

Urbanisation and the Italian economy during the last millennium

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This article provides an overview of Italian urbanisation between 1000 and 2000, which may help in distinguishing the main phases of Italian economic history. In this millennium, three epochs can be singled out: from the tenth century to 1300–50; from 1300–50 to 1860–70; and from 1860–70 to 2000. While the first phase is characterised by slow progress and the third by massive urbanisation, the intermediate phase saw declining urbanisation. A strong connection exists, in these periods, between urbanisation and the productivity of the Italian economic system. By looking at Italian economic history from the perspective of urbanisation, we can draw a different picture from the one prevailing in recent literature on the subject.

For a long time after the publication of Braudel's *La Méditerranée*, the view prevailed that the Italian economy enjoyed a high level of prosperity from the beginning of the so-called Commercial Revolution in the late Middle Ages until the end of the sixteenth century, and only lost its prominent position during the crisis of the seventeenth century. As C. M. Cipolla repeatedly argued, a country which had been rich at the beginning of the century had become poor and backward by its end.¹ According to this view, a slow recovery only began from the eighteenth century onwards.²

This view (which dominated in the 1950s, 1960s and 1970s) was followed by a 'revisionist' approach, which held that the Italian economy was able to adapt flexibly and maintain, during early-modern times, more or less the same level of wealth that it had enjoyed in the late Middle Ages.³ Italian economic trends were thus described as flat. Italy was richer than the other European economies in the late Middle Ages and Renaissance, but became poorer when northern European economies began to advance rapidly from the sixteenth century on.

¹ Cipolla (1989). See also Romano (1971).

² Caracciolo (1973).

³ For this perspective, see Rapp (1976), Aymard (1978 and 1991), Sella (1979), and Malanima (1998b).

The primary purpose of this essay is to present a more reliable outline of Italian urbanisation over the last millennium. Bairoch's and de Vries' works⁴ do not provide urbanisation rates over such a long period. Furthermore, their series can be significantly improved.

This study of the Italian economy from the perspective of urbanisation also intends:

- (1) To present a different perspective on long run Italian economic trends. As we shall see, the hypothesis of a long-term decline from the late Middle Ages–Renaissance is more convincing than the two views mentioned above;
- (2) To propose a different perspective as to the causes of these trends. Internal factors and particularly the relative endowments of people, natural resources and capital appear as key elements explaining economic movements over the millennium. It is possible to return to a classical economic perspective, which, strangely enough, has never been adopted before in long-term accounts of Italian economic history.

After some introductory comments on definitions and the difference between northern and southern towns (Section 1), we will examine, in the European context, the three main phases of Italian urbanisation: from the tenth century to 1300–50; from 1300–50 to 1860–70; and from 1860–70 to 2000 (Sections 2–4), and explore the reasons for the transition from one phase to the other (Sections 5–6). The article thus reviews a complete millennial cycle of urbanisation, from the new start in the tenth century to the end of the second millennium.

1. Cities

From an economic viewpoint, cities are stable settlements characterised by a prevalence of individuals involved in secondary and tertiary occupations (such as manufacturing and trade, religious and military service, and government). In the pre-modern world, agrarian families, although almost invariably present in both small and large towns, were usually only a minority. This was the case in the medieval cities of central and northern Italy, but not in the South, where the majority of the inhabitants of both large and small centres were often peasants.⁵ This was especially true of Sicily, where sparse settlement did not exist at all, and the population lived in large urban villages. If we consider these villages as towns, Sicily at the beginning of the nineteenth century would rank as the most urbanised region in Europe, and perhaps in the world, with an 'urban' population of 66 per cent; that is to

⁴ de Vries (1984), Bairoch (1988) and Bairoch *et al.* (1988).

⁵ See data on the occupational structure in eighteenth century Puglia in Salvemini (1989).

say, the same urban percentage as Italy in the late twentieth century. This rural character of southern Italian cities deepened from the early modern age onwards.⁶

Even today there exist great differences between northern and southern Italy. It is hard to encompass the history of these two parts of the country in a single article and it would be misleading to present average values for the peninsula as a whole (which has only existed as a political unit since 1861). It is always advisable to distinguish South and North. For practical reasons, only centres with over 5,000 inhabitants, from the current southern borders of Tuscany, Umbria and the Marche to the Alps, have been included in our database.⁷

2. The first phase: tenth century to 1350

More than half a million (and perhaps 1 m) inhabitants have been estimated as living in Rome alone in the second century AD⁸ when the population of Italy was about 8 m;⁹ the urbanisation rate may thus have been as high as 15 per cent, and even 20 per cent or more.¹⁰ From the fourth century on, a decline in urbanisation occurred in Italy, as in other European regions. Many cities disappeared on the continent. Urban growth eventually resumed in the tenth century, when the population began to rise once more after a long decline.¹¹

In the 1980s, Bairoch estimated the European urbanisation rate in the tenth–eleventh centuries at a little less than 10 per cent, maintaining that ten cities with over 20,000 inhabitants existed in Italy before the year 1000.¹² Considering that the population of Italy in that period has been estimated at around 5.2 m,¹³ and that many smaller urban centres existed, an urban population of about 500,000 inhabitants¹⁴ might after all be plausible

⁶ Benigno (2001).

⁷ Nice and Istria are included. On the difficulty of calculating urbanisation rates, see de Vries (1990). Information on the construction of the database can be found in Malanima (1998a). The complete database for the period 1300–1861 (including southern centres) is now available at <www.issm.cnr.it>.

⁸ Ancient Rome's population has been the subject of a number of debates. See especially Lot (1945) for a low estimate and Carcopino (1939) for a high one.

⁹ Beloch (1909).

¹⁰ A rate of 30 per cent was proposed by Hopkins (1978), pp. 68–9.

¹¹ Toubert (1995).

¹² Bairoch (1988), pp. 137, 141 and 120.

¹³ It goes without saying that wide margins of uncertainty surround these demographic data, proposed by Bellettini (1973) and Del Panta *et al.* (1996).

