

Thirteenth-Century Prices and the Money Supply

By A R BRIDBURY

THE thirteenth century has always been a favourite with historians. It commends itself to scholars of diverse interests as the culminating age of medieval achievement. Not least in this company are to be found the agrarian historians. For them, until recently, the thirteenth century was quite simply the classic age of demesne farming; and demesne farming was, for them, the classic expression of buoyant market forces working in a feudal context to promote the interests and advance the prosperity of the baronial and knightly classes upon whose welfare the achievements of the age depended.

In recent years a bleaker interpretation of the evidence has darkened the prospect that agrarian historians once viewed with such unqualified satisfaction. As so often in historical questions, the facts are not in dispute. No one denies the rising trend of thirteenth-century prices and rents. But historians whose concern is with the 'condition of the people' now stress the misery to which thirteenth-century market forces reduced everyone who was unable to take advantage of them. Rising markets undoubtedly favoured the lucky, the enterprising and the well-born; but according to recent investigators, for people in general, thirteenth-century conditions spelt want and degradation and even ruin.¹

Can we be sure, however, that the underlying assumption made by everyone concerned with the issues, is justified by the evidence? Is it in fact true to say that

demesne farming flourished in the thirteenth century as a result of market conditions in which it was very hard for demesne farming to fail? The evidence for this universal belief in the buoyancy of thirteenth-century conditions is partly circumstantial. Expansion is to be found practically everywhere that one looks for it in the thirteenth-century records. Clearances, the reclamation of marsh and fen, changes in land use and new settlements, all seem to tell of thrust and growth. The direct evidence of rents is, apparently, no less telling. By the end of the century, rents were altogether more onerous for the tenantry than they had ever been before; and if entry fines, though sometimes spectacularly high by then, did not always rise in proportion to the rise in rents, we are assured that commercial considerations were not the only ones that governed what was demanded.²

Fines, however, like rents, are not the easiest of payments to interpret. Moreover, if we are to believe what we are told about thirteenth-century market conditions, we ought to look closely at the evidence of prices. Fortunately there are price series for a variety of farm products. And some of these do indeed show that the prices paid, or obtained, for certain products, rose throughout the thirteenth century. But not all these series are equally reliable or indeed significant. Farm products were anything but homogeneous. Livestock quality varied infinitely; so did the quality of

¹For a recent survey, see J R Maddicott, 'The English Peasantry and the Demands of the Crown 1294-1341', *Past and Present*, Supplement no 1 (1975), esp pp 70-2.

²J Z Titow, *English Rural Society 1200-1350* (1969), pp 76-7; B F Harvey, 'The Population Trend in England between 1300 and 1348', *Transactions of the Royal Historical Society*, 5th ser, XVI (1966), pp 25-7.

manufactured foods like cheese; and the range of quality to be found in wool is notorious.³ Furthermore the volume of usable evidence for product prices varies enormously. Grains varied in quality as other farm products did. But grains provide us with what is easily the best attested evidence; and grains were easily the most important products so far as farm profits were concerned. Livestock prices or dairy-produce prices meant very little to thirteenth-century demesne farmers because few of them depended upon sales of such things for more than a fraction of their incomes. Even wool was no more than a subsidiary source of income even for the biggest wool farmers.⁴ The medieval demesne farmer was essentially an arable farmer. In Postan's felicitous phrase, the big estates were little more than 'federated grain factories'. Much of the income they received consisted of cash earned by selling grains; and a good deal of it consisted of cash paid by tenants who sold grain in order to be able to pay their rents. Accordingly, if we want to know how demesne farmers fared in the thirteenth century it is to the grain markets that we must address ourselves in the first instance; and we must count ourselves fortunate that the most important price series are, in this case, also the most reliable.

I

As a result of Dr Farmer's exhaustive labours in the archives, we can be reasonably confident of knowing as much as we are ever likely to know about the trends of grain prices in the thirteenth century.⁵ But what we can know about these trends is

somewhat less than we should like to know because there are seemingly irreparable deficiencies of material in the mid-century decades. Dr Farmer has warned us about these deficiencies; but his warnings have not always been heeded. Nevertheless, between 1226 and 1244 there are at present prices for the principal grains for only four years out of eighteen; and between 1255 and 1262 there are grain prices for only two years out of seven.

We can perhaps supply these deficiencies in a sense. If we take 4s 6d per quarter as the middle-market price, when wheat was neither cheap nor dear, then we find that there were roughly twice as many years between 1210 and 1270 when wheat was less than 4s 6d per quarter than when it was more. Taking middle-market prices for the other grains produces comparable results. We may perhaps make the tentative assumption, therefore, that if we had quotations for the missing years we should find that they confirmed rather than upset the evidence that Dr Farmer has examined and collated.

But even if we make a much more modest assumption and assume merely that prices fluctuated in the missing years as they did in other years, the grain prices nevertheless force us to conclude that between 1210 and 1270 we can perceive no long-term trend. Grain prices rose and fell, as good years succeeded bad, and bad good, without displaying any long-term tendency either up or down.

Contemporary farmers had very little idea of how the cereal market had developed, and of course, none of how it would develop. Historians all too easily forget that farmers coped with market prices as they formed and looked back with imperfect knowledge and failing memory on a comparatively short span and narrow compass of experience. So far as contemporary farmers were concerned, grain prices, as they rose and fell in the course of the thirteenth century, did so without

³ T H Lloyd, 'The Movement of Wool Prices in Medieval England', *Economic History Society Supplement* 6 (1973).

⁴ A R Bridbury, 'Before the Black Death', *Econ Hist Rev*, 2nd ser, XXX (1977), p 398.

⁵ The cereal prices used throughout this article and in the accompanying graphs are taken from D L Farmer, 'Some Grain Price Movements in Thirteenth-Century England', *Econ Hist Rev*, 2nd ser, X (1957). Dr Farmer's years are those in which the harvests were gathered.

offering them any hope that high prices had come to stay or any confidence that high prices would not be followed by years of prices which could easily cancel the gains previously made. The only lesson that market conditions could teach the more perceptive farmers was that if good prices did not last, neither did bad ones.

After 1270 a decisive change takes place. Henceforth, so far as wheat prices are concerned, 4s 6d per quarter no longer serves as the middle-market price dividing cheap years from dear ones. Between 1270 and 1325 we find that wheat only falls below 4s 6d per quarter when harvests are quite exceptionally abundant. The line that divides years of cheap wheat from years when wheat is dear must be drawn, henceforth, at 5s 6d per quarter or even perhaps at 6s. Once again, moreover, there is no easily recognizable trend either up or down. There is not even an increase in the violence of fluctuations as we approach what were, for most people, the terrible years that followed 1315. The most violent fluctuations of price recorded in this period occurred between 1287, when wheat stood at 2s 10½d, and 1295 when it rose to 9s 2¾d. This was worse than the worst fluctuation previously recorded, which occurred between 1254, when wheat fell to 2s 11¼d, and 1257 when it touched 8s 0¾d. And both these fluctuations in fact exceeded in violence the worst fourteenth-century fluctuation before 1315. This occurred between 1306, when wheat stood at 4s 6d, and 1309, when it rose to 7s 11¾d.

Wheat was always the dearest of the grains as oats were the cheapest; but wheat prices differed in behaviour from that of the prices of other grains only in the violence of their fluctuations. In other respects what was true of wheat after 1270 was true also of barley, rye and oats.

In retrospect we can see a pattern in the price history of the thirteenth century that no one living at the time could possibly have perceived. We can see that the history

of grain prices in the thirteenth century was dominated by two periods of significant change, the first of which began in the final quarter of the twelfth century, and the second in the final quarter of the thirteenth century.⁶ As a result of the changes that took place at those periods grain prices were established at new and higher levels which persisted for several generations. These changes irrupted suddenly and without warning; and only now can we see that what, at other times, proved to be nothing more than a violent aberration, at these junctures inaugurated a new era.

