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Trends in Inequality in Sweden, 1700 - 1914 *)

Johan Söderberg

Introduction

This article discusses the secular development of social inequality in Sweden from ca. 1680 to 1914. The following questions are asked: What were the main trends, and what subperiods can be discerned? How do urban patterns (Stockholm) compare to rural ones? What were the driving forces? What is the relevance of the Kuznets curve as a description of historical patterns?

In contrast to Williamson's recent standard work on Britain this research emphasizes wealth rather than income inequality mainly because of its longer time perspective. The more we focus on pre-industrial and agrarian conditions, the less relevant will an income approach be. While information on various aspects of wealth is fairly rich, direct measurement of even late 19th century farm incomes is seldom feasible because of the scarcity of data. Though there seems to be widespread agreement that income and wealth inequality are closely related in historical series, I am also less convinced than Williamson that "wealth and its distribution is the tail wagged by the current income dog ¹⁾."

Studies of historical inequality have a place in several research agenda. One of them, the macroeconomic analysis of capitalist development, deals with inequality as part of a general equilibrium process. Within a growth and distribution model, inequality may be treated as a set of price signals flashing factor scarcities and triggering supply responses. Eventually, such a model may explain the joint behaviour of factor rewards, output, and inequality. The work of Williamson along these lines resembles but also attempts to augment the modeling of the classical economists from Ricardo to Marx, predicting the long-term behaviour of wages, rents, and profits ²⁾.

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1) J. G. Williamson, *Did British Capitalism Breed Inequality?* (Boston, 1985), p. 78. Investigations into long-term patterns of interoccupational pay ratios and intra-occupational wage or earnings inequality is certainly a promising line for Swedish research, but a focus on urban data will be unavoidable.

2) Williamson, *op. cit.*, thinks that independently changing wealth distributions (due to emancipation, land reform, or revolution rather than to income changes) are historically rather rare. Such "independence" would however be more frequent in the pre-industrial era, say prior to 1815, particularly with reference to the effects of war, demographic crises, and political instability. It is interesting to note that Eli F. Heckscher faced

Plausible macroeconomic modeling is however dependent upon the availability of fundamental data on inequality, factor markets, and output. More has been done on the British and American economies than on others. For Sweden and many other countries we need a much more systematic empirical basis³⁾. This paper reviews some basic evidence on Swedish inequality. Only regarding Stockholm have I been able to conduct a few selective investigations into primary materials and the real property tax registers of 1715, 1799, and 1845. My focus is on economic aspects of inequality; patterns of social mobility will only be treated briefly.

Important aspects of the distribution of resources in pre-industrial society may be traced in Swedish materials since the 16th century. No doubt this should also be possible regarding other European countries or regions. This opens up intriguing questions concerning the very long-term evolution in inequality which are just beginning to be explored. The well-known Kuznets curve of course only intended to describe the period of modern economic growth from the 19th century. As yet few corresponding hypotheses exist for the pre-industrial era. Since little empirical research has been carried out in Sweden, only some tentative hypotheses suggesting various long-term shapes of the inequality curve in pre-industrial agrarian society are discussed.

Inequality is measured solely by conventional indicators such as the Gini index. In quantitative history there has sometimes been an overstress on the unusual or fanciful at the expense of standardization and comparability. The comparative dimension will be extremely important in future historical inequality research. Such work will be aided by the use of standard methods and measures as far as possible⁴⁾.

As readers cannot generally be expected to know Swedish economic history well, it may be worthwhile briefly to present some basic features. Pre-industrial agrarian society was dominated by relatively independent peasants in large

the problem squarely in his discussion of the distribution of wealth in 17th century Sweden. Noting that "one of the great controversies in political economy concerns the question whether wealth increases are rooted in especially valuable economic contributions - according to market valuation - or depend on the distribution of power in society, two viewpoints which, to be sure, do not altogether exclude each other", he reached the conclusion on historical evidence that "the great fortunes were created primarily by the political conditions; contributions to ordinary economic activity in 17th century Sweden were not the main factors in the formation of large fortunes, although business transactions played their substantial part". H e c k s c h e r, *Sveriges ekonomiska historia från Gustav Vasa, I:2* (Stockholm, 1936), p. 318. Compare also the discussion of the reduktion below.

3) Important work on national product series for the whole of the 19th century is currently carried out by Olle Krantz and Lennart Schön at the Department of Economic History, University of Lund.

4) Much of the French inequality research is less useful for comparative purpose than it might have been due to a reliance on home-spun rather than standard methods. See, e. g., A. D a u m a r d et al. *Les fortunes françaises au XIXe siècle* (Paris, 1973).

parts of the country. Most researchers maintain that Sweden was never feudalized 5). Large estates were mainly found in the plainlands of the lake Mälaren region in eastern Sweden and in the south. The strategic industrial activity in the pre-industrial era was iron production. A strong, centralized bureaucracy emerged during the 17th century.

Agrarian economic growth in the period 1750 - 1850 is now generally regarded as an important prerequisite to later industrialization. The expansion of the peasant economy was a major force in the transformation of agriculture and the beginning of modern economic growth 6). Large-scale farming did not possess any obvious productivity advantages over peasant farming based on family labour 7).

The country was overwhelmingly agrarian well into the second half of the 19th century. As late as 1850 not more than one tenth of the population lived in towns. Industrialization was late but rapid; during the last decades of the 19th century exports of wood products and iron ore grew dramatically. The industrialization process was extremely successful in terms of economic growth and rising standards of living. From about the turn of the century the domestic market increased in importance and industrial production was gradually reorientated from raw materials to processed products such as pulp and mechanical engineering. Industrialization and urbanization were to a considerable extent separate phenomena, as 19th century exports relied on exploitation of natural resources in rural regions.

The Period 1680 - 1715

The only systematic inquiry into inequality trends during this period is Kekke Stadin's dissertation on small-town burghers. For seven towns, mainly in eastern and south-eastern Sweden, she described social differentiation primarily on the basis of tax registers. No other strata than burghers were studied 8).

5) A classic statement on the absence of feudalism is E. F. Heckscher, *An Economic History of Sweden* (Cambridge, Mass., 1954), ch. 2. For diverging Marxist viewpoints see P. Anderson, *Lineages of the Absolutist State* (London, 1974); J. Lindgren, *Den svenska militärstaten 1560 - 1720*, in: *Magtstaten i Norden i 1600-tallet og de sociala konsekvenser*, ed. E. Ladewig Petersen (Odense, 1984), 99 - 130.