¹⁴ A verification of Bairoch's estimate may be attempted by adding up the areas within the walls of some big cities. The areas of nine major cities totalled about 600 hectares in the tenth–eleventh centuries. These were Verona (35 hectares), Pavia (25), Lucca (39),



Map 1. *Main Italian cities around 1000.*

(Map 1).¹⁵ We can verify this rate by extrapolating from the relationship between the Italian population and the number of urban inhabitants in the centuries from 1300 to 1861.¹⁶ The result we reach for the tenth century

Parma (23), Bologna (22–25 up to the tenth century, but about 100 in the eleventh), Pisa (30), Milan (more than 100), Naples (100–200), Palermo (200) [Renouard 1969, Part I; Sestan 1977]. On the basis of the urban densities prevailing at that time, we obtain a total population of 100,000 to 200,000 inhabitants.

¹⁵ See the map in Kotel'nikova (1986), p. 51.

¹⁶ The data are shown in Table 4. The best fit is as follows:

$$y = 1,372 \ln(x) - 10,813$$

with $R^2 = 0.9391$, where y is the number of urban inhabitants and x the total population of the Centre and North (divided by 1000).

is an urbanisation rate of 8.14 per cent, at which time the population in the Centre-North was around 3.2 m.¹⁷

In all of Europe, from 1000 until 1300, there was little if any increase in the urbanisation rate. In Italy, on the contrary, the rate doubled at least. Relatively good figures for Italian cities in 1300 suggest that the urban share was over 20 per cent and, according to some lower estimates of the Italian population, as high as 24 per cent.¹⁸ The urbanisation rate doubled or even trebled in 300 years. Insofar as we can trust Tuscan figures, urban growth was rapid during the thirteenth century, when new walls were built to encircle several expanding cities.¹⁹ In Tuscany, by the end of the century, there were twice or three times as many urban inhabitants as at the start of it, while the population of the Centre and North had increased by 50 per cent. A rise in Tuscan urbanisation from 10–11 per cent in 1200–30 to 26.3 per cent by the end of the thirteenth century has been suggested.²⁰

Major changes in the geography of Italian urbanisation took place during the late medieval phase of economic growth. Although in Italy the creation of new cities did not play the same role as in other regions of Europe, during the late Middle Ages new centres sprang up or increased in population to become major cities. The best-known example is Venice, but major developing cities, founded after the decline of the Western Roman Empire, were Amalfi, Ferrara, Alessandria, Udine, Cuneo, Viterbo, L'Aquila, Fabriano, Macerata, Foggia, Molfetta, Lecce and Catanzaro.²¹

At the same time, a slow change was taking place in the balance between the South on the one hand, and Centre-North on the other. Towns in the South and the Islands, already flourishing during the Arab period, continued to develop. The rate of urban growth in the North, and particularly in the Centre, began to outweigh that of the rest of the peninsula and that of Sicily too. Although it is hard to compare the North and the South, we nevertheless know that in 1300 the urbanisation rate was already higher in the Centre-North than in the South and the Islands (21.4 against 18.6 per cent). Three cities (Florence, Venice, and Milan), forming a triangle in northern and central Italy, were the dominant nodes, surrounded by many smaller centres: 97 centres exceeded 5,000, 26 10,000, and 13 15,000 inhabitants (Map 2). While, for 1300, the average European urbanisation rate is estimated at around 10 per cent of the population, in Tuscany a level of 27 per cent was

¹⁷ Based on the ratio between the North-Central and Southern (including the islands) populations prevailing in the following centuries.

¹⁸ If we accept Bellettini's estimate of 11 m for the total Italian population (Bellettini 1973, p. 497). In the present essay, I will adopt a more recent estimate of 12.5 m (Del Panta *et al.* 1996).

¹⁹ Russell (1958), p. 109.

²⁰ Russell (1972), p. 47. Our estimate of 26.9 per cent for Tuscany coincides with Russell's. See also Russell (1968).

²¹ Sestan (1977).



Map 2. *Main Italian cities in 1300 (> 15,000 inhabitants).*

attained. At the time, Tuscany was the most urbanised area in Europe.²² Forty per cent of the urban population of the Centre-North of Italy lived in Tuscany, Umbria and the Marche, that is, in a geographical area comprising only one-third of the North as a whole.

3. The second phase: 1350–1870

In the case of Italy (and especially central and northern Italy) a good basis for estimating urbanisation in the period 1300–1861 was already provided by K. J. Beloch, and this has recently been improved upon for the late medieval

²² Breschi and Malanima (2002).

Table 1. *Total population, number of cities, urban inhabitants and percentage rates of urbanisation from 1300 to 1861 in Central-Northern Italy.*

	Population 000s	Number of cities	Inhabitants 000s	Urbanisation %
<i>> 5,000</i>				
1300	7,750	96	1,657	21.4
1400	4,720	59	829	17.6
1500	5,310	71	1,117	21.0
1600	7,828	86	1,438	18.4
1700	8,051	84	1,363	16.9
1800	10,212	102	1,788	17.5
1861	15,950	138	2,590	16.2
<i>> 10,000</i>				
1300	7,750	53	1,394	18.0
1400	4,720	21	583	12.4
1500	5,310	31	871	16.4
1600	7,828	37	1,130	14.4
1700	8,051	34	1,043	13.0
1800	10,212	51	1,447	14.2
1861	15,950	66	2,131	13.3
<i>> 15,000</i>				
1300	7,750	30	1,123	14.5
1400	4,720	15	519	11.0
1500	5,310	20	749	14.1
1600	7,828	23	967	12.4
1700	8,051	24	926	11.5
1800	10,212	36	1,284	12.6
1861	15,950	41	1,848	11.6

Note: Centres with over 5,000, 10,000 and 15,000 inhabitants.

Source: <www.issm.cnr.it>.

centuries by M. Ginatempo and L. Sandri,²³ and by regional and urban studies.²⁴ Furthermore, in 1861 the first Italian national census was held in which urban centres were clearly distinguished.²⁵ In 560 years – from 1300 to 1861 – the central and northern Italian urbanisation rate diminished from more than 21 to about 16 per cent (Table 1).