Once the shock of change had worn off, experience offered no clear guidance to those who managed the big estates and determined manorial policy as to how they should proceed. If those in charge had assumed that a period of high prices would inevitably bring low prices in their wake, as they always had done before, then prudent management required no more of them than that they should put by the profits of the fat years against the long haul of lean years to come, using some of the profits perhaps to attend to some of those thousand and one repairs and renewals that get postponed when times are bad or endlessly delayed when the weather makes it impossible to carry them out at the only season of the year during which they can be done. No doubt many demesne farmers took this view of farming prospects in the 1270s; and even those who came to the conclusion, for whatever reason, that this time high prices had come to stay, would have had no warrant for the further assumption that the future would break so completely with the past that the high prices they were enjoying would prove to be merely the prelude to still higher prices later on. And in fact anyone sanguine enough or rash enough to look forward to such a double break with the past and to act upon his expectations would soon enough

⁶P D A Harvey, 'The English Inflation of 1180-1220', *Past and Present*, 61 (1973).

have found his manors encumbered with more debt than they could bear; for once the new price levels had been established they stabilized in the sense in which they had stabilized between 1210 and 1270.

II

Modern discussions of investment policy in thirteenth-century farming have generally assumed that demesne farmers made decisions about investment in the confident expectation that prices would continue to rise in the future as they had done in the past. On this assumption historians have often expressed surprise at how little investment, by modern standards, demesne farmers appear to have undertaken.⁷ But it is clear from the evidence that if demesne farmers had judged by experience they would have had no such confident expectations about the future. They could not have made investment decisions on the basis of optimism about the future course of prices founded upon grateful recollections of the past because there was no such past, at least no such past in the recollection of anyone living, to which they could have appealed.

In the short run, once grain prices had jumped to higher levels in the 1270s, experience may not have been a sure guide for demesne farmers, who could have been forgiven for allowing optimism about the future course of grain prices to colour their vision. But once it became clear that grain prices would henceforth fluctuate about stable levels, as they always had done in the recollections of those with the longest memories, it also became clear, as it had done after the previous jump in grain prices, that grain prices cannot change sharply and permanently without having profoundly important ramifications for many other relationships.

At first demesne farmers found themselves sharing with their tenants the welcome experience of uncovenanted benefits in the form of higher prices and hence higher profits than ever before. This sharing was inevitable until contracts were revised, because manorial tenants with crops of grain to sell were bound to gain, in proportion to their sales, as much as their landlords did. Demesne farmers even found themselves sharing these benefits with some, perhaps with many, of their non-servile labourers. Such labourers were often paid partly in kind. Some were paid mainly in kind.⁸ And no one can fail to be impressed by their importance in thirteenth-century rural society. Consequently when grain prices rose as they did in the 1270s, payment in kind spread the benefits even to them. But these were purely temporary gains. There could be no permanent rise in general well-being on the land without some profound change improving the availability of land for farming. And there is no reason whatsoever why we should suspect that any such improvement had taken place at that time.

On the contrary, historians who have taken rising thirteenth-century grain prices for granted, have argued that rising prices reflected an increasing scarcity of land caused by a growing pressure of population which was, in its turn, aggravated by a contraction of the arable acreage as a result of loss of productivity due to over-exploitation. But grain prices did not rise in the last quarter of the thirteenth century. Nor did they do so earlier in the century. On each occasion when they changed a jump took grain prices to a plateau. This is not in the least how an intensification of population pressure exerts its influence upon grain prices. Population pressure is a force of cumulative power, not of sudden

⁷See, for example, R H Hilton, *The English Peasantry in the Later Middle Ages*, Oxford (1975), chapter x.

⁸For an interesting discussion of these matters, see N R Goose, 'Wage Labour on a Kentish Manor', *Archaeologia Cantiana* XCII (1976).

onset and subsequent surcease. If we want to see how population pressure reacts on grain prices, in the absence of widespread improvements in the organization and techniques of farming, we cannot do better than follow the relentlessly progressive trend of grain prices in the sixteenth century.⁹ Whatever allowance we ought to make for accessory monetary influences upon it we surely cannot fail to see that the steadiness of the trend is not the least notable of its features. The contrast with twelfth- and thirteenth-century changes could scarcely be more striking. Where grain prices rose steadily in the sixteenth century, they rose suddenly in the twelfth and thirteenth centuries. And where they pursued a rising trend in the sixteenth century, they pursued level, if not at times, falling trends, in the thirteenth century. Whatever may have been happening to population size in the thirteenth century, we cannot use grain prices as evidence that the pressure of population was actually increasing at the time.

Stable grain prices may be incompatible with increasing population pressure. But they are not necessarily incompatible with an increase of the size of the population. It is not inconceivable that the pressure of population was contained at this period because land lost to arable cultivation, whatever the cause, was more than compensated for by land newly added to the arable acreage as a result of colonization. The mass of evidence of colonization is, in its way, as impressive as the mass of evidence of land lost to arable cultivation. But it is evidence of a different kind. The evidence of land lost to arable is usually evidence given to excuse a bailiff who was required to account for rents which were not forthcoming, or to exonerate a tax-

payer from a liability. The evidence of colonization is, for the most part, evidence of grants made upon payment of a fee. The evidence of land lost by arable cultivation may not mean what it says. Indeed there is a strong presumption that it does not.¹⁰ But the evidence of colonization is unmistakable. And what it seems to tell us is how difficult colonization was becoming. If colonization had still been easy it would not have made such a stir in the records. And when we recall the stability of thirteenth-century grain prices we cannot readily believe that the quantities of land involved were anything like as extensive as they needed to be if they were to do more than compensate for any losses there may have been, still less if they were to improve the food supply.

If thirteenth-century grain prices give the impression that colonization, at best, could do no more than keep the arable acreage constant in relation to needs expressed in terms of market demand, so does the evidence provided by the catastrophic famines of the years 1315-17. The consequences of severe famine were comparable with those of a notable colonizing movement. Famine was as capable of adding to the supply of land as colonization was. When it did so, it worked by diminishing the population instead of by increasing the arable acreage; but the effect upon the relationship between land and population was the same.

Opinion about the effects of the early fourteenth-century famines has moved away from Postan's view of them as a cataclysmic disaster which signaled the onset of debilitating problems that dominated economic life until the end of the Middle Ages. Miss Harvey's survey suggests that very little changed in agrarian England between 1300 and 1348.¹¹ Even

⁹W G Hoskins, 'Harvest Fluctuations and English Economic History 1480-1619', *Ag Hist Rev*, II (1953-4), reprinted in W E Minchinton (ed), *Essays in Agrarian History* (1968). This study has been subjected to keen criticism, but not so as to invalidate its use here. See C J Harrison, 'Grain Price Analysis and Harvest Qualities 1465-1634', *Ag Hist Rev*, XIX (1971).

¹⁰Thus, for example, A R H Baker, 'Evidence in the Nonarum Inquisitiones of Contracting Arable Lands', *Econ Hist Rev*, 2nd ser, XIX (1966).

¹¹See note 2 above.

Dr Kershaw, who has tried so hard to curdle our blood with his account of an early fourteenth-century crisis, of which the famines were the centrepiece, was obliged to conclude his survey by conceding that 'in many of the wealthier and more densely populated parts of the country there is no indication that the agrarian crisis initiated a lasting decline in production and occupation of the land'; and to confess that his evidence to the contrary was drawn very largely from estates situated in 'the poorer and less populous regions'.¹² Studies of replacement rates, though few and not altogether satisfactory, are at any rate scattered geographically and seem to indicate, in the words with which Dr Razi concluded his remarkable study of the Halesowen evidence, that English villagers in this period 'were able not only to replace themselves from generation to generation, but also to produce a surplus of offspring to maintain population growth'.¹³ If Dr Farmer dissents from these views it is only to the extent that he perceives some shift in the economic balance between the period immediately before the famines, when grain prices 'had a hair-trigger sensitivity' to harvest yields, and the period of the 1330s and 1340s when they seem to have lost that degree of sensitivity.¹⁴

Dr Farmer's extensive studies of crop yields, wages and prices, have added a new depth to the discussion. His conclusion that yields did not change in the period 1271-1410 except when farmers kept more livestock, will not please those who contend that the famines inaugurated an era of impaired productivity on the land. But there are difficulties about the behaviour of prices in the 1330s and 1340s that Dr