6) On peasant expansion generally see S. Martinus, *Jordbrukets omvandling på 1700 - och 1800-talen* (Lund, 1982), M. Fridholm et al, *Industrialismens rötter* (Stockholm, 1976).

7) This aspect is stressed in much recent research at the Department of Economic History, University of Stockholm. See, e. g., U. Jonsson, A.-M. Köll and R. Pettersson, "Eine Agrargesellschaft im Wandel," *Zeitschrift für Agrargeschichte und Agrarsoziologie* 28 (1980); U. Jonsson, *Jordmagnater, landbönder och torpare i sydöstra Södermanland 1800 - 1880* (Stockholm, 1980), ch. 5.

This research observed a clear tendency towards widening inequality. A small group of well-to-do burghers managed to concentrate an increasing share of total economic resources into their hands. This tendency was strongest in the economically expanding towns, while stagnating ones exhibited a weaker trend toward concentration, or even a decline in inequality. Five per cent of the richest burghers often represented about fifty per cent of total taxes paid.

The dominance of an economic elite was most pronounced in trading centres, where merchants generally formed an upper stratum. One reason why wealth was increasingly concentrated was, according to Stadin, that several important economic activities demanded larger amounts of capital than previously. This applies for instance to the iron trade. Towns such as Arboga near the iron producing regions tended to be set aside by direct transactions between iron producers and Stockholm merchants. Small-town middlemen were increasingly bypassed, and only a minority among them were capable of successful adaptation, for example by establishing themselves as owners of ironworks, usually leaving the town⁹).

Stadin interprets her results within a broader framework of emerging capitalism. Only a small upper stratum among the burghers was capable of accumulation to such an extent that it contributed to capitalistic forms of enterprise, primarily with regard to ironworks, shipbuilding, and shipping companies. Their investments were modest but not unimportant. Members of this thin stratum were often closely related by marriage to Stockholm merchants. Middlemen, a far larger segment of burghers were under pressure from merchants in the capital, possessing greater resources gained from foreign trade. A commercial and economic concentration to Stockholm was taking place at the expense of several small and middle-sized towns. Economic functions were increasingly specialized within a division of labour geared to demand from the European metropolises. The new trends in economic organization implied a higher degree of efficiency but also a widening in overall economic inequality.

By 1715, there were probably less than twenty towns in Sweden proper (excluding Finland) with a population exceeding 1,000¹⁰). Trends in the urban distribution of resources can only have affected the aggregate national picture in a marginal fashion. No systematic study of inequality within the agrarian sector during the period in question is, however, available. Rising land prices,

8) K. S t a d i n, *Småstäder, smaborgare och stora samhällsförändringar* (Uppsala, 1979) especially ch. 5. Stadin argues that the analysis of tax records provides results that are comparable over time.

9) Concentration tendencies favourable to the big merchants were more evident in the export trade with bar iron than in internal trade with pig iron. I owe this observation to unpublished research by Professor Rolf Adamson, Department of Economic History, University of Stockholm.

10) This rough estimate of mine is based on data in Stadin, p. 176.

a major factor generally assumed to have contributed towards increasing differentiation later during the 18th century, probably was of little importance during this earlier period ¹¹).

The most interesting changes in stratification within the agrarian sector towards the end of the 17th century are associated with the great reform in state finances (the *reduktion*). In order to increase tax incomes, the crown confiscated many possessions that had been transferred to the nobility earlier during the century. Still, most of the old aristocracy managed to save its most important landed estates. In addition, several recently ennobled and enriched families emerged as large landowners in the aftermath of the *reduktion*. Non-noble merchants seldom were able to buy large estates. The actual balance between old and new fortunes is little known, although Eli F. Heckscher emphasized that the net result of the *reduktion* consisted less in an overall leveling tendency than in a transfer of wealth unto new hands ¹²). Heckscher probably underestimated the effects on overall inequality in the distribution of land. The amount of land belonging to the nobility was substantially reduced, by something of the order of a third. I find it hard to believe that inequality among private landowners should not have been appreciably reduced, even though the position of the peasantry was not automatically strengthened.

The Period 1715 - 1850

The agrarian sector

The only hypothesis concerning long-term inequality trends so far advanced in Swedish research was proposed by Maths Isacson (for references see Table 4 below). His investigation of a parish in the county of Kopparberg (for the division into counties see Figure 1) led him to separate two phases in the development of inequality among peasants. During the first period, stretching from the end of the 17th century throughout the 18th, inequality was reduced. Larger farmsteads tended to be divided into two or more units, resulting in homogenization.

11) I know of only one investigation into land prices, covering some 60 purchases of farmsteads in the county of Gotland 1689 - 1721. No marked price trend was discernible. See G. K e l l g r e n, Gotland 1690 - 1720 (Södertälje, 1942), pp. 209 - 10. Stable 17th century land prices, applying at least to transactions within kin, are also suggested by I. J o n s s o n, Jordskatt och kameral organisation i Norrland under äldre tid (Umeå, 1971), p. 103.

12) E. F. H e c k s c h e r, Sveriges ekonomiska historia från Gustav Vasa I:2, pp. 336 - 59. For more recent accounts see K. Å g r e n, The *reduktion*, in: Sweden's Age of Greatness, ed. M. R o b e r t s, (London, 1973); and L. M a g n u s s o n, *Reduktionen under 1600-talet: debatt och forskning* (Malmö, 1985).