For this long second phase, our results differ, in several respects, from those of Bairoch *et al.* Their trend reaches its highest point in 1400 (24.1 per cent),

²³ Beloch (1937–1961); Ginatempo and Sandri (1990).

²⁴ Cited in the database in <www.issm.cnr.it>. See also Belfanti (1984) and Corritore (1993).

²⁵ *Popolazione. Censimento generale, 31 dicembre 1861* (1864). For areas of Italy which in 1861 were not yet part of the Italian state, I have recovered data from statistical reference works such as Marmocchi (1854–62), Muzzi (1854), Vivien de Saint Martin (1879–95), Metzger (1888), and Predari (1871).

and remains at 22 per cent from 1500 until 1800.²⁶ By contrast, in the Centre and North the relatively low urban percentage of 17 was actually achieved in the fifteenth century (see Table 4). A recovery took place at the end of that century. The high late-medieval level was reached again in the first half of the sixteenth century. A new decline began in the last decades of the sixteenth century (especially after the 1575–76 plague) and continued during the industrial and commercial crisis of the first decades of the seventeenth century. The lowest point in our series was reached in the middle of the century (15.2 per cent).²⁷ Then a recovery ensued and lasted for about a hundred years, to be followed by a new decline from 1770–80 until 1861, when the urban percentage was 16.2.²⁸

Data on urbanisation in the nineteenth century are not very reliable for all of Europe. Those available for Italy up to now have suggested an altogether false perspective. From 1800 to 1850, after 500 years of stability, Bairoch's series rises from 18 to 23 per cent.²⁹ In de Vries' series, the increase in this half-century is even stronger, with the urban share, based on cities of more than 10,000 inhabitants, growing from 14.6 to 20.3 per cent.³⁰

No meaningful change in urban hierarchy occurred in the period from 1300 to 1800 (Map 3), as the rank-size distribution shows.³¹ The main changes were the relative growth of a few cities, primarily Leghorn and Turin; and (most importantly) the relative decrease of urbanisation in central Italy. While, as we saw, in 1300 some 40 per cent of the urban population of North-Central Italy lived in Umbria, Marche and Tuscany, and the remaining 60 per cent in the North, in 1861 the ratios were, respectively, 21.5 and 78.5 per cent. The balance of urbanisation had shifted towards the North.

It was only in this second phase of its urbanisation that Italy began to lose ground *vis à vis* North-West European regions. If we consider centres with more than 10,000 inhabitants, urbanisation nearly doubled in Western Europe between 1500 and 1800 and a sharp acceleration (insofar as we can trust the available data) took place between 1800 and 1850.³² In Italy, urbanisation declined during these centuries and this decline did not stop with the beginning of the nineteenth century.

Before 1900, three regions played a decisive role in the European economy, each gaining dominance in succession: Central-Northern Italy, the Netherlands, and England. In 1500, urbanisation was already high in the

²⁶ The data provided by Bairoch *et al.* (1988, p. 259) are: 1300 (20.8), 1400 (24.1), 1500 (22.1), 1600 (22.6), 1700 (22.6), and 1800 (21.9).

²⁷ See Table 4 below.

²⁸ See also Corritore (1993).

²⁹ Bairoch (1988), p. 259, Bairoch (1988), p. 221, and Bairoch (1992).

³⁰ De Vries (1984), p. 45 and Hohenberg and Lees (1985), ch. VII, 2, who present excessively high estimates, based on Caracciolo (1981), p. 134.

³¹ Malanima (2002), pp. 83 ff.

³² Data on the period 1800–50, however, are inaccurate and of little use.

Table 2. *Urbanisation rates in Western Europe, Central and Northern Italy, England and Wales and The Netherlands, 1500–1850.*

	Western Europe	Centre-North Italy	England (and Wales)	The Netherlands
1500	5.6	16.4	3.2	15.8
1600	7.6	14.4	6.1	24.3
1700	9.2	13.0	13.4	33.6
1800	10.0	14.2	24.0	28.8
1850*	16.7	13.3	40.8	29.5

Note: Cities with at least 10,000 inhabitants. * 1861 for CN Italy.

Source: Data for Western Europe are from de Vries (1984). For England: Wrigley (1986), p. 147. For the Netherlands, Klep (1992), de Vries (1986 and 1994). The data for 1850–60 are from de Vries (1984), p. 45, except those for Italy.

to record the populations of cities. In Italy, from the 1871 population census onwards, cities ceased to be distinguished from their administrative areas, that is their district (the Italian *comune*).³³ Since a *comune* includes many small centres and the rural population beyond the city limits, its inhabitants are not just urban. On the other hand, it would be misleading to continue to use, for the sake of consistency with previous centuries, the threshold of 5,000 or 10,000 inhabitants to define a city after the end of the nineteenth century, at a time, that is, when the size of all centres was rapidly increasing. If we maintained such a threshold, today we would have to consider a very large part of the globe as being completely urbanised.

For Italy between 1861 and 1971, I have adopted the data proposed by geographers and demographers, based on the criterion of *comuni* with more than 20,000 inhabitants and a predominance of secondary and tertiary activities (Table 3).³⁴

From 1861 to 1961, the population of North-Central Italy doubled, and its urban population multiplied by 6.5. Every decade, from 1880 onwards, more than 1 m people moved to the cities; this figure rose to 3.2 m between 1951 and 1961, when the migration towards the cities reached its peak; and stood at 2.3 m between 1961 and 1971.³⁵ Between 1861 and 1971, 15–16 m people migrated from the countryside to the most industrialised *comuni*. This flow

³³ On changes in the statistical definition of a city see Spagnoli (1965).

³⁴ Another series for Italian urbanisation in SVIMEZ (1961), pp. 1938–39, is based on *comuni* with more than 50,000 inhabitants. For the Centre and the North (including Lazio) the results are: 1861 16.8, 1871 17.3, 1881 18.8, (there was no census in Italy in 1891), 1901 21.0, 1911 22.6, 1921 23.8, 1931 28.3, 1951 31.8, 1961 35.9.

