvey was writing at the height of the economic controversy over monetarism, and that many economists and governments were beginning to take it for granted that inflation was caused by an excessive money supply.

It was not difficult for Harvey's early critics to express serious doubts about his argument, though these criticisms seemed more to demonstrate the inertia behind the demographic explanation of inflation than to be a real attempt to decide on the crucial points. Edward Miller and John Hatcher accepted that bullion imports might have played a part in the surge in prices around 1200, but considered that any such effect must have been too small in relation to the market for agricultural produce to account completely for it. Yet this point seemed to rely on a confusion between the volumes of grain production and consumption, and the size of the commercial market for grain — two very different things. Also, by turning attention once more to the stability of nominal wages for much of the thirteenth century, they tried to argue again for a largely demographic explanation characterized by rising food prices and falling real wages. They made no comment, however, on Harvey's suggestions of the possible history of wages before 1208, when the Winchester pipe rolls series begins.

Ironically, though, by correctly laying stress on how sudden the surge in prices had been around 1200 — something Harvey had avoided doing — they made the demographic explanation even less plausible. They tried to explain the suddenness of the surge in prices by positing an abrupt increase in population and

²⁷ Harvey, 'English Inflation', 27–9.

the final breaking of customary price restraints, though no evidence was presented for these suggestions.²⁸

James Bolton, like Miller and Hatcher, was willing to concede some role to the quantity of money in determining prices, and, more clearly than they did, he accepted Harvey's periodization of the inflation, but he was sceptical of 'the notion that monetary inflation caused the price rises of 1180–1220'. This scepticism was founded on doubts that England was really, in this period, being 'flooded with silver'. Bolton pointed to the possibility that increasing imports might compensate for greater exports, to the question of the destination of trade profits, and to the large quantities of silver shipped out of England by the Angevin kings from the 1190s onwards. On the other hand, Bolton had no other explanation to offer for the inflation than that of demographic pressure on agricultural resources, an explanation that did not fit easily with the general inflation, including wage inflation, that Harvey had suggested and which Bolton himself did not attempt to dispute.²⁹

There were also attempts to argue that no special explanation was necessary for a rapid inflation that took place within the period 1180–1220, because the data underlying the alleged inflation were of such poor quality that there might have been no particular inflation to explain.³⁰ This objection seems now to have been laid to rest by my own work on prices.³¹

The interest in the monetary history of England in the twelfth and thirteenth centuries, quickened certainly by Harvey's article, has done much to clarify the question of the 'flood' of silver, though not without raising problems for Harvey's argument as to causes. It has become clear that between the middle of the twelfth century and the middle of the thirteenth century there

²⁸ Edward Miller and John Hatcher, *Medieval England: Rural Society and Economic Change, 1086–1348* (London, 1978), 68–9. See above, n. 11, for Harvey's equally dubious assertion of artificially low prices allowed to royal purveyors.

²⁹ J. L. Bolton, *The Medieval English Economy, 1150–1500* (London, 1980), 76–7. Harvey did point to the silver outflows of the Angevin kings, but obscured the chronology, suggesting these as a factor in the easing of the inflation around 1220: Harvey 'English Inflation', 29.

³⁰ A. R. Bridbury, 'Thirteenth-Century Prices and the Money Supply', *Agric. Hist. Rev.*, xxxii (1985), 2, 9; J. L. Bolton, 'Inflation, Economics and Politics in Thirteenth-Century England', in P. R. Coss and S. D. Lloyd (eds.), *Thirteenth-Century England: Proceedings of the Newcastle upon Tyne Conference*, iv (Woodbridge, 1992), 4–5.

³¹ Latimer, 'Early Thirteenth-Century Prices', 46, 54. Some sceptics, at least, now seem satisfied that there is a case to answer: J. L. Bolton, 'The English Economy in the Early Thirteenth Century', in Church (ed.), *King John: New Interpretations*, 30.

was an enormous increase in the quantity of silver coins in England. In addition, if we think in terms of the rate of growth in the quantity of the coinage, one very substantial period of expansion had already occurred before the end of Henry II's reign. There was a second spurt from the late 1230s onwards. In between these two periods, however, and particularly perhaps in the period from 1190 to 1214, it may well have been that exports of silver resulted in a period when the money supply was not expanding and may sometimes have fallen.³²

The problem here, as so often in this subject, is the chronology. The inflation was at its most severe by far in the first few years of the thirteenth century, when the quantity of money was unlikely to have been rising significantly, to say the least. If a primarily demographic explanation of the inflation is no longer acceptable, then neither is a simple monetarist explanation, that prices were straightforwardly related to the quantity of money.

The problems with existing explanations did not go unnoticed. Robert Palmer accepted Harvey's chronology of the inflation, its character as a 'general inflation' and the weaknesses of the demographic explanation of it, but he also took on board the criticisms of an explanation that relied solely on the quantity of money. He took one of Harvey's suggested consequences of the inflation — that it had helped bring about the changes regarding free and unfree legal status — and, reversing the direction of causation, made that a principal cause of the inflation. He argued that the developing common law, concerning the land of those who were coming to be regarded as free, made land as an asset increasingly liquid, either through sale or as security for loans. The consequence of this, he argued, was an increase in the 'velocity of money circulation', in turn increasing prices.³³

Palmer's economic reasoning is correct as to the direction of

³² C. E. Blunt and J. D. Brand, 'Mint Output of Henry III', *Brit. Numis. J.*, xxxix (1970), 61–6; D. M. Metcalf, 'A Survey of Numismatic Research into the Pennies of the First Three Edwards (1279–1344) and their Continental Imitations', in N. J. Mayhew (ed.), *Edwardian Monetary Affairs, 1279–1344* (Brit. Archaeol. Repts, xxxvi, Oxford, 1977), 26–9; S. E. Rigold, 'Small Change in the Light of Medieval Site-Finds', *ibid.*; M. M. Archibald, 'Wastage from Currency: Long Cross and the Recoinage of 1279', *ibid.*; N. J. Mayhew, 'Frappes de monnaies et hausse des prix de 1180 à 1220', in J. Day (ed.), *Études d'histoire monétaire* (Lille, 1984); Mayhew, 'Money and Prices in England', esp. 124–5 and table 1; Bolton, 'English Economy in the Early Thirteenth Century', 27–34; Latimer, 'Quantity of Money in England'.