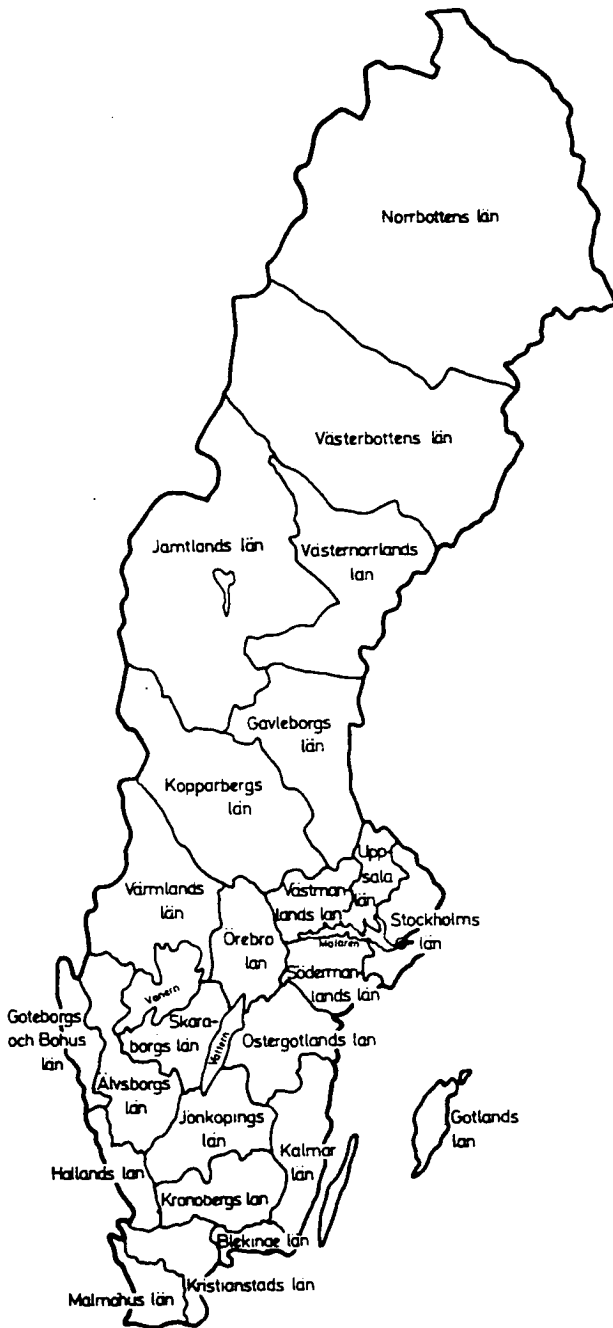


Figure 1: The division of Sweden into counties.

The second phase is connected with the agrarian revolution from the beginning of the 19th century. A group of large peasants emerged, which in Isacson's investigation area was involved in iron production as well. Agrarian production was growing at a faster rate than previously and substantial amounts of land were reclaimed. Isacson believes that there were some advantages of scale for the relatively large farmers. By 1850, a marked stratification among the peasants is evident, and the distribution of wealth was more unequal than it been by 1715. The small group of large peasants by the mid-nineteenth century was differentiated from the rest of the peasantry not only with regard to wealth and productive capacity but also socially, e. g., by the ownership of wagons, gold, and silver.

Isacson thus argues for the existence of a long-term U-shaped inequality curve, reaching a minimum around 1800. He did not claim that these results necessarily would apply to other areas than the one investigated. It is nonetheless interesting to discuss his findings in more general terms.

For the first half of the 19th century there seems to be wide agreement that inequality among peasants was rising. Several regionally based studies in addition to Isacson's display such a pattern of differentiation (see Table 4 below). Christer Winberg, dealing with a few parishes in the plains of Skaraborg county, reports a quite marked increase in inequality with regard to the distribution of land. He contends that the peasants in his area were so differentiated by 1850 as to make it meaningless to characterize this category as a social stratum. For two peasant-dominated parishes in southern Sweden, I also found evidence of growing inequality among landowners and farmers between 1821 and 1862. The Gini coefficient (G) increased from .42 to .51 in the plainland parish of Fleninge and from .18 to .35 in the woodland parish of Loshult. Still, inequality among property owners in agrarian society is in general likely to have been lower than in the towns¹³).

The gaps in our knowledge are greater when it comes to the first part of Isacson's hypothesis, supposing an 18th century homogenization. There is no agreement among researchers that it is reasonable to expect such a trend. In a study dealing with the county of Skaraborg between the 1730s and the 1770s, Lars Herlitz on the contrary supposes growing differentiation among peasants. Land prices were rising rapidly, forcing many peasants to settle with small farming units on which the labour force could not be effectively utilized. The growth in production and incomes was unevenly distributed. These conclusions of Herlitz' are not based on actual observation of changes in the distribution of resources but are merely indirect inferences from trends in land prices.

13) L. S o l t o w, "The Swedish Census of Wealth at the Beginning of the 19th Century", *Scandinavian Economic History Review* 33 (1985), indicates a higher level of inequality in Swedish and Finnish towns than in rural areas according to the wealth census of 1800. Unfortunately, Stockholm is missing in this material.

In other words there are two alternative hypotheses in the literature regarding 18th century trends in social differentiation. Isacson's assertion is to some extent contradicted by a study by Mats Morell reporting growing inequality in the distribution of land in five parishes in the counties of Stockholm and Västmanland ca. 1770 - 1825. Since this period is prior to the major changes associated with the agricultural revolution, his results fit Herlitz' hypothesis of rising inequality better. The same applies to Winberg's study, revealing a decline in the share of middle-sized farming units and a rising portion of small as well as large ones between 1780 and 1810.

Table 1 exhibits four inequality measures for the parish of Luleå in Norrbotten county. They all indicate widening inequality in the distribution of land between 1750 and 1824. Available evidence thus does not support a view of declining inequality during the latter part of the 18th century.

Table 1. Distribution of landholdings in Luleå parish in 1543, 1750, and 1824.

Inequality indicator	Year		
	1543	1750	1824
Share held by top 10 per cent of owners	20	17	20
Share held by top 50 per cent of owners	70	62	70
Coefficient of variation	.51	.34	.52
Gini coefficient	.28	.18	.28

Source: Calculations based on G. E n e q u i s t, *Nedre Luledalens byar* (Uppsala, 1937) pp. 35, 139, 221.

On the other hand, data for Luleå are not incompatible with Isacson's hypothesis in a deeper sense: there appears to be some kind of long-term curvilinear or cyclical path in inequality. The distribution of land was clearly more equal in 1750 than in 1543; the latter is in fact very similar to the 1824 distribution. Isacson certainly has a point in that we should not assume any long-run constancy in the level of inequality before the beginning of modern economic growth. Obviously far more work needs to be done in order to trace the very long-term evolution in inequality and its possible regional variations. It should be stressed that Luleå, being an area in Sweden's northernmost county where livestock rather than arable production was essential, differs in many ways from the central plains. Inequality in northern Sweden is likely to have been comparatively low¹⁴).