³⁵ The values of rural-urban migration are estimated by assuming that in the cities and in Italy as a whole the natural rates of increase (due to the difference between natality and mortality) were the same. The difference between the actual and the natural urban growth is the immigration towards the cities. See also Golini (1974).

Table 3. *Total resident population, urban inhabitants and rates of urbanisation in Central-Northern Italy (Lazio included) and in Italy from 1861 to 1971.*

	Population in Central-Northern Italy 000s	Central-Northern urban population 000s	Central-Northern urban %	Italian urban %
1861	16,696	2,704	16.2	19.6
1871	17,942	3,230	18.0	21.5
1881	18,778	3,849	20.5	23.7
1891	19,805	4,496	22.7	26.5
1901	21,117	5,279	25.0	28.1
1911	23,419	6,370	27.2	31.3
1921	24,675	7,699	31.2	32.2
1931	26,354	9,435	35.8	35.1
1936	27,121	10,469	38.6	35.5
1951	30,559	13,599	44.5	41.1
1961	32,835	17,468	53.2	47.7
1971	36,104	20,832	57.7	52.0

Note: Urban population in *comuni* with more than 20,000 inhabitants and a predominance of secondary and tertiary sectors.

Sources: Data based on Carozzi (1975) (who includes Lazio in the Centre-North). I have modified Carozzi's series by assuming a urban percentage of 16.2, instead of the original 17.3, in the year 1861, and using Carozzi's decade-to-decade percentage increase to recalculate the data from 1871 to 1961. The series for Italy is from the same source (without adjustment). See also Vitali (1983). The data for 1971 are from Del Panta *et al.* (1996, p. 208).

slowed down from the late 1970s on, and ceased altogether in the 1980s, by which time almost 70 per cent of the total population lived in cities.³⁶

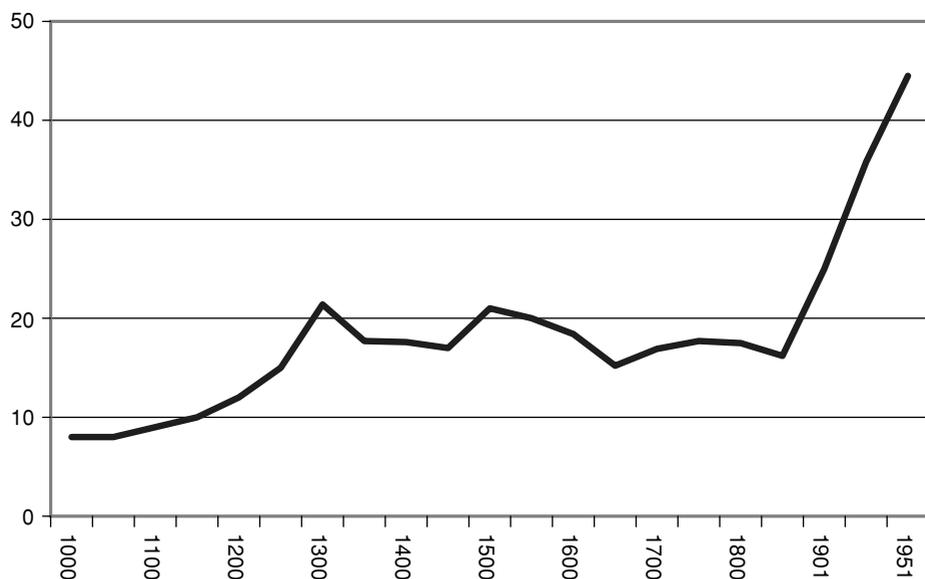
A long period of demographic growth and urbanisation, which had begun some ten centuries before, was coming to an end. Hardly any further urbanisation is now possible.

5. Urbanisation and productivity

The three long phases we have seen are clearly discernible in Figure 1 and Table 4.

Because of the strong connection between urbanisation and the movement of the economy, this series can help us in investigating long-run Italian economic trends. First, however, some preliminary remarks on the two-sector premodern economy are necessary. We must distinguish between a rural and an urban sector, respectively characterised by the production of food and raw materials, and of secondary goods and services.

³⁶ On changes in the urban network and territorial distribution, see Cori (1976) and Sori (1978).

Figure 1. *Urbanisation rates in Central-Northern Italy 1000–1951.*

Source: Table 4.

Table 4. *Population, urban inhabitants and urbanisation rates in central-northern Italy from 1000 to 2000.*

	Population o0os	Urban inhabitants o0os	Urbanisation %
1000	(3,200)	(160–380)	(5–12)
1100	(4,000)	(200–480)	(5–12)
1200	(5,266)	(630)	(12)
1250	(6,200)	(930)	(15)
1300	7,750	1,657	21.4
1350	5,605	992	17.7
1400	4,720	829	17.6
1450	4,425	752	17.0
1500	5,310	1,117	21.0
1550	6,785	1,357	20.0
1600	7,828	1,438	18.4
1650	6,230	947	15.2
1700	8,051	1,363	16.9
1750	9,300	1,646	17.7
1800	10,212	1,788	17.5
1861	15,950	2,590	16.2
1901	20,450	5,114	25.0
1931	24,800	8,878	35.8
1951	26,622	11,846	44.5
2000	31,300	20,864	66.6

Note: Cities with at least 5,000 inhabitants until 1861 and *comuni* with more than 20,000 inhabitants from 1901; in brackets are the indirect estimates for the period 1000–1250.