³³ Robert C. Palmer, 'The Economic and Cultural Impact of the Origins of Property: 1180–1220', *Law and Hist. Rev.*, iii (1985), esp. 381–2.

the effect he describes.³⁴ However, as so often in the historiography of this inflation, there are problems of pace, degree and chronology, in view of our more recent knowledge of the course of the inflation. It is hard to see the legal changes, which Palmer describes as taking place over the period 1176–1220, as having the sudden dramatic effect that is required to explain the great surge in prices in the early thirteenth century. On the other hand, the question of the ‘velocity of money circulation’ would continue to play an important part in later arguments about the English inflation.³⁵

Farmer, whose price data had to a great extent stimulated the whole debate, at first accepted Harvey’s simple monetarist thesis, but when he came to extend, reformulate and reassess his price data, he found the causes for ‘the steep and permanent rise in prices in the early thirteenth century’ very much open to question. While reaffirming his belief that increased imports of silver into England put upward pressure on prices from the later twelfth century onwards, and playing down the counteracting effects of Angevin silver exports, he regarded an increase in the quantity of money in the early thirteenth century as insufficient to explain the sudden, substantial and sustained rise in the price level that his data seemed to show.

Parallel to the general increase in the supply of silver in the twelfth and thirteenth centuries, Farmer, like Palmer, envisaged an increase in the ‘velocity of circulation’ of money. But in considering whether there could have been a sudden and sustained increase in that ‘velocity of circulation’ to coincide with the price increases of the early thirteenth century, he could think of no reason why this should have been the case. It is not clear whether

³⁴ At least, he is justified in terms of his comments on the velocity of money circulation. I fail to understand his ‘more comprehensible’ explanation in terms of supply and demand, as it seems to me that land appears on both sides of his implied equation: *ibid.*, 381. For the way in which the changes Palmer describes would increase monetary velocity, see below.

³⁵ Greater attention was already being given to monetary velocity in the late middle ages and early modern period. See, for example, H. A. Miskimin, ‘Population Growth and the Price Revolution in England’, *Jl European Econ. Hist.*, iv (1975); Dennis O. Flynn, ‘The “Population Thesis” View of Inflation versus Economics and History’, in Eddy van Cauwenberghe and Franz Irsigler (eds.), *Munzprägung, Geldumlauf und Wechselkurse* (Proc. Eighth Internat. Econ. Hist. Congress, section C7, Budapest, 1982); Jack A. Goldstone, ‘Urbanization and Inflation: Lessons from the English Price Revolution of the Sixteenth and Seventeenth Centuries’, *Amer. Jl Sociol.*, lxxxix (1984).

Farmer was aware of Palmer's arguments concerning 'velocity', but it seems likely that he would have met them with the same objection that has been given here.³⁶

Farmer considered another possible cause of price changes. Having in mind the temporary price rises occurring prior to various recoinages in the twelfth and thirteenth centuries, he speculated on the impact of the state of the coinage before King John's partial recoinage of 1205. However, he could not see why this might have had a sustained effect, rather than simply a temporary one.³⁷

These speculations by Palmer and Farmer, agnostic or even sceptical as Farmer's conclusions were, do provide what I believe to be the seeds of a solution to the problem. In the remainder of this article I shall argue that it was indeed the problems with the currency, exacerbated temporarily by bad weather, at least in respect of food prices, which caused the sudden surge in prices in the period between 1199 and 1206, and that there were reasons why the change in the price level was sustained.³⁸

On balance, the evidence for the existence of a significant problem concerning the state of the coinage before the recoinage of 1205 is good. Not only are there chronicle references to a serious degree of coin clipping as a reason for the recoinage, but close roll entries refer to payments and exchanges where the quality of the pennies was clearly an issue.³⁹ Accounts of deterioration of the coinage, justifying recoinages, have rightly attracted some scepticism. Recoinages could be profitable to the king and costly to the subject, and therefore we might expect an effort to

³⁶ D. L. Farmer, 'Crop Yields, Prices and Wages in Medieval England', *Studies in Medieval and Renaissance Hist.*, vi (1983), 139; Farmer, 'Prices and Wages', 723–5.

³⁷ Farmer, 'Prices and Wages', 724–5.

³⁸ For the exceptionally bad weather in 1201 and 1205, see Roger of Wendover, *Flores historiarum*, ed. H. G. Hewlett, 2 vols. (Rolls ser., London, 1886–9), i, 312; ii, 9; Ralph Diceto, *Opera historica*, ed. William Stubbs, 2 vols. (Rolls ser., London, 1876), ii, 172.