More research into patterns of landownership and other aspects of the distri-

14) The Luleå data are based on actual land measurements rather than on the conventional, inflexible land tax assessment unit (the mantal).

bution of material resources will be needed before we can determine the 18th century trends with any accuracy ¹⁵). It should be safe to assume, however, that the trend toward widening inequality among peasants that is seen during the first half of the 19th century must have been far stronger than anything during the previous century.

So far we have dealt primarily with peasant farmers or owners. One of the most striking elements in the total process of differentiation was, however, the growth of rural strata below peasants in the century after 1750. Especially during the period ca. 1800 - 70, the lower strata comprising crofters or landless increased dramatically. About 1750, groups below the peasants (primarily crofters, cottars, and landless labourers) were only a quarter as numerous as the peasants; a century later the lower strata comprised as many people as the peasants. Regardless of trends within the peasantry, this expansion of lower agrarian strata must have contributed towards a widening of inequality in a broader perspective. In this sense there can be little doubt that the century after 1750 must be regarded as a period of growing overall inequality ¹⁶).

What about the upper classes in rural society, the landed nobility and large landowners in general? By the mid-eighteenth century, less than half of one per cent of Sweden's population held approximately a third of the land. Although this may seem a high figure, it is far from extreme in a European perspective. The distribution was more uneven in, e. g., England and Wales, Prussia, Lombardy, and Spain, but perhaps somewhat more even in France at the eve of the Revolution ¹⁷).

Large landowners were declining in the long run. This was a temporally and regionally differentiated process, involving shifts between various groups of large landowners as well. The decline in the position of noble landowners began

15) More results on inequality in 16th century agrarian society will come forward in a research project entitled "Agrarian Production, Prices, and Wages in Sixteenth-Century Sweden", recently started by myself and Janken Myrdal at the Department of Economic History, University of Stockholm.

16) Several detailed social mobility studies show that downward mobility from the peasant to the lower strata increased dramatically during the first half of the 19th century. Facing rapidly rising land prices, sons or daughters of peasants frequently failed to attain the position of their parents. Trends in social mobility thus conform to what is reasonable to expect from economic inequality trends. Major studies include those of Winberg, Martinus, and Söderberg listed in Table 4. See also J. O. Björkman, *Bonde och tjänstehjon; om social stratifiering i äldre svensk agrarbygd* (Uppsala, 1974), and I. Eriksson and J. Rogers, *Rural Labor and Population Change* (Uppsala, 1978). Köll's thesis (Table 4) includes an interesting analysis of marriage patterns as an indicator of social distance. See also S. Carlsson, *Fröknar, mamseller, jungfrur och pigor* (Uppsala, 1977), and for an overview of social structure R. Miller and T. Gerger, *Social Change in 19th-Century Swedish Agrarian Society* (Stockholm, 1985).

17) S. Carlsson, *Ståndssamhälle och ståndspersoner 1700 - 1865* (Lund, 1973), p. 118.

and grew strongest in areas outside the central plainlands. The central plains, where the largest estates were situated, were less affected. Especially in the decades around 1850, a not inconsiderable net transfer of land took place from nobles to non-nobles including bourgeois as well as peasants. By 1862, 2.5 per cent of the largest owners held 29 per cent of the value of landed property¹⁸).

Stockholm

In order to trace some broad trends in inequality in Stockholm, the distribution of real property has been studied by means of three cross sections referring to the years 1715, 1799, and 1845, based on the following sources. Between 1713 and 1715, a yearly wealth tax was levied on real and personal property in Sweden. For Stockholm, only the 1716 returns, pertaining to valuations carried out during late 1715, are preserved. The registers report estimated values of sites, buildings, and personal property. Values of sites and buildings are here added for the purpose of obtaining comparability with the other cross-sections. Personal property is left aside¹⁹).

Apart from the wealth tax of the 1710's, no 18th-century valuation of real or personal property exists at the national level. Taxation of real property remained a municipal matter until 1810. For Stockholm, the source situation is better than for most of Sweden, since real property was re-evaluated on three occasions during the century (1737, 1787, and 1799). For this study I have only had the opportunity to analyze the 1799 records²⁰).

Starting in 1810, yearly real property valuations were carried out throughout the century. All of this valuable material is preserved. In rural areas valuations were generally fixed in money terms between about 1815 and 1862. For instance, a farmstead assessed to 1,000 rdr (riksdaler banco) in 1815 would still exhibit the same value in the 1861 volumes, although ownership changes would be recorded correctly. Of course this means that the sources do not reflect market values well during most of this period. In Stockholm, however, valuations were far more flexible in the short run. For practical reasons I chose to work with a municipal register based on the 1845 tax register²¹).

A stratified random sample was drawn from each register. All registers contain

18) On the position of noble and other large landowners see *Carlsson*, op. cit., ch. 6. The 1862 distribution: *S. Martinius*, *Jordbruk och ekonomisk tillväxt i Sverige 1830 - 1870* (Gothenburg, 1970), ch. 2.

19) For a general account of the wealth tax of 1713 - 1716 see *J. E. Almqvist*, *Om kontributionsrätteriet, Karolinska förbundets årsbok 1917*.

20) The 1737 municipal real property tax records are partly damaged.

21) For yearly aggregate real property values for Stockholm see *F. T. Berg*, *Statistiska minnesblad öfver Stockholm, Statistisk Tidskrift 3* (1865). On 19th century real property tax registers see *R. Admanson*, *Järnavsättning och bruksfinansiering 1800 - 1860* (Gothenburg, 1966), ch. 9, and *S. Martinius*, *Peasant Destinies* (Stockholm, 1977), ch. 2.

the same information: the title and name of the proprietor and the estimated value of the property, but no other personal characteristics such as age, and few descriptions of houses or sites²²).

Table 2 reports the share of real property held by specified percentiles of proprietors, ranked from largest to smallest, and sample sizes.

Table 2. Percentage of real property in Stockholm held by specified shares of property owners in 1715, 1799 and 1845.

Percentile	Share			Cumulative shares		
	1715	1799	1845	1715	1799	1845
0 - 1	12	9	11	12	9	11
1 - 5	30	24	23	42	33	34
5 - 10	21	20	19	63	53	53
10 - 20	20	21	19	83	74	72
20 - 30	9	10	10	92	84	82
30 - 40	4	7	6	96	91	88
40 - 50	2	4	5	98	95	93
50 - 60	1	3	3	99	98	96
60 - 70	0	1	2	99	99	98
70 - 80	1	0	1	100	99	99
80 - 90	0	1	1	100	100	100
90 - 100	0	0	0	100	100	100
Gini coefficient				.78	.70	.68
N				390	364	366

Sources: 1715: Karl XII:s kontributionsarkiv, skattningslängd 1716. 1799 and 1845: Brandvaktskasseadministrationens arkiv, taxeringslängder 1799 and 1846. All in Stockholms stadsarkiv.

