The genesis of the capitalist farmer: towards a Marxist accounting history of the origins of the English agricultural revolution

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Abstract

The paper argues that accounting and other evidence supports Marx’s theory that capitalist farmers drove an English ‘agricultural revolution’ that began in the sixteenth century but took hold from the late seventeenth century. Historians often say England had an agricultural revolution, but disagree over what it was, when it occurred, what caused it, and its consequences. Modern historians usually define it tautologically as ‘revolutionary’ increases in output and productivity. Early historians argued that a new ‘commercial’ or ‘capitalist’ mentality drove the revolution, and some modern historians stress the need for farmers to become ‘businessmen’, but no-one precisely defines this mentality. The paper defines the capitalist mentality rigorously using Marx and accounting and outlines a testable history of the genesis of capitalist farmers, who should appear wherever farmers using wage labour participated in socialised capital. It argues that the historical evidence supports the prediction from Marx’s theory that the geographical distribution of ship ownership in England should correlate with agricultural improvement. The paper argues that the published evidence on farmers’ accounts from the seventeenth to the nineteenth centuries directly supports Marx’s theory. It concludes that accounting historians can make a critical contribution to a major debate by testing the theory against the large archive of farmers’ accounts that survives.

Keywords: Accounting history; English agricultural revolution; Ship companies; Capitalist farmers; Marxism.

1. Introduction

To fulfil the promise of accounting history we must engage with important theoretical and historical debates, particularly those about the genealogy of modern business. A neglected debate, preoccupying generations of economic historians, concerns the existence, origins and consequences of an ‘agricultural revolution’ that from 1750 allowed England’s population to grow beyond its previous historical limit of around five to six million people (Overton, 1996b, Figure 3.1, p.65). As the data does not exist to measure agricultural output reliably before the mid-nineteenth century (Turner, Beckett and Afton, 2001, p.5), economic historians only agree about the basic outlines of the revolution. In 1500 around 80% of the British population worked in agriculture. By 1800, although the absolute number increased, only just over one in three were agricultural workers, and by 1850 it was only one in four (Overton, 1996b, Table 3.3, p.82). Between 1770 and 1850 Britain’s population doubled, but it maintained and may have increased overall living standards without large imports of food (Turner, Beckett and Afton, 2001, p.17). From 1700 to 1850 output per worker in agriculture doubled (Overton, 1996b, Table 3.11, p.86). By 1800, while many small

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farmers survived, England had a unique rural structure of landlords leasing farms to tenants who employed landless wage labourers. Except for some areas of the Low Countries, it had the most productive agriculture in the world (Allen, 1992, p.1), and a level of labour productivity that many believe enabled, or de facto was, its ‘industrial’ revolution. However, “Precisely when and how this dramatic transformation was brought about is a matter of considerable debate” (Campbell and Overton, 1991, p.5). Agricultural historians have proposed at least five agricultural revolutions between 1560 and 1880; each one “characterized by a different combination of ‘significant’ agricultural developments” (Overton, 1996a, p.1). There is no consensus about the timing and causes of “this elusive event, although no one denies that it took place” (Turner, Beckett and Afton, 2001, Preface). The paper argues that accounting historians can make a critical contribution to this debate by elaborating Marx’s theory of the agricultural revolution and testing it using early farmers’ accounts.

Marx’s theory was that the roots of England’s agricultural revolution lay in a new attitude towards economic activity, a particular way of calculating economic success or failure - the capitalist mentality - that emerged among its farmers. Although he saw beginnings of change in the late fifteenth century, Marx thought the revolution took hold with the spread of capitalist farmers from around 1670, and that capitalist landlords carried it to its conclusion from around 1750, and historians often accept a broadly similar chronology.¹ Many believe the period “c.1700 - c.1850…was a time of momentous change, in which the output of English agriculture increased by a factor of around 3.5” (Wade Martins and Williamson, 1999, p.2). Also like Marx, almost all think a particularly important factor was England’s much faster increase in labour productivity compared to continental Europe. However, whereas Marx begins and ends his history with capitalism, its social relationships and its mentality, historians usually write about the “businessman” or “businesslike attitudes” where they see the need for a new mentality to explain agricultural change, which today is rare. Earlier historians who often did see a role for changing mentalities (e.g., Ernle, 1961), never clearly defined this new attitude (McCloskey, 1972). Modern historians who adopt this approach add little when they say it is a “money-making” or “commercial” attitude, a “responsiveness” to the market (e.g., Overton, 1996b).

The paper argues that to explain the agricultural revolution we must reconstruct the calculative mentalities of farmers, by analysing how they kept and used their accounts. It uses accounting ideas to define the capitalist mentality, and to explain Marx’s theory of the agricultural revolution. It concludes that his theory is testable and supported by published accounting evidence from the sixteenth to the late nineteenth centuries. A large archive of farmers’ and landlords’ accounts and related correspondence, etc., survives, particularly from the eighteenth century onwards (Turner, Beckett and Afton, 1996, 2001). As Collins said, not least of the many “Subjects which can be usefully investigated through farm accounts…[a] word might also be said about changes in accounting methods which may be significant as they often reflect a new capitalistic spirit” (1966, p.145). Unfortunately, he said nothing more on this subject, and neither has anyone else. To test Marx’s theory, accounting historians must examine thousands of farm records, and making the case for doing this is the main aim of the paper.²

¹ Always remembering that “epochs in the history of society are no more separated from each other by hard and fast lines of demarcation, than are geological epochs” (Marx, 1996, p.374).
² Turner, Beckett and Afton (1996, 2001, pp.231-244) identify 2,743 farm records in 281 collections surviving from 1700 to 1914, many of which include accounts, but their list is not exhaustive.
Part two outlines Marx’s theory of the agricultural revolution, drawing from its predictions of the kinds of accounts we should find farmers writing if his theory is correct. Part three examines Overton’s restatement of the early view that it was a ‘businessman’s revolution’ driven by market forces that occurred between 1750 and 1850 (1996a, 1996b), and argues that his explanation is tautological and untestable. Part four uses Marx’s theory to outline a history of the genesis of capitalist farmers. Historians often say that urbanisation and the development of markets were crucial for the agricultural revolution. Marx agrees, but not because these trends encouraged farmers to become more productive: they are important to him because the capitalist mentality originated in trade as well as agriculture. Marx’s theory suggests that we should see capitalist farmers appearing wherever they participated in socialised capital and used wage labour. The ports were England’s major urban centres, and ship ownership was the major arena for socialised capital from the late sixteenth century. Merchants predominated, but farmers also bought shares. Successful merchants often invested in land, some becoming country gentry. Marx’s theory implies that the geographical distribution of ship owning correlates with agricultural improvement. Part four argues that it does. Early improvement occurs around London, the ports of East Anglia, Bristol, Exeter, and Newcastle, and later Liverpool and the ports of the north west coast. Given the need for Marx’s “farming capitalist[s]” (1969, p.110), in part five we begin to search for them by examining accounts. Do early capitalist farmers exist? Could they constitute a rising class? Part five shows that Tawney’s (1941) ‘rise of the gentry’ thesis comes close to Marx’s theory, but it does not clearly identify capitalists. Parts five and six support Marx’s theory with the limited evidence we have of farmers’ accounts from the seventeenth to the late nineteenth century. Part six takes stock of the large archive of farmers’ accounts, and criticised the view of economic historians that they were often “inconsistent, haphazard, and generally very basic” (Turner, Beckett and Afton, 2001, p.46). The paper calls on accounting historians to examine this archive, and concludes that they can make a vital contribution to understanding the roots of modern capitalism by further testing Marx’s theory.

2. Marx’s agricultural revolution

In Marx’s theory, England’s agricultural revolution was the vanguard in its transition from feudalism to capitalism (Bryer, 2000a). He argued that industrial society emerged from long processes of class conflict resulting in the replacement of the feudal mode of production by the capitalist mode of production. A society’s mode of production encompasses its ‘forces of production’ - the available material and human means of production - and its ‘social relations of production’. Social relations of production are a society’s modal relations of economic superiority and subordination that condition the way owners of the means of production extract surplus value from labour. This makes accounting central to understanding and testing Marx’s theory of the transition to capitalism because rationalising each set of social relations - each way of extracting surplus - is a particular calculative mentality and a mode of

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3 Beckett says of Overton (1996b) that while his book “may not end debate about the agricultural revolution, ...it will at least give future participants a new base from which to begin” (1997, p.104).
4 The paper uses the terms ‘socialised’ and ‘social capital’ to describe a continuum from recognisably social to what Marx called “total social capital” (e.g., 1988, p.23). Socialised capital involves pooling across a limited number of investors for limited purposes. Capital becomes fully social when it loses the identity of its owner by pooling across all investors for all purposes.
accountability (Bryer, 2000a, 2000b). The feudal mentality pursued the direct appropriation of surplus labour (labour itself, commodities or cash) from self-sufficient peasants: feudal landlords and merchants kept income and expenditure accounts. The capitalist mentality pursues the rate of return on capital employed in production by extracting surplus value from the sale of commodities or services produced by wage labour: the capitalist keeps balance sheets and profit and loss accounts. The paper uses this correspondence to explain and test Marx’s theory of the agricultural revolution.5

Marx’s history of the “formation of modern capital” begins with capitalist farmers, landlords and trade (1973, pp.252-253). He says the capitalist epoch began in the mid-sixteenth century, when some farmers undertook enclosures and employed wage labour. These farmers were only “formally” or semi-capitalists because, although they exploited wage labour, they made no attempt to change the methods of production. They continued to pursue feudal surplus - the excess of income over expenditure. Semi-capitalists of a different kind appeared in trade with the first joint stock companies. These enterprises were the first to pursue a rate of return on capital, but they were only semi-capitalist because they pursued the feudal rate of return, feudal surplus (the consumable surplus of commodities or cash) divided by the initial capital advanced. The capitalist mentality is the product of the semi-capitalist relations and mentalities that emerged in agriculture and trade.

The fusion of mentalities starts around 1550 when farmers invest in privateering ventures, for exploration, commodity production and international trade. The capitalist mentality spread as peasants became “free” wage labourers and faced a “free” capital (Marx, 1973, pp.502-503). Peasants were ‘freed’ from their land by enclosures that reach a new intensity from 1760, completing by parliamentary means the trend that began in the sixteenth century. The ‘bourgeois revolution’ in the mid-seventeenth century freed overseas merchant capital from control by a few big feudal magnates into the hands of socialised capital. Capital from the land flowed into trade, and capital from trade flowed back onto the land bringing with it a fixation on the rate of return on capital. The capitalist mentality of pursuing the rate of return on capital employed came from harnessing the merchant’s rate of return mentality to the farmer’s mentality of exploiting labour in production. It was revolutionary because it drove farmers to constantly pursue the ‘real subsumption’ of labour - to constantly seek to increase labour productivity to earn an excess return on capital. To make the case for putting capitalist farmers at the centre of the agricultural revolution, part three critically reviews Overton’s (1996a, 1996b) explanation that relies on the market-driven ‘businessman’.