Farmer's researches may not have settled. Good harvests in that period seem to have had the effect of driving prices to lower levels than any known since the general enhancement of prices in the 1270s. Was this the result of the easing of population pressure after the famines? The accumulation of surpluses, which takes the sharpness out of harvest failure, also has the effect of forcing producers to lower prices more than they would have done in more stringent circumstances in order to dispose of stocks which supply less urgent needs than they once did. It would be tempting to see the workings of this mechanism in the grain price movements of that period but for the behaviour of money-wage rates. An easing of population pressure at that time might reasonably be expected to have induced some increase in money-wage rates, or if not something as positive as an increase, then at least it should have imported an element of firmness into the labour market. But it did not. Money-wage rates, after a long history of gentle advance, seem to have chosen just this period of the 1330s and 1340s for an equally gentle retreat.¹⁵

The advance of wage rates in the thirteenth century is perfectly intelligible if we accept that the jump in grain prices that took place in the 1270s was part of a wider movement that caught up the remuneration of labour in its wake. The advance of wage rates at that period suggests indeed that this wider movement was one that it would not be unreasonable to call inflationary. That is to say, in the final quarter of the thirteenth century, as upon an earlier occasion, prices expressed in money rose generally without reflecting a change in the relative scarcity of resources. Is this perhaps what we can see happening in reverse during the 1330s when a series of abnormally low grain prices seems to have

¹² Kershaw, 'The Great Famine and Agrarian Crisis in England 1315-22', *Past and Present* 59 (1973), pp 49, 46.

¹³ Z Razi, *Life, Marriage and Death in a Medieval Parish*, Cambridge, 1980, p 33.

¹⁴ D L Farmer, 'Crop Yields, Prices and Wages in Medieval England', *Studies in Medieval and Renaissance History* 6 (1983), p 137.

¹⁵ Farmer, *ibid*, p 144. Cf E H Phelps-Brown and Sheila V Hopkins, 'Seven Centuries of Building Wages', in E M Carus-Wilson (ed), *Essays in Economic History*, II (1962), p 174.

dragged money-wage rates down to lower levels? The retreat of money-wage rates makes it difficult for us to interpret the fall in prices as a sign that the post-famine decades bore witness to a substantive improvement in the ratio of land to labour. And if the abnormally low grain prices of the time do in fact indicate that the country was, however briefly, in the grip of deflation, then what could be more likely than that money wages should fall into line with a change in monetary relationships which did not reflect any change in the relative scarcity of resources?

III

What sort of world was it then in which neither the colonizing achievements of the thirteenth century nor the clearances executed by the sharp famines of the early fourteenth century were capable of restoring a measure of slack to the economic system? The land market was evidently saturated. If we may judge by the behaviour of grain prices, the land market had been saturated for a century or more. What it required was a more rigorous exorcism than any it had yet received. And when the time for exorcism came, as it did with the Black Death, it took recurrent visitations of that dreadful pestilence before land could be had on easier terms; and before that decisive clearance there was patently no scope for any general and abiding improvement in standards of living in the English countryside.¹⁶

The inflation of the 1270s, like the previous inflation that began in the late twelfth century, was not progressive: it ended in stability. A new structure of prices supplanted the old one; but contracts fixed before inflation naturally took no account of the fall in the purchasing power of money brought about by inflation. Consequently the new levels of prices,

once they had worked their way through the economic system, left demesne farmers with higher profits as producers but with lower real incomes from monetary sources. The higher profits earned by so many estates at this period are not, as they are so often taken to be, indisputable proof of the energetic efforts made by the more active and able demesne farmers to realize the potentialities of hitherto neglected or imperfectly developed resources. They are very largely the results of inflation; and they may very well have helped to conceal from less vigilant demesne farmers the fact that monetary income was actually diminishing in real value at the same time.

The fall in the purchasing power of money doubtless suited many demesne farmers; for they were, as a class, inveterate borrowers. But many of them received half their incomes in cash;¹⁷ and the insidious effects of the declining purchasing power of money were bound to have had their impact upon the most torpid and ineffectual of them in the end. We can perhaps see something of the alacrity of some and the lethargy of others in the differences of opinion expressed by Dr Titow and Miss Harvey on the subject of whether the general level of rents and fines rose by much or little in this period.¹⁸

Once they had grasped the fact that higher prices had come to stay, demesne farmers were compelled to start revising as many of their rents and other charges as they could. But they did not embark upon any fundamental reorganization of the manorial system. Nor did they lose confidence in the system by surrendering the manorial demesne lands they had managed to a series of tenants. It would be difficult to imagine how such a move could possibly have improved estate solvency or profitability in conditions such as those of the late thirteenth century.

Some demesne farmers certainly did

¹⁶ A R Bridbury, 'The Black Death', *Econ Hist Rev*, 2nd ser, XXVI (1973).

¹⁷ E Miller, *The Abbey and Bishopric of Ely*, Cambridge, 1951, p 93.

¹⁸ See note 2 above.

lease out fractions of demesne to tenants at this time. But there was nothing abnormal about that. Fractions of demesne were always being leased out in this way. When Postan saw this being done in the twelfth century he converted what he saw into a trend;¹⁹ and historians of thirteenth-century farming are equally disposed to see the beginning of the end of demesne farming in any evidence of demesne leasing then. But when the Bishop of Ely's managers let small parcels of demesne land to tenants at this period, we should be quite wrong to interpret their action as a fearful omen, since 'high farming' on the Ely estates, according to their historian, 'may have reached its highest pitch of intensity and profitability in the reign of Edward II'.²⁰ And when the Bishop of Winchester's estate managers seriously diminished the demesne farming of the estate they were, apparently, pursuing a policy whose logic was not in the least determined by despondency about market prospects for grains.²¹ We can see from the evidence that Dr Titow has used in his study of population pressure on the Bishop of Winchester's manor of Taunton that demesne leasing, though pursued vigorously there, was dictated neither by shortage of labour nor indeed by poor market prospects. The manor was evidently choked with labour; and entry fines of as much as £40 were paid or pledged for virgates on the estate.²² Entry fines capitalized expected income flows. A farmer with £40 to pledge was not a starving peasant desperately giving hostages to fortune. He was a man who could choose where to farm and presumably someone who could take a rational and informed view of farming prospects on Taunton manor. Whatever may have been behind the leasing policy carried out on the

Winchester estates, the Taunton evidence makes it extremely difficult for us to believe that the policy was prompted by prophetic insight into the bleak future that lay ahead for demesne farming in the late fourteenth century.

We cannot hope to see how estate management reacted to the sudden change of price level that occurred in the late twelfth century with anything like the same clarity as we can see how it reacted to the later one. But we can at any rate see how the twelfth-century price change left its mark. Assized rents, that is to say the customary rents that were once the full rents for tenancies, continued to be entered separately on many manorial account rolls before the increments were recorded, that is to say the additional rents that turned assized rents into the closest approximation to rack rents obtainable. And the price change also left its legacy of immutable dues. Commutation payments, as Denton remarked a century ago, originally intended perhaps to be the cash equivalent at current wage-rates of the services performed by tenants, were never revised, so that once inflation had raised wage-rates above their twelfth-century levels, such payments no longer provided thirteenth-century demesne farmers with the cash they required in order to be able to hire an equivalent force of wage-labourers if they needed one, or with the equivalent purchasing power over other things if they did not.²³

Demesne farmers were often marvelously fertile in expedients with which to overcome the problems created by immutable dues and tenures whose terms could not be changed except after a more or less prolonged lapse of time. Nominal profits undoubtedly rose as a result of the adjustments that were made after the twelfth- and thirteenth-century price changes; but it would be taking much for

¹⁹ A R Bridbury, 'The Farming Out of Manors', *Econ Hist Rev*, 2nd ser., XXXI (1978).

²⁰ Miller, *op cit*, p 98.

²¹ Titow, *English Rural Society*, pp 52-3.

²² J Z Titow, 'Some Evidence of the Thirteenth-Century Population Increase', *Econ Hist Rev*, 2nd ser., XIV (1961).