The key result is that of a long-term overall decline in inequality. Most of the change occurred between 1715 and 1799, when G fell from .78 to .70²³). What

22) The 30 largest proprietors were located in each register. The rest were drawn by simple random sampling. As is well known with regard to highly skewed distributions such as these, simple random sampling throughout will underestimate inequality. See, e. g., F. Nygård and A. Sandström, *Measuring Income Inequality* (Stockholm, 1981), ch. 10.

23) A narrowing in inequality in Stockholm during the first half of the 19th century is also suggested by Soltow's study of the distribution of wealth among deceased. G declines from .84 in 1790 and 1800 to .78 in 1850. The source is the municipal death lists (dödlisitor). This material is however highly incomplete, including only a minority of the deceased. The consequences of the gaps are not discussed. See Soltow, *The Swedish Census of Wealth*, p. 23.

shifts between social strata account for the narrowing differentials? Who were the winners? The losers?

Table 3 divides the samples into four strata. The first comprises persons of standing or rank (*ståndspersoner*) except merchants, dealers, and industrialists, who make up the second group ²⁴). The third consists of artisans and some other people with a similar social standing, while the fourth comprises individuals with a social position below that of the craftsmen: journeymen, labourers, soldiers and civil servants in low positions, and unspecified widows. The table also reports the share held by females (summed over all social strata).

Table 3. Distribution of real property in Stockholm by social category.

Category	Percentage of wealth			Percentage of sample		
	1715	1799	1845	1715	1799	1845
Persons of standing	74	41	35	23	20	18
Merchants, industrialists	12	33	37	8	20	21
Artisans	13	23	25	47	37	43
Lower stratum	1	3	3	22	23	18
Total	100	100	100	100	100	100
Female owners	35	14	11	21	20	14

Persons of standing suffered a rather dramatic decline in their share of real property during the 18th century, from 74 to 41 per cent of the total. Their shares were overtaken primarily by merchants and industrialists, and the artisans also advanced noticeably. Between 1799 and 1845 the distribution was more stable; the small changes taking place were continuations of 18th century trends. The lower stratum, while comprising about a fifth of the number of proprietors, held a fairly negligible portion of total real property.

When discussing the causes of the redistribution we have to keep in mind that the 1715 taxation took place during the later stage of the Great Nordic War, ending in 1721 when Sweden lost her Baltic provinces and her great power position. By 1715 the war had been raging for a decade and a half and Sweden had suffered heavy losses in Russia. Of course the war involved great strains on the country. Still, modern research has tended to play down the adverse effects, which clearly were not as disastrous to the economy as an older tradition main-

²⁴) The *ståndsperson* concept (from German *Standesperson*) refers to persons of high extraction and particularly those standing above the burgher and peasant estates. Nobles and priests were included, but from the latter 18th century the concept also was taken to comprise growing numbers of non-noble iron masters, officers, doctors, etc. See Carlsson, *Ståndssamhälle och ståndspersoner*, ch. 2.

tained. Stockholm was never attacked, but at the time discussed here the capital had received quite a number of refugees from Åland which had recently been conquered by the Russians. These people are often described as destitute in the 1715 register.

The eighteenth-century leveling tendency particularly affected the nobles. They very much dominated the upper tail of the 1715 distribution. Among the top ten proprietors only one was a non-noble (the merchant, Paul Johan Heublein). The largest owner was a noble woman, Elisabet Funck (1642 - 1719). The daughter of a rich mayor of Stockholm, she married Johan Funck, a dynamic iron master and entrepreneur regarded as one of the richest persons of burgher extraction in his time. He was ennobled in 1672 and died in 1679 at the height of his career²⁵). Among the rest of the top proprietors a small number of well-known noble families were well represented (e.g., Sparre, Tessin, De la Gardie, Piper, Fleming, Stenbock, and Horn).

By 1799, the situation had changed significantly. Only three nobles remained among the top ten (representing the families De Geer, Cronhjelm, and Rosenadler). The largest proprietor was a textile manufacturer, Carl Gustaf Apiarie, possessing the largest mill in Stockholm. The rest of the top ten now was quite diversified, including a merchant, an ironworks entrepreneur, another textile manufacturer, a high government official, an officer, and a wealthy widow.

In 1845, the largest owner was doctor, M. C. Retzius. The rest of the top ten now included a stronger element of merchants, occupying positions two to five. Furthermore, there were three nobles (families De Geer, Nordenfalk, and Stael von Holstein), a textile manufacturer, and a brewer.

In his classic interpretation of Swedish economic history, Heckscher emphasized two major changes in the 18th century economy. The first was the emergence of a new, largely non-noble upper class based on the leading merchants, particularly in Stockholm (the *Skeppsbroadel*), and the iron masters. The second was the growing importance of the peasantry, similarly based on economic expansion. Heckscher thought that the 18th century in some respects could be regarded as the age of the merchants, who were still being favoured by mercantilist policies aimed at stimulating the feeble towns. The merchants not only controlled the important exports but also were more closely involved in industrial production, especially iron, than they were to be during the subsequent century.

Heckscher on the other hand very much played down the role of urban handicrafts and manufactories in economic growth. They did not form a point of departure for the industrialization gaining momentum during the 19th century. The roots of modern industrialization rather were to be found in rural cottage production, particularly in textiles²⁶).

25) On the Funck family see Svenskt biografiskt lexikon 16 (1964), p. 650.

26) E. F. H e c k s c h e r , Svenskt arbete och liv (Stockholm, 1968), pp. 148, 212, 219.

Heckscher's conception of cottage industry is supported and reinforced by recent Swedish research stressing the importance of the domestic market for consumption goods. In a major study of the rise of mechanized textile factories, Lennart Schön observes a close connection between agricultural growth, raising domestic demand for textiles, and the expansion in rural cottage industry²⁷). Heckscher anticipated strategic elements in that part of the protoindustrialization debate which points to the existence of such a positive link between cottage industry and subsequent industrialization.

The limited investigation of Stockholm presented here can of course only very partially form a basis for a reappraisal of Heckscher's interpretation of the Swedish 18th century economy. Nevertheless, I will try to relate the results to a larger framework.

