

Late medieval and 16th century urbanization – Stagnation, expansion or both?

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1 Abstract

Were the later Middle Ages a period of urban stagnation or expansion in Europe? Lack of aggregated population estimates has made it difficult to reach any consensus among urban historians, while a 16th century expansion has generally been accepted. Based on population estimates of all medieval and 16th century towns in Sweden and Finland with corresponding levels of urbanization for 1349, 1410, 1460 and 1510, 1560 and 1610 this paper presents a surprising doubling of the level of urbanization during the agrarian crisis 1350-1460, followed by stagnation until the 17th century. This paper also argues for a closer look at GDP per capita as a determinant for urbanization level in pre-industrial Europe.

2 Four possible scenarios

Most historians would probably agree on the overall impact of the plagues and agrarian crisis of the later Middle Ages. The decline in agrarian production was less severe than the decline of population, implying a GDP per capita increase. Due to shortage of labourers, real wages increased while land rents dropped, implying a redistribution of wealth from larger land owners to labourers and tenants. During the second half of the 15th century demographic growth returned, implying recovering land rents and declining real wages. As a result, GDP per capita stagnated until the industrial revolution in most European countries, except England and the Netherlands, according to a number of recent studies¹.

How was the level of urbanization affected by these changes? Urban historians and economic historians alike have hesitated to apply the close correlation between GDP per capita and urbanization level in the modern world to pre-industrial Europe, and for good reasons. The impact of the redistribution of wealth from land owners to tenants is just one of several uncertainties that have opened up for contradicting conclusions regarding this period.

Four different urbanization scenarios are thus possible for the period 1350-1610:

- 1) Stagnation (or even decline) during the whole period
- 2) Stagnation (or even decline) during the first half of the period followed by an increase
- 3) A steady increase during the whole period
- 4) An increase during the first half of the period followed by stagnation

Proponents for the first three scenarios are easily found. The fourth scenario is what actually seems to have occurred in the Swedish realm and what we would expect if the rise and

¹ Zanden, Jan Luiten van (2004), which also includes a summary of recent research

consecutive stagnation of GDP per capita would have been the single most important factor, but let us first take a closer look at the arguments of the proponents of the three first scenarios.

In *The Rise of the Western World. A New Economic History*. Douglass C North and Robert Paul Thomas have focused on the negative impact on trade of the increasing transaction costs due to the late medieval wars and general turbulence in society. The resulting lower labour division and specialization combined with a tendency to rural self-subsistence lowered the efficiency of the economy and even puts into question an increase of the GDP per capita. On top of that, an expanding state refused to adapt to a lower overall GDP thus increasing the overall tax pressure, including duties. While not explicitly mentioning deurbanization, an economy retracting towards self-subsistence can hardly stimulate urbanization. More explicitly, the authors believe that the expansion of the cities in the 16th century was at the expense of the small market towns of the 15th century. North&Thomas conclude that the level of urbanization declined rather than grew, and they thus represent scenario number one.

In the well-known *The Making of Urban Europe 1000-1994*, Paul Hohenberg and Lynn Hollen Lees have presented a cyclical model to detect urban versus rural phases in the overall economy based on the development of output of the economy, prices, rents and wages². As production and prices fell and real wages rose, the high medieval urban period went into a late medieval rural period around 1330, followed by an urban period again in about 1510, which would correspond to our second scenario. It should however be mentioned that by an urban economy, the authors have cities and noble landlords in mind. Minor market town based on peasant demand would fall in the rural category.

Both Hohenberg&Lees and North&Thomas emphasize the significant decline of “luxury” trade due to lower land rents and, in the case of North&Thomas, also the increasing transaction costs due to higher risks and taxes. Could the European late medieval economy transform itself from luxury trade to cheaper commodity products and at the same time cut costs in order to benefit from the increasing purchasing power of peasants and labourers? Proponents of an increase of the late medieval level of urbanization, such as Edwin S Hunt and James M Murray, the authors of *A History of Business in Medieval Europe 1200-1550*, believe so. Wine trade did decline sharply, but instead a market for beer emerged. Italian luxury cloth was substituted for cheaper English and Dutch cloth. Contrary to North&Thomas, Hunt&Murray believe in an increased rural specialization, both locally and regionally, further increasing productivity, GDP per capital and trade per capita. They also believe in a rather rapid adaptation of the late medieval economy to these new conditions, implying an increasing level of urbanization soon after the Black Death. Focusing on the Middle Ages, Hunt&Murray do not explore the 16th century in detail, but instead refer to other sources regarding an increase of the level of urbanization from 10 to 12 per cent, i.e. the third scenario.