³⁹ The evidence is summarized by S. Smith in the introduction to *Pipe Rolls 7 John*, xxvii. To the references there one might add a further close roll reference to 'big' pennies (*grossis denariis*) possibly before the recoinage started, and references from the period of the recoinage itself to 'strong' pennies (*fortibus denariis*), 'weak' pennies (*debiles denarios*), 'new' pennies (*novis denariis*), 'clipped' pennies (*denariis retensis*), as well as to money received and weighed, on one occasion found to weigh around 90 per cent of its face value, and on another around 62 per cent: *Rotuli Litterarum Clausarum in Turri Londiensi asservati*, ed. T. D. Hardy, 2 vols. (Rec. Comm., London, 1833–44), i, 17b, 34a, 36a, 37a, 44a, 45b, 61a, 92b.

prepare opinion or justify action.⁴⁰ However, the close roll evidence, while not plentiful before the recoinage had started, does not look like propaganda. Moreover, the best evidence for the existence of a real and substantial problem afflicting the currency lies in the terms and extent of the recoinage itself.

The proposed recoinage was announced on 9 November 1204, with measures against clipped coins to come into effect by 13 January, mentioning the activities of Jews in particular. The assize for the recoinage itself was issued on 26 January 1205. Unusually, it was not to be a full recoinage. Only coins that lacked more than 2s 6d in the pound by weight were to be marked as invalid and forced to be exchanged. Standard penny weights were to be issued temporarily by mints to allow people to check whether their coins fell under the assize. The generous degree to which underweight coins were allowed to remain valid voluntarily limited the crown's profit on exchanging old coins for new. The belief that the crisis should be attributed to clipping gains some force from design features of the new coins, intended, though probably with limited effect, to make clipping more difficult to conceal. Amercements were levied for the possession of clipped coins, or alternatively fines were to be made for pardon, but the assize also made concessions to the practical difficulties of bringing coins for recoinage. This suggests that the measures were not designed simply to cast as wide a net as possible for the potential profit from fines and amercements, nor simply to launch a profitable, punitive attack on the Jews.⁴¹

It is possible that coins distinguishable as being of new issue were available from Christmas 1204. The recoinage began to get into full swing with a progressive opening of temporary provincial mints in the summer of 1205, winding down again with their closure from before the end of 1206 on into 1207. All the temporary provincial mints seem to have been closed before October

⁴⁰ N. J. Mayhew and D. R. Walker, 'Crockards and Pollards and the Problem of Finessing in a Silver Coinage', in Mayhew (ed.), *Edwardian Monetary Affairs*, 135; N. J. Mayhew, 'From Regional to Central Minting, 1158–1464', in C. E. Challis (ed.), *A New History of the Royal Mint* (Cambridge, 1992), 92. One should, however, bear in mind that some of the scepticism has been prompted by the lack of seriously underweight coins among the hoard evidence, which is, at the same time, acknowledged to result from the selectivity of the hoarders, rather than the consistency of the coinage in more active circulation: B. H. I. H. Stewart, 'The English and Norman Mints, ca.600–1158', *ibid.*, 75.

⁴¹ *Pipe Rolls 7 John*, xxvii–xxix, xxxii, xli; Mayhew, 'From Regional to Central Minting', 97–9.

1207. The exact duration of the recoinage is indeterminable as there was no time limit specified, but it seems that, in terms of special effort required, it was largely complete by then.⁴² This was a chronology comparable with full recoinages and it seems certain that, though partial, the 1205 recoinage was substantial. Estimates of the proportion of the coinage in existence at the end of 1204 which was reminted can only be extremely approximate, based as they are on the surviving older coins from hoards dated after the recoinage, but it seems likely that it was at least more than half, and possibly considerably more.⁴³

This may not necessarily indicate that more than half the coinage in existence at Christmas 1204 was more than 12.5 per cent underweight; we cannot be certain that only those coins which the assize declared invalid were reminted. But even if other coins were reminted, it must at least indicate that the perceived difference in value between the new coinage and the coins submitted for voluntary reminting was greater than the minting charges, in addition to any shortage of weight in the old coins.

There is no need to assume that, for there to have been a substantial effect, the weight of coins in the period immediately before Christmas 1204 was on average catastrophically below the standard weight. Without the routine weighing of coins, perceptions were more important than metallurgical reality.⁴⁴ What was significant was not the degree of the deficiency in the weight, but that many coins were thought to be significantly lighter than they should have been. It is well known that people hoarded what they believed to be good coins.⁴⁵ The corollary of this was that they would wish to spend, if they could, what they thought to be bad coins. All that was needed for this effect was that there should be a widespread perception that many coins were significantly underweight. In so far as a recoinage was thought likely — and we have no way of knowing how much of a surprise the announcement in November 1204 was, either in its timing or in its terms — this would increase the desire to get rid of what were thought to be poor coins.

Although I have emphasized the importance of the perception

⁴² Ian Stewart, 'King John's Recoinage and the Conference of Moneyers in 1208', *Brit. Numis. J.*, lix (1989), 42–3; Martin R. Allen, 'The Provision and Use of Short Cross Class V Dies', *ibid.*, 55.

⁴³ Allen, 'Provision and Use of Short Cross', 60–1.

⁴⁴ Mayhew, 'From Regional to Central Minting', 97–8.

⁴⁵ See above, n. 40.

of the state of the coinage over the physical reality, we may presume that the perception should have had some relationship to reality. The question of why there should have been a particular problem with the physical state of the coinage in the early years of the thirteenth century is both easy and difficult to answer. Silver coinages, by their nature, did deteriorate from the relatively consistent weight produced by a full recoinage. Natural wear and tear would play a part. Clipping too would no doubt always be a temptation to some. The coinage would continually be reinfused with newly minted coin, supposed at least to correspond to a standard weight and fineness; but the mixture of new coin and old would not counteract a tendency to growing variability.⁴⁶ Medieval coin-hoard evidence suggests that almost all coins within the currency were of the most recent type, in the broader sense of the new types introduced by full recoinages, and suggests that the more recent classes of these broad types ‘predominated’.⁴⁷ But given the apparent selectivity of hoarders, we might, on the very grounds that the more recent coins were likely to be in better condition, consider that the hoards bias this distribution within the broad types, even if the hoards do not seriously mislead as to the relative completeness of recoinages. Hoard evidence might therefore underestimate to a degree the variability in weight of a coinage.