3. Early modern farmers - businessmen or capitalists?

Clearly, “whether or not an ‘agricultural revolution’ took place during a particular period is both a conceptual and an empirical issue” (Overton, 1996b, p.7). Most historians define the revolution empirically as technical change, feeding a large population increase, and increases in land and labour productivity. During the seventeenth century farmers changed many things - they used better seeds, more manure; invested in marling and draining; began the use of seed drills, etc. They reclaimed and enclosed land; changed the ratio between arable and pasture; reduced

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5 Other papers use it to explore and provide accounting support for other aspects of Marx’s theory of the transition. Bryer (2000b), (2004a), and (2004b) examine and provide support for Marx’s theories of the ‘bourgeois revolution’, ‘landlord’s revolution’, and ‘industrial revolution’, respectively.
fallows; cultivated fodder crops. They changed the mix of food crops; adopted regional specialisation; managed the nitrogen and moisture content of their land; and managed labour more productively and intensively. All of these changes and others could affect output and productivity and none of these possibilities were new. Historians have argued about the revolutionary significance of every one.

We can, therefore, agree with Overt on that to explain the agricultural revolution we must “link...changes in the methods and techniques for producing food,...what Marx called the ‘forces of production’[,]...to changes in what he called the ‘relations of production’” (1996b, p.8). Like Marx, Overt argues that the revolution in the social relations of production was “underway by the mid-seventeenth century” (1996b, p.8). However, unlike Marx, he says the changes before 1750 were not revolutionary because he defines this by the size of the increases in output and productivity (Overt, 1996a, p.16). This is the quantitative part of his case for saying the revolution occurs after 1750, because only then do output and productivity break with medieval norms (Overt, 1996b, pp.131-132). He sees the changes from the 1650s to the 1750s as preconditions for the revolution to come. In his theory, with technical change occurring on several fronts, eventually, under the stimulus of the market from around 1750, these changes came together into a new, generally accepted farming system based on the principles of the Norfolk four-course rotation. Overt says that this system had revolutionary consequences only when it became widespread after 1800 when demand and competition had spread the market mentality. Overt claims, therefore, that, unlike his predecessors, he has defined the revolution both quantitatively and qualitatively - as the revolutionary output and productivity produced by the spread of the market mentality.

Overt’s dating of the revolution overlooks the possibility that, although applying known technology and initially achieving only modest increases in output and productivity, from the 1650s farmers introduced changes for different reasons from those of earlier periods. What changes were revolutionary depended on the mentality that introduced them. For example, Overt says that much of the convertible husbandry (deliberately alternating pasture and arable) introduced in the sixteenth and early seventeenth century, “could be interpreted as a means of cashing in on reserves of nitrogen under permanent pasture for short term gain” (1996b, p.117). In the later seventeenth century, some farmers retreated from convertible husbandry to permanent pasture (Broad, 1980). The earlier use of convertible husbandry for short-term “cashing in” suggests the feudal mentality at work. However, the capitalist mentality could explain the retention and later extension of the system elsewhere if it began a process of continuous improvement. Given the many physical and social constraints, we cannot expect even a revolutionary change in mentality to lead to a rapid, wholesale technological upheaval.

Overt recognises the need for a mentality to introduce change, but his business mentality is not new and, unlike Marx’s capitalist mentality, it does not have continuous improvement inscribed within it. Organising Marx’s forces of production are the social relations of production. Overt misses their crucial feature, their way of extracting surplus from labour. He says that “Farming had to become a business, a money-making enterprise, before farmers would take advantage of market opportunities and produce more” (Overt, 1996b, p.206). This is what Overt understands by “business” - the farmer sets out to make “money”, that is, a surplus of cash. Evidently, Overt’s definition of “profit” is the feudal idea of money surplus found in manorial accounts from the twelfth century (Bryer, 1994). He does not
explain why, when according to his definition many landlords and farmers had been ‘businessmen’ subject to commercial pressure in earlier centuries, it had not stimulated them into continuing increases in output and productivity. He overlooks the point stressed by Weber and Marx, that capitalists do not simply systematically pursue money. Capitalists focus on pursuing money through the systematic organisation of labour in production (Bryer, 2000a; 2004c). Overton’s failure to explain the connection between his definition of “farming as a business” and increases in output and productivity, makes his theory of the agricultural revolution a tautology, an untestable theory of technological evolution and economic determinism, as we shall see.

Overton says the farmers’ business mentality came from the marketing revolution caused by rapid urbanisation from around 1650: “farmers required the stimulus of increased demand mediated by the market to increase production and profit” (1996b, p.147). For his demand-pull explanation to hold, markets and marketing developments must come before increased production. However, Overton admits that “it is often impossible to point the causal arrow in a particular direction” (1996b, p.147). In other words, rather than his sequence: change in markets → commercialised mentality → increased output and productivity, it could run: change in mentality → increased output and productivity → changes in markets. The latter sequence implies navigation improved, turnpikes opened, middle-men appeared as agents for bulk advance purchases, because production had already increased beyond its previous limits, if only in certain areas, allowing the population to sustain itself at historically high levels, urbanisation to intensify, and markets to develop. From 1680 the population began to grow from just over five million, still very high by historical standards, but when population grew strongly from the 1690s prices did not rise and tended to fall up to the 1760s by when population had been growing at unprecedented rates for three decades. This indicates that supply was running ahead of demand (Overton, 1996a, p.6); that farmers were now consistently producing marketable surpluses. This would explain the “importance attached to the export trade as a palliative for the ‘great redundancy of corn, cattle, butter, cheese and other commodities’…”, that appeared from 1660 (John, 1976, p.47), and its rapid growth, particularly from 1710 to 1760 (John, 1976, pp.49-50; Jones, 1974a, p.5).

The foundations of a national transport and market infrastructure existed by 1750 (Chartres, 1984, p.501). Except in times of dearth - which had virtually ended by 1650 - farmers could bear transportation and marketing costs only if they grew their surpluses at below average cost. Even from the viewpoint of burgeoning urban populations demanding more agricultural commodities, the improved means of transport and the necessary marketing arrangements would only appear if the surpluses were large enough, the costs were low enough, and the supply was sustainable. In some areas farmers resisted transport improvements, but others actively promoted them (Jones, 1974b). For example, Sir Richard Weston “worked with his neighbours to make the river Wey navigable and thus secure improved access to the London market” (Heal and Holmes, 1994, p.109). The result of such efforts was significant improvements in river navigation that was the cheapest means of transporting grain. The capacity of land carriage doubled, and the tonnage of the English coastal trade increased by some two-thirds between 1650 and the early eighteenth century (Chartres, 1985, p.466). No-one would make transport improvements unless sustainable, low cost surpluses already existed. For example, promoters advocated a canal navigation
to Gloucester in the eighteenth century because of “the county’s now considerable surplus” (Jones, 1974b, p.44).

From 1640 to 1750 market towns and fairs with official tolls and middlemen declined under the pressures of transport improvements and competition from private marketing. During the 1660s, the authorities began abolishing feudal regulations and slackening enforcement. Private marketing was commonplace in the 1640s, as it had been in previous population increases. What was new was large-scale wholesaling. First, it was not in the interests of farmers to sell large surpluses in small lots to individual customers in the local market and depress the price against themselves. Second, farmers who supplied in bulk and sold from the farm gate or appeared with small sample bags for middlemen agents to inspect, did so because their surpluses were too large to do otherwise. While not unheard of in earlier times, these practices grew rapidly from the 1660s (Chartres, 1985, p.471). Middlemen thrived on “large-scale trading” of surpluses, like the one in the story of the man from York told in Henry Best’s accounts of 1642, “who bought 3,000 quarters of barley in Norfolk at 13s. a quarter and shipped it to York, when…barley was being sold for 20s. a quarter” (Overton, 1996b, p.140). By 1700, Norfolk was a regular supplier of large quantities of grain to London through middlemen. Perhaps because they were marching in step with increasing surpluses, “factors proliferate between 1660 and 1760” and dominate the cereal, livestock and mineral trades (Chartres, 1985, p.469). Most corn factors were small, but “dealings in greater quantities were common…in the major provincial ports” (Chartres, 1985, p.473), perhaps because, as we argue in part four, capitalist farmers around them produced the larger surpluses that were available there.

We could test the hypothesis that increased production led to developments in marketing with evidence of the appearance of the capitalist mentality from farmers’ accounts. Evidence from accounts of farmers having a semi-capitalist or capitalist mentality, before or as marketing developments occur, would support the hypothesis that changes in mentality led to increases in production. For example, evidence from sixteenth century graziers’ accounts undermines Overton’s view that marketing developments stimulated a new market mentality. These graziers, often ranching large tracts of depopulated land converted to permanent pastures, were among those “farmers in the sixteenth century whose scales of enterprise were too great to be handled by the conventions of the local market place” (Overton, 1996b, p.138). To off-load their surpluses these graziers made contact with the market of the metropolis, and this, Overton says, made them “enterprising” and “commercialized” (Campbell and Overton, 1993, p.102). However, their accounts show they were not modern businessmen, as they remain as feudal as those of the thirteenth century (Bryer, 2000b). Overton explains the appearance and spread of the “money-making” mentality by the revolution in markets from 1640 to 1750. He says it was the “integration of local markets and a new willingness of farmers to exploit commercial opportunities [that] provided the impetus for innovation and enterprise which led to the agricultural revolution” (Overton, 1996, p.207). But, apart from saying the farmer became a “businessman” in pursuit of “money”, he does not tell us what “commercial pressures” are, and what “stimulus” they gave to a “new willingness” to introduce agricultural change. As the only evidence Overton gives of these pressures is the increases in output and productivity he says they induce, his argument is circular and untestable.
Aggregate output and productivity continued to increase from 1750 as more farmers applied the principles underlying the Norfolk four-course system. Overton says nothing about the spread of the market mentality. He says it is “universal” by 1850, suggesting, perhaps, it was widespread in 1750, but prices increased to the 1820s, indicating demand was running ahead of supply (Overton, 1996a, p.6; 1996b, p.8, Table 3.1, p.64). If the market mentality was widespread, rapidly increasing prices suggest it was not responsible for increasing output and productivity. Only the capitalist mentality engenders continuously increased output and productivity and, therefore, rising prices suggests it was not widespread and probably not general until the late nineteenth century when prices fell. Part six shows that the accounting evidence supports this suggestion. Given the need for an active mentality to explain agricultural change, the following part of the paper uses Marx’s theory to begin writing a plausible and testable history of the agricultural revolution that focuses on explaining the genesis of the capitalist farmer.

