

The landlord lag

Productivity on peasant farms and landlord demesnes during the agricultural revolution in Sweden 1700–1860

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Introduction

In most preindustrial rural economies it is the large manors that have left their footprint in history. Archival sources and quantifiable data emanates most often from the demesne production and seldom from peasant farmers, whether tenants or freeholders. (e.g. Campbell 2007). This has implications on how to estimate the total production and the development of production over time: By necessity, one has had to establish a proposed level of production on these latter farms in order to reach a total estimate of agricultural production. In his famous work on English medieval agrarian society, M. M. Postan declared that yields on average were lower on peasant land as compared to on manorial demesne land (Postan 1966: 602). Also more recent estimations come to this supposition, although on different grounds (e.g. Allen, 2005: 12).

Why then is this important? These assumptions have to a large degree shaped our beliefs on how the preindustrial agriculture functioned and has been transferred to on who that played the leading role in its transformation from a low-productive to a high productive agricultural sector, i.e. the agricultural revolution. From these assumptions the most important factors for change have been derived: Large-scale farming with economies of scale and access to capital and entrepreneurial networks led to technical change, surplus production and commercialisation whereas small-scale farming, characterised by risk minimising institutions and subsistence farming, tended to prevent change and uphold status quo until forced into markets and technical change (Heckscher 1949; Brenner, 1985). In effect, this has led to peasants being regarded as conservative, and even as unresponsive to any external incentives (for an elaborated discussion on this, see Svensson, 2006). Traditionally, therefore, one factor put forward causing France to lag behind England during the eighteenth century has been the small-scale agriculture in France (Bloch, 1966). The same is true for Sweden, where E. F. Heckscher declared that the large peasantry in Sweden was a lagging factor and that an English type of development with larger holdings and fewer owners would have been more successful in terms of agricultural output and commercialisation (Heckscher, 1949: 201).

Since not all researchers have been inclined to believe that manors were more productive than peasants (see discussion in e.g. Broadberry et al, 2010: 8), attempts to calculate the peasant production has emerged since Postan's assumption. Probate inventories or tithes are the most common sources used for the Middle Ages and the Early Modern period (e.g. Overton 1979; Dodds, 2004). Others have used information on prices, rents and wages to estimate total factor productivity for different farms, contradicting traditional conceptions (e.g. Hoffman, 1996). For the eighteenth and nineteenth centuries, fragmental farm accounts from both manors and peasant farms exist in some countries (e.g. Turner et al, 2001). Still, however, the overall peasant farm production in most counties and regions remains unknown, both in relation to manorial production and to how it evolved over time.

In this paper we have estimated landlord and peasant farmer production in Sweden 1700–1860, incorporating both the traditional farming system and the agricultural revolution. Using micro-level data on peasant farm production from tithes that were proportional to production, and comparing these estimates to manorial production calculated from estate accounts we compare productivity between manorial demesnes and peasant farms, and follow their respective production development over time. The results show that whereas peasant farms and landlord demesnes were as productive during the 18th century, peasant farmers increased their productivity much faster than manorial demesnes during the agricultural revolution. In all, the study has generated a detailed and general account of pre-industrial farming and improves our understanding of the important factors in the agricultural revolution.

Landlord demesne and peasant farm production

There are a number of factors speaking in favour of manorial demesnes having a higher productivity than peasant farms, and for landlords being the ones initiating change and leading the way for the agricultural sector in terms of growth. One would be returns to scale. The cost of investments in necessary items such as draft animals, wagons or other farm equipment, would be lower in relation to land (or output) for large landowners than for small-scale farmers. One way to circumvent this would be to have a rental market for these items, where small-scale farmers could rent them when in need (Hoffman, 1982: 156). However, such markets were most often not at hand or mal-functioning, particularly since all farmers needed the same items at the same time.

Because of the size of their holdings, landlords would probably also be better in coping with crisis, both due to weather and to economic factors (Campbell, 2007) and therefore to be less prone to risk minimise as compared to peasants living closer to the subsistence level. Landlords, with larger surpluses and lower risks, could afford to calculate and therefore sell surpluses when prices were high, while peasant farmers sold after harvest meeting lower prices on average. Together with a larger share of production being surplus, this made capital accumulation higher among landlords (Jones, 1966: 387).

Another factor would be a faster introduction of innovations among landlords. This would be due to this superior access to capital, supplemented by credit from commercial networks, to superior access to knowledge, due to literacy, networks, and through less need for risk minimization. Such innovations might be biological, e.g. new seeds, new rotations, or better breeding, or mechanical, e.g. better ploughs, threshing or harvesting devices, or improved storage facilities (see Lerner, 1992: 15, table 1). In line with this, lack of resources and capital on peasant farms made them invest less than landlords. Furthermore, landlord extraction wiped out any incentives for innovative behaviour (Blum, 1978: 116-117).

It has also been argued that landlords, having the power to do so, settled the manorial demesnes on better land than that cultivated by their tenants or, for that sake, by freeholders (Postan, 1966). In all, manorial lords had better access to capital, lower costs due to economies of scale, and more complete property rights over land, making it easier to manage their land independently and therefore to initiate innovations more rapidly.

On the other hand, empirical evidence also shows that peasant farmers reacted to market incentives and embraced change. Already in the Middle-Ages peasants took active part in markets in for example Italy and England (Jones, 1966: 383; Richardson, 2003). Furthermore, in late medieval England peasants specialized in crops directed towards the market while landlords sowed all sorts of crops, also non-marketable ones (Dyer, 2005: 27-29)¹. What does seem to have been restrictive, however, was the degree of independence among the peasants. Under manorial reign landlords have been found to prevent tenants from participating in market activities by extracting all surpluses, by controlling the access to traders (Jones, 1966: 387) or by deciding what crops to sow (Blum, 1978: 117).