The 1180 recoinage began only twenty-two years after the previous one. Where, as in some pipe roll entries, old money from before the 1180 recoinage was expressed in terms of the new money, the old was allowed between 81 and 88 per cent of the value of the new, though whether these were fair or typical valuations, or whether the equivalent of the reminting charges was taken into account, is not clear.⁴⁸ Nevertheless, we may take this as indicative that the standard of the coinage could and did deteriorate to some degree at least, even a couple of decades after

⁴⁶ It is interesting, though perhaps not significant, that mint output estimates show a lower rate of output in the years 1191–1204 than in the periods on either side. This might suggest a less than usually rejuvenating infusion of new coins: Mayhew, ‘Money and Prices in England’, 125.

⁴⁷ *Ibid.*, 123–4. Although Mayhew in general stresses the integrity and consistency of the English coinage of the twelfth and thirteenth centuries, and tends to be sceptical of the professed justifications of recoinages, he does accept that periodic recoinages were on balance necessary to maintain that integrity and consistency. *Ibid.*, 122–4; Mayhew, ‘From Regional to Central Minting’, 92, 136–7.

⁴⁸ *Pipe Rolls 30 Henry II*, 41; *Pipe Rolls 31 Henry II*, 66; *Pipe Rolls 32 Henry II*, 85; *Pipe Rolls 33 Henry II*, 85; *Pipe Rolls 34 Henry II*, 85.

a full recoinage. There is therefore no particular difficulty in accepting that there would most likely have been some material deterioration in the general standard of the Short-Cross coinage by 1204. (The Short-Cross design was used for coins issued between 1180 and 1247, when it was replaced by the Long-Cross design.)

It is, however, difficult to explain why the situation had apparently become so acute that 'a serious attempt was being made to deal with a real problem' in 1205.⁴⁹ After all, despite the fact that the 1205 recoinage was only partial, the next recoinage did not take place for thirty-two years, and its Long-Cross coinage lasted another thirty-two years after 1247. It has also been suggested that Henry II's motives in launching the 1180 recoinage, and the minting and exchange reforms associated with it, so soon after the 1158 recoinage, were more closely connected to the desire to ensure his profits from increasingly busy mints, rather than to serious worries about the state of the currency.⁵⁰ While the coinage in 1200, twenty years after a general recoinage, could hardly have been of uniformly perfect quality, the processes of normal deterioration would not lead us to expect a particular crisis at that point.

The coins of the numismatic class minted immediately before the recoinage are known for their poor workmanship compared with the recoinage classes, but they have not been found to be seriously underweight.⁵¹ Lacking any evidence of a significant deterioration in the standards of the mints in either weight or fineness before 1205, or of any special reason for the alleged rash of coin-clippers, it is perhaps safest to rely on the inherent fragility of the restraints that might normally keep such felonious activity within bounds. At a certain point, as the variability of a coinage increased, there might always be a risk that the incentive to clip might grow to outweigh the uncertain, if potentially severe, penalties and might gather momentum as it grew, until it was out of control. But again, it should be emphasized that we do not

⁴⁹ Mayhew, 'From Regional to Central Minting', 98.

⁵⁰ Pamela Nightingale, '“The King's Profit”: Trends in English Mint and Monetary Policy in the Eleventh and Twelfth Centuries', in N. J. Mayhew and P. Spufford (eds.), *Later Medieval Mints: Organisation, Administration and Techniques* (Eighth Oxford Symposium on Coinage and Monetary History, Brit. Archaeol. Repts, internat. ser., ccclxxxix, Oxford, 1988), 69–70.

⁵¹ Stewart, 'King John's Recoinage and the Conference of Moneyers', 43 (n. 15); Allen, 'Provision and Use of Short Cross', 47.

need to explain a particular degree of physical deterioration of the coinage, beyond the somewhat uncertain degree that would be sufficient to provoke the perception of an acute problem.

It is my contention that people's desire to hold less of a suddenly suspect coinage could and did drive up prices rapidly in just a few years preceding the 1205 recoinage, producing something like a doubling of the general level of prices. This effect may have been particularly marked in these years, but a similar effect is well known from the periods before some other recoinages, from 1124 to the early fourteenth century.⁵² The most spectacular of these instances, known only from chronicle reports, was the first, in 1124, which linked extremely high prices to a lack of confidence in the currency and to the nefarious behaviour of moneyers. Henry I's brutal action against them, scapegoats or not, coupled with the introduction of a new, relatively good-quality coin-type, seems to have restored confidence.⁵³ King John is scarcely known for his moderation, but in respect of the 1205 recoinage, perhaps the price level paid the penalty for just that. This leads to another crucial question. Whatever the actual extent of what was regarded as a serious problem with the coinage, why did it lead to such large effects on the price level, far in excess of any likely actual or even perceived shortage of weight in the coins?