²³ W Denton, *England in the Fifteenth Century* (1888), p 107, note i; Harvey, 'The English Inflation', p 18. See note 6 above.

granted if we were to assume that these increased profits always provided demesne farmers with as much purchasing power as lower profits had done in earlier days.

IV

The sudden inflation that set such problems for contemporaries has not lost its power to baffle; for it sets its problems also for us. How are we to explain these extraordinary irruptions? The late twelfth-century inflation is more obscure than the later one because it occurred during the infancy of the public records. There are no mint output figures for the late twelfth century; no records to tell us how big the export trade was; no accounts of the money sent abroad to finance Angevin foreign policy. We cannot even be sure that the price change was as sharp as it looks, so meagre is the price material upon which we are compelled to depend. The sharp rise of late thirteenth-century grain prices, however, is not so much obscure as inscrutable. There is by then no shortage of public records; but the records only deepen our perplexity instead of dispelling it; for prices rose in the late thirteenth century at a period of tranquillity for the country. The king may have been bankrupt; but the civil war was over and done with; and if the Lord Edward's response to Flemish seizures of men and goods in 1270 had any immediate effect upon the wool trade it was surely in the direction of reducing bullion flows to England rather than increasing them. Mint output figures survive from 1234, and mint output in the early 1270s was in fact lower than at any time since extant figures began.²⁴

When grain prices rise sharply and permanently and then stabilize at a higher level

without displaying any pronounced tendency to rise or fall subsequently, and do this twice, with an interval of a century between each rise, we are irresistibly drawn towards a monetary explanation of what has happened. But the relative inactivity of the mint in the 1270s, when grain prices had just made their thirteenth-century jump, is surely a warning that we must not expect a monetary explanation of these phenomena to be easy to justify.

One potential source of doubt we can eliminate from the start. For most of the Middle Ages, and for most purposes throughout the Middle Ages, the currency issued by the mint consisted of silver pennies. These pennies scarcely varied at all, in the thirteenth century, either in fineness or in issued weight. They were made of silver mixed with copper in ratios which were generally within a few points of 925 parts of silver to 75 of copper; and the weight of metal used, measured in terms of the number of coins cut from a mint pound, varied only from 240 to 245. If we are looking for a monetary explanation of the price history of this period we shall not find one in mint manipulation of the fineness or weight of the coins issued.

Once they had started to circulate, however, these coins soon began to deteriorate in quality and diminish in number. All of them lost weight in use because silver is a soft metal which soon rubs away; some were clipped; others were sliced into halves and quarters to provide small change; and others again simply disappeared into hoards, or were lost or exported. Anything that reduced the number of coins circulating ought to have raised the value of those that survived, with the effect of depressing prices. And anything that caused a growing disparity between the face value and the silver content of the surviving coins, if it had any effect whatsoever on relative values, ought presumably to have had the effect of diminishing coin value and hence of raising prices.

²⁴ The mint output figures used in this article are taken from J Craig, *The Mint*, Cambridge (1953), and Mavis Mate, 'Monetary Policies in England 1272-1307', *British Numismatic Journal*, XLI (1972). The figures are rendered graphically in terms of average monthly output over twelve-month periods in N J Mayhew, 'Numismatic Evidence and Falling Prices in the Fourteenth Century', *Econ Hist Rev*, 2nd ser, XXVII (1974), p 11.

The mint could only keep the currency supplied and thus maintain the king's monopoly of the right to coin all the money circulating in the country if it could attract enough silver with which to do so. The mint was kept fairly busy at all times because there were always people who had to have their bullion turned into coin however unfavourable the terms they were offered, just as there are always people today who are forced by personal or business needs to sell assets which, if the profitability of their investments were their sole consideration, they would certainly not sell at that particular moment. But the terms upon which the mint accepted old coins did nothing to encourage the population to have its poor coin restored to mint condition. For the mint, in buying coins for renewal, was interested in buying silver, not in acquiring currency. Consequently the mint weighed rather than counted the coins it was offered, and charged a fee for its services which defrayed its costs and left a residue which provided a welcome seignorage for the king.²⁵

The terms upon which coins were renewed in thirteenth-century England in fact severely discouraged everyone from offering deteriorating or damaged coins to the mint. Recoinage without the incentive of debasement was the rule; and since coins did not, as a general rule, lose purchasing power as their silver content rubbed away as a result of constant handling, it follows that those who surrendered poor coin to the mint surrendered purchasing power with their poor coin and thus paid dear for their bright new pennies. And the poorer their coin the greater the forfeit they paid, so that those who held coins whose con-

dition gave rise to expressions of the gravest public concern were least likely of all to have submitted them for renewal without offering the most strenuous resistance to the king's charge.

Had coins lost purchasing power as they lost silver, so that many poor coins bought neither more nor less than the smaller number of new coins by which the mint was prepared to replace them, then currency standards would have been much easier to enforce. To some extent, indeed, they would have been self-regulating. As the currency deteriorated so prices would have had to rise in terms of nominal coin values in order to reflect the changes in real values that had taken place. This rise in prices would have made monetized silver more valuable than before in terms of bullion or ornamental silver because coins in mint condition command a premium in markets in which coin values vary with silver content. As more silver was monetized so prices would have fallen because coins of mint condition were restoring higher real values to the unchanged nominal values in which the currency was expressed. But thirteenth-century grain prices did not rise and fall as we might reasonably expect them to have done if the periodic deterioration of the currency had caused widespread changes in the purchasing power of coins.

Where thirteenth-century English kings wielded the stick in their efforts to force silver into their mints, elsewhere in Europe monetary authorities proffered a carrot. Recoinage campaigns abroad were sweetened by doses of debasement.²⁶ Indeed in

²⁵ C. Johnson (ed), *Dialogus de Scaccario* (1950), p. 36 et seq. See also, C. Johnson (ed), *The De Moneta of Nicholas Oresme* (1956), p. 54. Salisbury Municipal Records, Ledger A, fols. 82-82d (1421), recites a royal writ which states that the subsidy shall be paid in gold half-nobles and nobles worth 5s 8d by due weight of the noble; that anyone who pays with coins worth more will have the excess returned to him; and that coins worth less will not be accepted.

²⁶ Debasement does not necessarily mean reducing the silver content without changing the face value. It can equally mean raising the face value without altering the silver content. But medieval English kings never resorted to this particular device.

Sometimes the seignorage was reduced in an attempt to attract more silver to the mint. But this could hardly make enough difference to be worth doing. A lowering of the rate by, say, 3d in the pound, meant that, on an investment of £100, a currency speculator saved 25s. But this was, roughly speaking, the clear profit he could usually make out of an £8 investment in a sack of wool. If he were in any doubt, he could always risk less by going into wool.

many countries monetary authorities had got precociously addicted to the use of various forms of debasement as a way of attracting silver to their mints long before English kings had resorted to any but the mildest interference with accepted standards of fineness and weight; and had plunged ever more deeply into addiction at a period when English kings, who had come late to the true practice of debasement, were indulging an acquired taste for it, sparingly and at decent intervals. Debasement had the effect of raising prices by increasing the volume of currency. It forced everyone with better coins than the debased ones to exchange their better ones for a larger number of poorer ones. Anyone who failed to do that soon enough found himself paying out more silver than necessary for any particular purchase; and anyone quick enough to spend his debased coins before prices rose found himself satisfactorily in pocket as a result of debasement.

But debasement and the inevitable inflation that followed did not play havoc with established patterns of trade between countries. There was no question of goods and services from countries whose price levels were comparatively low, because their currencies had not been debased, sweeping the board in countries whose debasements had caused an inflation of costs and prices. The active arbitrament of silver in exchanges between currencies meant that medieval debasements had few of the international repercussions that we associate with modern devaluations. Such devaluations, which alter otherwise fixed parities so as to cheapen a particular domestic currency in foreign exchange markets, invariably stimulate exports, at least in the short run, and discourage imports, by enabling exporters to translate their prices, upon favourable terms, into the prices they will actually obtain in markets abroad, and by making things correspondingly harder for importers, who

find that they can translate their prices into those of the devaluing country only by doing so at rates of exchange which render their goods less saleable than before.