As regards the first sector, two models linking agrarian productivity to urbanisation in the premodern world have been developed. The first was worked out by E. A. Wrigley, the second by K. G. Persson.³⁷ In Wrigley's method, agricultural productivity is related to the ratio of urban to rural population (equal to the total population minus urban inhabitants and rural inhabitants not employed in agricultural activities). Persson later generalised the same method by taking into account the urban-rural gap in income and the urban marginal propensity to consume rural goods. In both cases, we can include in the model the relationship of the economy with external markets, in cases when exports and imports are significant. Persson's results produce higher estimates of agricultural labour productivity in the Middle Ages than do Wrigley's. Persson estimated that a 5 to 20 per cent rise in urbanisation, accompanied by a rise in the urban-rural income gap, when the urban marginal propensity to consume agrarian goods is 0.5, can imply a doubling of labour productivity in the countryside. According to both models, increases in urbanisation make heavy demands on the rural sector. Because of the slowness of agricultural technical progress in premodern economies, urbanisation rarely grew at a rate higher than 10 per cent before 1800. This is also the main reason why continental Europe was little, if at all, more urbanised in 1800 than in 1600, and perhaps even than in 1500, if we assume the 5,000 inhabitants threshold and consider the continent as a whole.³⁸ Two different studies agree in estimating that the European urban population was 13.5–13.8 per cent of the total population in 1800, and between 10.8 and 12.9 per cent in 1600.³⁹ London's growth in the seventeenth–eighteenth centuries, supported by changes in agriculture allowing a higher productivity,⁴⁰ and the rise of the Dutch cities in the sixteenth and seventeenth centuries, stand out as rare exceptions.

Because of this link between agricultural productivity and urbanisation, the latter can only occur under one of two conditions. Either agricultural manpower, capital and technology are underemployed, but this underemployment is reduced, in which case actual production moves towards the production possibility curve; or capital formation or technical progress allow for a rise in productivity, in which case this same curve moves outward. In both cases, labour productivity rises. If agricultural production has already reached its maximum potential level, and there is no scope for technical progress, the only result can be an increase in the relative prices of food and raw materials in the cities, and a halt to the urbanisation process. This is what happened in many rural economies whose increasing urbanisation was not supported by agricultural productivity rises.

³⁷ Wrigley (1986) and Persson (1991).

³⁸ As remarked by Wrigley (2004), pp. 274–5.

³⁹ See De Vries (1984, p. 76), for the first estimate, and Bairoch *et al.* (1988), for the second.

⁴⁰ Wrigley (1967).

Wherever agricultural inputs for urban expansion are lacking in neighbouring regions, those of faraway regions can be exploited by extending commerce. Here we encounter, however, the other technical limit of past agrarian civilisations and past energy systems, *viz.* the relatively high transportation costs for heavy and unwieldy commodities such as cereals and timber. The Italian cities' relatively modest *per capita* consumption of firewood was certainly an advantage. Thanks to their climate, they needed no more than 1–1.5 kg per person per day, against the 4–5 kg of central and northern European cities.⁴¹ Another advantage was that Italian towns could be provisioned in food and raw materials by sea, and at lower cost. For several centuries, northern Italian cities consumed cereals imported from southern Italy and raw materials from all over the Mediterranean. Cereal imports from faraway regions, however, always remained a small fraction of the overall urban consumption.⁴² For food and fuel, Italian cities were forced to rely on locally available resources. A low labour productivity in the rural area surrounding a town could be a constraint on urban expansion. A major change has come about recently with the rise of trade in agricultural goods on a global scale. Today, since cities no longer depend solely on the produce of their rural surroundings, urbanisation can coexist with low agricultural productivity growth.

Rural growth, although a necessary condition, cannot, by itself, explain growing rates of urbanisation. We also have to look at the urban side of the coin. A differential in productivity, resulting in higher wages in the city than in the countryside, is the mainspring of urbanisation. The town's attraction for the rural population intensifies whenever the gap between urban and rural wages widens as a consequence of a rise in the urban demand for goods and investments, and the external demand for commodities produced in cities. Urbanisation is generated by the attraction for the rural population of the growth of urban productivity, which in its turn is supported by rising productivity in the countryside. Since a differential in labour income is what leads to migration towards the cities, the rise in productivity must be stronger in the cities than in the countryside. The higher the differential, the higher the immigration. Even today, the urban–rural differential in wage levels still continues to attract population towards the cities, although the actual wages often turn out to be lower than expected, and the hoped-for jobs exist only in certain informal economic sectors, as Harris and Todaro pointed out a few decades ago.⁴³

To sum up, we could say that urbanisation requires economic growth in both the towns and the countryside, but faster growth in the former.

⁴¹ *Introduction to Van der Woude et al.* (1990).

⁴² See especially Aymard (1966).

⁴³ Harris and Todaro (1970).

Econometric research on nineteenth century Europe has shown that demographic growth, declining transportation costs, increases in land productivity, and progressive industrialization have all played a significant role in modern urbanisation. However, the comparative productivity of industrial and agricultural labour appears to have been by far the most important variable driving urbanisation.⁴⁴ It is this variable in particular that we need to look at when analysing the main phases of Italian urbanisation.

6. Italian cities and productivity

The three phases of Italian urbanisation outlined above reflect quite accurately the movement of labour productivity, which rose from the tenth to the fourteenth centuries, and even more between 1870 and 1980, but diminished in the intermediate phase, both in the urban and in the rural sector.⁴⁵

On the first phase of Italian urbanisation we almost entirely lack quantitative economic data. We know, however, that in the period from the tenth century to 1350 new industrial activities developed in the cities, services expanded, and productivity rose in the countryside. Growing external demand for industrial goods and mercantile and banking services produced in the leading Italian sectors drove capital formation. A rise in income and employment followed, and then a growth in urban production for the internal market. Technical advances in the wool,⁴⁶ silk⁴⁷ and cotton⁴⁸ industries were making labour more productive, and many scholars argue that banking and financial innovations increased the efficiency of mercantile activities from the eleventh to at least the fifteenth centuries. The increasing returns from urban co-operation were at work.

Improvements in road and canal technology may have helped reduce transportation costs to the cities, thus allowing agricultural products to be distributed over a wider area. An increase in the number of ships certainly facilitated contacts with regions across the Mediterranean which, though relatively distant, were easy to reach by sea. From the second half of the thirteenth century, importation of agricultural goods from less densely populated southern areas to northern cities increased,⁴⁹ whereas raw materials such as wool, cotton and silk continued to be supplied by distant regions easily reachable by sea.