The answer lies in investigating the implications of the desire to hold less of a suspect coinage. Money was a commodity with more than one function. It could be held for more or less immediate use on receipt to buy other goods. It could also be held as a convenient store of wealth: to meet anticipated future cash expenditures larger than the cash income expected at that future date; as a precaution to meet unpredictable future expenditures, voluntary or enforced; and for its own sake, as treasure and a symbol of power. There were other goods that could be and were used as stores of value — silver and gold plates and cups, jewels, fine furs and cloths — but money had its own particular qualities. It was durable, it was easy to count, and it was uniquely flexible in its use, available at any time to buy goods or other assets with

⁵² Farmer, 'Some Livestock Price Movements in Thirteenth-Century England', 12–14; Farmer, 'Prices and Wages', 724–5.

⁵³ Judith A. Green, *The Government of England under Henry I* (Cambridge, 1986), 89–90, 215–16; M. Blackburn, 'Coinage and Currency under Henry I', in Marjorie Chibnall (ed.), *Proceedings of the Battle Conference, 1990* (Anglo-Norman Studies, xiii, Woodbridge, 1991), 55, 66–72; Stewart, 'English and Norman Mints', 59, 67.

less inconvenience or uncertainty than that which encumbered the exchange of other kinds of treasure. In circumstances, however, which seriously cast doubt on the future value of the money, its virtues as a long-term asset were much reduced.

One might ask why this would not also be true of money received and held for short-term use. Why should people continue to accept suspect money at all? Some people could not refuse to accept money, because some receipts were fixed in money terms; others might accept money because they needed it to make purchases or payments that could only be made with money. Most importantly, though, people would choose to accept money if they could obtain it at what they considered as a sufficiently low valuation in relation to the goods they sold, so that there would not be a threat to the value at which the money was received. Even the poorest and most suspect coins were worth accepting at the right price.⁵⁴ Prices of goods, labour and assets would tend to rise sufficiently to restore the demand for money to equal its supply. As prices rose, the demand for short-term transactional balances of money would actually rise. More money would be needed to fulfil those transactions.⁵⁵ Thus, overall, the effect of a suspect coinage would not ultimately be to reduce the total demand for money, but to shift its profile from the demand for money as a long-term store of value, to the demand for money for short-term transactions.

The severity of such an adjustment would depend on the proportion of the earlier demand for money that had relied on money's function as a store of value. If, as I hope to suggest, a

⁵⁴ Not all the money need find its way directly into the market for goods or wages; some might in the first place be spent on other assets, pushing up their price (see above, n. 24), but this would simply swell the money holdings of the seller of the assets, and so the process would continue.

⁵⁵ For simplicity it is assumed that all the adjustments would take place in the demand for money rather than in the supply. Firstly, we have no reason to believe that the quantity of money in England over the period of the price rises changed substantially upwards or downwards: Latimer, 'Quantity of Money in England'. Secondly, the quantity of money was determined largely independently of the domestic demand for it. The supply was determined by the existing coinage, reduced by loss or export, and increased by new minting. The last factor was not, it is true, entirely independent of domestic demand for money: the mints could be used by domestic holders of silver in other forms — plates, cups, ingots, etc. The reverse process, melting coin to produce other kinds of silver, was unlikely to be economic, bearing in mind the costs of the process of conversion. Generally, and particularly in the circumstances of a deficient demand for money, new minting was likely to be dominated by imported bullion, brought in as a consequence of foreign trade.

peculiarly large proportion of money-holdings had come to be held as a store of value in the last quarter of the twelfth century, the effect of a loss of confidence in the coinage could be especially severe in terms of the price adjustment required.

The idea that relatively idle balances of money had accumulated in the last quarter of the twelfth century is not a new one. More than twenty years ago Michael Metcalf noticed that estimates of the quantity of coinage in respect of different types differed from the changing incidence of single finds of those types. He argued that the latter might more faithfully reflect the change in the quantity of money actively circulating. He suggested that the difference might be explained by the growth (or decline) of hoarding.⁵⁶ Richard Britnell, too, drew attention to the possibility that ‘at any given moment a large proportion of this money stock lay idle in hoards’.⁵⁷

Here, it is important to consider certain differences between an economy in the second half of the twelfth century and a modern economy. In a modern economy, through banks and other financial intermediaries, the money which a long-term holder deposits in return for some form of interest is made available at a price to another person who wishes to spend it more or less immediately. In the twelfth century, certainly some holders of money lent their money to others who would spend it, but most holders of large cash balances were content, and had to be content, to see them lying in boxes under the bed or in the wardrobe. There was as yet nothing appreciable by way of deposit banking, and not every person with large cash resources could be, wanted to be, or was a moneylender.

There was a large increase in the quantity of money between 1158 and the end of the 1180s, an increase in total of the order of four to ten times, much of it probably during the 1180s. After 1187, for the rest of the twelfth century, coin exports brought this rise to a halt and may have intermittently reversed it, though they did not significantly undo the previous growth.⁵⁸ No doubt much of the rising cash incomes of the period before 1187 that this implied was absorbed by increasing cash expenditures.

⁵⁶ Metcalf, ‘Survey of Numismatic Research’, 7. See also Rigold, ‘Small Change in the Light of Medieval Site-Finds’, 60–79.

⁵⁷ R. H. Britnell, *The Commercialisation of English Society, 1000–1500* (Cambridge, 1993), 102.

⁵⁸ Latimer, ‘Quantity of Money in England’.

However, although the monetized sector of the economy was almost certainly expanding faster than the economy as a whole, it would be asking a great deal for all of the increase in the quantity of money to have been absorbed without significant inflation — which there was not — or without the accumulation of relatively idle balances.