Such feats of monetary prestidigitation were utterly beyond the powers of thirteenth-century monetary authorities, because monetary exchanges between medieval countries consisted of exchanges of silver embodied in coins of diverse provenance and a variety of denominations whose value was determined fundamentally by the quantity and quality of the silver they contained. Foreign coins were, everywhere, weighed and even assayed, not counted; and exchange rates expressed the appropriate silver parities suitably discounted for transaction costs.²⁷ If the mechanism of international exchange had worked without friction, the effects of debasement and inflation would have been stopped at the frontier, or at any rate at the Channel. When silver's relative scarcity has not changed, a pound's weight of silver of a given fineness will undoubtedly buy more coins in one country than in another if the monetary authorities of the former country have taken it into their heads to raise revenue by debauching the currency whilst the monetary authorities of the latter have not; but a pound's weight of silver ought not to be able to buy more goods and services than before in either country. The purchasing power of coins may have been altered as a result of debasement, but not the purchasing power of silver. Exchanges may have had to fluctuate in the Middle Ages as the silver content of coins was changed; but prices expressed in terms of silver ought surely to have stayed the same.

In practice debasement took time to work its way through the system. The lag between debasement and inflation that enabled ordinary members of a community in which the currency was being debased to

²⁷ On these costs, see J D Gould, *The Great Debasement*, Oxford (1970), Chapter 5.

make a profit out of debasement, before prices rose, by being quick off the mark in having their heavier coins exchanged for the new lighter ones, also enabled international operators to do the same. Exchange rates responded at once to debasement. Domestic prices, by failing to do so, gave exporters a margin between these lower prices and the prices that would have prevailed if the volume of domestic currency had increased to the point at which it monetized, on debased terms, the entire stock of silver that the currency had previously employed, given an unchanged velocity of circulation. This margin made exports cheaper; and by the same token made imports dearer.

When we turn to English grain prices, neither their long-term stability in the thirteenth century nor their sudden changes of level, is easily explicable in monetary terms. The paradox of medieval debasement is that a country which was inflating as a result of debasement could actually improve its terms of trade with countries which had not resorted to debasement. England, which did not debase its currency in the thirteenth century, was bound to have found that international terms of trade, if they moved at all, had to get worse as other countries made their markets harder to enter and their own products more saleable abroad. Balance of payments problems, in such circumstances, had to manifest themselves in bullion movements. A modern disequilibrium under a system of fixed exchange rates produces a foreign exchange crisis: a dollar shortage or the like. A medieval disequilibrium did not, because there could not be an excess supply of any currency upon the foreign exchange markets when mints everywhere stood ready to turn silver in any shape or form into coin of the realm, whichever realm it happened to be, and indeed welcomed the chance to do so for the sake of the fees they earned.

Nevertheless the evidence of grain prices

does not suggest a persistent loss of silver gradually eroding the foundations of the currency and deflating the economy. Indeed if we were to judge silver supplies by the behaviour of grain prices we should be compelled to conclude that England had received a sudden bounty of silver in the late twelfth century and again in the late thirteenth century as a result of which prices had jumped to higher levels which were then maintained for long periods during which flows of silver into the country were balanced by flows out of it. Grain prices suggest, in fact, that debasement did not confer much benefit upon debasing countries which traded with England in the thirteenth century.

V

But grain prices, significant though they may be for a general analysis of most aspects of many medieval economies, may not tell us what we want to know. After all, the advantage that a debasing country could derive from changes in its terms of trade depended not so much upon how long it took debasement to inflate domestic prices in general as it did upon the responsiveness of the particular domestic prices whose sluggishness made the terms of trade more favourable. Such prices might respond to changes in the terms of trade very much more rapidly than the general level of prices did; and this was particularly likely if changes in the terms of trade brought a rush of foreign business to producers who, for one reason or another, could not readily increase output. Moreover the advantages of debasement in the special case of trade with England might very well have been nullified for debasing countries as a result of an entirely different factor: the inflexible demand for English wool. If the volume of English wool sold in the markets of debasing countries were no more dependent upon price in the thirteenth century than it proved to be in

the fourteenth,²⁸ then exports from England would have been able to match exports from such countries, with the result that there would have had to be no movement of bullion from England to pay for imports which could no longer be requited in any other way.

The strength and indeed the independence of the English economy derived mainly from such forces as these. And yet English kings get the credit for having accomplished far more in the field of monetary management than they could possibly have achieved. It is fortunate, in this connection, that one of the most famous attempts to manage the currency occurs in this period, so that we can turn Dr Farmer's grain prices to account in gauging its efficacy. It was carried out by one of the most celebrated of English kings. As a test of the power of the kings of England in monetary affairs it would be hard to find a more significant case-study than that of Edward I's recoinage campaign of 1279. Coercion not debasement was the spur; and no king used coercion as an instrument of monetary policy with more resolution than did Edward I.

Mint figures show that recoinage began in London in April 1279, and in Canterbury in January 1280. Recoinage was then taken up at many provincial mints, some of which had been opened for the purpose, in the course of the year 1280. The provincial mints were then shut down in the early summer of 1281, so that although we have got no accounts for their output, they are not likely to have had time to make a substantial contribution to the total output of new coin. Recoinage continued at London and Canterbury. By September 1281 these two mints had turned out over £420,000-worth of new coin. But this was by no means the end of the matter. It is perfectly obvious from the figures that the London mint continued to turn out unusually large quantities of coin from native

bullion until August 1286, and from imported bullion until April 1290. Canterbury meanwhile coined more imported silver between September 1281 and July 1290 than it had coined from silver whatever its provenance between January 1280 and September 1281.

If we take it, therefore, that Edward I's recoinage began in London in April 1279 and ended at Canterbury in July 1290, then we shall find that London and Canterbury, between them, issued about £400,000-worth of coin manufactured from native bullion and about £470,000-worth of coin manufactured from imported bullion. We must make certain reservations about these figures. They exclude the work of the provincial mints. They include the normal work of the mints that proceeded year by year in periods of recoinage as in periods when the king left the mints to do what work came their way. And they tell us of coin issues, not of coin circulation.

It is impossible to do justice to the contribution of the provincial mints or to calculate how much of the foreign bullion minted in England went straight back whence it came to provide mercantile communities abroad with the kind of monetary stability that Maria Theresa dollars provided them with later.²⁹ But we can perhaps make some attempt to estimate how much difference Edward's recoinage made by deducting from the gross figures of mint output an allowance for the reconditioning process that went on normally, as bullion was exchanged for coin and old coin was exchanged for new, in periods when a comprehensive recoinage was not the order of the day.

How much we should deduct from the

²⁸ A R Bridbury, *Medieval English Clothmaking* (1982), pp 89-90.

²⁹ If English coins circulated abroad, this stands Gresham's Law on its head, and does so because bad coin only drives out good when the bad coin buys as much as the good, so that the good can be melted down with advantage in order to provide more coins of equal purchasing power. When good coins continue to circulate they do so because they buy more than other coins do. If English coins were held in such esteem abroad it was clearly in the interests of currency speculators to bring silver to the English mints and then smuggle abroad the coins that they issued.

gross figures it is not easy to say. The mint records, which begin in 1234, include an earlier period of recoinage in their run. This recoinage began in 1247 and came to an end in 1250. If we ignore it, the mint figures seem to tell of an output between 1234 and 1270 which averages out at something like £30,000-worth of coin per year. If we may assume that Edward's recoinage went on for about a decade, this means that we ought to deduct somewhere in the region of £300,000 from the gross output of nearly £900,000 in order to get anywhere near an estimate of how much difference Edward made to the currency. When we probe farther by asking how much difference it made to the currency to be renewed, for the period of a decade, at a rate which, even when we have made reasonable allowance for coinage export, must have been at least twice the normal rate and, on occasion, may have been three times the normal rate, we ask the most difficult question of all, because no one can say how much coin circulated, as a general rule, at times when there was neither an exceptional influx of silver from abroad nor an abnormal outflow, such as there was whenever English kings succumbed to the temptation of assuming the role of paymaster to a succession of European allies.