The fourth scenario, late medieval urbanization followed by 16th century stagnation, seems to be supported by empirical indications. There are two databases of urban pre-industrial population in Europe, Jan De Vries’ covering Europe 1500-1800 excluding Russia and the Balkans and the broader Bairoch’s&Batou’s&Chèvre’s covering Europe 800-1850³. Needless to say, the limited scope and uncertain input means that the output of such databases must be seen as indications rather than evidence⁴.

² Hohenberg, Paul; Lees, Lynn Hollen (1995), p. 113 f

³ De Vries, Jan (1984) and Bairoch, Paul; Batou, Jean; Chèvre, Pierre (1988)

⁴ Both databases probably cover less than half of the total urban population, since the threshold in De Vries’ database is 10,000 inhabitants and in Bairoch et al.’s 5,000. It has been estimated that by 1330, half of the urban

However, looking at the level of urbanization, it is rather the different assumptions about the recovery of the rural population during the 15th century that determines which scenario we are looking at, as illustrated in table 1.

TABLE 1 - EUROPEAN POPULATION (MILLION) AND LEVEL OF URBANIZATION 1300-1600

	Urban population	Total population		Level of urbanization	
	Bairoch et al	Bairoch et al	Slow 15th recov.	Bairoch et al	Slow 15th recov.
1300	7.2	67	75	10.8%	9.6%
1400	6.9	49	50	14.0%	13.8%
1500	7.6	67	57	11.5%	13.4%
1600	10.7	81	80	13.1%	13.3%

Source: Bairoch, Paul; Batou, Jean; Chèvre, Pierre (1988), pp. 253 ff

Remark: Europe excluding Russia and the Balkans

Aggregated European estimates based on the assumption of a 15th century recovery can be traced back to M.K. Bennett's *The World's Food* used by B.H. Slicher van Bath in his well-known *The Agrarian History of Western Europe* and reappearing slightly modified with several other authors, including Bairoch et al.⁵ According to this old tradition of estimates, the European total population was back at pre-plague levels already in the early 16th century.

However, several regional studies show a very slow recovery in the 15th century but rapid 16th century growth. J C Russel on England, Werner Abel on England, France and Germany, and finally Janken Myrdal and Lennart Andersson Palm on Sweden all come to the conclusion that pre-plague numbers were reached only around 1600 or later⁶. Weighting this scenario 2/3 and an average of the Bennett scenario 1/3 we get the "slow 15th century recovery" scenario.

Combining the Bairoch et al urban population estimates with the "slow 15th century recovery" estimates of the total population would thus point toward the fourth scenario.

Still, the social and political turbulence in the hundred years following the Black Death and the difficulties in transforming production and trade from luxuries to commodities and cheaper products must not be ignored. There are good reasons to believe that all regions did not change with the same pace. With tax pressure falling slower than land rents, regions dominated by yeomen could have transformed at a slower pace than regions with tenants. Also, different regions were not equally well positioned to benefit from the new opportunities from the start. For example, when the standard of living rose, demand for meat rose at the expense of grain. This social and economic diversity must be kept in mind when looking at the Swedish realm as a case study.

population in Northern Europe lived in small towns with less than 2000 inhabitants (Hohenberg, Paul; Lees, Lynn Hollen (1995), p. 53 citing Pounds (1973, p. 358)). Since the percentage of small town dwellers most likely changed during the period, the high threshold used in both the databases is a major uncertainty to be added to the general uncertainty of medieval and 16th century urban population estimates (De Vries, Jan (1984), p. 35 demonstrates the "progressive concentration of the total urban population in the larger cities" in 1500-1800. Hohenberg, Paul; Lees, Lynn Hollen (1995) remark that the omission of small-town populations overstates the progression of urbanization in 1500-1800).