⁴⁴ As stressed in an econometric study by Bairoch (1990), based on Bairoch and Goertz (1986).

⁴⁵ On *per capita* product in the late medieval-early modern period, see Malanima (2003).

⁴⁶ Malanima (1988) and Hoshino (1980).

⁴⁷ Edler De Roover (1950).

⁴⁸ Mazzaoui (1981).

⁴⁹ Abulafia (1981).

As for agriculture, output per hectare of arable land did not increase much, if at all, in northern Italy, where the 3–4 to 1 cereal yield ratios documented before the tenth century are still attested in the thirteenth and fourteenth centuries.⁵⁰ To expand cereal production, arable land was reclaimed at the expense of marshes and forests. Product per hectare probably rose as a consequence of the growth in olive tree and vineyard cultivation.⁵¹ Investments by rich urban merchant families (through land reclamation and deforestation) helped increase the supply of agricultural products to the cities.⁵² The hypothesis that working time increased in this period is probably correct, although impossible to prove.⁵³ Institutional changes favouring the mobility of the peasant population, because of weakening feudal control over the countryside, and the spread of new relationships and contracts between landowners and cultivators, certainly also incentivised productivity.⁵⁴

Another important contribution to the growth of land and labour productivity came from rising temperatures during the so-called ‘Medieval Climatic Optimum’, which lasted from the ninth century until about 1250.⁵⁵ Somewhat equivalent to free capital formation, it could have made a considerable difference to gross agricultural output in a mountainous and hilly territory like Italy if, as a result of rising average temperatures, it became possible to cultivate lands a hundred metres higher above sea level.

A simple calculation based on the increase of urban population between the year 1000 and 1300 suggests a rise of 20–60 per cent in the average productivity of agricultural labour. This is not such a great deal, since the yearly rise would then have been in the order of about 0.06 to 0.14 per cent.⁵⁶

Although it is impossible to properly evaluate the relative weight of any of the variables involved, indirect evidence nevertheless suggests that both an increase in productivity and hence incomes, and a differential between urban and rural productivity, were at work in boosting urbanisation during this period.

Things changed in the six centuries from 1300 to 1900. Two reconstructions, by Allen (2000) and Federico and Malanima (2004), of Italian agricultural output per worker during the centuries between the fourteenth and the nineteenth centuries reveal similar trends (Figure 2). The profile is a downward one for Italy, much more so than for any other European country. The lowest point was reached between 1790 and 1820. Then a stabilisation followed which lasted until the very end of the nineteenth century.

⁵⁰ Montanari (1984), pp. 54–85.

⁵¹ Pini (1980).

⁵² For a general overview of agricultural developments in Italy, see Cherubini (1981).

⁵³ Persson (1991), p. 139, suggests that the medieval rise in labour productivity derived ‘from an increase in the hours worked’. Since labour productivity is the ratio of product to workers \times worked hours per worker per year, an increase in productivity resulting from more worked hours is not a true increase in productivity.

⁵⁴ Cherubini (1981).

⁵⁵ Mann-Jones (2003).

⁵⁶ According to the method proposed by Persson (1991).

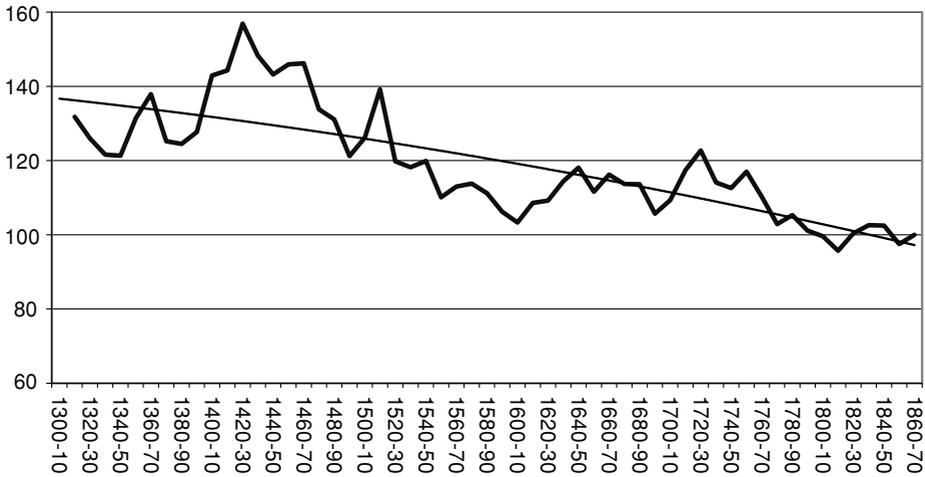


Figure 2. *Agricultural output per worker in Central-Northern Italy 1300–1870 (1860–70 = 100).*

Notes and Sources: Based on Federico and Malanima (2004). The polynomial trend is represented by the straight line.

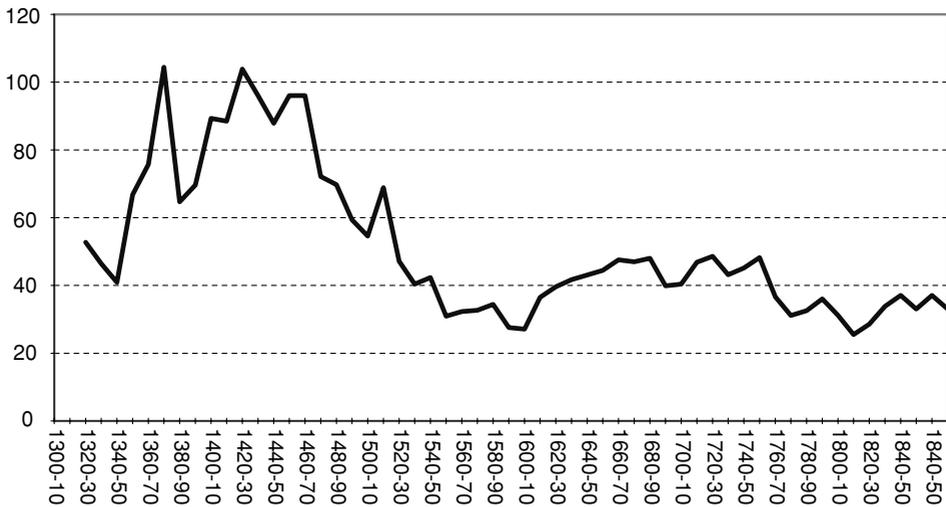


Figure 3. *Real agricultural wage rates in Central-Northern Italy 1320–1860 (1420–40 = 100; decadal values).*

Source: See fn 57, below.