But we need not know how much of the currency Edward recoinced in order to be able to measure the success of his efforts. We can instead trace the impact of his reforms on grain prices. And grain prices do nothing to commend to us the enthusiastic approbation that Edward I's monetary policies generally receive. For the early years of recoinage, particularly the years 1280-83, when we might have expected cereal prices to fall as a result of Edward's efforts, were in fact marked by a sharp rise in grain prices. Such a rise in prices occurred whenever harvests were deficient. Consequently if we looked neither back nor forward we might reasonably conclude that the rise that took place

in these years reflected great credit upon Edward's campaign to renew the currency because it kept within bounds what might otherwise have been a sensational surge of prices. But when we look back we find that grains have been fluctuating in cycles of high and low prices, similar in amplitude and level, since 1268 or 1269. And when we look forward we find these cycles of highs and lows continuing without diminution.

When grain prices do indeed plunge, as they do in 1287 and 1288, they fall even farther than they fell in 1267. Had it lasted, this fall would have been hailed as a triumphant vindication of Edward's currency reform, despite the fact that a response in 1287 to a strenuous programme of reform which began in 1279 was surely unaccountably belated. In the event, however, the fall proved to be a mere aberration. Cereal prices quickly returned to the loftier regions whence they had strayed. And in a longer perspective we can see that the prices of 1267, and of the scatter of years immediately before 1267 for which grain prices survive, were memorable because prices as low as these recurred thereafter only when something wholly exceptional drove prices down below their normal range for a year or so.

This fact is, in itself, a curious reflection upon Edward's reforms: for in 1267 we are within a decade of the complaints that apparently convinced Edward that he had to act in order to remedy an accumulation of defects in the currency. Numismatic historians who insist that Edward acted in good faith tell us that these defects were the culmination of many years of wear and tear of the currency, of abuse of the currency, and of adulteration of the currency as a result of the importation of foreign coins as well as of the circulation of counterfeit native coins. Are we to conclude, as a result of our knowing how low grain prices were in the 1260s, that these defects were, in fact, of very recent accumulation and revealed them-

selves in the sudden rise in grain prices that began at the very end of the decade?

Is it likely that so much deterioration had taken place so quickly? Sharp rises in grain prices had been known before, one of them at least, in 1255 and 1256, a mere five or six years after the last recoinage had ended, sharper than any recorded in extant documents until 1295. But these rises had always been followed by equally sharp falls. What made the rise from 1267 to 1271 so remarkable was that it broke with usage in this respect and established much higher prices as normal. Consequently if Edward had been disposed to listen sympathetically to those who argued for currency reform, we need not assume that he did so for the somewhat discreditable reason that he badly needed an excuse to replenish his coffers from a source which had proved to be disappointingly unproductive for many years.

In the event, however, as we can plainly see from the subsequent course of grain prices, filling his coffers was about the only tangible result that Edward achieved with his currency reform. Nor was this reform the only major monetary upheaval to produce little or no effect upon grain prices at this period. Between 1294 and 1298 Dr Prestwich estimates that Edward shipped about £350,000-worth of coins abroad.³⁰ Between 1300 and 1302 over £262,000-worth of coins were minted in order to replace the foreign pollards and crockards which had circulated so freely hitherto. And between September 1303 and the end of Edward's reign the London and Canterbury mints were inundated with foreign silver: they coined over £361,000-worth.

These were, to all appearances, huge transfers of coin. But the only noticeable feature of grain prices during the period of Edward's export of coin to pay for his

Flemish and Gascon expeditions was the soaring peak of 1295, followed by the plunging fall so characteristic of grains after dear years, and succeeded by recovery, in 1297, to levels normal for the late thirteenth century. Can it be that we perceive no evidence of deflation in these figures because, denuded of its native coin, England was being invaded at this period by floods of counterfeit and foreign coin? The crisis caused by the widespread currency of pollards and crockards undoubtedly overlapped with the period of coin export. But if pollards and crockards had reversed what might otherwise have been a deflationary trend, how are we to account for the fact that between 1297 and 1303 wheat prices fell in every year, and that other grains fell almost in unison?

Edward did not move against the pollards and crockards until Christmas 1299, and did not demonetize them until Easter 1300. These were years of good harvests, as we shall see. It is not impossible that good harvests, comparable with those of 1287 and 1288, offset the pernicious effects of these alien coins, so that prices which ought to have risen against a corrupt currency fell instead as a result of a series of bumper crops, and then fell still more because it took time before the mint could replace the demonetized coin with its own issues. But if we are not very careful we shall find ourselves invoking harvest abnormalities in order to explain every failure by a monetary factor to exert the influence we had attributed to it. The influx of foreign silver with which Edward's reign ended, provides a case in point. As it began, prices rose. As it continued, prices fell. Then, in 1306, prices started a rise which continued until 1309 and took wheat to a higher peak than any yet recorded in extant accounts, except for 1256 and 1295. The peak was then followed by a plunging fall such as we have so often seen in grain prices, and a recovery whose subsequent course was interrupted by the phenomenal experiences of 1315.

³⁰ M Prestwich, 'Edward I's Monetary Policies and their Consequences', *Econ Hist Rev*, 2nd ser, XXII (1969), p 411.

VI

How are we to interpret this sequence of prices? Can we really blame the harvest for rising prices whenever monetary policy decreed that prices should fall, or whenever monetary factors ought to have depressed them? And can we really attribute falling grain prices to bumper harvests whenever everything we know about the contemporary monetary scene leads us to expect such prices to have risen?

The evidence of crop yields that Dr Farmer has recently published discourages any such interpretation of the evidence.³¹ Dr Farmer's yields, however, do not tell a plain story. For one thing they are drawn exclusively from Winchester and Westminster material, not from the wider selection of material upon which Dr Farmer based his price and wage series. The exigencies of the material available make it somewhat harder to match harvest success with price changes than it might seem to be. For another, crop yields, in Dr Farmer's series, do not seem to move together as grain prices do. To take the most important crops, wheat and barley, there were between 1271 and 1346 many occasions when wheat crops were good, according to Dr Farmer's index, and barley crops bad. In 1278 and 1279, when wheat yielded very nearly the best crops Dr Farmer has ever found, barley returned miserable results: in 1279 worse results than in 1316, at the height of the famines. In 1293 when wheat plunged, barley soared. In 1296 the roles were reversed. After the famines correlations were, on the whole, better though there were glaring exceptions such as in 1340 when wheat rose and barley dipped.

Obviously it is not easy to interpret the fluctuations of grain prices in terms of Dr Farmer's index of 'harvest success'. According to that index wheat was clearly the more reliable of the two most important crops. Thus between 1271 and 1346, out of seventy-six years there were thirty-four bad

or at any rate disappointing wheat crops and forty-two bad or disappointing barley crops. The rest more or less lived up to expectation or exceeded it. Had good and bad crops been equally good or bad, and had they been evenly distributed throughout the period, the task of interpreting Dr Farmer's findings in terms of currency factors would have been made much easier. But good or bad crops tended to cluster together in runs. Again wheat had a more even record than barley.

Thus barley crops were generally bad or more or less inadequate before 1308 and better thereafter. Between 1271 and 1307 there were twenty-seven poor crops out of thirty-eight: between 1308 and 1346 only fifteen poor crops out of thirty-nine. So far as wheat is concerned there were runs of bad crops between 1281 and 1295; and runs of good or very good ones between 1296 and 1314, that is to say right up to the eve of the famines. In these nineteen years before the famines there were only five bad crops, whereas in the previous fifteen years there had been only two good ones. After the famines, in the years between 1325 and 1346, when farming had perhaps got over the immediate effects of those disastrous years, there were only six bad wheat crops out of twenty-two.

Not only was wheat's crop record more reliable than barley's, but wheat crops were, on the whole, better than barley crops. When barley crops were bad they were worse than bad wheat crops except when wheat was really bad, as it was in 1315, 1316, 1321 and 1339. When they were good they were seldom as good as good wheat crops, with rare exceptions such as 1323, 1325, 1333 and 1338. Wheat was obviously a better crop as well as a more valuable one than barley. It was, not unreasonably, much favoured by medieval farmers. Consequently it is likely to have responded more sensitively to the impact of currency factors upon prices than barley did.