The lack of capital was an apparent feature in peasant farming, existing until the emergence of developed credit markets. Until then, most credit in the rural society probably consisted of outstanding debts in relation to different transactions, not involving money (cash) between the involved parties (Béaur, 2009). For investments, the peasant farmer had to rely to own profits, life-cycle redistributions, or potentially on local capital provided by for example peasant lenders and trade middlemen. Most often land was needed as collateral for obtaining loans (e.g. Svensson, 2006; van Cruyningen, 2009; Thoen and Soens, 2009). Even facing these difficulties in providing capital, investment was recurrent in peasant farming. It has, for example, been found that while English peasants in the middle Ages used horses and invested in wagons, landlords stuck to oxen (Dyer, 2005: 27-29). The new crops and crop rotations that were introduced during the seventeenth and eighteenth centuries in England was first present on tenant farms and freeholds, not on manorial estates (Overton, 1996: 205). One part of the explanation for this is either the presence of absentee landlords, not particularly interested in the development of their estates, or in the fact that the possibilities for landlords to respond to economic incentives by an extensive output increase was higher

¹ Following Sapoznik's paper in this session, this was not the case in all places and at all times, and the general statement above clearly needs revision and elaboration.

than for peasant farmers. It was easier to increase the amount of labour services from the subject tenants and/or the area under cultivation than to invest in new methods or technique (Overton, 1996: 205; Blum, 1978: 120). The other part of the explanation is, of course, that peasant farmers sought to improve their position through investments to a higher degree than manorial lords. Investment behaviour among peasant farmers, in turn, was probably once more related to their degree of independence and to how much of the surplus that they could keep for themselves, not leading to increased rents or taxes.

Another factor speaking in favour of peasant farms is labour input. Most peasant farms relied on family labour, supplemented by living-in servants and sometimes day labourers. As compared to the labour force on traditional manors, i.e. the *corvée* labour made by the tenants, the former has been said to have a higher productivity. This has been attributed to the incentives inherent in producing for oneself in comparison to cultivating someone else's land. Better monitoring of the labour force might have been a solution for the landlords, but this was costly and to a large extent impossible for practical reasons. A better way of increasing labour productivity on the manors was to replace labour rent with money rents and employ wage labour. Even so, family farmers would in most cases devote more time per day or year than wage labour on the demesnes, until the point where marginal productivity of labour reached zero.

All in all, recent research has highlighted the importance of peasant innovativeness and investments. The rise in output and productivity in seventeenth century England was above all a result of small-scale farmers using new methods and new technology (Allen, 1992; see also Overton, 1996: 205). This "yeomen's revolution" did result in higher production and productivity, in opposition to the one taking place in the late eighteenth century (Allen, 1992). It has even been argued that if this so called landlord revolution in England had not taken place, and if the yeomen would still have been in command of their land, agricultural production would have been even more successful. According to Allen, this counterfactual case would have resulted in a slight increase in total agricultural production, combined with a more equal distribution of income within the agricultural sector (Allen, 1992: 303-311).

To sum up, earlier evidence seems inconclusive. On the one hand, while peasant farmers had no means to invest and no incentives for change, landlords had more resources and a high degree of independence making them better in engaging in productivity-raising measures. On the other hand, while landlords devoted themselves to conspicuous consumption and suffered from a non-motivated workforce, peasant farming had a higher degree of intensification, particularly regarding labour input, and the incentives' structure, if beneficial, would lead to more efficient farming and to implementation of innovations. To establish which of these contradictory postulations that was strongest we need an empirical case.

Empirical illustration

In order to study landlord and peasant farmer production over time we need an area and time period where data is available for both groups. This area is Scania (*Skåne*) in south Sweden. Today the region holds 1.2 million inhabitants, in the year 1800 there were 0.26 million. Ever since Scania was conquered from Denmark in 1658, it has been regarded as the granary of Sweden and the area therefore played an important role when Sweden turned from a grain importing to a grain exporting country.

Two different types of land ownership characterized early modern Sweden; about two thirds of the soil was owned or controlled by peasant farmers, while the remaining third was owned and controlled by the nobility. The noble landlords utilized their landholdings partly for own farming, as demesnes, and partly as tenancies in exchange for land rents from peasants, of which labour rent was one important part. The strongholds of the nobility were the eastern regions, surrounding the capital Stockholm, and Scania in the south. In the latter region, they owned about half of the land.

Map 1. Scania with the investigated parishes and manors.