It is unfortunate that we can get only the most uncertain glimpses of this. There is the admittedly special, though not irrelevant, example of the king himself. Richard fitz Nigel praised Henry II for not hoarding money, but whether or not this was true in the 1170s, others disagreed about Henry's behaviour in later years. Roger of Howden claimed that Henry's treasury contained 100,000 marks (£66,666 13s 4d) by his death. Although this is a suspiciously high, round number, the religious bequests promised in the will that Henry had issued seven years earlier had amounted to over 41,000 marks in silver alone, as well as 500 marks of gold, and Howden's total may have included the proceeds of the Saladin Tithe of 1188.⁵⁹ Even the will's smaller quantity of silver was such as to be of economic significance. While the Saladin Tithe was hardly envisaged as long-term saving, the complaints that it aroused could hardly have been matched by the economic ruin that could have been expected if such a tax had been imposed on a coinage working at full stretch. There would be much more and worse to come.

Other examples can be cited only as indicative of the possibilities. The abbot of Cirencester, a monastery of which the net income for three-quarters of a year when vacant in 1186–7 was only £182 13s, left at his death personal cash totalling £126 3s 10d — £50 13s 10d of it in 'old money' from before the 1180 recoinage, which does suggest long-term saving. In the first year of Richard I's reign, Robert Marmion, on being dismissed as sheriff of Worcestershire, paid 700 marks cash down on a £1,000 fine, and Geoffrey Ridel, bishop of Ely, left at his death personal cash amounting to 3,000 marks.⁶⁰ I do not wish to suggest that such examples are unique to this period; they clearly are not. But they do suggest that at least some people accumulated substantial

⁵⁹ *Dialogus de Scaccario: The Course of the Exchequer* by Richard Fitz Nigel. And *Constitutio Domus Regis: The Establishment of the Royal Household*, ed. and trans. C. Johnson, corr. F. E. L. Carter and D. E. Greenway (Oxford Medieval Texts, Oxford, 1983), 2; John Gillingham, *Richard the Lionheart*, 2nd edn (London, 1978), 132; Diceto, *Opera historica*, ii, 10.

⁶⁰ *Pipe Rolls 33 Henry II*, 26–7; Gillingham, *Richard the Lionheart*, 132–3.

cash reserves. In a society still with a relatively small stock of money, where cash incomes at the higher levels of society were large in relation to the size of that stock, it would take only a modest number of prosperous and prudent individuals or institutions to create those substantial cash reserves. Many, perhaps most, others were no doubt much less fortunate or prudent, and for those in straitened circumstances the opportunities for living long on borrowed money without ruin were severely limited.

If, then, the last decade or so of the twelfth century represented an exceptional situation, in that an unusually large proportion of the money stock was being held for its function as a store of value, this can provide us with an explanation of why the crisis in confidence in the currency had such peculiarly large effects on the composition of the demand for money and thereby on prices. The relatively great accumulation of reserves that had been built up in the 1180s was prevented from rising further by the coin exports of the late 1180s and 1190s, but by 1199 had still only been dented. After that, though, the crisis in confidence in the currency pushed that large accumulation suddenly into spending, as the demand for money as a store of value collapsed. What followed was the price surge of the first few years of the thirteenth century.

The same response to a suspect coinage can also be seen in terms of the velocity of circulation of money, though in a particular way. This ‘velocity’, because it cannot be measured directly, has usually been defined by historians of medieval and early modern England and Europe as the term V in one or other variant of a simplified Fisher Equation, $P = MV/T$ or $MV = PT$.⁶¹ In this equation, P would ideally represent the average price of transactions involving money. M usually represents simply the quantity of money. It is always possible to argue over the definition of money, but in England in the middle ages the only hope of a quantifiable quantity of money is the face value of the English coinage.⁶² V is best described as the transactions velocity of

⁶¹ As James Bolton points out in his most recent discussion of the Fisher Equation, Fisher had two kinds of ‘money’ — notes and coins, and demand bank deposits — each with their own transactions velocity, but as the second type is either insignificant or unmeasurable, or both, in a medieval context, it has always been omitted: Bolton, ‘English Economy in the Early Thirteenth Century’, 39 (n. 52).

⁶² In his most recent comments in this area, Bolton implies a different treatment of M which would exclude monies locked away in King John’s treasuries: *ibid.*, 33–4, 38–9. But if King John’s strongboxes are excluded, why not others’ strongboxes? Some of John’s accumulated treasure was undoubtedly spent in England; how inactive

(*cont. on p. 24*)

money, to distinguish it from the income velocity recently employed by Nicholas Mayhew.⁶³ T is best described as the number of transactions involving money.⁶⁴ It was V in the above sense — transactions velocity — that both Palmer certainly, and Farmer probably, had in mind when they raised the subject of ‘velocity of money circulation’ or ‘velocity of circulation’ respectively.

V , or transactions velocity, could include not only patterns of payment or the state of exchange networks, but also the whole, sometimes complex, relationship between money and credit. That these things might change, sometimes quickly and substantially,

(n. 62 cont.)

does money have to be before it is excluded from the money supply? This seems to be an unanswerable question. Nevertheless, Bolton’s argument does help make the point that the impact of the money supply on spending and therefore on prices was not evenly distributed throughout that money supply.