4. The genesis of the capitalist farmer

For capitalism to appear in an isolated pocket for a limited period is one thing; the issue is whether it takes root and spreads. As we have seen, Marx thought capitalism became the dominant force in English agriculture only from around 1670. Tawney also thought “Most of the attitudes and measures, in fact, which were to triumph at the Restoration [in 1660] can be seen taking shape between the death of Elizabeth [in 1600] and the opening of the Civil War [in 1640]” (1941, p.35). For capitalism to spread, socialised capital must flourish, and wage labour must already be the norm. We can, therefore, indirectly test Marx’s theory of the agricultural revolution by identifying sites where socialised capital and semi-capitalist farmers first met where, according to his theory that capitalists really subsume production, we should find evidence of sustained innovation. Socialised capital first flourished in the sixteenth century explosion of exploration, privateering and trading. However, the first sustained growth of socialised capital in England came with the growth in demand for ships during the seventeenth century. Historians regularly argue that increased urban demand prompted agricultural innovation (e.g., Campbell and Overton, 1993, p.104). Populations grew fastest in and around in England’s major ports that demanded more labour to build ships and handle the increased trade (Davis, 1962, p.390). This part of the paper argues that the critical contribution of these ports was as sites where the capitalist mentality could appear and spread as semi-capitalist farmers became immersed in the socialised capital of ship companies, and the merchants who dominated them became farmers employing wage labour.

4.1. Ship companies

Groups of merchants and others with money to invest had from ancient times taken shares in ‘ships companies’, usually in several ships. Most owners were merchants, and among those “engaged in foreign trade, in particular, there was a criss-cross pattern of shareholding in a great number of ships” (Davis, 1962, p.83). Ship companies, effectively large partnerships, often of ten or twelve but sometimes more than twenty, were “an important exception to general commercial practice in England” (Davis, 1962, p.82). General practice was to operate as a sole-trader or a joint-stock company. Partnerships were rare because of unlimited liability. However, as ship
companies were not liable for unpaid wages if a ship became wrecked, the only large
liabilities that would otherwise arise, the partners had effective limited liability (Davis,
1962, p.102). The companies appointed one shareholder the “ship’s husband”, the
managing partner of the vessel, who had to produce periodic accounts.

Davis’ (1962) research shows that merchants dominated surviving lists of late
seventeenth century shareholders, followed by others concerned with shipping
(shopkeepers, mariners, etc.). His sample included only 24 “Gentlemen, esquires,
baronet[s]” and one “yeomen”, constituting 7.4% of the shareholders (Davis, 1962,
p.100). However, most surviving lists are from London where almost all shareholders
were merchants. Davis predicts higher proportions of non-merchants in the provinces
because there “the active owners had to look to a much wider range of persons to raise
the necessary capital” (1962, p.100). Many ports developed from small beginnings
and necessarily, therefore, as “mercantile capital was scarce, landowners were drawn
into the financing of shipping and commerce” (Mingay, 1976, p.104). Apart from
effective limited liability, ship companies’ shares would be attractive to ordinary
farmers and gentry because of “the liquidity given by the legal simplicity of transfer
and the existence of an extensive market for shares in ships in major ports” (Davis,
1962, p.104). These features “made parts of ships attractive as investments to people
both inside and outside the world of commerce” (Davis, 1962, p.104). For example,
Peter du Cane, “who described himself as a merchant but derived most of his income
from land- and fund-holding”, was a typical eighteenth-century “passive investor in
shipping” (Davis, 1962, p.106). Marx’s theory predicts that where semi-capitalist
farmers invested in ship owning, or merchants immersed in socialised capital invested
in land, they soon developed the capitalist mentality.

Whereas in 1600 England had little trade and ship owning, by 1650 it had a
substantial fleet, and by the 1750s England ‘ruled the waves’, commercially and
militarily. There was a spurt of ship building from towards the end of the sixteenth
century to the early decades of the seventeenth. The causes were the growth of
privateering, the Mediterranean and southern trades, the fisheries, and the coal, corn
and timber trades between the north east of England and London. London built and
owned most of the ships in privateering and the Mediterranean and southern trades.
The ports of East Anglia built and owned most of the ships for the fisheries, and the
coal, corn and timber trades. We find the earliest improvers in the hinterlands (areas
of regular commerce) around the major ship owning ports in the Southeast, Southwest
and Northeast of England - London, Bristol, Exeter, Hull, Ipswich, King’s Lynn,
Yarmouth, Newcastle and others. From Marx’s viewpoint these ports should be
important sources of the capitalist mentality. The men “whose wealth was based on
trade, international or internal, who were purchasing lands in the countryside” (Clark
and Slack, 1976, p.55), often ran these towns. Centres of trade had the highest
turnover of landed families, “and their replacement by newcomers from among the
merchants, yeomen, businessmen and the professions” (Mingay, 1976, p.10). In and
around these ports, therefore, where landowners and farmers helped to finance
shipping and commerce, or where merchants and businessmen became farmers, we
have one of Marx’s preconditions for the improving capitalist mentality. The other
was the plentiful wage labour that these areas also enjoyed. What follows reviews
some of the evidence for links between ship-owning farmers, wage labour and
improvement in East Anglia, the Southwest and Liverpool.

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6 The others include “Norwich and York [that] were not themselves ports, [but from which] their
merchants nevertheless engaged in trade through Yarmouth and Hull” (Clark and Slack, 1976, p.50).
4.2. East Anglia

East Anglia, the early improving region par excellence, had plentiful socialised merchant capital and, from the late seventeenth century, “an abundance of cheap labour” (Wade Martins and Williamson, 1999, pp.202, 208). The gentry of East Anglia “were frequently involved in commercial undertakings” (Mingay, 1976, p.104). Ipswich was the largest ship-building port, but minor ports also participated. As Davis says of the coal trade, although the same was true for corn and fish,

“Because coal shipment was in aggregate a very large business, requiring a great amount of capital, it is not surprising to find that ownership went outside the normal ring of merchants and embraced not only mariners but also shopkeepers, innholders, craftsmen - anyone with a few pounds to invest, even the gentry of the East Anglian countryside. At Ipswich, as late as 1720 “the greater part of the inhabitants of that town are either owners of Parts of Ships, or masters of Ships, chiefly employed in the Coal Trade, or in the Fishery”” (1962, p.92).

Another leading East Anglian ship-owning port was King’s Lynn in north west Norfolk. This was also an early improving area with widespread “enclosure, marling and ploughing of heaths and sheepwalks” (Wade Martins and Williamson, 1999, p.207). It provides the earliest examples of reclaiming saltmarshes to summer-feed livestock and to produce large crops of grain and turnips (Holderness, 1984, p.204). Whereas in 1600 more than 85 per cent of the farmed area around King’s Lynn and inland from the Wash was in open fields, by 1700 less than 50 per cent was open fields (Overton, 1996b, figure 4.2). A major reason was the extensive black-fen drainage by “Companies of adventurers, who invested in, and expected good returns from, black-fen drainage…from Mildenhall to north Lincolnshire between 1625 and 1670” (Holderness, 1984, p.204). Fen peasants and some local gentry bitterly resisted these drainage schemes, and most of the pre-existing open fields remained so until 1750. In the early seventeenth century, “Lynn merchants owning farms in the Norfolk fens often carried flocks of up to 200 sheep, and many had horses and cattle in addition”(Parker, 1971, p.12). Fen drainage was extensive from the Cambridgeshire fens to north Lincolnshire from the 1620s to the 1670s, producing enclosed farms employing wage labour. These farmers were amongst the first to adopt improving technology from around 1650, and St. Neots (on the river Great Ouse) gathered in the surpluses and shipped them through King’s Lynn.

King’s Lynn was a town where trade and traders always predominated, but “there was a tendency in the 17th century [for it] to act as a focus for the social as well as for the business life of the surrounding country gentry. From 1640 onwards gentry were enrolling as Freemen of the borough in increasing numbers” (Parker, 1971, p.14). In their social intercourse and business dealings there the country gentry could invest in ships owned at Lynn, venturing in the coastal trade in corn and coal, as well as into Dutch ports and distant waters. Similar opportunities existed elsewhere in Norfolk “Because the Netherlands market was so close and the grain producing hinterland of the ports of Yarmouth, Wells, Lynn, Blakeney, and Cley so productive” (Chartres, 1984, p.453). Future researchers must refer to the mentalities we find in their accounts to decide whether prominent landlords and farmers from this area - such as Walpole,
Townshend, Armiger, Yelverton, Ruding and North - used clover and other progressive crops to systematically intensify production, or merely for “seasonal or emergency rations” (Holderness, 1984, p.226). Background evidence suggests they were capitalists. The “Holkham tenantry was headed by about a dozen very progressive farmers who had enough capital to improve their large farms” (Wade Martins, 1980, p.109). Coke continued improving his estates, and his accounts and other evidence suggest he was a capitalist landlord (Bryer, 2004a). Roger North wrote The Gentlemen Accountant published in 1715, and the paper briefly discusses his views on accounting in part five that suggest he was at least a semi-capitalist. Walpole certainly had the right background for a capitalist. “In the seventeenth century the Walpoles of Houghton…married into the Turners of Lynn, attorneys, become leading merchants and mayors of that city, as well as into families of gentlemen farmers and minor gentry of the region” (Mingay, 1976, p.6). Inspection of their accounts might allow us to explain the behaviour of the “more progressive farmers [who] had recognized the inefficiency of common-field farming and the profitability of mutton production in a new sheep-corn-turnip husbandry” (Allison, 1957, p.30; Wade Martins and Williamson, 1999, p.104). For example, Rosenheim says the accounts produced for the second viscount Townshend, who married Robert Walpole’s sister, “allowed a businesslike landlord to keep track of improvement, experiment, and profit and loss” (Rosenheim, 1989, p.141).7