With regard to the expansion of iron merchants and iron masters emphasized by Heckscher, this cannot be expected to have made much of an impact on the Stockholm real property market. Investments in moveables and ironworks were more strategic to the exporters than was investment in real property within the capital²⁸). The economic strength of the leading merchants, and even less of the iron masters, will not show up in the holding of large possessions in Stockholm. Other sources and methods will have to be used in order to determine the extent of their expansion.

The advance of the merchant and industrialist group in Table 3 mainly involved individuals other than those associated with the major merchant export firms. Traders in grain, spices, or general groceries were prominent. Particularly in 1799, there was a not inconsiderable number of industrialists among the larger proprietors. Even though the manufactories of the capital on the whole were declining since the 1760s, this should not lead us to believe that possibilities of capital accumulation were absent. A few textile and tobacco manufacturers were able to compete at the highest level of the urban real property market.

During the 18th century not only merchants and industrialists but also the artisan category in Table 3 clearly improved its position versus the persons of standing. While artisans formed a diminishing share of the proprietors, those remaining increased their share of total property. Artisan proprietors in other words became fewer and richer. Brewers, representing a relatively capital intensive industry, are among the most prominent in 1799. At the other end of the scale were the few and small owners from large trades with small costs of entry such as shoemaking and tailoring.

This pattern may be compared to Ernst Söderlund's study of the Stockholm

27) L. Schön, *Från hantverk till fabriksindustri* (Lund, 1979), ch. 5; Schön, *Industrialismens förutsättningar* (Lund, 1982).

28) K. Samuelsson, *De stora köpmanshusen i Stockholm 1730 - 1815* (Stockholm, 1951), ch. 3.

artisans, based on tax registers. On one hand, he stressed the secular stagnation of handicrafts in the capital during most of the 18th century. Small-scale rural cottage production and other towns offered stiffening competition. On the other hand stagnation did not affect all handicrafts equally and did not preclude polarizing tendencies. Some small groups among the masters succeeded in establishing capitalistic forms of enterprises, employing dozens of journeymen and labourers in the building trades. Brewers, butchers, bakers, and goldsmiths formed an upper stratum at a considerable distance from the majority of masters²⁹). Results in Table 3 seem to agree with a view of widening inequality within the artisan group when this is taken to include the unpropertied masters. Economic stagnation among artisans should not be overemphasized since the category was expanding at the expense of persons of standing.

The decline of persons of standing is the dominating feature of Table 3. There is a lack of economic studies dealing with the nobility, among whom the decline was striking. One possibility is that some withdrew from the capital in order to specialize as landowners. The counties surrounding Stockholm were a stronghold of noble landowners well into the second half of the 19th century. One of the very few investigations into landed estates during the 18th century suggests fairly high levels of profitability. There is no reason to expect an economic crisis among noble landowners in this region³⁰).

Far from all nobles possessed land, however. A cohort study of the nobility by Ingvar Elmroth reveals a secularly declining percentage holding landed estates. This share was high among those born or ennobled in 1650 - 1659 (56 per cent) but far lower in the 1700 - 1709 and 1750 - 1759 cohorts. Demographic reproduction was significantly lower among the unpropertied, indicating less favourable economic circumstances³¹). A growing share became civil servants or military men; this was partly an inevitable effect of the reduktion.

The weakened position of the Stockholm nobility during the 18th century may be seen as an expression of growing inequality within this estate, making itself particularly felt in the capital where the number of nobles in civil service was very high. It is only logical that the stable position of the landed nobility in the lake Mälaren valley should contrast to the retrogression in the capital.

There are reasons to believe that the major features of Heckscher's interpretations are realistic. Summarizing the discussion above, some minor points may still be made. First, reference to social categories should be supplemented by the observation that differentiation within the peasantry as well as within the nobility and the Stockholm artisans in all likelihood was widening. Second, Heckscher may have had a too negative view of the role of urban burghers and

29) E. Söderlund, *Stockholms hantverkarklass 1720 - 1772* (Stockholm, 1943), ch. 8; Söderlund, *Hantverkarna II* (Stockholm, 1949), pp. 85 - 99.

30) L. Magnusson, *Ty som ingenting angelägnare är än mina bönders conservation* (Uppsala, 1980), ch. 5.

manufacturers. While the general discontinuity between handicrafts and manufactories on one hand and modern factory industry on the other is undeniable, possibilities of capital accumulation within the handicraft and manufactory sectors were far from totally lacking. This somewhat more positive view resembles Stadin's concerning the small-town burghers in the decades around 1700.

Third, regarding the Stockholm merchants, the advance of some iron exporters may have been overstressed at the expense of broader layers of merchants and dealers who often seem to have been fairly successful. Fourth, the diversity of regional patterns makes generalization to the national level a less straightforward matter than Heckscher assumed. The establishment of national trends more often than not requires large numbers of regional investigations, few of which have yet been carried out.

The results regarding female proprietors in Table 2 remain to be commented upon. A surprisingly high share of real property in 1715 (35 per cent) was held by women. This share was not more than 14 per cent in 1799 and 11 per cent in 1845. In 1715 as well as in 1799 females comprised about 20 per cent of the sample. The 1715 female proprietors thus were remarkably wealthy but not unusually numerous. Wartime male mortality alone is not a sufficient explanation. Possibly the Great Nordic War led to disproportionate rise in mortality among noblemen as many officers were killed. Anyhow this period seems to be associated with an economically strong position of propertied women.

The long-term inequality decline in Stockholm does not reinforce either of the competing hypotheses regarding Swedish rural society referred to above. Table 4 summarizes most of the available results on secular trends.

The secular decline in inequality in Stockholm does not conform to Kuznets' well-known inverted U hypothesis, according to which inequality is supposed to widen during early periods of industrialization and later to narrow. Kuznets assumed that inequality among the urban population would be far wider than for an agricultural population organized in relatively small enterprises. This would be the case particularly when the urban population was being swelled by immigrants, either from the country's agricultural areas or from abroad. Once the turbulent phases of urbanization and industrialization had passed, the relative position of lower urban strata would improve, reducing overall inequality 32).