⁶³ In two recent articles, Mayhew has discussed changes over extended periods in the income velocity of money, making use of a different equation, $MV = Y$ (or P_y). Here, M is again the quantity of money, but Y represents total incomes in the economy. This can broadly be equated with the modern GDP (gross domestic product), or total output or total expenditures. N. J. Mayhew, ‘Population, Money Supply, and the Velocity of Circulation in England, 1300–1700’, *Econ. Hist. Rev.*, 2nd ser., xlviii (1995); N. J. Mayhew, ‘Modelling Medieval Monetisation’, in Richard H. Britnell and Bruce M. S. Campbell (eds.), *A Commercialising Economy: England, 1086 to c.1300* (Manchester 1995). These ‘incomes’ or ‘expenditures’ are not limited to money incomes or expenditures. It is true that, in modern economics, the difficulty of measuring T has usually caused the more quantifiable Y (or P_y) to be substituted for PT , but this was not because Y equals PT , but because the relationship between them could be assumed to be roughly constant. While this may or may not be reasonable for a modern economy, it is patently not true, over anything but the very short term, in a medieval or early modern economy. Income velocity can usefully provide us with something approaching an index of monetization, as Mayhew suggests, but it is not the same as transactions velocity, and can even move in quite the opposite direction.

⁶⁴ It would seem completely against the spirit of the Fisher Equation to include non-monetary transactions, many of which could not in any case be priced. Fisher’s transactions velocity was intended to measure the amount of work each unit of money had to do, not the amount of work it might possibly do. T has sometimes been described in somewhat different terms from those I have used — ‘the volume of transactions’, or ‘the volume of goods sold’, or ‘total volume of transactions’. Bolton, *Medieval English Economy*, 73; Goldstone, ‘Urbanization and Inflation’, 1125; Bolton, ‘Inflation, Economics and Politics’, 3; Bolton, ‘English Economy in the Early Thirteenth Century’, 39. Once multiplied by an average price level (P), this makes little difference, but T in this sense is unmeasurable both in practice and theory. We can only aggregate transactions by converting them into a common unit of account — i.e. by adding up their priced values, not by adding up their volumes; one cannot add three apples to four oranges. When we separate P from T , we are left with the number of transactions.

was appreciated by Fisher and his Chicago colleagues.⁶⁵ But transactions velocity becomes arguably more complicated and potentially even more volatile in a pre-modern economy. In the early twentieth century, it was reasonable to assume that, for any particular category of money, each unit of money would participate equally in the economy. The individual identity and location of a particular unit of money is illusory in a modern banking system. However, in the context of early thirteenth-century England, or in any economy without a substantial deposit banking system, the term V is very clearly an average of transactions velocities, varying greatly from coin to coin. In this sense, changes in transactions velocity were the counterpart of the changes in the profile of the demand for money prompted by the early thirteenth-century currency crisis in England. As the demand for money shifted, away from the demand for money as a store of value towards the demand for money as transactional balances, more coins entered channels of greater transactions velocity, increasing the average transactions velocity.⁶⁶ This kind of change in transactions velocity does not necessarily imply any change in patterns of payment or exchange networks.⁶⁷

One part of the puzzle remains to be put into place. Why, after the recoinage of 1205, did the demand for money as a store of value not revive to its old level, with a concomitant decline in prices back to the levels of the twelfth century? Why did prices instead stabilize at the new, much higher level and, if anything, continue to rise, but only at a slow rate which varied from commodity to commodity?⁶⁸ These questions do not seem so difficult to answer. Several factors suggest themselves, though in

⁶⁵ Laurence Harris, *Monetary Theory*, internat. student edn (New York, 1985), 107–8.

⁶⁶ Dennis O. Flynn is right that ‘modern monetary theory rejects the “active” versus “passive” money distinction’: Flynn, ‘The “Population Thesis” View of Inflation’, 373. This, however, is because the distinction does not make sense in modern, developed economies. In the twelfth and thirteenth centuries, some money was clearly more ‘active’, and some money more ‘passive’.

⁶⁷ Goldstone argues, with regard to the sixteenth century, that the more complex and sophisticated exchange networks become, the greater is the potential transactions velocity, but as he points out, potential and actual transactions velocity can be very different. Goldstone, ‘Urbanization and Inflation’, 1141–8. Also, as Mayhew points out, there may be serious practical limits to the increase in transactions velocity by the elaboration of exchange networks. Mayhew, ‘Modelling Medieval Monetisation’, 70.

⁶⁸ Latimer, ‘Early Thirteenth-Century Prices’, 54.

the absence of quantitative evidence it is difficult to assign proper weights to them.

First and most obviously, we always have to remember that the 1205 recoinage was a partial one with generous limits for allowing underweight coins to continue within the coinage. Once alerted to the variability of the coinage, by the crisis of 1200–5 and even by the terms of the recoinage itself, people were unlikely to slip back into blithe and unreserved confidence in the standard and consistency of the coinage. A further full recoinage cannot have seemed out of the question, although it was not until 1247 that it actually came about. One might speculate that Henry III's poverty was among the reasons why a full recoinage was delayed so long, given that he needed Richard of Cornwall to help him fund the floats for the recoinage.⁶⁹ We cannot then expect the demand for money as a store of value to have returned to its former level.

There was a second strong reason for a relatively long-lasting reduction in the demand for money as a store of value after 1205. For nine long years, from 1205 to 1213, before political difficulties led to some relaxation, King John demonstrated *ad nauseam* an old truth about coinage: that it was peculiarly suited to the purposes of taxation.⁷⁰ One would expect that this taxation, by removing money from the possibility of active participation in the economy, would have a depressing effect on prices, and perhaps to an extent it did, but it also had other, contrary implications. It followed on the recurrent shocks to the public's store of coin that had begun with the Saladin Tithe, some more easily justifiable as exceptional emergencies than others. What is more, the taxes with a future were the taxes on moveables, coin being the easiest of these to tax. The grim logic of the question, 'Why collect coin so that the king can collect it from you?', cannot have been entirely unappreciated.⁷¹

⁶⁹ Mayhew, 'From Regional to Central Minting', 107.

⁷⁰ Barratt, 'Revenue of King John', 837–43.