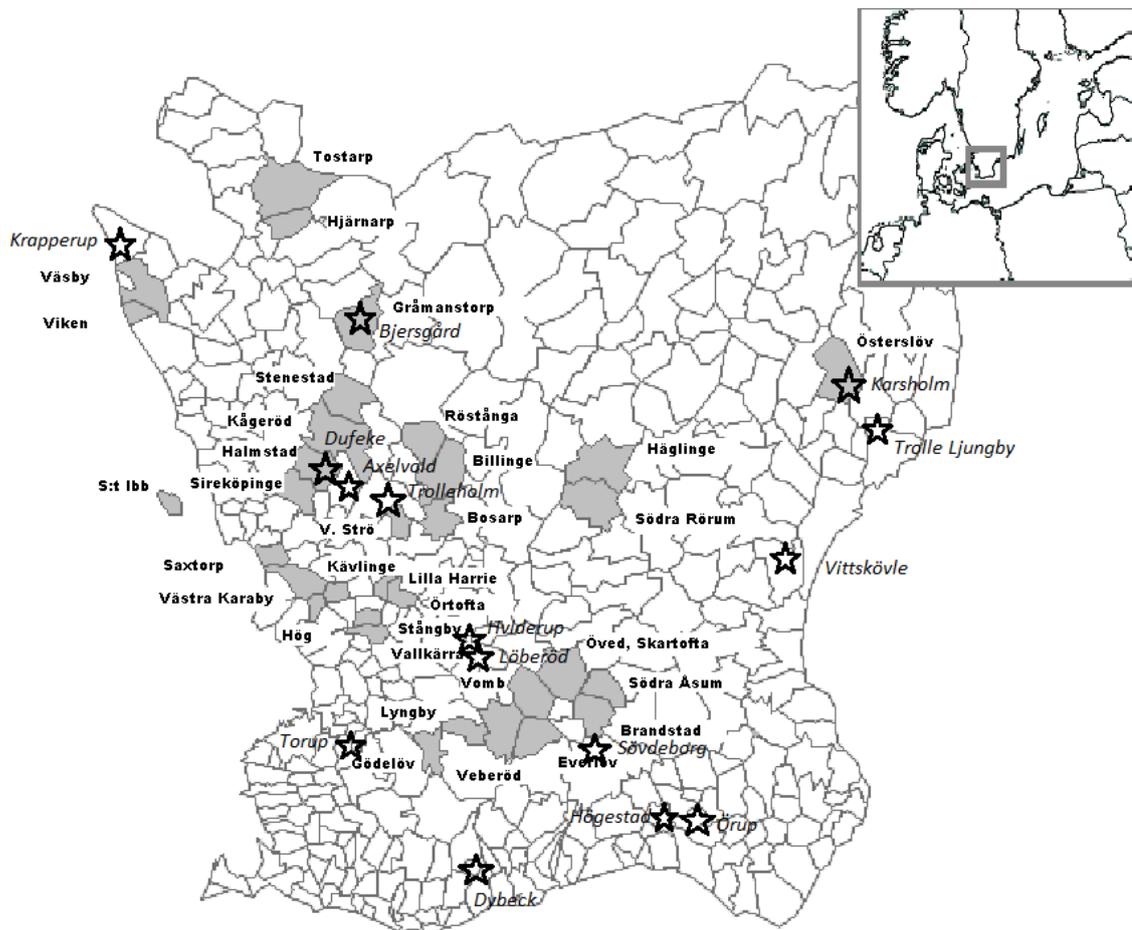


Table 1. Peasant farms and parishes in the sample by year

	<i>Number of</i>	
	<i>Farms</i>	<i>parishes</i>
1710	18	2
1720	181	4
1730	282	8
1740	312	9
1750	229	7
1760	493	12
1770	673	15
1780	700	17
1790	756	17
1800	869	20
1810	1,001	20
1820	933	19
1830	962	16
1840	378	12
1850	273	7
1860	62	3

Sources: Historical database of Scanian Agriculture

Note: Only every tenth year is shown although data exists for all the years in between as well.

Table 2. Manors in the sample

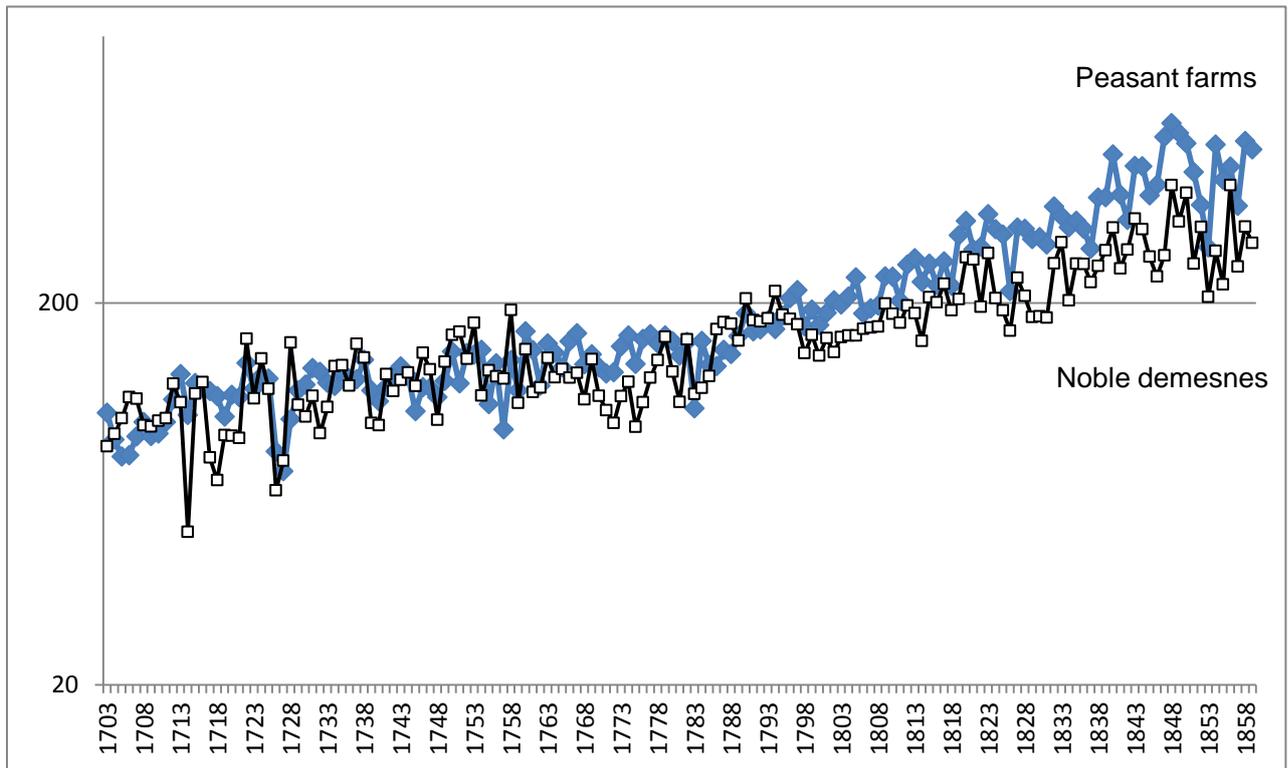
Name of the manor	Size, <i>mantal</i>	Present during the years	Account years
Vittskövle	5.5	1700–1860	94
Bjersgård	7.2	1704–1809	57
Trolle Ljungby	3.5	1722–1833	105
Krapperup	4.2	1735–1800	15
Axelvold	3.6	1769–1810	36
Högestad	5.2	1771–1800	29
Hviderup	6.5	1784–1799	16
Karsholm	5.2	1786–1857	50
Dybeck	5.8	1799–1809	12
Dufeke	3.2	1799–1859	54
Löberöd	4.5	1800–1853	35
Trolleholm	6.6	1807–1826	11
Örup	2.2	1813–1859	20
Torup	8.5	1821–1855	18
Sövdeborg	8.5	1848–1859	12