4.3. The Southwest

Areas with access to Bristol, Exeter and the Hampshire ports are also notably productive in the seventeenth and eighteenth centuries (Chartres, 1984, p.453). Until the late sixteenth century Bristol owned a smaller tonnage than Yarmouth. By 1629 it had overtaken Yarmouth, and by 1702 was almost twice as big (Davis, 1962, p.35). Bristol’s shipping grew with the colonial trades in tobacco and sugar from the 1650s (McGrath, 1955, p.xxi), and slaving from 1700 (Davis, 1962, p.37; Richardson, 1985, pp.1-2). Other south western ports such as Barnstable, Bideford, Exeter and Plymouth also imported American tobacco and re-exported it to Europe. The capital of Bristol merchants had some strong socialised elements, mainly temporary partnerships in which they bought and sold shares (McGrath, 1955, p.xiv; Richardson, 1985, p.12). The majority of investors came from the seafaring population of Bristol or surrounding counties (Richardson, 1985, p.14). In addition to merchants, “there was a host of lesser men who dabbled in foreign trade and made small ventures from time to time, sometimes on borrowed capital,…who played their part in the growth of Bristol’s overseas trade” (McGrath, 1955, p.x), including slaving voyages (Richardson, 1985, pp.11-12). Bristol merchants attracted apprentices from substantial families (able to afford the fees and bond) from a wide area, and “Sons of gentlemen” as well as sons of merchants “figure prominently” (McGrath, 1955, p.xi). Another important group was ship masters or former masters several of whom “probably came from landed backgrounds” (Richardson, 1985, pp.19-20). Whatever their background - and merchants certainly provided most of the capital - from 1750 “most were investing…much of their wealth from slave trading and other ventures in land, property or the funds” (Richardson, 1985, p.25). The merchants’ life was risky and, if they were successful, “they hastened to put some of their profits into land and

7 Townshend’s books include “extensive runs of household and farm accounts (as well as estate correspondence)” (1989, p.11), but Rosenheim gives no relevant details.
property, which conferred other benefits besides social prestige” (McGrath, 1955, p.xxiii).

In the vale of Gloucester from 1650 to 1750 there was “some energetic renovation and rehabilitation” of run-down grassland (Thirsk, 1984, pp.188, 189). In Worcestershire, a “circle of energetic, improving gentry included Andrew Yarranton from Astley” (Thirsk, 1984, p.162). Yarranton, a well-known advocate of agricultural improvement, farmed light soil land near Ombersley close to the river Severn (Large, 1984, fn40). The reach of the Severn into South Staffordshire put this whole region in touch with Bristol. This mercantile connection could help to explain the energy behind the diffusion of artificial grasses, particularly clover, in the light soil region of North Worcestershire from 1675 (Large, 1984, pp.177-178). In this region, farmers ‘floated’ water meadows - invested in irrigation systems to flood meadows in winter to increase their fertility - from this time (Large, 1984, pp.179, 180-181). In Herefordshire, whose trade focused on Bristol, there is also evidence of improving farmers - planting turnips for fodder; planting legumes and floating water meadows. The vale of Glamorgan also had many energetic and improving gentry, with South Glamorgan in particular being part of Bristol’s metropolitan area (Jenkins, 1983, p.10). These gentry enclosed much of their land, and some immersed themselves in socialised capital. During the 1670s, the estates of Tredegar, Fonmon and Briton Ferry all owned and traded with ships (Jenkins, 1983, p.57). Some speculated in “the occasional privateering ventures…run on a joint-stock basis” (Jenkins, p.62). “Maritime enterprise was common: [For example,] Freelove Stacy included with her farm stock ‘one quarter of a boat at Sully’ worth £5 (1732)” (Emery, 1984, p.415). Many farms were small, most between 30 and 50 acres in 1750, but some were over 100 acres employing wage labour. Gentry often combined farming with coal mining using wage labour, and were highly innovative in both activities (Jenkins, 1983, pp.13, 58, 60; Emery, 1984, p.406). Consistent with Marx’s theory (but without attribution or elaboration), Jenkins says the “…‘ideology’ of improvement” that gripped Glamorgan from 1750 appeared because “Commercial and industrial activity brought the gentry into contact with merchants as business partners” (1983, p.37). Also consistent with Marx’s theory is the link between enterprising gentry and the industrial revolution. “Early iron partnerships like the Dowlais venture of 1759 included local gentlemen, and social contacts naturally followed between squires and entrepreneurs” (Jenkins, 1983, p.37). Evidence that the partners in these ventures were capitalists is their use of modern systems of management accounting (Bryer, 2004b).

4.4. Liverpool

Liverpool, eclipsing Bristol from the 1730s, was “the eighteenth century’s success story” (Davis, 1962, p.37). Ship owning increased from 1700 to service the Cheshire salt trade and cater for the demand from merchants wishing to avoid French privateers and profit from a rapidly developing hinterland and later to exploit the markets opened up by new canals between the Midlands and the Mersey (Davis, 1962, pp.37-38). Around Liverpool, “even the lesser country squires sometimes took a flutter in a shipping project. William Blundell of Crosby near Liverpool invested £40 after the harvest of 1666 in ‘an adventure to the Barbadoes in the good ship Antelope of Liverpool’” (Mingay, 1976, p.105). From 1650 to 1800 a large area of North Cheshire changed from many small farms worked by their owners towards fewer, but larger farms run by “rack rented tenants employing growing numbers of families of
labourers” (Foster, 1991, p.148). Rack-rented tenants paid much larger rents than those with beneficial leases (Foster, 1991, pp.103-104). Foster identifies “substantial commercial farmers who each had several hundred pounds of working capital invested and expected to make good profits in excess of their large rack rents” employing wage labour (1991, pp.126, 127). Both landowners and leaseholders were from families with deep connections with trade. Some had “successful Liverpool merchants” as their relations, and farmers’ sons often turned to trade, selling their small farms or using their portions for the purpose (Foster, 1991, pp.143, 149). There were many connections between the landowners and the leading merchants and tradespeople of the towns: “in almost every example of a freeholder/leaseholder...some members of the family had been in trade”. Predictably, “This social group provided many of the entrepreneurs of the industrial revolution in the Mersey basin, as well as an important part of the capital” (Foster, 1991, pp.151, 149).

From the above and similar evidence for other port regions, we conclude that early agricultural improvement around the ports indirectly supports Marx’s theory of the centrality of the capitalist farmer to the agricultural revolution. To directly test it we need accounting evidence that these early improvers were capitalists. Although we need archival research by accounting historians, parts four and five argue that the evidence we have supports Marx’s theory.

5. In search of capitalist farmers

Few historians have attempted to link the commercial and agricultural revolutions. Tawney (1941) was one who did. His ‘rise of the gentry’ thesis was that improving farmers and landlords came from a new, economically successful and powerful political class with ‘bourgeois’ attitudes, that appeared in the century before the civil wars of the 1640s, ultimately owning between 40 to 55 per cent of the land. Tawney’s gentry includes landowners above yeomen but below peers, the wealthier tenant farmers, professionals and leading merchants. His thesis was that what united these groups into a class was their “‘bourgeois’ attitude towards the exploitation of their assets and the making of money” (Mingay, 1976, p.6). Like Marx, Tawney thought that the “bourgeois character of the rising gentry sprang...from their close connections with the business world, from which they had only recently emerged” (Mingay, 1976, p.56). However, other than stress the focus on ‘money making’, neither Tawney nor Mingay define precisely what they mean by ‘bourgeois businessmen’. Mingay suggests “flexibility”, “breadth of vision and a wider range of interests, a down-to-earth realism, not to say vulgar materialism” (1976, p.10). In The Agrarian Problems in the Sixteenth Century (1912) Tawney defined capitalist farmers as large farmers using wage labour who “insist...on putting the land to the use most profitable to themselves” (1912, p.6), but does not define ‘profitable’. Later he adds that “The landowners living on the profits and rents of commercial farming, and the merchant or banker who was also a landowner, represented, not two classes, but one” (Tawney, 1941, p.18). They were one class because when “Judged by the source of their incomes, both were equally bourgeois” (Tawney, 1941, p.18). Both obtained their incomes from commercial farming and from business. Wherever these sources combine, Tawney says, we have a capitalist and, in his view, in the early seventeenth century, “it is difficult to find a prominent London capitalist who is not also a

8 ‘Rack’ renting meant the landlord charged level economic rents each period. ‘Beneficial’ leases required the tenant to pay the landlord a lump sum followed by a number of nominal annual rents.
substantial landowner” (1941, p.18). For Tawney these great merchant-banker-
landowners were de facto ‘bourgeois’. However, accounting evidence from the
English East India Company shows that its governors, certainly prominent and
powerful London businessmen, had feudal mentalities, as did other leading merchants
in the sixteenth and seventeenth century (Bryer, 2000b, pp.347-351; 336-342). From
Marx’s viewpoint, missing from Tawney’s understanding of the bourgeois mentality is
the centrality of the rate of return on capital that only takes hold in trade with the
appearance of socialised capital.

Although the great merchants of the seventeenth century were not necessarily
capitalists, late sixteenth century lesser merchants such as John Isham might have
been. He held a diversified portfolio of small sums in different enterprises (Finch,
1956, p.9). He had a joint stock with his brother (Ramsey, 1961, p.cvii) and, along
with others in his family, invested in a joint stock company (Rabb, 1967, p.322). He
certainly had a transitional, semi-capitalist mentality. The two surviving ledgers
recording his mercantile activities are partly in double entry. These “represent
successive efforts on the part of John Isham, at twelve years’ interval, to discover
where he stood financially or, as we might say, to draw up a balance of account”
(Ramsey, 1961, p.c). That is, a balance sheet revealing his “estate” or capital. He
bought an estate in “Lamport intending to convert it into a profitable business concern,
and in particular to adapt it to the needs of sheep-farming” (Finch, 1956, pp.14-15).
He displays a capitalist’s improving outlook. When he retired from trading as a
merchant he enclosed his lands and became an enthusiastic improving farmer (Finch,
1956, p.16-17). “No source of agricultural profit was neglected” (Finch, 1956, p.18).
By contrast, the accounts of Sir Robert Spencer of Althorp suggest the feudal
mentality. The accounts of his flocks were primarily a check on the honesty and
efficiency of the shepherd, in this analogous to manorial accounts” (Finch, 1956, p.41,
fn.2). Predictably, Sir Robert had no contact with socialised capital; built up “great
reserves of ready money”; and did little to improve his estates (Finch, 1956, pp.41, 62,
63). Also clearly feudal are the late sixteenth century accounts of the Dogsthorpe
Farm of the Fitzwilliam’s of Milton. Again, predictably, this was a courtier “family
that had turned its back on the City and mercantile gains” (Finch, 1956, p.102, 123,
Appendix XIII).