The movement of real wage rates in the countryside confirms this trend (Figure 3).⁵⁷ The curve is a downward one after the Renaissance. A marked

⁵⁷ The series of agricultural wages is based on the following data for Tuscany (1320–1620) and Piedmont (from 1620): 1320–1500, Tognetti (1995); 1500–1620, Parenti (1939); 1620–1720, Doria (1968); 1710–1860, Pugliese (1908).

decline takes place at the end of the fifteenth century. The decline continues until the beginning of the seventeenth century, when a level lower than in 1300 is reached. An interruption follows and then there is a slight recovery up to 1730, when wages were the same as in the first half of the fourteenth century. After this, decline sets in again up to 1810–20, followed by a period of stabilisation.⁵⁸

A first, simple explanation for this movement may be that the increase of population in the mature Italian economy (in which capital, including land, was increasing much less than previously, and technology was progressing slowly) resulted in diminishing returns. The availability of capital and resources per worker rapidly declined in the context of a population density which increased from 29 inhabitants per sq km in 1450 to 100 in 1861. The productivity of labour could not but decline, and with it the returns to labour and *per capita* product. Interruptions in this long-term trend occurred only during the period from 1600 to 1730, that is, when the population fell.

The same decrease in productivity occurred in the cities. The ‘revisionist’ historical literature cited earlier has the merit of having pointed out the flexibility of the Italian economic structure in the face of changes occurring in commerce, banking and industry after the sixteenth century.⁵⁹ What has been neglected, however, is that stability and even slight recovery, in the context of a rapidly rising population, entails a decline in *per capita* terms.

The movement in real industrial wage rates demonstrates this better than partial series on production and commercial distribution (Figure 4).⁶⁰ The trend is a downward one from the second half of the fifteenth century onward. After a rapid decline in the first phase of demographic recovery (1450–1500), a period of stability followed and then a rise during the seventeenth century, as a consequence of the demographic decrease. In 1700, however, real wages in the cities were more or less what they had been in the first half of the fourteenth century (and urban population was also just about the same). A new sharp decline began in 1730 and went on until 1820, followed by a slight recovery.

⁵⁸ I have deflated nominal values using the price index in Malanima (2002, Appendix, ch. III).

⁵⁹ See Aymard (1991, pp. 115 ff), for a general reconstruction.

⁶⁰ Since the movement of urban wages in central-northern Italy (Florence, Genoa, Milan, Venice) is similar (Malanima 2002, App. ch. IV), the diagram shows the Tuscan series, as it is the most complete. This series is based on data from De La Roncière (1982, p. 280) for 1280–95 and 1310–20; Goldthwaite (1980, pp. 437–8) for 1310–20 and 1340–1580; and Parenti (1939, p. 69) for 1580–1620. For the period 1620–1820, the data are from the Archivio Salviati (in the Scuola Normale Superiore di Pisa), Serie II, 459 and 547 (Cerbone), and Serie V, 666–72 (Pisa). The data from 1820 onward are from Bandettini (1960). To deflate nominal values I used the price index in Malanima (2002, Appendix, ch. III).

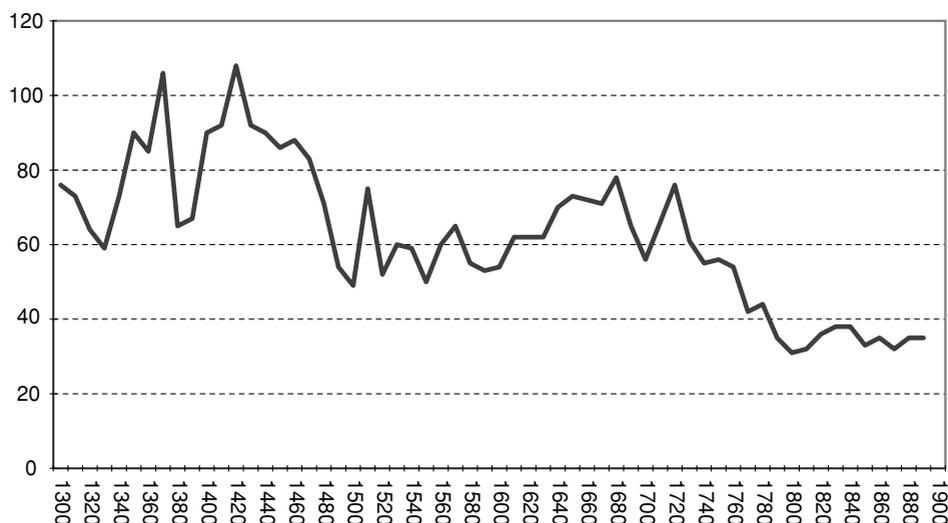


Figure 4. Tuscan building real wage rates 1300–1900 (1420–40 = 100; decadal values).

Since rural–urban migration may be seen as a positive function of the urban to rural wage ratio, it is interesting to look at wage differentials. In the long run, the ratio between nominal urban (master mason) and rural (agricultural labourer) wages remained mainly in the 2.10–2.80 range. The only meaningful and lasting deviation is observable from 1350 to 1480. In this period, since the collapse in population caused by the plague was stronger in the cities than in the countryside, the urbanisation rate diminished rapidly from 21 to 17 per cent and remained at this relatively low level for almost a century. At the same time the ratio of urban to rural wages in Tuscany sank to 1.70–1.80, as the comparison of wage movements reveals.