⁵ For example Maddison, Angus (2001) p. 33, Table 1-6a. McEvedy, Colin; Jones, Richard (1978)

⁶ Russel, J C (1948); Abel, Werner (1955); Myrdal, Janken (1999); Myrdal, Janken (2004); Palm, Lennart Andersson (2001)

3 The Swedish realm in 1350-1610 – major socioeconomic regions

The Swedish realm in 1350-1610, i.e. Finland and most of present-day Sweden, is suitable for a case study of a diversified region of Europe. The comparatively small population and low level of urbanization of the Swedish realm as late as 1610 make an assessment of the total urban population possible on an individual town basis. In 1610, the number of towns was 53 with a total population of about 55.000. 250 years earlier just half as many towns existed with a total population of about 20.000.

In terms of social regions the realm was split in two parts, one part dominated by tenants south of the mining district in northern Svealand, and the other part completely dominated by yeomen owning their land. In terms of economic regions the main difference is between the metal-producing region of Svealand in the centre of the realm, and Götaland to the south, Norrland to the north and Finland to the east. Timing of and impact on the growth of the urbanization level due to different social and as well as economic conditions can thus be measured.

TABLE 2 - MAJOR SOCIOECONOMIC REGIONS OF THE REALM 1350-1610

	Main export products	Other products	Yeomen
Götaland	Animal products	Grain	30%
Svealand	Iron and copper	Grain, animal products	52%
Norrland	Animal products	Fish	100%
Finland	Animal products	Fish	96%

Remark: yeomen as percentage of all peasants is based on mid 16th century tax records, but did not change materially in the period

4 A population database

Urban population estimates have been calculated using a pluralistic method, i.e. using several mutually independent sources and methods, with just one thing in common: the sources are to a varying degree correlated with population size. The three main methods are:

- tax records
- built-up area and plot size using archaeological evidence and written records
- institutional strength and church size

Generally speaking, the estimates for 1610 are the most reliable, due to the availability of various tax records for all towns. The completeness of these records is not uniform, but the percentage of women and non-tax payers makes it possible to assess each individual record. Going back in time, the percentage of town people living in towns with preserved tax records decreases to 20 per cent for the 1460 estimates. An additional method used, much less accurate, is to use the amount of tax paid by each town. This information can be traced back to 1530 for most towns, and to 1413 or earlier for ten towns

Assessment of built-up area is mainly based on archaeological evidence for the 1349 estimates, while written records of topographical relevance become more important only for the 15th and 16th century estimates. Generally speaking, when dendochronological dating is not at hand the mix of pottery types in an archaeological layer indicates its age, with late redware being next to non-existent in high medieval layers. Especially for towns with city walls, a separate assessment of plot size and its development over time is necessary.

Institutional strength traces the development over time of institutions which are correlated with town size such as monasteries, alms houses etc as well as the floor space of the town church(es). Obviously, this method gives more of a plausible range and not an exact estimate.

To assess the rural population a simple model for the late Middle Ages has been made. The model assumes a rather rapid annual growth of 0.8 per cent between known outbreaks of plague. The decline caused by each major incident, i e 1350, 1359-60, 1368-9, 1413, 1421-2 is then quantified as follows: -30, -15, -20, -10 and -15 per cent. Each mid-sized outbreak is quantified as -3 or -5 per cent. The relative strength of these outbreaks is based on Janken Myrdal's indications⁷. The total population estimates do not differ materially from the more general indications by Janken Myrdal.

5 Late medieval urbanization followed by 16th century stagnation

The general development of the level of urbanization can be seen in chart 1 and table 3.