When we turn back to the currency history

³¹ See note 14 above.

of Edward I's reign, we can now see that Edward's recoinage of 1279 coincided with a run of bad harvests. These bad harvests, however, cannot account for the astonishingly contrary response of wheat prices to Edward's monetary reforms. The bad harvests of 1281 to 1286, with the exception of the harvest of 1283, were no worse than those of the 1270s. But wheat prices rose as sharply and very nearly as far, as a result of bad harvests during the recoinage years, as they had done before. No doubt we should make some allowance, in interpreting these figures, for the fact that Dr Farmer's price material derives from a wider range of sources than his crop yields do. Nevertheless this is not how prices should have responded to what looks like a fairly normal run of poor harvests at a time when the volume of currency circulating ought to have been seriously diminished as a result of the terms upon which Edward I had authorized his recoinage. We cannot expect a recoinage to eliminate fluctuations caused by real factors; but we have every right to expect a successful recoinage to lower the levels at which prices fluctuate and perhaps to diminish the amplitude of such fluctuations. Evidently the grain prices of these years had not been damped down as they should have been if the recoinage had had the success so often claimed for it.

If these price fluctuations suggest that Edward's recoinage was not a conspicuous success, there is another factor, with no connection with monetary policy, which reinforces their testimony. And that is the harvest record of the years immediately preceding the recoinage. The wheat harvests of 1275 and 1278 were not merely successful: they exceeded by an enormous margin the yields achieved by every other successful harvest in Dr Farmer's series. This was in fact a period of good harvests; for between 1275 and 1280 only the harvest of 1276 was disappointing; and the third-best harvest of the period, that of 1279, would have held the yield record but for the unparalleled

achievements of 1275 and 1278. These harvests certainly brought prices down. But when we consider how good three of them were, what is most surprising is how little effect upon prices these harvests had.

In an economy as stretched as England's was, in the later decades of the thirteenth century, exceptionally abundant harvests ought to have produced a very much sharper response than the harvests of those years actually did, if only because there were, comparatively speaking, so few buyers with enough cash to be able to clear such copious stocks of wheat without a bigger adjustment of prices than we find. Wheat prices fell farther in 1287, 1296 and 1303, when harvests, though good, were nothing like as good as the best ones had been between 1275 and 1280. When prices fail to adjust to changes in supply as they should we are bound to suspect that those who can afford to do so are storing rather than selling their surpluses. If that is what these wheat prices mean, then presumably the stocks accumulated during the good years were released subsequently when harvests failed and better prices prevailed. What then are we to think of the high wheat prices that we find on the morrow of Edward's 1279 currency reform? Are we not entitled to conclude that Edward achieved very little with his recoinage because wheat prices rose far more in those years of reform than they should have done when we recollect that the bad harvests of those years were likely to have been offset to some extent by sales of stocks of grain held in reserve as a result of the exceptionally abundant harvests of the years immediately preceding them?

These disparities between what we expect and what we find are not confined to the years following upon the inauguration of a period of currency reform in 1279. As we have seen, they occur later. Currency history with its theme of comprehensive cleansing and renewal is evidently irreconcilable with the results of price history. Nor do these results offer any comfort to those who

attempt to show that mint issues and coin movements between England and the Continent regularly and as a matter of course exercised either an important independent influence or a powerful contributory influence upon thirteenth-century price levels. Whether we search early or late in the thirteenth century, we can correlate grain-price fluctuations with monetary changes only by straining the credulity of those we are trying to persuade and by conveniently ignoring similar fluctuations which occurred at other times and in quite different monetary conditions.

If, however, the king's issue of coins and the king's transfer abroad of subventions of coin in pursuit of his foreign ambitions had no readily perceptible effect upon grain prices, then we must surely conclude that however impressive the king's monetary activities may look they were, nevertheless, upon too small a scale to impress themselves upon the money supply. And if the volume of money in circulation were so great that it was beyond the king's powers of control, then we must expect to find that there was a great deal more foreign money or unauthorized English money in the form of counterfeit or token money circulating than we had thought possible; and we must also expect to find that the stock of money accumulated in the economic system as a result of previous mint issues was very much larger than we have been given to understand that it could have been.³²

We know that foreign coins circulated freely in England, and we know that these coins were popular because the king was forever exercised by the need to eradicate them from the system. We also know that token and counterfeit coins circulated; and we know what the king did to counterfeiters when he caught them. But we cannot take his

word for it that these intrusions into his money supply were as pernicious as he said they were, because we know what vital interests of prestige and profit impelled him to take measures to rid his mint of the competition of rivals. Ordinary currency users did not share the king's repugnance because they did not share his interests and evidently trusted a whole range of unauthorized coins well enough to be content to pass such coins from hand to hand whenever they could do so with impunity. How they did so we do not know. Obviously people got used to handling many different sorts and conditions of coin. We come across so little comment upon the quality or provenance of the coin in which debts were paid or obligations discharged that we are surely justified in assuming that, for most purposes, coins circulated at face value unless they were outstandingly fine or obviously inadequate. Presumably in making payments, particularly tax payments, you paid with the worst coins that would pass muster; and in saving you picked out the best you could find. Cautious creditors did sometimes specify the quality of the coin in which they required payment to be made; and the Exchequer had its own ways of compensating itself for the deficiencies of the poor coin it was offered. Coins certainly deteriorated in use; but if there were many more of them in circulation than we had suspected they presumably deteriorated more slowly than we have been told they did.³³ Moreover the worst ones were probably demoted, so that effectively they were turned into the small change for which there was always such insistent demand and which the mint was always reluctant to supply because small change was so expensive to produce.

But if the spectacular intervention of the king in monetary affairs, whether as the guardian of the purity of the coinage or as the

³² Tallies were universally employed for the registration of debt. They were therefore available as a form of currency, and doubtless passed from hand to hand suitably discounted. Debts, however, were usually repaid; so that tallies which swelled the money supply during their span of life then diminished it on being retired at redemption.

³³ C C Patterson, 'Silver Stocks and Losses in Ancient and Medieval Times', *Econ Hist Rev*, 2nd ser. XXV (1972).

paymaster of Europe, shipping abroad thousands upon thousands of the coins whose integrity he had so scrupulously preserved, cannot explain the lesser fluctuations of thirteenth-century grain prices, how can we hope to explain in political terms the far more profound changes that took place in the late twelfth and again in the late thirteenth century as a result of which prices jumped to new levels which they then maintained for decades together?

We are surely entitled, in such circumstances, to look for an explanation of this recurrent phenomenon in terms of changes affecting the entire region which depended upon the import of silver for the maintenance of its stocks. For none of the countries of western Europe possessed indigenous resources of silver. Consequently each of them depended upon a favourable balance of trade in order to attract silver to itself. But a favourable balance of trade is not something that all countries can enjoy at the same time; and measures taken by any one of them with the object of putting the rest at a disadvantage could always be met by retaliatory measures taken by those which were losing silver with the object of reversing the flow. In normal circumstances, therefore, the countries of western Europe found themselves by turns gaining currency and then losing it. These were, however, strictly temporary gains and losses; and the English evidence strongly suggests that even when international flows of silver were as big as political authorities could make them, they were never big enough to make serious inroads upon domestic currency supply. It is of course true to say that western Europe as a whole somehow maintained a favourable trade balance with the mining communities that supplied it with its silver. But to say that does not help to explain why the terms upon which silver was supplied suddenly changed for England in the twelfth and thirteenth centuries, and changed so decisively that we may confidently assume that they changed for all the other countries of western Europe

which lay within the same silver-deficient region.