The inverted U hypothesis in this original formulation is based on assumptions of the emergence of a dynamic growth process in which industrialization and urbanization are closely tied. This does not provide a good description of the Swedish experience in the century after 1750 where industrialization and urbanization were largely separate phenomena. Agrarian growth is likely to have sur-

31) I. Elmroth, *För kung och fosterland* (Lund, 1981), chs. 4, 6.

32) S. Kuznets, *Economic Growth and Structure* (London, 1966), pp. 273 - 5.

Table 4. Schematic presentation of results on secular inequality trends in Sweden, ca. 1720 - 1850.

Area, county	Social category	Inequality trend	
		1720 - 1800	1810 - 1850
By, Kopparberg	Peasants	Falling	Rising
Most of Skaraborg	Peasants	Rising	
Dala, Skaraborg	Peasants		Rising
Skåning, Skaraborg	Peasants		Rising
Julita and Österåker, Södermanland	Peasants		Rising
Fleninge, Malmöhus	All owners		Rising
Loshult, Kristianstad	All owners		Rising
Västerlövsta, Västmanland	All owners		Rising
Stockholm city	All owners	Falling	Falling

Sources: By: M. I s a c s o n, *Ekonomisk tillväxt och social differentiering 1680 - 1860* (Uppsala, 1979), Skaraborg: L. H e r l i t z, *Jordegendom och ränta*, (Gothenburg, 1974); Dala: C. W i n b e r g, *Folkökning och proletarisering* (Gothenburg, 1975), pp. 184 - 5; Skåning: S. M a r t i n i u s, *Peasant Destinies; the History of 552 Swedes Born 1810 - 12* (Stockholm, 1977). Julita and Österåker: A. - M. K ö l l, *Tradition och reform i västra Södermanlands jordbruk 1810 - 1890*, (Stockholm, 1983), pp. 46 - 7. Fleninge and Loshult: J. S ö d e r b e r g, *Agrar fattigdom i Sydsverige under 1800-talet* (Stockholm, 1978), pp. 60 - 1. Västerlövsta: M. M o r e l l, "On the Stratification of the Swedish Peasant Class", *Scandinavian Economic History Review* 28 (1980), p. 29.

passed urban economic growth. Under these conditions most of Sweden experienced a widening and subsequent narrowing in inequality during the 18th and 19th centuries, exhibiting an inverted U curve albeit within another growth context than that envisaged by Kuznets.

The larger framework within which Stockholm producers operated differed radically from the agrarian arena. Contrary to advancing on a widening market, as agricultural producers did, those in Stockholm were facing long-term economic stagnation and strong tendencies towards deindustrialization in the century after 1750. Trying to adapt to market contraction, Stockholm firms were often

on the Schumpeterian negative side of development. Indications of low profitability should of course not be taken to imply that no individual enterprise were gaining large profits; examples of success among manufacturers and craftsmen have already been presented. Secular economic stagnation still should have put serious barriers to capital accumulation, inhibiting a cumulative process of differentiation 33).

The Period 1850 - 1914

The second part of the 19th century will be treated briefly here. There is strong evidence to suggest that inequality was narrowing, but this rests on wages and incomes rather than wealth.

Studies of industrial towns indicate that the share of low-income earners declined while the share of high-income earners was rather stable. The middle groups were the winners. In particular, the share of skilled labourers in the middle income strata grew strongly because of substantially rising wages 34). A detailed investigation into three factories points to a leveling in industrial workers' wages during the last three decades of the 19th century. This was partly an effect of mechanization; the more handicraft labour participated in the production process, the greater were wage disparities 35).

The trade unions strived to reduce wage disparities. Homogenizing the working class was seen as a way of improving collective action prospects and raising class consciousness. However, the fairly weak unions can only marginally have affected the overall industrial pay structure at least before World War I. The main reasons for the leveling tendency of the late 19th century must be sought elsewhere. One attempt at explanation stresses that the industrial working class succeeded in reproducing itself to a substantial degree from about the turn of the century onwards. A second generation of workers emerged whose links with the agrarian environment were weak. This process combined with more widespread mechanization served to reduce gaps among manual labour 36).

33) On economic stagnation in Stockholm see most recently J. Söderberg, "Den stagnerande staden; Stockholms tillväxtproblem 1760 - 1850 i ett jämförande europeiskt perspektiv", *Historisk Tidskrift* 105 (1985).

34) B. Öhngren, *Folk i rörelse* (Uppsala, 1974), ch. 5; Öhngren, "Urbaniseringen i Sverige 1840 - 1920," in: *Urbaniseringsprocessen i Norden*, ed. G. Authen Blom, (Oslo, 1977), pp. 323 - 32. J. Söderberg and N.-G. Lundgren, *Ekonomisk och geografisk koncentration 1850 - 1980*, (Lund, 1982), pp. 22 - 3.

35) B. Berglund, *Industriarbetarklassens forering* (Gothenburg, 1982), ch. 4. For recent case-studies of the structure of wages see also L. Cornell, *Sundsvallssdistriktets sågverksarbetare 1860 - 1890* (Gothenburg, 1982), ch. 7 (sawmills); T. Svensson, *Fran ackord till manadslön* (Gothenburg, 1983), ch. 3 (shipbuilding); N.-G. Lundgren, *Skog för export; skogsarbete, teknik och försörjning i Lule älvdal 1870 - 1970* (Umea, 1984), ch. 7 (forestry); K. Morger, *Skebo bruk; teknik och social förändring vid ett järnbruk under 1870-talet* (Stockholm, 1985) (an ironworks).

However, this line of reasoning does not explain the previous leveling trend. The erosion of skill rewards seems to have begun well before the turn of the century. An economic analysis of the relative scarcity of unskilled labour, rents, profit rates, and other factor market conditions is obviously needed but still remains to be done. The Williamson hypothesis of industrialization bias, stressing that industrialization in the early phase was more capital and skill intensive than later on, is worth pursuing. In comparison with Britain, the early spread of literacy in Sweden may well have promoted a higher skilled labour supply response. At least it appears to have been so elastic as to reduce skill rewards during the last decades of the 19th century³⁷).

Two indications of the narrowing of pay ratios are presented in Figure 2. The first illustrates the steeper rise in female as compared to male wages between the 1880s and World War I. Female servants' wages in 1865/69 amounted to 44 per cent of the corresponding male wages: by 1910/13 this figure had risen to 63 per cent. The second aspect pertains to unskilled versus skilled male earnings. From the 1890s unskilled linemen in the state railways clearly approached the highly skilled enginemen. Leveling was strong during World War I³⁸).

