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The rich in historical perspective. Evidence for preindustrial Europe (ca. 1300-1800)

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Abstract
This article provides an overview of long-term changes in the relative conditions of the rich in preindustrial Europe. It covers four pre-unification Italian states (Sabaudian State, Florentine State, Kingdom of Naples and Republic of Venice) as well as other areas of Europe (Low Countries, Catalonia) during the period 1300-1800. Three different kinds of indicators are measured systematically and combined in the analysis: headcount indexes, the share of the top rich, and richness indexes. Taken together, they suggest that overall, during the entirety of the early modern period the rich tended to become both more prevalent and more distanced from the other strata of society. The only period during which the opposite process took place was the late Middle Ages, following the Black Death epidemic of the mid-fourteenth century. In the period from ca. 1300 to 1800, the prevalence of the rich doubled. In the Sabaudian State, the Florentine State and the Kingdom of Naples, for which reconstructions of regional wealth distributions exist, in about the same period the share of the top 10% grew from 45-55% to 70-80% - reaching almost exactly the same level which has recently been suggested as the European average at 1810. Consequently, the time series presented here might be used to add about five centuries of wealth inequality trends to current debates on very long-term changes in the relative position of the rich.

Keywords
Economic inequality; wealth concentration; richness; top wealthy; middle ages; early modern period; Italy; Low Countries; Catalonia; Black Death; property structures

JEL codes
N300, N330, N930, D310

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1. Introduction

What shares of the population were rich in preindustrial Europe? What was their share of the overall wealth or income? In which historical periods were the rich getting relatively richer? Instinctively, these seem to be relevant questions – but it has been impossible to provide a clear answer to them based on the available literature. This depends partly on the fact that, generally speaking, preindustrial economic inequality has only recently become the focus of a significant amount of new research, and partly on some technical difficulties in measuring the variables needed to provide a systematic study of the rich using the kind of archival sources and analytical approaches that characterize research on the European medieval and early modern élites.

Even for the contemporary period studies of the number and the relative position of the rich were scarce until recently. In many respects, it took the Great Recession beginning in 2007 to alter the perception of economic inequality in the general public and among scholars alike. The position of those placed at the top of the distribution has been the object of particular scientific attention, the more so since trends in the share of the top seem to determine the trend in general economic inequality (Atkinson et al. 2011; Alvaredo et al. 2013; Roine and Waldenström 2015). This renewed interest has involved not only income, but also wealth. New time series of wealth concentration spanning the twentieth and at least part of the nineteenth century have been recently produced for a variety of countries (Piketty et al. 2006; Piketty 2014; Roine and Waldenström 2015). These recent works have contributed to increase considerably our knowledge of the changes which occurred in wealth inequality and in the share of the top rich during the nineteenth and the twentieth centuries, adding to pre-existing studies which had covered a few countries or areas only, particularly Britain (Williamson 1985) and the U.S. (Williamson and Lindert 1980). For other areas, only studies of income inequality exist (see for example Rossi et al. 2001; Prados de la Escosura 2007; 2008).

The renewal of scholarly interest in economic inequality has not been limited to the modern period, but has involved with at least as much intensity the early-modern and late-medieval times. To a significant degree, this is the result of the activities of the ERC-funded research project *EINITE – Economic Inequality across Italy and Europe, 1300-1800*[1], which has collected systematically and with a uniform methodology information about long-term trends in wealth inequality for many regions of Italy (Alfani and Ammannati 2014; Alfani 2015; Alfani and Di Tullio 2015; Alfani and Sardone 2015; Ammannati 2015; Ammannati et al. 2015) as well as for some areas of Europe, including Catalonia in Spain (García-Montero 2015) and the southern Low Countries (Ryckbosch 2015; Alfani and Ryckbosch 2015). Other recent research has covered parts of France (Hoffman et

[1] http://www.dondena.unibocconi.it/EINITE

al. 2002), the Low Countries (Hanus 2013), Portugal (Reis and Martins 2012), Spain (Nicolini and Ramos Palencia 2013; 2015; Santiago-Caballero 2011; Santiago-Caballero and Fernández 2013), Turkey (Canbakal 2013) and pre-Revolutionary America (Lindert and Williamson 2015), changing dramatically the situation compared with the recent past, when the only area for which long-term trends in economic inequality had been reconstructed was the Dutch Republic (Van Zanden 1995; Soltow and Van Zanden 1998).