Because of the strong decline in the European population, *per capita* incomes increased from 1350 to 1450, as the rise in wages bears out. Because of the higher income elasticity of secondary goods, it was far more possible for people to purchase industrial products than before. The urban clients of Italian textiles, however, were much fewer in absolute terms, because of the recurring epidemics. While *per capita* demand probably rose, the aggregate demand for Italian textiles certainly diminished both in internal and foreign markets. Furthermore, in the case of rich customers, income elasticity did not radically change the quantity of their purchases of quality industrial goods. As a consequence, in Italy the century between 1350 and 1450 was a period of relative urban depression.⁶¹ Demand for urban labour was low

⁶¹ In the debate between Lopez and Miskimin (1962) on one hand, and Cipolla (1964), on the other, Cipolla was right to stress that *per capita* incomes increased after the Black Death, but Lopez and Miskimin were not wrong to propose a decline in urban industrial and commercial activities in Italy.

compared to the demand for rural labour, which was in scarce supply. Labour productivity both in the countryside and the cities rose because of the increase in capital per worker (engendered not by investment, but by the decline in the number of workers). Thus, one of the two conditions for urbanisation had been met, but not the other, since productivity (and wages) were still relatively higher in the countryside than in the cities.

The subsequent rise in the Mediterranean and European population again led to a favourable period for Italian industrial and commercial activities, which rapidly progressed after 1450, as the urbanisation trends reveal. This trend lasted for about a century, during which urban wages recovered in relation to rural wages, reaching a ratio of 2.70.⁶² This ratio remained almost unchanged at 2.5–3.0 until the nineteenth century, which suggests that the decline in labour productivity affected both urban and rural activities, and perhaps more the cities. In fact, proto-industrial activities were expanding in the countryside, although in Italy they did not play as prominent a role as in other, Northern European economies.⁶³ They had already existed in the late Middle Ages (for example, wool spinning near the urban industrial centres), and flourished again in the late eighteenth and nineteenth centuries, especially in the silk sector. From the seventeenth century on, while rural wool spinning diminished because of the crisis of the wool industry, silk reeling and throwing became the main secondary activities for many rural families.⁶⁴ The urban activities were not as attractive as before for rural populations.

A rapid shift in the production possibility curve took place in Italy only at the end of the nineteenth century, with the so-called Second Industrial Revolution. Population increased rapidly, at a time when productivity was rising. Wage differentials were also increasing in favour of the cities, encouraging migration from rural to urban areas. Structural change was taking place. In 1861, the secondary and tertiary sectors accounted for less than 45 per cent of GDP. Their share had risen to about 55 per cent by 1911, and was more than 70 per cent on the eve of World War II.⁶⁵

At the same time, agricultural productivity also increased, but less than industrial productivity. In 1861, output per worker was the same in the primary and secondary sectors, amounting to 552 1911 Italian lire in industry as against 526 lire in agriculture. In 1936, while agricultural productivity had not yet doubled compared to 1861, industrial productivity had trebled. In 1971, productivity levels amounted, respectively, to 10 and 14 times the levels of 1861 (Table 5).

⁶² See the data on urban and rural wages in Felloni (1977).

⁶³ Belfanti (1996).

⁶⁴ Cafagna (1989) and Battistini (2004).

⁶⁵ Maddison (1991). On industrial growth, see Fenoaltea (2002).

Table 5. *Average labour productivity in industry and agriculture in Italy from 1861 to 1961 (constant 1911 prices and index 1861 = 100).*

	Industry (1911 prices)	Industry (index)	Agriculture (1911 prices)	Agriculture (index)
1861	552	100	526	100
1871	572	104	575	109
1881	552	100	650	123
1891	674	122	659	125
1901	801	145	692	131
1911	1146	207	783	149
1921	997	180	742	141
1931	1578	286	904	172
1936	1712	310	891	169
1951	2204	399	1233	234
1961	3636	658	2313	439

Sources: Industrial data for the period 1861–1911 are based on estimates by Fenoaltea (2001), and from 1921 on are based on ISTAT series. Agricultural data have been kindly provided by Giovanni Federico and are based on his revision of the national agricultural accounts, only partially published in *I conti economici dell'Italia*.

Migration was now possible from agriculture towards employment in industry and services. Differentials in productivity, which also imply differentials in incomes, were pushing people from the countryside towards the centres of industry and trade. Urban attraction intensified after World War II, especially during the so-called 'Italian Industrial Miracle', from the end of the 1950s to the beginning of the 1960s. Between 1951 and 1964, while agricultural wages (which were already 60 per cent lower than industrial ones) rose from 100 to 167, industrial wages rose from 100 to 223.⁶⁶

7. Conclusion

In 1500, 25 per cent of the Western European urban population lived in Central-Northern Italian cities with over 10,000 inhabitants. By the mid-nineteenth century, this percentage had gone down to 7.2.⁶⁷ If we consider cities with 5,000 inhabitants or more, and Europe as a whole⁶⁸ (that is, not only its western regions), the picture does not change much. The Italian urban population was 21.3 per cent of the European total in 1300,

⁶⁶ Lenti (1969), p. 153.

⁶⁷ See de Vries (1984), pp. 30 and 45 for data on Western European cities with 10,000 inhabitants or more. The Italian decline relative to Europe as a whole is certainly correct, even though it was probably less dramatic than suggested here, as a result of a probable overestimation of Western European early nineteenth century urban growth.

⁶⁸ The data for Europe are from Bairoch *et al.* (1988).

and 7.7 per cent in 1800. Only from the end of the nineteenth century did Italian urbanisation begin to approach the Western European average again.

As we have seen, the period from the tenth century to 1300–50 was one of intense urbanisation. Between 1350 and 1860–70, a decline followed. Diminishing labour productivity appears as the main reason for this long-term downward trend. The start of modern growth in the very last decades of the nineteenth century began once again to attract growing numbers of rural families towards the cities. Thus, the rate of urbanisation increased rapidly and rejoined Western European levels. It has stabilised since the 1980s, bringing to a conclusion a millennium of Italian urbanisation.

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