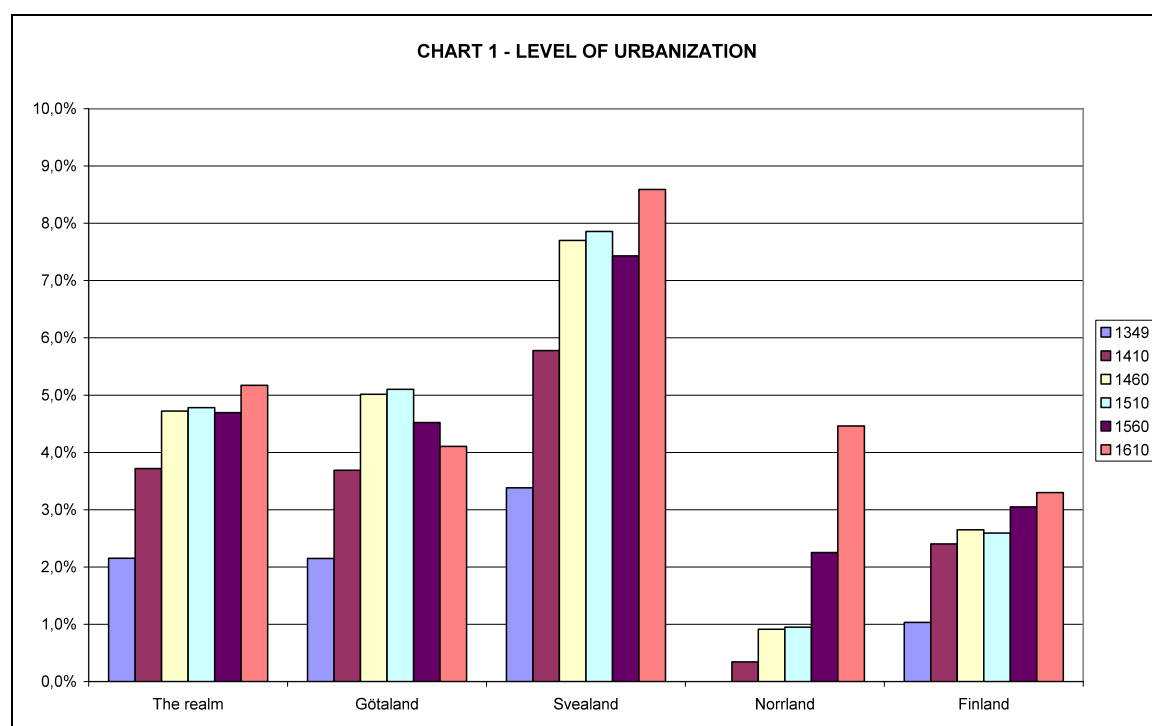


TABLE 3 - POPULATION AND LEVEL OF URBANIZATION IN THE REALM 1350-1610

	1349	1410	1460	1510	1560	1610
Urban population	21 050	23 150	26 350	31 963	39 700	55 242
Total population	976 000	627 000	557 000	668 400	845 526	1 068 000
Level of urbanization	2.2%	3.7%	4.7%	4.8%	4.7%	5.2%

The level of urbanization thus increased during the century of crisis 1350-1460 in all parts of the realm and then levelled off around 5 per cent. The numbers indicate that the increase was at least as strong during the first half of the crisis as during the second. We can see that the growth in the level of urbanization in 1349-1410 was at least as rapid in yeoman Finland as in

⁷ Myrdal, Janken (2004), p. 244 f

Götaland dominated by tenants, indicating that the rapid drop in population pressure was the main stimulus for a late medieval urbanization. Lower taxes, in Sweden believed to be a mid 15th century phenomenon, seems to have been of secondary importance.

1349-1410 was also the period when inland towns, serving less mobile customers, grew faster than coastal towns in Götaland, implying an increased participation of peasants in the market. All in all in Götaland more than 75 per cent of all peasants lived more than 50 km from the closest coastal town, stimulating the growth of a network of small inland market towns in the late 14th century. Inland town dwellers as a percentage of all urban inhabitants in Götaland grew from 37 to 44 per cent, close to the peak at 47 per cent in 1510, again pointing at 1350-1410 as the main period of transformation. It would thus seem like both tenants and yeomen quickly increased their market participation during the late 14th century.

Is it possible to pin-point the take off of the level of urbanization with more accuracy than just sometime between 1350 and 1410? In Turku/Åbo, the main town in Finland, there is dendochronological evidence of an extension of the built up area at two sites in the 1360s. In Söderköping, one of the three main coastal towns in Götaland, and Uppsala, in the main grain district of Svealand, peripheral plots that were later abandoned were still inhabited in the 1360s. With total population in the realm down by perhaps 35 per cent by the 1360s, following the plagues of 1350 and 1359, and although based on a very fragile material, it would thus seem like the rapidly decreasing pressure on rural resources stimulated peasant participation in the market already in the first post-plague decades.

There is unfortunately a general lack of sources and research that could shed some light over peasant consumption before the mid 15th century in Sweden and thus verify an early pick-up of the demand for traded goods among the peasantry. There are some indications that consumption of existing trade goods picked up early, while the well-known substitution for cheaper types of cloth, domestic fish and pottery etc is largely a 15th century phenomenon⁸.