Although Tawney spreads his net too wide, the accounts of at least one of his
examples of “agricultural capitalists…who were making the pace”, Robert Loder of
Berkshire, unambiguously reveal the capitalist mentality (Bryer, 2000b, pp.371-374).
Loder farmed in the parish of Harwell in Berkshire, near Wallingford (by the Thames).
He was a third generation yeoman farmer. Whether Loder or his family had
mercantile connections is unknown. He inherited the farm in 1610, and sometime in
1611 he calculated his total capital and continued his accounts this way for several
years (Fussell, 1936, pp.17-18). Tawney also suggests Sir Thomas Tresham of
Northamptonshire; Sir John Wynn of North Wales; and the Pelhams and Twysden’s
from London were capitalists (1941, pp.17, 187). Finch’s investigation of Sir Thomas
Tresham confirmed Tawney’s perception of him “as an example of a landowner who
applied business methods and seized every opportunity for profit” (1956, p.92). His
brother-in-law Thomas, Lord Brudenell of Deene, was also an improving landlord
(Finch, 1956, p.165). With the help of his servant and surveyor, George Levens, he
personally supervised every aspect of his estate, and “took no step without making the
fullest calculations of the gain from all conceivable alternatives” (Finch, 1956, p.94).
One calculation noted by Finch shows Sir Thomas was a semi-capitalist. Around 1600
he considered letting out half his sheep for £15 the hundred. To help him decide he calculated the expected residual income. He reckoned this was £464 from three thousand sheep. First, he calculated the gross profit of keeping the sheep at £700 a year. He then deducted expenses including “£100, the interest which he might have received had he sold the sheep for £1,000 and invested the money, and a further £20 interest which could be gained from investing the money employed on feeding the sheep” (Finch, 1956, fn.4, p.75). Sir Thomas was clearly a semi-capitalist. Recognising the capital of circulation employed in feeding his sheep suggests he was a capitalist. He certainly did not think like the still feudal European peasant in the nineteenth century who, as Marx said, “[did] not reckon that seeds, feeding stuffs, etc., cost him anything…as costs of production, [whereas in] England…the farmer has been doing his accounts correctly for more than 150 years” (1969, p.45).

Opportunities for the appearance of the capitalist mentality multiplied with the growth of joint stock companies for exploration and foreign trade from the late sixteenth century. The 10,000 or so families headed by country gentlemen “frequently had other sources of income from investments in stocks and shares or urban property, for example, and collectively they owned as much land as did the great proprietors” (Mingay, 1976, p.14). The capital for joint stock companies over the period 1575-1630 came mostly from London merchants. However, a number of English gentry, predominantly from its upper reaches, became investors. Certainly, only a minority participated, and their interest was sporadic and waned from 1630, probably because many consistently lost their investments. However, as Rabb says, “The fact that they participated at all, and that some 1,200 of them subscribed £1,500,000…in the course of 56 years was in itself an unprecedented phenomenon in European history” (1967, p.68). Some of Rabb’s more successful merchants bought land and became landlords. Although Tawney might be right that the most important contribution to the spread of the “investment habit” was “the web woven by the humbler ventures of hundreds of obscure squires” (1941, p.188), an important research question is if Rabb’s almost exhaustive list of 6,300 investors includes capitalist farmers.

There is no evidence from Robert Loder’s accounts of investment in socialised capital, and he is not in Rabb’s list. However, he does list the well-known Sir John Banks, who deeply involved himself in socialised capital and farming later in the seventeenth century, and some of his ledgers and journals survive. Sir John was partner to several merchants (Coleman, 1963, pp.7, 10, 16), and he displayed at least the rate of return on capital mentality by producing his accounts using double entry bookkeeping (Coleman, 1963, p.202). In addition to his mercantile and financial activities, Sir John “was more…than an active landowner: he was a farmer, too. Running right through his ledgers are accounts for what he calls ‘Lands in my hand’. The nucleus of these was of course Aylesford, and it is clear that he ran a home farm on which he was willing to spend a good deal of interest and money” (Coleman, 1963, p.49). Coleman says Sir John was a “careful calculating man” who was “never content with one profit if he could get two” (1963, pp.66, 48). He unhesitatingly dubs Sir John an “example of the capitalist spirit” (Coleman, 1963, p.199).

However, using Coleman’s evidence we cannot unequivocally call Sir John Banks a capitalist. He was an improving landlord, repairing farmhouses and building barns and cottages, erecting walls and digging drains, and matching these investments with increases in rent (Coleman, 1963, pp.48-49). Coleman, however, also says that “For his landed property he made no sort of depreciation allowances, nor indeed any adjustment, upwards or downwards, to market values” (1963, p.203). If Banks did not
charge depreciation on his fixed assets, he was not a capitalist. According to Coleman, “The values which he carried forward and which were incorporated in his assets at the general balances were simply prime cost plus net expenditure on the property; current expenditure, e.g., on repairs, and capital outlay, e.g., additions to the property, were treated alike” (1963, p.203). In other words, Banks debited all his “landed property” accounts with their cost plus all subsequent expenditures and credited any revenues. However, for at least some of his investments in ships Bank’s did allow for “imputed depreciation” using either “arbitrary” guesses or current market values (Winjum, 1972, p.169). It is unclear if he accounted this way for his farms in hand or the lands he rented out. Coleman says “The only surviving ‘Aylsford ledger’ and its corresponding journal, for 1683-8 - kept mainly by [his son] Caleb and with nothing like his father’s accuracy - has a profit and loss account, but it is not relevant to particular farming activities” (1963, p.182). This appears to mean only that Caleb did not break-down the profit and loss account by commodities (Coleman, 1963, p.182).

Coleman’s other criticisms of Sir John’s accounts are irrelevant to his capitalist credentials. He says Bank’s accounts have “two wholly negative characteristics. They show no concept of a regular, periodic profit or income over time; they show no evidence of any systematic matching, in the profit and loss account, of outlays and the incomes to which they gave rise” (Coleman, 1963, p.204). Banks only produced a balance sheet of all his wealth when he filled a ledger; he only irregularly balanced his cash account, and only revalued certain assets. He carried forward some apparently hopeless losses; he booked profits on dealings in government paper before the deals matured; he did not distinguish between business and household expenditure (Coleman, 1963, pp.203-204). However, before we criticise Bank’s accounts we should note that he was accountable only to himself and his family, and that any accounting period is economically, but not necessarily socially, arbitrary. He kept sufficiently periodic accounts of his capital and its returns to “not in the least detract from the picture of Banks as a calculating businessman with a rationalistic ethic” (Coleman, 1963, p.205). We should also note that ledgers are not definitive evidence of how complete and periodic balancing was “because one does not know whether other relevant documents and records may have disappeared” (Yamey, 1959, p.538). For example, “Richard du Cane…had a balance account at each balancing date, but in this case they did not as a rule appear in the ledger (a fact which points to the limitations of drawing conclusions from ledgers alone.)” (Yamey, 1959, pp.540-541). As Yamey says, in his accounting entries Sir John Banks “seems to emphasize the difference between accidental and deliberate balancing of the profit-and-loss account” (1959, fn.19).

Although Banks rarely produced a general balance sheet, that he produced any marks him out from the generation of merchants that preceded him (Bryer, 2000b, pp.339-342). In addition to these balance sheets, “he periodically balanced certain accounts, e.g., interest or household expenses, carried the result to the profit and loss account, balanced this in turn and carried the result, with the inevitable ‘God be praised’, to his stock account” (Coleman, 1963, p.203). He did this thirteen times (but irregularly, more frequently during the early years when he accumulated his wealth) in 43 years. In short, Sir John calculated the most important elements of his net income and transferred the balance to his capital account. In this sense, his accounts did “provide a periodic guide to what he considered to be his net worth” (Coleman, 1963, p.204). They provided Coleman with the means to calculate Banks’ rate of return on his capital, and to assess its realism (1963, pp.95, 178, 204). As Winjum says, we can
explain Bank’s accounting by his “desire...to know his current capital balance”, “the increase in his capital” (1972, pp.172-173), as we can explain the accounts of any semi-capitalist or capitalist.

An unambiguously capitalist farmer held the lease at Coton Hall Farm, Brignorth in Salop in 1744 and 1745.9 His accounts have a strong family resemblance to Robert Loder’s. They use a single-entry system; they charge systematic depreciation; they allow the calculation of the rate of return on capital employed on the farm. Coton Hall’s system calculated profit or loss by comparing opening and closing capital. The profit or loss on the farm is the value of the closing capital on the farm plus the value of sales and consumption of farm produce minus the expenditures on the farm and the opening capital. In short,

\[ P/L = (CC + S&C - E) - OC. \]

\[ P/L = \text{the farmer’s profit or loss}, \]

\[ CC = \text{the value of the farmer’s closing capital}, \]

\[ S&C = \text{sales and consumption by the farmer}, \]

\[ E = \text{the farmer’s expenditures on the farm}, \]

\[ OC = \text{the farmer’s opening capital}. \]

The Coton Hall system rearranges this equation (multiplies through by -1) into

\[ L/P = (OC + E - S&C) - CC. \]

Coton Hall’s household and farm accounts survive as one large volume. The farmer has (after the first two pages) headed the left-side page ‘Farm D\:', and on the right-side ‘C\:'.' On the left-side the farm accounts begin on 17th October 1744 (folio 31) with an enumeration of the farmer’s ‘stock’:

\[
\begin{array}{ccc}
\text{£} & \text{s.} & \text{d.} \\
\hline
\text{Stock as follows 35 of Hay £35. A White Sow and 5 little Pigs £1.5.} & \text{81} & \text{9} \\
\text{One White Sow £1.5. A Black Sow and 3 Pigs £1. 8 Fat Sheep £4.4} & \text{81} & \text{9} \\
\text{A Cow and Calf £4. 10 Scotch Cows £23} & \text{81} & \text{9} \\
\text{2 Waggons £7. Three Tumbrils £3. A Plow £1.0} & \text{81} & \text{9} \\
\text{2 p:\' of Large Harrows £1.5} & \text{81} & \text{9} \\
\end{array}
\]

Through November 1744 to the 31st of May 1745, the farmer busies himself with trimming and mending the hedges, buying grass seed, peas for the pig, levelling fields, having the blacksmith mend wagons and gates, hiring male and female labour for various tasks, including weeding. As an improving, capitalist farmer should, he planted turnips and clover. The farmer debited all the expenditures involved with these activities to his opening “stock”, his capital. On May 31st 1745 he added significantly to his capital stock:

9 Available in Reading University Library (SAL 5.1).
At the bottom of the first page of the accounts the farmer strikes a total of £238.5s.4d., representing the total capital invested in the farm (including the rent) from 17th October 1744 to 31st May 1745. On the opposite, right-hand, page, against this capital the farmer credited his household consumption from the farm over the same period, and any sales. Here the farmer lists sales or transfers to the household of a variety of fat sheep, suckling pigs, hay, calves, fat cows, etc. During the period covered by the first two sides, the farmer sold and consumed stock worth £26.5s. Thus, the balance of £212.0s.4d. (£238.5s.4d. - £26.5s.) is carried to the next page (folio 32) as the capital currently invested in the farm. This process of accounting continued, with expenditures on the farm debited and sales and consumption credited until the 30th September 1745, by when, on the left-hand debit side of folio 33, the total capital invested by the farmer is £330.19s.61/2d. Inserted at the bottom of the debit side, in a distinctly different handwriting, more regular and legible, is what could be an auditor’s valuation of the farmer’s capital at 30th September 1745:10

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**An Inventory of Farm Stock Taken September y^2: 30th 1745**

<table>
<thead>
<tr>
<th>£</th>
<th>s.</th>
<th>d.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suck.Colt £1.1.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>34 Scotch Cows at £2.8 each £81...2 milking Cows £6.5.</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Oxen £9.5.</td>
<td>4 Yearling Calves £3.8.</td>
<td></td>
</tr>
<tr>
<td>51 Sheep at 6s.6d each £16.11.6.</td>
<td>27 Lambs 5s each £6.15</td>
<td></td>
</tr>
<tr>
<td>3 White Sows £1.19.</td>
<td>8 D^o: Porkers £2.13.6.</td>
<td>4 Black D^o:</td>
</tr>
<tr>
<td>£1.4.</td>
<td>Old Black Boar and Sow £1.15.</td>
<td>8 Black Stores 16s.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>£</th>
<th>s.</th>
<th>d.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Waggons £6.10.</td>
<td>3 Tombrils £2.12.</td>
<td>2 New Plows £1.2</td>
</tr>
<tr>
<td>A New Plow £1.0.</td>
<td>Two D^o: Old 7s.6.</td>
<td>2 p': of large, one D^o:</td>
</tr>
<tr>
<td>small Harrow £1.5.6.</td>
<td>8 Collars 16s.</td>
<td>8 p': of Horns 16s.</td>
</tr>
<tr>
<td>6 Housens, Mullens &amp; Cruppers £1.13.</td>
<td>6 p': of long, one</td>
<td>D^o: short Traces w': Back &amp; Belly Band £1.16.</td>
</tr>
<tr>
<td>Back Band &amp; an Iron Crawl 2s.6.</td>
<td>Long and short prongs</td>
<td>19 16</td>
</tr>
<tr>
<td>Dung fork &amp; Hook.</td>
<td>2 Turnip hooks, 2 Spades.</td>
<td>Ax. Bill.</td>
</tr>
<tr>
<td>cutting Knife 5s.</td>
<td>24 bags. Bushel.</td>
<td>6 Sieves &amp; Riddles.</td>
</tr>
<tr>
<td>spoking chain.</td>
<td>Roll Fan £1.16.</td>
<td>Cartsaddle, Crupper &amp;</td>
</tr>
<tr>
<td>Breechband 7s.6.</td>
<td>Old cartsaddle 1s.6. 2 slades &amp; Bridles</td>
<td>7s.6.</td>
</tr>
<tr>
<td>300 Bushels of Barley at 1s.4.</td>
<td>£20.</td>
<td>200 D^o: Oats £10.</td>
</tr>
<tr>
<td>100 D^o: Corn at 2s.6.</td>
<td>£12.10.</td>
<td>60 Tons of Hay at 16s. £48</td>
</tr>
<tr>
<td>Caffe.</td>
<td>2 Mattocks.</td>
<td>Hopper. 4 new Rakes</td>
</tr>
</tbody>
</table>

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On the face of it, the farmer had made a large loss. He had put in a total capital of £330.19s.61/2d and had ended with only £285.3s. However, this prospect apparently

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10 The landlord might have had the accounts audited, or the farmer might have had help in closing them.
jolted the farmer into remembering some more favourable details. After the 
auditor/helper completed the audit and written the results in the book, the farmer 
discovered some entries he had forgotten. This also happened the following year. On 
page 37: “By The Ballance Overcharg’d Since Which The Following Articles are 
Inserted being Forgot”. He remembered some sales and consumption, and some 
additional work on the farm. Unfortunately, as the auditor/helper had inserted the 
inventory, there was no room on the debit side. To handle this the farmer (perhaps 
under instruction) added the extra sales and consumption to the inventory of stock of 
£285.3s on the credit side (having the same effect on the difference as deducting them 
from capital invested). He also added to the credit side the extra expenditure on 
ploughing and sowing 22 acres of fallow. The farmer should have matched the 
increase in the value of the closing stock for the extra ploughing and sowing with an 
increase on the debits for the expenditure. However, again presumably because there 
is no room on the debit side, the farmer charges (debits) it to the following year (folio 
34). The two adjustments increase the closing inventory to £329.12.6. Now he 
compares opening and closing capital to find the profit or loss for the year. On the 
debit side:

| Totall Dr: | £330.19.61/2 |
| Deducted Cr: | £329.12.6 |
| Remains Dr: | £ 1. 7. 1/2 |

On the credit side:

| Cr: | £329.12.6 |
| By Loss of Farm in the Year 1745 Charg’d to Folio 34 | |
| Ballance of yr Dr: side of this Page | £ 1. 7. 1/2 |
| | £330.19.61/2 |

With this information the farmer could calculate his rate of return on capital 
employed in the modern sense, that is, after systematic depreciation for wear and tear 
and for capital loss. A comparison of the opening and closing inventories of stock 
shows this depreciation process in action. For example, the farmer starts with two 
wagons valued at £7.11 The closing inventory values them at £6.10s, and the value of 
the three tumbrils falls from £3 to £2.12s. These valuation adjustments are capital 
losses as the new values continue for the following years. However, whereas the 
farmer could indefinitely repair wooden wagons and tumbrils, the harrows would wear 
out with use. In the inventory of 1745 the harrows are £1.5s.6d. In the inventory of 
the following year they are £1.3s., and in 1747 £1.0s.6d. This is straight-line 
depreciation of 2s.6d. a year over 10 years or so depending on the residual value.

Where we find early farmers’ accounts we must not write them off as 
meaningless because they are not fully modern. For example, Hueckel adjusted eight 
sets of accounts from early nineteenth century farmers to make them “yield estimates 
of the rates of return to capital actually received by certain farmers” (1976, p.336). 
Allen thinks this shows that these farmers’ accounts contained “errors” (1992, pp.183-
184). Hueckel did not find and have to rectify “numerous errors”. He made three

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11 We do not know whether the these and other assets are at cost, market prices, or agreed valuations. 
This is clearly an important topic in any research exploring the appearance of the modern mentality.
simple but “important adjustments” (Hueckel, 1976, p.337) to translate what were for the farmers personal capitalist accounts into anonymous capitalist accounts. “The adjustments necessary are those which are typically made to income data from the agricultural sector” today (Hueckel, 1976, p.337). Capitalist farmers today do not necessarily make these adjustments in their personal accounts, but hire accountants to do it for them. Hueckel’s farmers did not use accountants, and Hueckel’s adjustments suggest some of his farmers were not capitalists, but this is not an “error”. Hueckel, first adjusts for home consumption. One of his farmers kept detailed records. Others kept relevant details in their accounts and, using this and other information, Hueckel standardised his accounts by adding 8-12% to the receipts where this was missing (1976, p.337). In other words, most of Hueckel’s farmers did not hold themselves accountable for their personal and household consumption. In modern terminology, they accounted only for retained surplus. This does not mean they were not capitalists. Nor is it an error not to account for labour payments in kind and the cost of the farmer’s labour, other adjustments made by Hueckel. Again, capitalist farmers that do this account only for retained surplus. Hueckel found it easy to adjust those accounts omitting these costs using data from those that did include them, and other widely disseminated data (1976, pp.338-340). Finally, none of Hueckel’s farmers included a depreciation charge, but he ignored it (as these particular farmers might have done) because “the size of the error is probably quite small” (1976, fn.18). Hueckel gives no details about how, if at all, his farmers accounted for their fixed capital and other production overheads. Contemporary estimates put the annual charge for ‘wear and tear’ at between 2-5% of revenue. This suggests, first, that contemporary opinion was alive to the need for farmers’ to charge depreciation, and second that Hueckel’s farmers were either semi capitalists, or were small capitalists. Three of Hueckel’s farmer’s did produce capital accounts, although not necessarily every year (1976, p.341). Hueckel again found it easy to estimate capital as a standard ratio of output, which the data in some accounts and contemporary opinion put “within the relatively narrow range from 1.3 to 1.8” (1976, p.341). Using output (sales) data from the accounts Hueckel estimated the farmer’s capital, as these farmers might have done for themselves. To fully understand the mentalities of these farmers we must investigate the details of their accounts and seek to understand them as elements of changing systems of social accountability. When we have examined all the relevant evidence, we may conclude that, indeed, some of Hueckel’s farmers were not capitalists. However, even from his evidence the three farmers that kept capital accounts clearly had at least semi-capitalist mentalities.

Historians have only rarely studied farmers’ accounts. Nevertheless, the evidence is consistent with the pattern of change Marx’s theory predicts. Before Loder there is no evidence of capitalist accounting (Bryer, 2000b), but we have clear evidence of semi-capitalist and capitalist farmers from the seventeenth century and, we shall see in the final part, evidence of many capitalist farmers in the late nineteenth century. Only relatively few farmers’ accounts survive from the seventeenth century, but many more survive from the eighteenth and nineteenth (Collins, 1965; Jones and Collins, 1965; Turner, Beckett and Afton, 1996, 2001). To collect data on output and productivity, Turner, Beckett and Afton examined 2,743 early farm records (2001, p.61), some 50% of which are ‘accounts’ or ‘financial records’ of various types. They conclude in passing that “where they survive at all, farm accounts tend to be inconsistent, haphazard, and generally very basic” (Turner, Beckett and Afton, 2001, p.46), suggesting they were not good ‘businessmen’ by modern standards. A close
look at their grounds for making this claim, however, suggests that only accounting historians can evaluate the usefulness of farmers’ accounts; that only they can tell us from their financial and other records which farmers had feudal, semi-capitalist or capitalist mentalities in the eighteenth and nineteenth centuries.