Sources: Estate archives, see Olsson 2002: 359–63.

Note: For comparison can be noted that 0.25 *mantal* was regarded as a minimum for a full peasant farm in the middle of the eighteenth century. The average farm in our peasant sample held 0.37 *mantal* at that time.

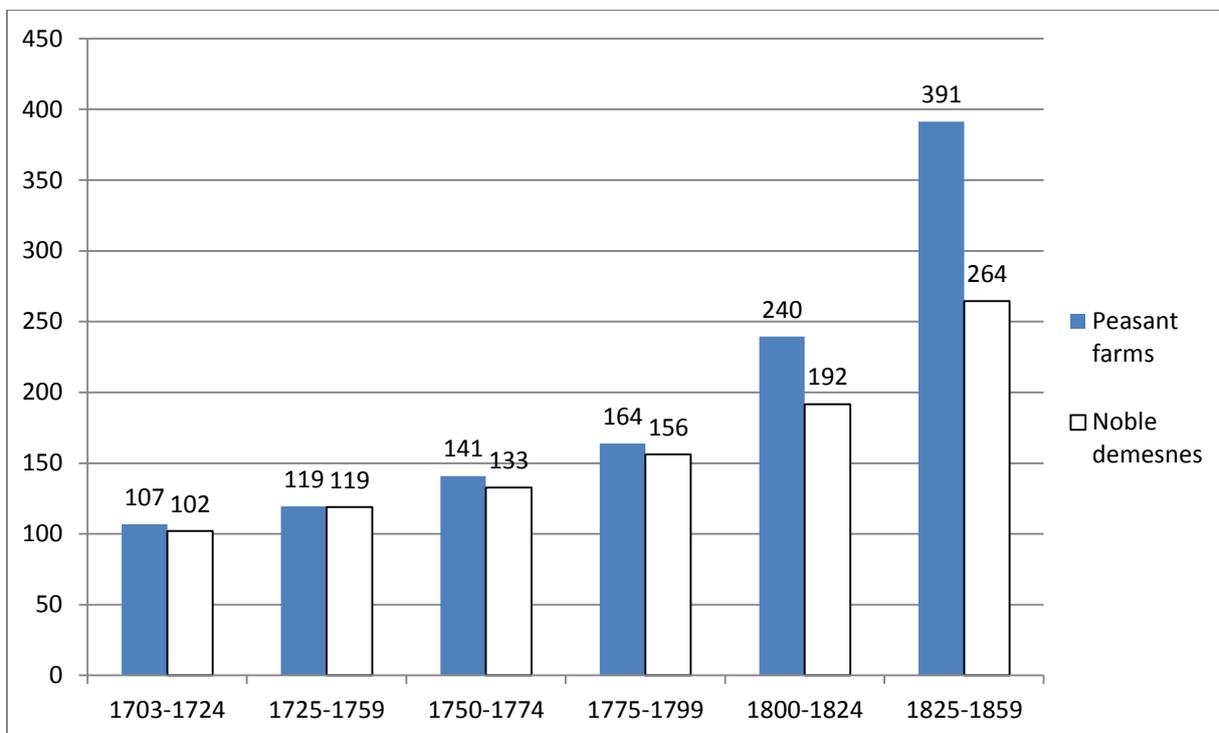
The number of missing years for each manor can be derived from the difference between period of observation and the number of account years.

Figure 1. Crop productivity on peasant farms and manorial demesnes 1703–1859, hectoliters per *mantal*



Sources: See tables 1 and 2.

Figure 2. Crop productivity on peasant farms and manorial demesnes 1703–1859, hectoliters per *mantal*, 25-year averages



Sources: See tables 1 and 2.

In our investigation we use two different sources to measure the development of crop production on the peasant holdings and on the demesnes. To estimate production on the former, tithe records from Scanian priests' income accounts are used. These sources contain individual yearly records for more than 2,500 farmsteads, of which some can be followed for 20 to 30 subsequent years and some for more than 120 years.²

To estimate the production at the demesnes, manorial accounts are used. In Sweden subsequent account books are mainly preserved for the period after 1750, with some exceptions. In order to analyze the productivity development for the demesnes, it is important to isolate the original demesnes from the additional land that was added to the demesnes by means of eviction of tenancies. For all the manors in our sample separate account books were kept for these new demesnes.