These, however, are not problems which can be pursued here. So far as English estate management was concerned, sudden changes in the level about which grain prices fluctuated made for trouble rather than for easy profits. Generally speaking, as we have seen, the market for grains, particularly for wheat, was extraordinarily volatile in the thirteenth century without ever compensating the farmer with a rising trend. In this far from auspicious environment it was much harder for estate management to increase the profits of farming by investing in the land than by reducing the remuneration of labour, and where possible increasing the usage of labour or employing more suitable or more skilled labour than hitherto; for the labour market was the only important market that may have improved in the course of the thirteenth century from the point of view of the demesne farmer. Population pressure which, to judge by grain prices, was no longer capable of raising the effective demand for arable products, may not yet have reached the point at which it was no longer capable of lowering the real wages of labour. At any rate that is what the evidence of peasant hardship seems to tell us.

In such circumstances, with high profits being constantly offset by low ones, the inflation of prices that occurred twice in this period, by reducing the real burden of the fixed charges paid by tenants, threatened to turn real profits into paper profits. Demesne farmers could only restore real incomes by revising every charge and obligation within reach, with the result that money incomes rose on many big estates by the end of the thirteenth century. Painter's sample of 272 baronial estates whose manorial revenues rose prodigiously between Domesday and 1250 and significantly but not spectacularly thereafter, whatever its shortcomings, does seem to reflect the greater severity of the earlier inflation as we see it in the grain prices and the comparative mildness of the later

one.³⁴ It also, perhaps, reflects the sense of urgency with which demesne farmers responded to inflation; for these higher incomes are not the evidence of farming prosperity, or the vindication of improved management techniques, that they are often

³⁴ S Painter, *Studies in the History of the English Feudal Barony*, Johns Hopkins, 1943, p 160.

taken to be. Essentially they reflected the efforts made by demesne farmers to compensate themselves for the losses they had incurred when inflation miraculously and fleetingly improved the terms upon which whole sections of the peasantry could hold their land.

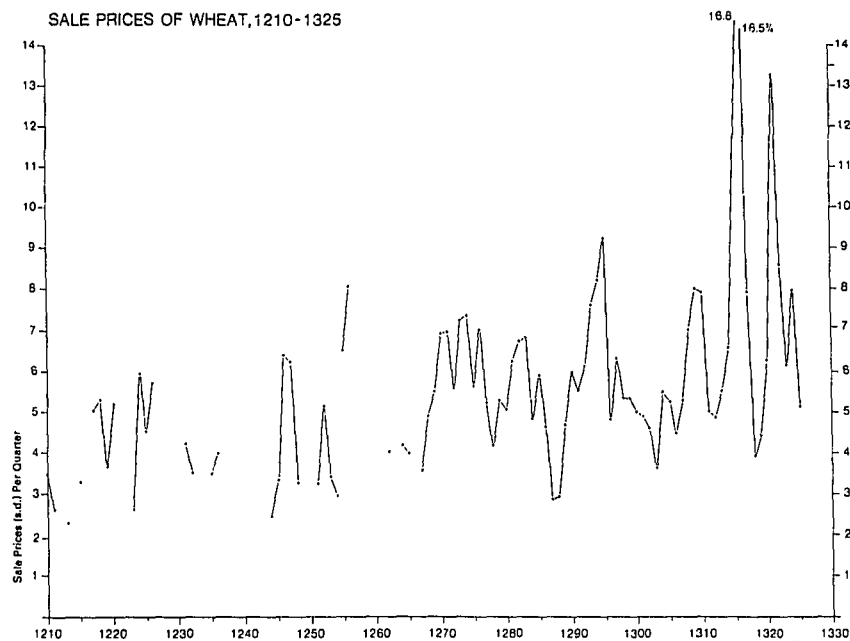


FIGURE 1

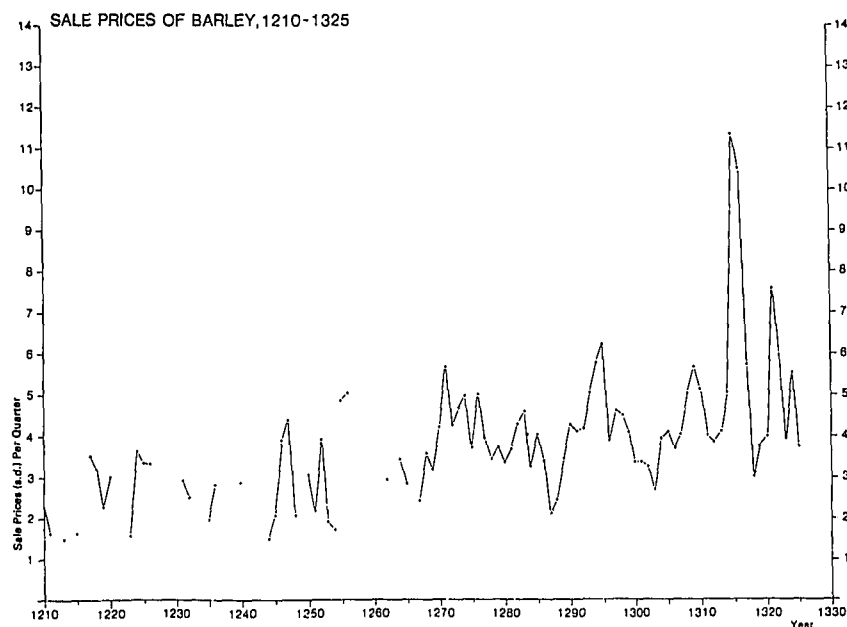


FIGURE 2

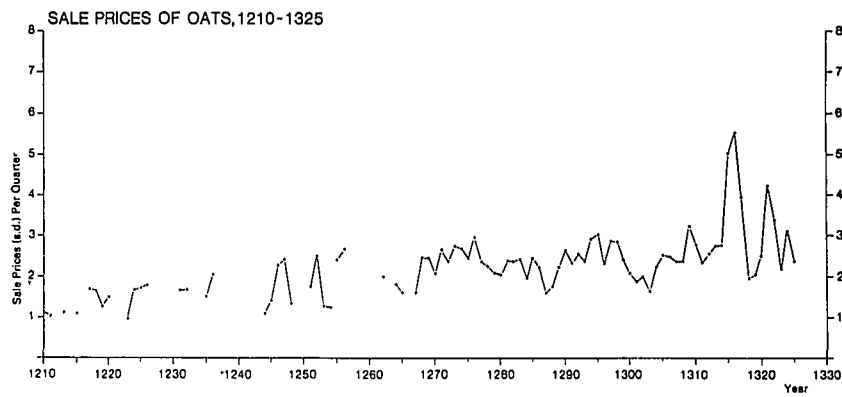


FIGURE 3

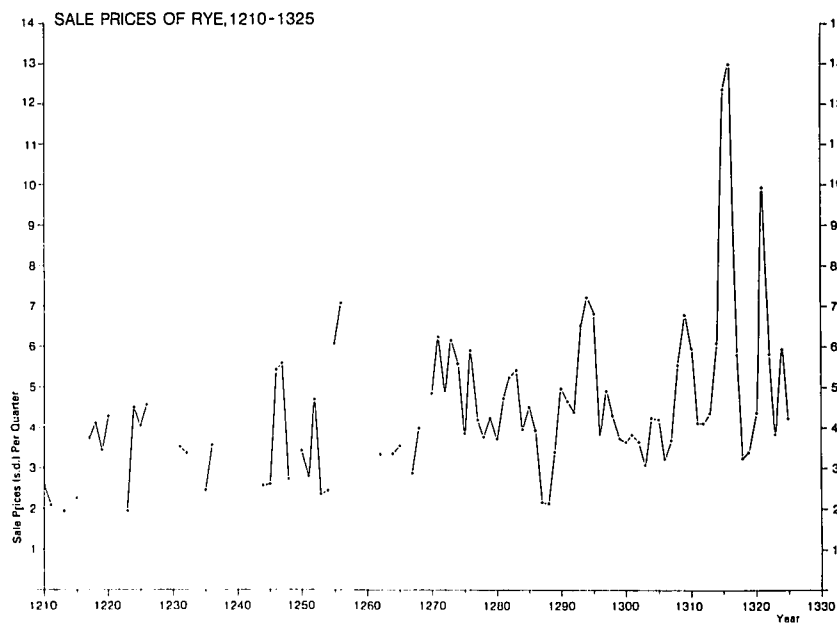


FIGURE 4