6. Taking stock of the accounting archive

Because relatively few farmers were literate; relatively few kept accounts until well into the twentieth century (Mingay, 2000, p.788). As important, even those who could write are not likely to have kept fully modern accounts because, so long as they paid their rent, they were accountable only to themselves (Turner, Beckett and Afton, 2001, p.50). This, we shall see, may explain the individualism of those owner-occupiers who did produce accounts, while not ruling out the possibility they were capitalists. Even though Arthur Young thought keeping regular accounts was a decided “advantage” to the farmer, he claimed that “yet there is not one in a thousand that keeps any” (1797, p.47). However, as Young refers to absorption cost accounting (Juchau, 2002), this would mean that in 1797 perhaps up to two hundred farmers were keeping modern management accounts. Farmers do not, however, have to keep full modern accounts to display their capitalist mentalities. Where they produced something less, what can we learn from them? Turner, Beckett and Afton conclude that early farmers’ “accounts were individualistic, sometimes to the point of being idiosyncratic” (2001, p.51). Only “some of them noted the difference between costs and revenue”; only a few “examin[ed] accountancy issues such as cash flow and the return on investment” (Turner, Beckett and Afton, 2001, p.46). Only “Occasionally…[was] an annual inventory of stock…taken so that the actual profitability of the enterprise could be assessed, but this was a rarity” (Turner, Beckett and Afton, 2001, p.47). All of this is no doubt largely correct (Mingay, 2000, p.788; Holderness, 2000, p.923). However, first, as we saw of Hueckel’s work, we must not necessarily dismiss accounts in which historians think the “understanding of modern accountancy methods was weak”(Turner, Beckett and Afton, 2001, p.51). Second, even though only relatively few farmers produced accounts, we may be able to legitimately infer the mentality of those farmers who did not produce accounts from those who did.

Most surviving accounts are records of farms directly controlled by a larger estate (Clay, 1985, p.171; Turner, Beckett and Afton, 2001, p.45). The larger landowners and more substantial gentry were men “who were not strictly working farmers and they often had non-agricultural sources of capital…[and whose] records are customarily methodical,…doubtless reflect[ing] especially intelligent and technically progressive farming methods” (Jones and Collins, 1965, p.86). Loudon in his *Encyclopaedia of Agriculture* suggests that during the nineteenth century gentlemen farmers often used DEB: “Among gentlemen farmers there is often a systematic regularity in all their proceedings, and their pages of debtor and creditor, of expense and profit, are as strictly kept as those of any banking-house in the metropolis” (1883, p.789). Certainly, “with the generality of farmers the case is widely different” (Loudon, 1883, p.789). However, we may be able to legitimately infer a rate of return mentality for the generality from the use of DEB by the gentry because historians usually argue that ordinary farmers were the primary innovators and, initially at least, landlords and large gentlemen farmers followed rather than led

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12 In 1851 there were some 193,000 ‘farmers’ (Mingay, 2000).
(e.g., Parker, 1975; Mingay, 1976, p.97; Beckett, 1990, p.29; Wade Martins and Williamson, 1999, pp.194-196). According to Marx’s theory, as ordinary farmers led in agricultural innovation; they led in mentalities as well. Certainly, for example, “East Anglia’s Agricultural Revolution of the eighteenth and nineteenth centuries cannot…be convincingly explained in terms of some nebulous ‘culture of innovation’, percolating down from the aristocratic pioneers, through the gentlemen farmers, to the broader ranks of agriculturists” (Wade Martins and Williamson, 1999, pp.196-197). If the direction of influence was bottom up, and we find a link between capitalist accounting and innovation for the larger and educated farmers, we can hypothesise the same mentality for ordinary improving farmers in the same area who did not keep formal accounts. It might well not have been a few “capitalist innovators” who led the agricultural revolution (Wade Martins and Williamson, 1999, p.197). Investigation of their accounts and other evidence may show us that many farmers in East Anglia and other improving regions were capitalists.

Farmers do not have to keep detailed accounts to be capitalists - to pursue the rate of return on capital employed. It was obviously true that “Material success necessarily meant some degree of efficiency in the practice of farming”, but it is less obvious that “few farmers kept adequate records and accounts” (Mingay, 2000, p.803). It may be true that “the majority had little idea of which crop or which kind of livestock or fertiliser was the most profitable for them” (Mingay, 2000, p.803), as the majority did not keep detailed management accounts. However, “So long as they were able to meet their bills and their rent, and keep a satisfactory balance in the bank, they were faring well enough” (Mingay, 2000, p.803), and we cannot say they were not capitalists. Turner, Beckett and Afton find that “many farmers kept chronological records of their income and expenditure…[to] provide…the farmer with a check on cash flow” (2001, p.47). Income and expenditure records also provide the basic data the farmer could use to make a variety of calculations, including estimating profit and capital. For example, the farmer could reason that his cash flow (balance) minus capital expenditure for the year, plus trade debtors, minus trade creditors and any depreciation or losses of fixed capital, is his net profit after personal consumption, just as many modern farmers do today (Colwell and Koroluk, 1990). If the only evidence the farmer leaves us of his mentality is income and expenditure accounts, we shall have no warrant to say he is a capitalist. However, first, as we shall see below, we cannot take Turner, Beckett and Afton’s assertion that what they found was mostly ‘income and expenditure’ accounts at face value. Second, there may be other evidence in diaries, notebooks, letters, etc., that also survive in large numbers, that will show us how farmers thought about and used their accounts, or thought about their farms and calculated without keeping written accounts.

From 1750, as landlords became capitalists, they and their agents began turning all their tenants into capitalists (Bryer, 2004a). Contemporary commentators thought that an important way of engendering the capitalist outlook was to have tenants keep capitalist accounts. Throughout the period 1750 to 1850 “there are exhortations for better and more accurate accounting procedures for every aspect of business, including farming” (Davidoff, and Hall, 1987, p.202). From the early nineteenth century, authors produced printed account books for farmers (Turner, Beckett and Afton, 2001, p.39). Marx would agree with Davidoff and Hall that “The application of such methods to farming is of particular interest since it was advocated by those who saw farming as no longer a ‘way of life’ but as a capitalist enterprise” (1987, p.202).
aim was, as Loudon implied, to change their mentality, to turn them into “active and pains-taking” capitalists:

“[keeping accounts]...has a moral effect upon the farmer of the greatest consequence. ...The very consciousness that a man has to make entries in his books of everything that he does, keeps his attention alive to what he is to do; and the act of making those entries is the best possible training to produce active and pains-taking habits” (1883, p.790).

Turner, Beckett and Afton say there was little consensus among experts about the “type of records that farmers would find most useful to keep” (2001, p.40). However, all the authorities they reference - Loudon (1831), John Coleman (1858) and the authors of a prize-winning essay on accounting in 1883 for the Royal Agricultural Society of England - advocate accounts that would let the farmer calculate the rate of return on his capital. In 1831 Loudon argued that, although there were many useful books on accounting for farmers, “In fact, there is no correct mode of keeping the accounts but by the principles of double entry” (quoted in Turner, Beckett and Afton, 2001, p.49). He said exactly the same in the 1883 edition (Loudon, 1883, p.793). The central principle of DEB, however, is not recognition that “each business transaction had a twofold aspect to it in which one party received payment and another party made the payment” (Turner, Beckett and Afton, 2001, p.48). This is not a principle of DEB, but a way of learning it by rote. Learning it this way, students must accept the idea that the ‘parties’ to internal transactions include real as well as nominal accounts. Then, for example, they learn the rule that when the proprietor transfers cash from the bank account to the cash account ‘Mr. Cash’ is debtor to ‘Mr. Bank’ who is creditor.

The central principle of DEB is accounting for the movements of capital - debits are uses of capital and credits are sources of capital (Bryer, 1993). Thus, for example, if the farmer has his horse shod on credit, the entries are debit profit and loss with the use of capital, and credit the blacksmith with the source. Loudon appears to have this principle in mind rather than a dogmatic belief in DEB’s method of bookkeeping, as he recommends a simplified, single entry system for the common farmer identical to the systems of Robert Loder, Coton Hall and Arthur Young: “The account books for a common farmer may be, a cash-book for all receipts and payments, specifying each; a ledger for accounts with dealers and tradesmen; and a stock book for taking, once a year, an inventory and valuation of stock, crop, manures, tillages, and everything that a tenant could dispose of or be paid for on quitting his farm” (1883, p.793). He did not recommend anything more complicated because it would “only puzzle, and...lead to the greatest errors and confusion”. Loudon’s central principle was that any system should value the capital: “no form of books, or mode of procedure will enable a farmer to know whether he is losing or gaining but that of taking stock” (1883, p.793). In other words, the only meaningful profit is the increment to capital.

13 For ordinary farmers he recommended Trotter’s “Method of Farm Paper-keeping, &c. exemplified by the Forms and Accounts actually practised by the Author in the management of his Farm at Colinton, near Edinburgh, Edin. 8vo, 1825” or Munro’s Guide to Farm Paper-keeping (Edin. 12mo. 1821). He made no specific recommendations for the gentlemen farmer and bailiff because he “will find various descriptions of ‘Farmer’s Account Books” among the booksellers” (Loudon, 1883, pp.790, 793).
John Coleman also promoted accounting for farmers with this objective and, like Loudon, he thought DEB was too complex for ordinary farmers. For Coleman, the importance of farm accounts was obvious: “the real meaning and purpose of farm accounts...[is to] give...trustworthy information as the state of the profits or loss upon a farm.... The balance of cash furnishes a criterion as to the healthy state of a business, only when we view it in connexion with the state of the capital account at the commencement and end of each year” (Coleman, 1858, p.122). Viewing the change in the cash balance in connexion with the opening and closing value of capital after depreciation of various sorts produces, first, the accrued profit and, second, allows the calculation of the rate of return on capital. In capitalist terms this provides the basis for judging whether the farm is in a financially “healthy state”. The same principle underlies the recommendation of the authors of the prize-winning essay for the Royal Agricultural Society of England, that the ordinary farmer keep only two books: a diary-cum-cash book, and a “farm account book...show[ing] all payments and receipts with an annual balance sheet” (Turner, Beckett and Afton, 2001, p.40). Experts continued to advocate this system of capital accounting in the early twentieth century. As Orwin put it, “The principle is simple. It is that when a farmer begins to produce anything, he traces the cost right through the process of production until he realises the value of the product by sale. It is no new principle; the application of it was advocated by Arthur Young and by subsequent writers in the first half of the nineteenth century” (Orwin, 1914, p.7), and well before, as we have seen. Naturally, the most important conclusion drawn by Orwin from his example set of accounts is the relation between the capital invested and the profit earned. “Taking the Capital Account...it is apparent that the farmer had the sum of £4793. 3s. 11d. invested in his farm; at the end of the year this sum is still there, and there is a further amount of £1564. 17s. 8d. which represents the profit on the year belonging to the farmer” (1914, p.195).