⁷¹ This idea runs counter to recent suggestions by Bolton that, because of King John's exactions, there was a shortage of 'active' money in the economy and that therefore the money actively involved in exchanges increased its transactions velocity, helping, together with population pressure, to maintain prices at the higher levels. Bolton, 'English Economy in the Early Thirteenth Century', 38–40. The arguments against population pressure as a factor have already been set out above. The velocity argument needs taking more seriously, but it seems questionable that high transactions velocity induced by cash starvation could have sustained prices for long at what were still very high levels by the standards of only a decade or so before.

Nor should we expect that this fear quickly dissipated after the demise of King John. While the general level of financial exploitation of the country by the governments of Henry III's minority began as pathetically low by previous standards, and struggled to recover, taxation for particular purposes, though intermittent, was far from negligible. The demand for community control of taxation from Magna Carta onwards expressed fear of the problem, but could not entirely avert it.⁷² Another factor may have reinforced these effects. It would not perhaps have asked too much economic awareness on the part of older members of the population in the 1220s and 1230s that they remember the prices of their younger days. Would they then have been quite so prepared to save coin with the long term in mind?

Slower processes may have been at work as well, though mostly obscured by the more brutal changes. Over the period which Palmer suggested as 1176–1220, though perhaps also beyond that, the increasing ability to mortgage and sell land arising through the changes in property law, would have, to an indeterminable degree, gradually reduced the relative attractions of money as a store of value. Land, after all, had its own advantages in being an income-yielding store of value and was gradually becoming more liquid. In this sense Palmer is quite right to see the changes as tending to increase transactions velocity, as less money would be required to be held in reserve, relatively inactive.⁷³

I would not wish to deny that many other factors, some very gradual in effect, may also have had effects on the profile of the demand for money and equally on the transactions velocity of money. Among these other factors, we could consider the reduction in the real value of the English penny, population growth, urbanization, commercialization, changes in exchange networks, developments in the money market, levels of indebtedness, changes in the incidence of credit sales and credit purchases, greater opportunities for the increase of regular cash expenditures by luxurious living, the proliferation of money fees and salaries. The list is probably incomplete. Interesting and worthy of research as they all are, they are problematic if we wish to

⁷² Pandulf's taxation of the church for the crusade (£12,000 by 1220), the Fifteenth of 1225 (£40,000), the Thirtieth (more than £22,000 by 1238), and the taxation of the Jews between 1239 and 1250, were all substantial taxation by previous standards: D. A. Carpenter, *The Minority of Henry III* (London, 1990), 223, 276; Robert C. Stacey, *Politics, Policy and Finance under Henry III* (Oxford, 1987), 126, 143–54.

⁷³ Palmer, 'Economic and Cultural Impact of the Origins of Property', 381–2.

attribute large, short-term economic consequences to them. We can hardly hope to measure the extent of their effect with any precision, and even the direction of their effect on the demand for money or on transactions velocity would be sometimes difficult to assert with confidence. Interactions between them are extremely complex, and analysing such a complex system in any mechanistic way, when we have only the haziest statistical ideas of individual components, is a recipe for such misunderstanding as would make modern economic forecasting look reliable.

In conclusion, the unifying theme of a demand for money as a store of value, essentially strong, but also fragile and dependent on confidence in the coinage, helps us to explain not only the surge in prices at the beginning of the thirteenth century and the reasons why it was not reversed, but also how the steep increase in the quantity of money in the 1180s could have occurred without serious inflation. The explanation is consistent with what we know and it is consistent with a plausible model, appropriate to the period, of how the monetary part of the economy functioned.

The set of economic, political and social changes either side of the year 1200 that Harvey originally linked to his 'English Inflation of 1180–1220' has not, in spite of all the discussion of these matters since 1973, lost its claim on historians' attention. Better appreciation of the course and nature of the inflation may have made some of these changes look less like consequences and more like a context for the inflation. Nevertheless, there were far-reaching consequences of the inflation in terms of the redistribution of wealth, and some effect on the finances and therefore the politics of King John's reign. Instead of Harvey's simple suggested economic cause — a growth in the export trade and consequent increase in the money supply — the behaviour of the economy and the use of money have themselves come to look more embedded within the society and even the politics of the period. The quantity of money itself was dependent on politics, through the medium of Angevin coin exports, and even on religion, in so far as crusading was concerned. The causes of the inflation can still be regarded as primarily monetary, both in terms of what happened to the quantity of silver coins — the way they were used or not used — and of the reaction to the currency crisis of the early 1200s. Once we start to focus on concepts like the transactions velocity of money or the demand for money as a store of value, we find that they depend heavily

on the structures of both society and economy in the widest sense. Likewise, in the aftermath of the recoinage of 1205, politics and the economy can be seen to have reacted in complex and interrelated ways.

It is now time for 1180–1220 to take its place beside the sixteenth and the twentieth centuries as one of the three great inflationary periods of recorded English history. Historians and others attribute profound and dire consequences to the two later inflations of the currency. Need we still hesitate to attach a like importance to the first?⁷⁴

Harvey's call to arms has been answered to a considerable extent over the past twenty-seven years, and rightly so. I would argue with the dates, and would suggest we must widen our field of battle now beyond the causes and consequences of changes in prices to look more closely at the workings of the society and economy within which those price changes occurred. Nevertheless, Harvey's conclusion is essentially still valid. The price surge of the early 1200s was, as far as we know, unprecedented in England in the high middle ages in that it was not reversed immediately afterwards. In that sense at least, things would never be the same again.

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⁷⁴ Harvey, 'English Inflation', 30.