Many other examples could be cited to the same effect. There can be little doubt that accelerating industrialization in the last decades of the 19th century was associated with a leveling in pay ratios.

Concluding Remarks

Interpreting American inequality data, Williamson and Lindert argue that long-term stability appears to be the best description regarding the 18th century. The main period of increasing inequality was between 1820 and 1860, while the latter part of the century exhibits no evidence of rising inequality³⁹).

36) C. W i n b e r g, "Vem blev industriarbetare?", *Fataburen* 1984. Social mobility studies on the late 19th and early 20th centuries include H. N o r m a n, *Från Bergslagen till Nordamerika; studier i migrationsmönster, social rörlighet och demografisk struktur med utgångspunkt från Örebro län 1851 - 1951* (Uppsala, 1974), ch. 6; B. K r o n b o r g and T. N i l s s o n, *Stadsflyttare; industrialisering, migration och social rörlighet med utgångspunkt från Halmstad 1870 - 1910* (Uppsala, 1975), ch. 7; K r o n b o r g and N i l s s o n, "Social Mobility, Migration, and Family Building in Urban Environments," in: *Chance and Change; Social and Economic Studies in Historical Demography in the Baltic Area*, ed. S. Å k e r m a n et al (Odense, 1978); S. Å k e r m a n, "Swedish Migration and Social Mobility: the Tale of Three Cities." *Social Science History* 1 (1977); M. R o l é n, *Skogsbygd i omvandling* (Uppsala, 1979). See also J. S ö d e r b e r g, "Metoder att analysera social rörlighet," *Historisk Tidskrift* 98 (1978).

37) On literacy see E. J o h a n s s o n, "The History of Literacy in Sweden, in Comparison with some other Countries," in: *Literacy and Social Development in the West*, ed. H. J. G r a f f (Cambridge, 1981), pp. 151 - 83.

38) On narrowing gaps between female and male industrial wages see G. B a g g e et al, *Wages in Sweden 1860 - 1930* (Stockholm, 1933), I : 197, 422 - 3. In textiles, the ratio of female to male wages seems to have been more constant.

PER CENT

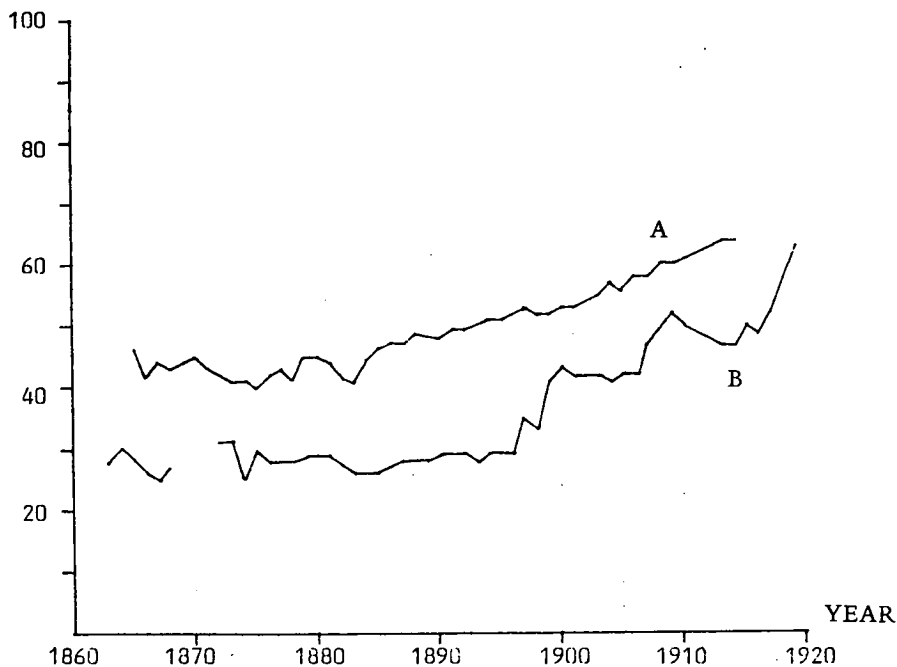


Figure 2: Aspects of the late 19th century leveling in wages.

- A. Female to male pay ratios: Female farm servants wages as per cent of those of male farm servants, 1865 - 1914.
- B. Unskilled to skilled pay ratios: Annual earnings of state railway linemen as per cent of those of enginemen, 1863 - 1919.

Source: G. Bagge et al., *Wages in Sweden 1860 - 1930*, Stockholm, 1935, II: 79, 113 - 4.

The British pattern is somewhat different, indicating a rise in income inequality from the end of the 17th century to the mid-Victorian era. The upward surge was most pronounced from the 1820s to mid-century. After the 1860s there is a clear decline in inequality⁴⁰).

39) J. G. Williamson and P. H. Lindert, *American Inequality* (New York, 1980), chs. 1 - 4. My comparison focusses on trends in rather than levels of inequality. On levels, see the comparison between Sweden, Finland and the United States in Solto w, *The Swedish Census of Wealth at the Beginning of the 19th Century*. According to his results, Swedish wealth inequality was higher than in Finland because of the stronger position of the nobility in the former country, and also higher than in the United States.

40) Williamson, *Did British Capitalism Breed Inequality?*

In the United States as well as in Britain, then, the decades preceding 1860 stand out as being marked by growing inequality. This would also seem to be the case in Sweden. During other periods, the Swedish pattern is more similar to the British than the American one. While the 18th century is characterized by widening inequality in Britain and Sweden (apart from Stockholm), no such trend is seen in America. Evidence for Britain and Sweden also are more alike insofar as the onset of a secular leveling trend is earlier than in the United States: the last decades of the 19th century are associated with declining inequality in the two former countries but not in the latter.

In the very long run from the 16th to the early 20th century there may be some Swedish evidence suggesting the existence of an inequality curve of the form of a recumbent S. Data for Luleå parish presented above pointed to a decline in inequality between the mid-sixteenth and the mid-eighteenth centuries, and Isacson's hypothesis in a broadly similar way assumes a downward trend before the beginning of modern economic growth. The upward turn during the first half of the 19th century and the subsequent downward turn during the second half would seem to complete the right-hand side of the recumbent S. This is at best a tentative hypothesis, waiting for further tests. Abundant pre-nineteenth-century sources relating to the distribution of resources in agrarian as well as urban society allow it to be checked.