It is obvious from tables 1 and 2 that the peasant farm sample is a little bit thin at the beginning and end of the period of investigation, but from the 1720s until 1850 the sample is satisfactory. The series for different parishes and manors have been merged and the absolute levels of the two series have been calculated from their averages in the years 1799 to 1809, when the sources occurred most plentiful. The series are expressed in hectoliters per *mantal*. *Mantal* was a fiscal measure of the farms ability to pay taxes imposed in early modern Sweden. A peasant farm that was allotted half a *mantal* could hold 10–15 hectares in the fertile plains, but more than 50 hectares in the less fertile or wooded parts of the region.³ It was a rigid assessment: Every farm and manor in our sample had its *mantal* and it remained largely unchanged during 200 years, until the twentieth century, as long as their total area remained unchanged. So, the production per *mantal* actually shows the total area productivity, consistent over time and regardless of land type (on total land productivity cf. Overton 1996: 72; Allen, 2009: 62).

The development of the total area productivity for peasant farms and manorial demesnes are shown in figure 1. The correlation coefficient between the two series is 0.92. The high correlation is partly due to the trend, but even after hard trend elimination by first differences the coefficient remains above 0.5, which highlights the quality of the two series, constructed from completely different sources. Another confirmation of the reliability of the series is their concordance with contemporary qualitative sources on harvest failures, which marks out the years 1714, 1718, 1719, 1725, 1726, 1727, 1739, 1740, 1745, 1755, 1757, 1771, 1783, 1798, 1799, 1800, 1818, 1826, 1837, 1841, 1842 and 1853 (Olsson and Svensson, 2011).

Figure 1 shows that production increased over time in both peasant and demesne farming, but the strongest production boost in the nineteenth century was seen at the peasant farms. The 25-year averages in figure 2 reveal that until that century the development had been

² For information on the sources and methods, see Olsson and Svensson 2009, 2010 and 2011.

³ The average size of the peasant farms in our sample was 0.37 *mantal*, and the average size of the demesnes was 5.3 *mantal*.

comparable for the two types of managements, i.e. total land productivity seem to have been as high on peasant farms as on manorial demesnes. But while land productivity in the first half of the nineteenth century increased by 70 percent at the demesnes it rose by almost 140 percent at the peasant farms.

The landlord lag

The landlords in Sweden were generally present and active in their estate businesses in the eighteenth and nineteenth centuries. Each property was managed as a micro-mercantilist enterprise: Buy as little as possible and sell as much as possible. The bulk of the grain production was focused on sales and its long-term development followed the grain price cycles (Olsson, 2006: 486). The peasant farmers were less commercialized, but never absent from the market. Due to growing markets, rising prices on agricultural produce, and a favorable tax policy, their incentives for market participation increased over time. At the beginning of the 1800s the peasant class was stratified. By then, in each village there was a group of “agrarian entrepreneurs” who initiated legal enclosures, developed contacts with merchants, and gave and took credit for investments (Svensson, 2006).

It is often witnessed in contemporary sources that the manorial demesnes were forerunners in implementing new agricultural techniques in Sweden, a view that has been shared by later research (e.g. Zachrisson, 1920). Based on probate inventories and manorial accounts researchers have shown that there was an earlier spread of new types of plows, harrows, threshing machines and other farm implement at the manors than on peasant farms (Köll, 1983: 80–114; Kuuse, 1970: 105, 24; Möller, 1989: 115–117). But this does not give the whole picture. As long as the labour service system survived, and that was for Scania during most of the 1800s, the field works at many manors were performed with the same tools as on the peasant farms. It was not until the estate owners began to employ their own staff as they became interested in labour saving technologies. A wage labour system in agriculture creates interest in mechanized and machine-driven processes; while a family-based system creates interest in labour-intensive processes in which all household members’ labour can be utilized (Köll, 1983: 111–112).

When it comes to new crops and new crop circulation systems there are numbers of evidence of early implementations in landlord demesne agriculture. One example is the cultivation of the so called Laurentius-mass rye (*larsmässoråg*, sown the week after August 10), which started already in the early 1700s at the manors in Scania. It gave better harvests but demanded more manure and nursing. Typically, at the peasant farms such early sown varieties of rye were not implemented until one hundred years later. Furthermore, from manorial accounts we can follow the changeover from three-year rotations (normally rye – barley – fallow) to four- and five year rotations, still with fallows but with elements of fodder

crops, during the second half of the 1700s (Olsson, 2002: 226). On peasant farms this process did not start for real until the first decades of the 1800s.

Another contemporary view, which has been commonly replicated by later research, is that the village community, with its open field system and elements of collective farming, was holding the individual farmer's initiative back and thereby hampered the production growth (Heckscher, 1949: 241–256). This was not a problem for demesne farming, because these fields in most cases since long ago had been enclosed into separate units. However, there are certainly some signs that both the eighteenth century written reports and later research have underestimated the economic dynamics of the village system; its ability to lay out land reclamations and its willingness to perform everyday rationalization (cf. Allen, 2009: chapter 3). In the second half of the eighteenth century the villagers in Scania initiated legal re-distributions of land, not only in order to minimize the shareholders number of scattered strips, but also with the expressed purpose of improving the drainage of the common fields (Olsson, 2005: 110).