Turner, Beckett and Afton find that “Occasionally, particularly once printed books were in use, an annual inventory of stock was taken so that the actual profitability of the enterprise could be assessed, but this was a rarity” (2001, p.47). However, as they provide no examples or lists, it remains unclear how rare this feature of modern accounts was. To explain their rarity, Turner, Beckett and Afton call on a comment of the Royal Commission on Agricultural Depression in the 1890s (given below) which they say means the Commission thought that even at this time “accounts, where they survived at all, were the product only of ‘men of exceptional business capacity’” (2001, p.47). In fact, the Commission’s comment does not mean they thought only ‘men of exceptional ability’; “only the substantial farmer kept good accounts” (Turner, Beckett and Afton, 2001, p.50). The Commission’s comment referred to 69 examples of what it called ‘Class A’ accounts from ‘bona fide tenant farmers’ given to its Assistant Commissioners. By Class A accounts it meant those with sufficient detail to allow “the opportunity of comparing profits and losses with rent and other items of expenditure” - enough detail to make standardised comparisons. These were not the only accounts furnished to the Commission. It received nine “Summary accounts of profit and loss” and 22 accounts “furnished by persons occupying their own land” (Royal Commission on Agriculture, 1897, Appendix III, pp.48-49). The Commission did not suggest that these other accounts were deficient except for their limited disclosure. The farmers’ accounts published by the Assistant Commissioners in their area reports show them all producing single-entry ‘balance sheets’ like those of Loder and Young (e.g., Hunter Pringle, 1894). The aim of the Commission’s comment was to warn readers that, when considering the
evidence from these 69 accounts on the financial health of farming in the depression, “It should be borne in mind that, *prima facie*, accounts of this character are presented by men of exceptional business capacity, and fairly sound position, and that they, therefore, represent conditions more favourable than the average” (Royal Commission on Agriculture, 1897, p.30). In other words, their returns would give an optimistic picture of the financial health of farming.

It is not clear that exceptional business acumen, or an education in “accounting and business practice” (Turner, Beckett and Afton, p.33) was necessary for farmers to understand and calculate the rate of return on their capital, although it would undoubtedly help. In noting their “fairly sound position” the Royal Commission was alluding to the fact that the average size of the farms that produced the 69 accounts was very large, over 500 acres. As farms of this size typically had bailiffs or foremen, these were as likely as the tenant to have been the ‘men of exceptional business capacity’ who actually produced the accounts, and the tenant was likely to have inherited the capital and tenancy (Mingay, 2000, p.764, 767). Although the average acreage was high, some of the Commission’s ‘good’ accounts published in the Assistant Commissioners’ reports also came from smaller farmers (e.g., Hunter-Pringle, 1894, Appendix C., published single entry balance sheets of farms of 120, 164, 200, 270, 311, 345, 382 acres). The prize essay for the Royal Agricultural Society of England showed just how simple yet effective a farmer’s accounting system could be (Randell, Frankish and Warren, 1883). It seems unlikely that Robert Loder had a formal business education, and Arthur Young, widely credited with having little business acumen, had a good understanding of how to calculate modern profitability (Bryer, 2000b; Juchau, 2002).

That some farmers calculated ‘actual profitability’ annually is potentially significant as they were almost never formally accountable to anyone other than themselves and their families for their capital, and this remains true today (Juchau, 2000). Rather than effectively write-off early examples of modern accounts as outliers of accounting history, as the product of exceptional individual abilities, we must ask if we could explain them by particular structures of social accountability. For example, whether, as today, occupiers of bigger farms tended to produce more complex accounts (Schnitkey, Batte and Jones, 1991). This could, for example, explain why even though absorption costing might not be useful for economic decision-making, it might be useful in particular decentralised structures of accountability associated with size (particularly wage labour and management) that did not, and still do not, exist for many farmers. Modern research supports Turner, Beckett and Afton’s view that “size of operation was not necessarily the governing factor determining the keeping of accounts” - other important related factors are the farmer’s general education and whether the farmer has other business relationships (Schnitkey, Batte and Jones, 1991). However, it could be significant that the two examples of “elaborate” accounts Turner, Beckett and Afton refer to are both large by the standards of the day, one of 1,400 acres and the other of 345 acres (2001, pp.36-37). They were able to establish the size of the holding for only 21 farmers whose records they examined. The median size was 170 acres and the mean was 309 acres. While some small farmers produced records, it is not clear if there was any correlation between the complexity (现代性) of the accounts and size for the 21 farmers because the accounts of the 345 acre farm were, “almost as elaborate” as those from the farm of 1,400 acres. Any such correlation could be historically significant as although there were relatively few large farmers - in 1851 only 5.2% of English farmers (some 10,000 from 193,000) held
tenancies of 300 or more acres - the land area they cultivated was relatively large. In East Anglia, for example, units of 300 acres or more farmed almost a third of the land in 1850 (Wade Martins and Williamson, 1999, p.81). This level of concentration is evident over the country as a whole: in 1851, units of 300 acres or more farmed 36.8% of the land held in units over 49 acres (Mingay, 2000, p.761).

Turner, Beckett and Afton do not define what they mean by ‘actual profitability’. We can have less than full confidence in their ability to identify modern accounts when they describe Coton Hall’s as “detailed income and expenditure accounts” (2001, p.64). They admit that they define these widely used and commonly understood accounting terms “loosely”: “The excess of income and expenditure or outgoings, loosely defined as rent, labour, and production costs, and including taxes and tithes, represented a form of profit” (2001, p.28). They do not define ‘production costs’ and, therefore, their definition is consistent with many definitions of profit. Future research must employ a technical understanding of accounting to address the question of the modernity of farmers’ business mentality. Although accounts like Coton Hall’s might be relatively rare, the type of rate of return on capital calculations they embody could be more common because to estimate the capital he employs the farmer does not have to take a full inventory every year, but in most years could update his last one. The largest item in any change is likely to be any inventory of unsold produce as most sales and purchases were for cash. Because on the whole farmers kept records of output and sales, such a farmer could estimate his capital and profit. Josiah Stamp’s view of late nineteenth century farmers’ accounts suggests many did make these calculations, if only occasionally and roughly. Stamp’s “experience was that a fair number of farmers keep a rough list of their chief expenses, and some account of their sales, but that stock is rarely taken periodically with any exactness, and an account purporting to show the annual profit generally contains a good many estimates” (Stamp, 1916, p.100). In other words, a fair number did estimate their stock (capital), if only intermittently with ‘exactness’. Accounts are today based on many estimates. The issue for future research is not only whether farmers produced ‘good’, ‘accurate’, ‘reliable’ and detailed accounts suitable for the purposes of a Royal Commission but, more importantly, with the thinking underlying the financial records and the “rough estimates…sent in by smaller men” to its Assistant Commissioners. The critical question is - rough estimates of what? As we have seen, it makes a world of difference whether farmers attempted to make rough estimates of cash flow or of profit and capital.

7. Concluding comments

The limited accounting evidence we have supports Marx’s theory that capitalist farmers drove the English agricultural revolution, and a large archive exists that we can use to test it further. We must examine this archive to identify capitalist farmers and their precursors and explore the links between changing accounts, mentalities and social relations of production. The ultimate aim is to trace the processes of class conflict driving the economic and social changes that lead to the eighteenth century British Industrial Revolution and the modern world of investor capitalism (Bryer, 2004b). To do this we need both cross-sectional and longitudinal case studies of farmers and merchants that explore relationships between changes in accounts, mentalities and the social relations of production, and social and technical innovation. We need histories that show us when, how and why socialised capital came together
with semi-capitalist farmers employing wage labour, and the consequences. We need histories exploring variations in accounting, the social relations of production and innovation in different English regions (for example, the Northeast versus the Northwest; East Anglia versus the Midlands), and studies exploring international variations. We need histories of the diffusion of the capitalist mentality through the activities of capitalist landlords and gentry, and through laws, education and propaganda. We need histories exploring the links between capitalism and innovation in farming and in industry (Bryer, 2004a, 2004b).

It will take accounting historians many years to fully explore and test Marx’s theory of the transition to capitalism, but the prize could be large. Accounting historians are uniquely able to make a potentially decisive contribution to an important debate in history and the social sciences about the origin and the nature of modern society, a debate that is too often only implicit. On one side is Marx who argues that the origin of modern society is class conflict and that this still defines the capitalist nature of society today. On the other side, the majority of economic historians and social scientists who adhere to neo-classical economics and argue (or, more usually, simply assume) that modern society resulted from individuals rationally pursuing their economic self-interest. It follows from the arguments advanced in this paper that only those who understand accounts can provide the critical evidence of mentalities - their creation; their spread; and their consequences - that we need to make progress in this debate.

Historical support for Marx’s theory of the transition to capitalism should encourage critical students of accounting to use it to understand contemporary accounting issues. To remove accounting’s ideological veil and reveal its emancipatory potential, we must explore the continuing complex interactions between changing social relations of production, mentalities, and accounts. The theoretical links between mentalities and the social relations of production are that mentalities are idealisations of social relations of production; of the way the owner of the means of production extracts surplus from labour. In the other direction, individuals and groups with particular mentalities seek to enforce or to change social relations to conform to their ideas. The links between mentalities and accounts are, in one direction, that the form and content of accounts are conceptual and numerical representations of the mentality. In the other direction, the producer of the accounts attempts to enforce the mentality in others through mechanisms of accountability. The links between accounts and the social relations of production are that, in one direction, accounts are idealisations of social relations and, in the other direction, accounts undermine or reinforce existing social relations. In Marx’s theory, therefore, there are no simple, one-way causal relationships, but contingent, class-conflict driven, historical interrelationships (Bryer, 2004b).

Only with such a model can we understand the complexities underlying important current issues such as the resurgent Anglo-American project of globalising capital through the enforcement of international accounting standards. Marx’s theory suggests that the aim of the ‘international harmonisation’ of accounting is to impose the capitalist mentality and social relations of production world-wide (particularly in the various social-market capitalisms of most of Western Europe, Japan and the People’s Republic of China). However, his theory also predicts the reality of struggle, resistance, reversals, crises of accountability, and ultimately self-destroying ‘progress’ along capitalism’s historical trajectory. Critical accounting scholars have yet to seriously address the globalisation of accounting using Marx, or its manifestations
within particular political and economic jurisdictions. Finding a solid foundation for Marx’s theory in the early history of capitalism should encourage this critical work.
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