When population growth rapidly picked up from the early 16th century, the urban system had great difficulties in keeping up the pace. Fortunately, three factors stimulated urbanization:

- New towns in completely un-urbanized areas, adding 0.3 percentage points
- An expanding and increasingly urban state sector, expanding largely at the expense of the church, adding a net 0.5-1.0 percentage points depending on definitions
- An expanding mining business with significant benefits to Svealand and some parts of Götaland

Without these factors, preserving the late medieval urbanization level would have been difficult. While uncertainty about the rural population growth makes it difficult to verify changes of the urbanization level with certainty, we can at least say that a deurbanization of Götaland in the 16th century can not be ruled out. Götaland was the region benefiting the least from the three above mentioned beneficial factors. Most towns in Götaland without connections to the mining regions of Svealand or lacking castles stagnated even in absolute terms despite a verified strong rural population growth.

⁸ As indicated by my own unpublished study of archaeological finds and the relative frequency of various consumption articles in the Swedish medieval document database Svenskt Diplomatarium. The relative increase of domestic fish has been presented by Jonsson, Leif (1986), while Poulsen, Björn (2004:1), p. 61, can verify a pick-up in demand for import cloth among the Danish peasantry only after 1460.

6 A general European trend?

To what extent was the strong late medieval urbanization, followed by 16th century stagnation, a unique Swedish phenomenon? One way to assess the likelihood of a more general northwest European phenomenon is to try to isolate the impact of various beneficial local factors on the Swedish urban system. These effects mainly include:

- A strong dependence on iron as an export product, one of the trade products with the strongest growth in volume and value during the late Middle Ages
- A comparatively late growth and urbanization of the Swedish church administration
- Urban fishery most likely had a positive development during the late Middle Ages

Assessing the exact impact of the expanding iron trade is difficult. While most Swedish towns grew or declined by less than 20 per cent during the late Middle Ages, towns heavily dependant on iron such as Stockholm and Arboga, grew by more than 50 per cent, and the 1440s towns of Lidköping and Hedemora probably had iron to thank for their existence. “Normalizing” these towns to the average Swedish growth level, we can estimate that the total impact probably did not exceed 0.5 percentage points in 1510.

The Swedish church administration remained rural for a long time. As late as in the mid 13th century most cathedrals were not even located in towns. Only by 1300 can the cathedrals physically be regarded as urban while the clerics continued to reside in the county-side even longer. However, the late Middle Ages brought about not only a physical urbanization of the clerics at the cathedrals but also an expansion of the staff. All in all, the late medieval impact of the church on the urbanization level can be estimated to 0.3 percentage points in 1510.

Finally imported fish was mainly replaced by domestic in the late Middle Ages. Fishery was a dominant activity in several small late medieval towns such as Gävle and Norrköping. Even in Stockholm, fishing was one of the most common professions in the 1460s. However, fishery was not restricted to an exclusive group of fishermen, but rather a part time activity of a wide group of townspeople, which makes an assessment of its impact extremely difficult. Allocating half of the population in towns where it was the major activity as a guestimate would explain 0.1-0.2 percentage points of the 1510 urbanization level.

All in all, less than 1 percentage point of the 1510 urbanization level can thus be explained by specific Swedish factors. Excluding all three factors thus still leaves room for a significant increase of the urbanization level. Even in absolute terms, it means an increase of the urban population during the late Middle Ages of about 25 per cent in the realm.

As a result, a late medieval urbanization can hardly be seen as an isolated Swedish phenomenon. At least in other countries where stock-raising was a dominant sector, such as Denmark, urbanization is likely to have occurred⁹. Strong late medieval urbanization has also been recorded for Holland, but due to proto-industrialization¹⁰. Assuming a slow 15th century rural demographic recovery, an increasing late medieval urbanization level followed by 16th century stagnation was probably a more general phenomenon in Europe as already indicated by the Bairoch&Batou&Chèvre population database.

⁹ An increasing urbanization level in Denmark during the Middle Ages has recently been suggested in Poulsen, Björn (2004:2), p. 225

¹⁰ Van Bavel, Bas; van Zanden, Jan Luiten (2004)

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