In fact, and with reference to the production trends shown in Figure 1 and 2, it can be claimed that the Swedish open field system experienced an Indian summer in the 1790s and early 1800s. After 1795, production output increased faster on peasant land than on the manorial demesnes, while before that they kept pace with each other. Thus, demesne farming in the eighteenth century had its advantages in better property rights, higher degree of commercialization and implementations of new agricultural techniques and crops. But this was counterweighted by land reclamation and everyday rationalization in peasant farming. In spite of the fact that the peasant villages still were managed within the traditional open field system the manors could not keep up with them in the end; the landlords started to lag behind in terms of total land productivity growth.

With the legal enclosure acts of the early 1800s, the village system was subsequently broken up and the same conditions prevailed on the two types of land in respect of property rights and individual opportunities. For the peasant farms in our sample this process started in 1804, and were almost completed in the 1830s. From now on, there were no obstacles for the peasant farmer to implement the same agricultural technologies that was practiced on the demesnes, and indeed, it normally took only a few years after the legal enclosures to the implementation of new crop circulating systems (Olsson, 2005: 127–128).

A great deal of the work at the demesnes was still done as labour services, which was performed by the tenants or their servants. According to contemporary sources, *corvée* labour was performed by the tenants meeting a minimum of incentives to put effort into the work (Cassel 1844: 14; Bruzelius, 1978/1876: 126–137; Sommarin 1939: 79). Simultaneously, the possibilities for land reclamation on the traditional noble demesnes were limited. For aesthetic reasons, and for the benefit of the aristocratic inclination for hunting, the manors and the demesnes were often located in the transition area between plains and forests, and

even when it was possible to put more land under the plow, it was not always preferred. The peasantry did not need to take into account such considerations.

So, when the peasants in the nineteenth century enclosed their farms to unified holdings, putting an end to the open-field system, they quickly adopted the same technical innovations that already existed at the manors in the region. At the same time peasant land reclamation, i.e. converting wastes and meadows to arable land, took up speed. This led to a sharp increase in their total area productivity, which outclassed the development on the old demesnes.

The role of the peasantry

Eli Heckscher once argued that Sweden had to pay for the privilege of a free peasantry with a more backward agriculture than otherwise would have been the case (Heckscher, 1949: 201). Such a counterfactual statement is of course impossible to refute, but our results indicate that Heckscher underestimated the role of the peasants in the agricultural revolution. This becomes even more obvious when we turn to an analysis of the total production outcomes for the demesnes and the peasant farmers, respectively.

The old landlord demesnes remained just below one tenth of the total agricultural area in our area of investigation, Scania. The landlords' expansion during the nineteenth century was aimed at enlarging the demesnes and to create new ones by means of eviction of the peasantry. The area of these new demesnes grew from less than 1 percent of total Scanian agriculture in 1800, to more than 15 percent in 1850. The total area productivity development on this land was comparable to that on peasant farms, because it was in the same way aimed at land reclamation. The new demesnes were also highly specialized in grain production and lacked the old demesnes limitations in terms of dependence on labour services; on these new farms, wage labour was predominant from the very start.

So, when reconstructing the distribution of total productions among peasant farms and landlord demesnes, we must take into account both the fact that there was a demesne expansion and that the new demesnes were more productive per land unit than the old ones. The result is shown in figure 3.⁴

First we turn to the overall level of production in Scania (see table 3). At the same time as production increased, population increased, but production increased faster than population already in the late eighteenth century. As can be seen in table 3 per capita production rose from 5.6 to 7.6 hectoliters in the first half of the nineteenth century. Contemporary sources used the key that the working population on average consumed two barrels of grain per person and year (2 * 165 liters), while elderly and kids consumed one barrel (Hanssen 1952:

⁴ See Olsson and Svensson, forthcoming, for detailed information on computation.

343). This implies an average consumption of 2.7 hectoliters per inhabitant. With additional deductions for seeds (one fifth of the harvest) and animal fodder (5 percent) we can derive the possible export volume from Scania. Due to a foreign export ban the grain shipments until the 1820s foremost went to deficit areas in the Swedish realm, but from the 1830s it was supplemented with exports, e.g. to England.

Already in 1750 there was a considerable grain surplus in the region, when more than one fifth of the gross production could be sold and shipped out. The only previous quantitative statement of the middle eighteenth century Scanian grain surplus is from an official in 1770, who claimed that the export from the region that year was 150,000 barrels (Åmark 1915: 20). This is equal to 248,000 hectoliters, a quantity that is reasonable in respect to the surplus 20 years before. In 1800 the surplus had grown to well above a fourth of the production, and in 1850 four out of ten grain barrels could be exported from Scania, in spite of the fact that the population had tripled in the last hundred years. During this period Sweden as a whole had changed from a grain importing country to an exporter.

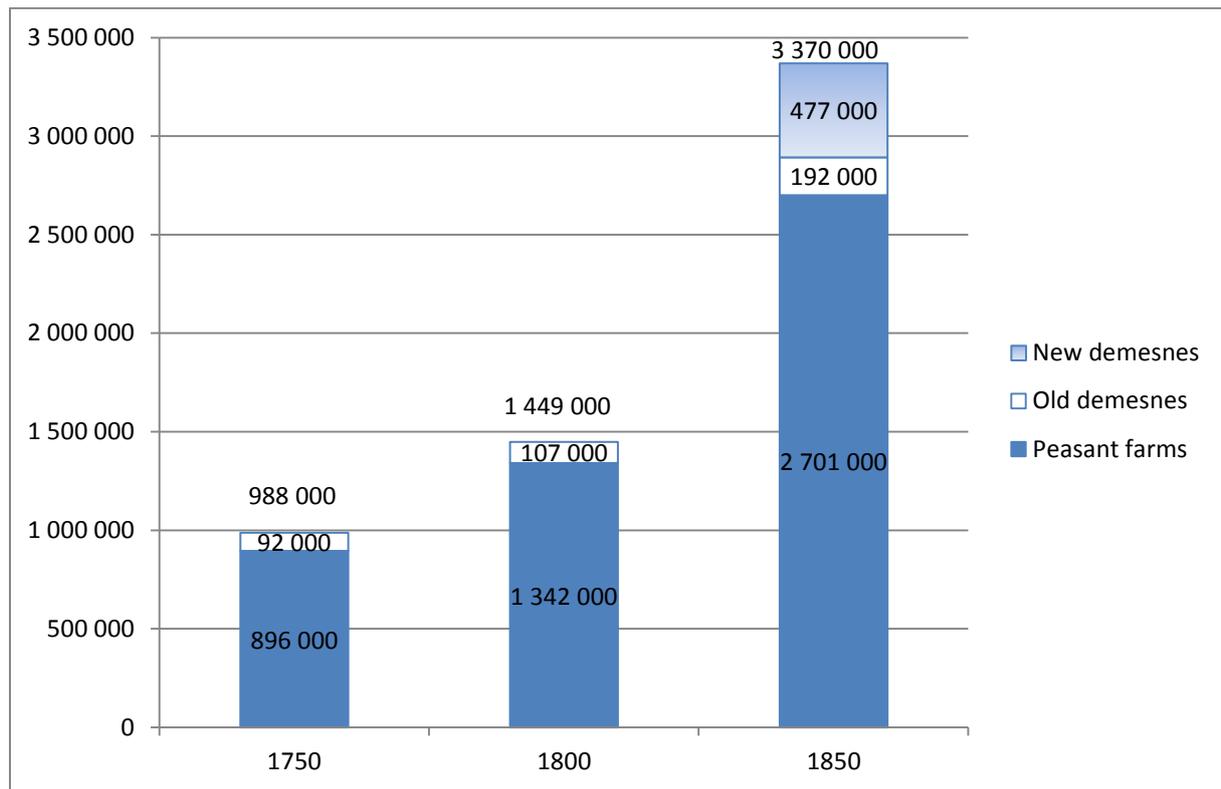
It is also clear from our investigations that the bulk of the surplus was produced by the peasant farmers. With deduction for seeds, and the consumption of employees and livestock, the old demesnes could hardly have been able to exceed 65,000 hectoliters in sales in 1750, leaving some 70 percent of the sales to the peasantry. Hundred years later the new demesnes, founded on former peasant land, could possibly have boosted the manors sales to about half a million hectoliters, but even in that case more than 60 percent of the region's grain surplus came from the peasant farms.

Table 3. Scania's total crop production (hectoliters), population and grain use 1750–1850.

	Crop production	Human population	Prod/capita	Human consum.	Animal consum.	Seeds	Possible exports
1750	988 434	195 498	5.1	522 618	49 422	197 687	218 707
1800	1 448 664	258 737	5.6	691 673	72 433	289 733	394 825
1850	3 370 075	442 711	7.6	1 183 485	168 504	674 015	1 344 071

Sources: See text and tables 1 and 2; Population from *Historical Statistics of Sweden*, pp. 49–50.

Figure 3. Total crop production in Scania 1750–1850, centered ten-year averages in hectoliters.



Sources: See table 3.

Conclusion

The case of the Swedish agricultural revolution has provided us with at least three important results. First, it is clear that before the massive increase in crop production, landlords and peasant farmers displayed the same productivity on average. The land was tilled with similar crops and similar agricultural techniques, which is highlighted by the fact that most of the work at the demesne field was performed by the peasants or their servants. Possible early innovations at the demesnes in the eighteenth century were answered to by peasants' land reclamations and everyday rationalizations within the village communities. Hence, a general finding is that landlords did not perform better than peasant farmers during the preindustrial era, or vice versa.

Second, during the agricultural revolution, and particularly from the early nineteenth century, productivity on peasant farms increased much faster than on the manorial demesnes. The vibrant agricultural transformation in Sweden with its tremendous increase in agricultural output is heavily linked to enclosures, and there were two types of enclosures with quite different outlines and effects. On peasant land the enclosure movement, often initiated by the peasant farmers themselves, led to consolidated landholdings through the breaking up of the open-field system. These enclosures were legal acts and each shareholder

ended up with a share of the village economy that corresponded to the share before the enclosure (enclosures type 1). On manorial land the enclosures often was an act of despotism, aimed at enlargement of the demesnes through the eviction of peasants from their holdings and the removal of whole villages (enclosures type 2). The latter type did not lead to higher productivity per area unit as compared to when peasants farmed the same land; it was above all a redistribution of income, or as E. P. Thompson put it: “a plain enough case of class robbery” (Thompson, 1963: 218).

Third, even so, most land was still in the hands of the peasants and in societies where peasants held the majority of the land there would be no major transformation without them raising their productivity. As can be seen from our results, an increase solely on manorial land would not have turned Swedish grain imports into exports. Moreover, a large peasantry experiencing increased surplus production led to the rising income in the agricultural sector being distributed more evenly than in a society characterised by large scale farming and fewer landowners. In turn this affected the whole Swedish society through the commercialisation of the entire economy and through a large scale increase in demand for industrial goods, e.g. textiles and iron tools. The most important finding is therefore that a large peasantry was not a hindrance to surplus production and trade but rather the reverse; the rising productivity among peasant farmers was a cornerstone in the emerging industrialisation of Sweden.

References

- Allen, R. C. (1992), *Enclosure and the Yeoman*. Oxford: Oxford University Press.
- Allen, R. C. (2005), *English and Welsh Agriculture, 1300–1850: Output, Inputs, and Income*. Unpublished working paper, open access:
http://econpapers.repec.org/paper/neroxford/http_3a_2f_2feconomics.ouls.ox.ac.uk_2f1362_2_2f.htm
- Allen, R. C. (2009), *The British Industrial Revolution in Global Perspective*. Cambridge: Cambridge University Press.
- Bloch, M. (1966), *French Rural History: An Essay on its Basic Characteristics*. Berkeley: University of California Press.
- Blum, J. (1978), *The End of the Old Order in Rural Europe*. Princeton: Princeton University Press.
- Brenner, R. (1985), Agrarian class structure and economic development in preindustrial Europe, in Aston, T. H. and Philpin, C. H. E. (eds.) *The Brenner Debate: Agrarian Class Structure and Economic Development in Pre-industrial Europe*. Cambridge: Cambridge University Press, p. 10-63.
- Broadberry, S. N., Campbell, B. M. S., Klein, A., Overton, M. & B. van Leeuwen, (2010), *British Economic Growth, 1270–1870*. Unpublished working paper, this version: 19 August, 2010. URL: <http://www2.warwick.ac.uk/fac/soc/economics/staff/academic/broadberry/wp>
- Bruzelius, N. (1978/1876), *Allmogelivet I Ingelstads härad i Skåne*. Lund: Walter Ekstrands Bokförlag.
- Campbell, B. M. S. (2007), *Three centuries of English crops yields, 1211-1491* [WWW document]. URL <http://www.cropyields.ac.uk> [accessed on 25/10/2010]
- Cassel, L.E. (1844), *Betänkande om hofveriets avskaffande, Kammarkollegiet, andra provinskontoret, 459, Riksarkivet, Stockholm*.
- Dodds, B. (2004), Estimating Arable Output Using Durham Priory Tithe Receipts, 1341–1450, *The Economic History Review*, New Series, 57:2, p. 245-285.
- Dyer, C. (2005), *An Age of Transition? Economy and Society in England in the Later Middle Ages*. Oxford: Clarendon Press.
- Hanssen, B. (1952), *Österlen. Allmoge, köpstafolk & kultursammanhang vid slutet av 1700-talet i sydöstra Skåne*, Stockholm: LT förlag.
- Heckscher, E. F. (1949), *Sveriges ekonomiska historia från Gustav Vasa, del 2:1*, Stockholm: Bonniers förlag.
- Historical Statistics of Sweden. Part 1. Population*, (1969) second edition, 1720–1967, Stockholm: National Central Bureau of Statistics.

- Hoffman, P. T. (1982), Sharecropping and Investment in Agriculture in Early Modern France, *The Journal of Economic History*, 42:1, pp. 155-159.
- Hoffman, P. T. (1996), *Growth in a Traditional Society. The French Countryside 1450-1815*. Princeton, NJ: Princeton University Press.
- Jones, P. (1966), Medieval Agrarian Society in its Prime: Italy, in Postan, M. M. (ed.) *The Cambridge Economic History of Europe, volume I, The Agrarian Life of the Middle Ages*, Cambridge: Cambridge University Press, p. 340-431.
- Lerner, J. (1992), Science and Agricultural Progress: Quantitative Evidence from England, 1660-1780, *Agricultural History*, 66:4, p. 11-27.
- Olsson, M. (2002), *Storgodsdrift. Godsekonomi och arbetsorganisation i Skåne från dansk tid till mitten av 1800-talet*. Lund: Almqvist & Wiksell International.
- Olsson, M. (2006), Manorial economy and corvée labour in southern Sweden 1650–1850', *Economic History Review*, LIX, nr 3 2006, p. 481–497
- Olsson, M. & Svensson, P. (2010), Agricultural growth and institutions: Sweden, 1700–1860, *European Review of Economic History*, 14, p. 275-304.
- Olsson, M. & Svensson, P. (2011), Agricultural production in southern Sweden 1702–1864, in *Growth and stagnation in European historical agriculture*, M. Olsson & P. Svensson (eds.), Turnhout: Brepols publisher, pp. 117–139.
- Overton, M. (1979), Estimating crop yields from probate inventories: an example from East Anglia, 1585-1735, *The Journal of Economic History*, 39, p. 363-378.
- Overton, M. (1996), *Agricultural revolution in England. The transformation of the agrarian economy 1500–1850*. Cambridge: Cambridge University Press.
- Postan, M. M. (1966), Medieval Agrarian Society in its Prime: England, in Postan, M. M. (ed.) *The Cambridge Economic History of Europe, volume I, The Agrarian Life of the Middle Ages*, Cambridge: Cambridge University Press, p. 549-632.
- Richardson, G. (2003), What protected peasants best? Markets, risk, efficiency, and medieval English agriculture. *Research in Economic History* 21, p. 299-356.
- Sapoznik, A. (2011), *Driving factors behind medieval peasant agriculture: Oakington, Cambridgeshire, 1360-1399*. Paper presented at the Annual Meeting of EHS, 2011.
- Svensson, P. (2006), Peasants and Entrepreneurship in the Nineteenth-Century Agricultural Transformation of Sweden, *Social Science History*, 30:3, p. 387-429.
- Thompson, E. P. (1963), *The Making of the English Working Class*. London: Victor Gollancz Ltd.
- Turner, M. E., Beckett, J. V. & B. Afton (2001), *Farm Production in England 1700–1914*. Oxford: Oxford University Press.
- Åmark, K. (1915), *Spannmålshandel och spannmålspolitik i Sverige 1719–1830*, Stockholm.