This article compares long-term trends in the prevalence of the rich in parts of preindustrial Europe, and in their share of the overall wealth. To do so, it makes use of the database provided by the aforementioned EINITE project, which covers the period from 1300-1800 ca. In particular, the EINITE data used here cover much of Italy, including the Sabaudian State in the Northwest, the Venetian Republic in the Northeast, the Florentine State in the Centre and the Kingdom of Naples (Apulia) in the South. These four, very varied Italian areas are compared systematically to Catalonia in Spain and to the Southern Low Countries. Information about additional areas of Europe is included in the analysis when possible.

The renewal of interest in the conditions of the rich has also led to interesting developments in statistical techniques to study them. In order to provide a more encompassing picture, this article provides not only relatively traditional measures, like the population share of rich individuals and the wealth share of the top rich, but also uses recently-introduced indexes of "richness", which have been derived from measures originally developed to study poverty (Peichl et al. 2010).

2. Database

Since January 2012, the EINITE project has been steadily collecting new information about long-run changes in wealth inequality. The project intends to cover Italy systematically, and to study also selected areas elsewhere in Europe in order to provide better opportunities for comparison. For almost all pre-unification Italian states as well as for parts of southern Europe, including southern France and north-western Spain, it is possible to work on very homogeneous sources: the property tax records better-known with their northern Italian name of *estimi*. These sources, which are sometimes available in fairly continuous series since the final centuries of the Middle Ages, were regularly renewed up until the second half of the eighteenth century or the very beginning of the nineteenth, when they were replaced by the "modern" cadastre system[2]. The *estimi* record different

[2] The "modern" cadastres are characterized by a precise cartographic representation of all parcels of land, while the earlier *estimi* simply provide a description of goods and an assessment of their value. Generally speaking, the criteria used in compiling the modern cadastres were different from those that had been used for centuries for the *estimi*, so that

components of wealth, but at the very least they always include real estate (lands and buildings). A more detailed discussion of the nature of the Italian *estimi* is offered elsewhere (Alfani 2015, 1062).

It is important, however, to note the main shortcomings of the *estimi*. First and foremost, the poor (here defined as the households entirely destitute of *estimo* property) were not usually included in the records. As a consequence, the distributions we can observe are truncated at the bottom and all the measures of inequality calculated from them are distorted towards a level lower than real. However, the rich, who almost inevitably owned very significant amounts of *estimo* property, are included in the distributions. The truncation of the distributions has an impact on the measures we use to study the rich, but this is somewhat limited, as suggested in section 4.

Theoretically only one important group of rich people could be absent from the *estimi*: the nobles, since the *estimi* only record taxable property – and as feudal land was excluded from taxation, it was usually not recorded. However, most nobles (and most definitely the really wealthy ones) also owned taxable property so they are included in the distributions – although for an amount of property lower, and sometimes much lower, than was actually the case. This important issue is analysed in section 5.

Apart from the absence of the property-less from the distribution and of feudal property from the records, the *estimi* have a third shortcoming: they do not include the property owned by religious institutions *ab antiquo* ("since ancient times"). However, in a study of the rich it is reasonable to focus on household wealth and not on institutional wealth. Consequently, in the few instances in which the property of religious institutions was recorded in the *estimi*, we removed it from the distributions in order to produce measures as homogeneous as possible. We did the same for the propertyless. This standardization procedure is analogous to that followed in the aforementioned case studies of long-term trends in inequality in the Sabaudian State, in the Kingdom of Naples and in the Republic of Venice.

The case of the Florentine State is partly different, as in a large part of the State (the *Contado*, i.e the area that first fell under the rule of the capital city of Florence) the ancient *estimi* system was abandoned towards the end of the Middle Ages, with the introduction of the famous *catasto* system in 1427 (Herlihy and Klapisch 1985). The *catasto*, however, proved too complex to be managed effectively, so that from 1495 a third system, the *decima*, was introduced and maintained up until the end of the eighteenth century. Although in theory the *catasto* had to record all components of wealth, in practice after 1427 it recorded almost exclusively real estate, as is also the case for the

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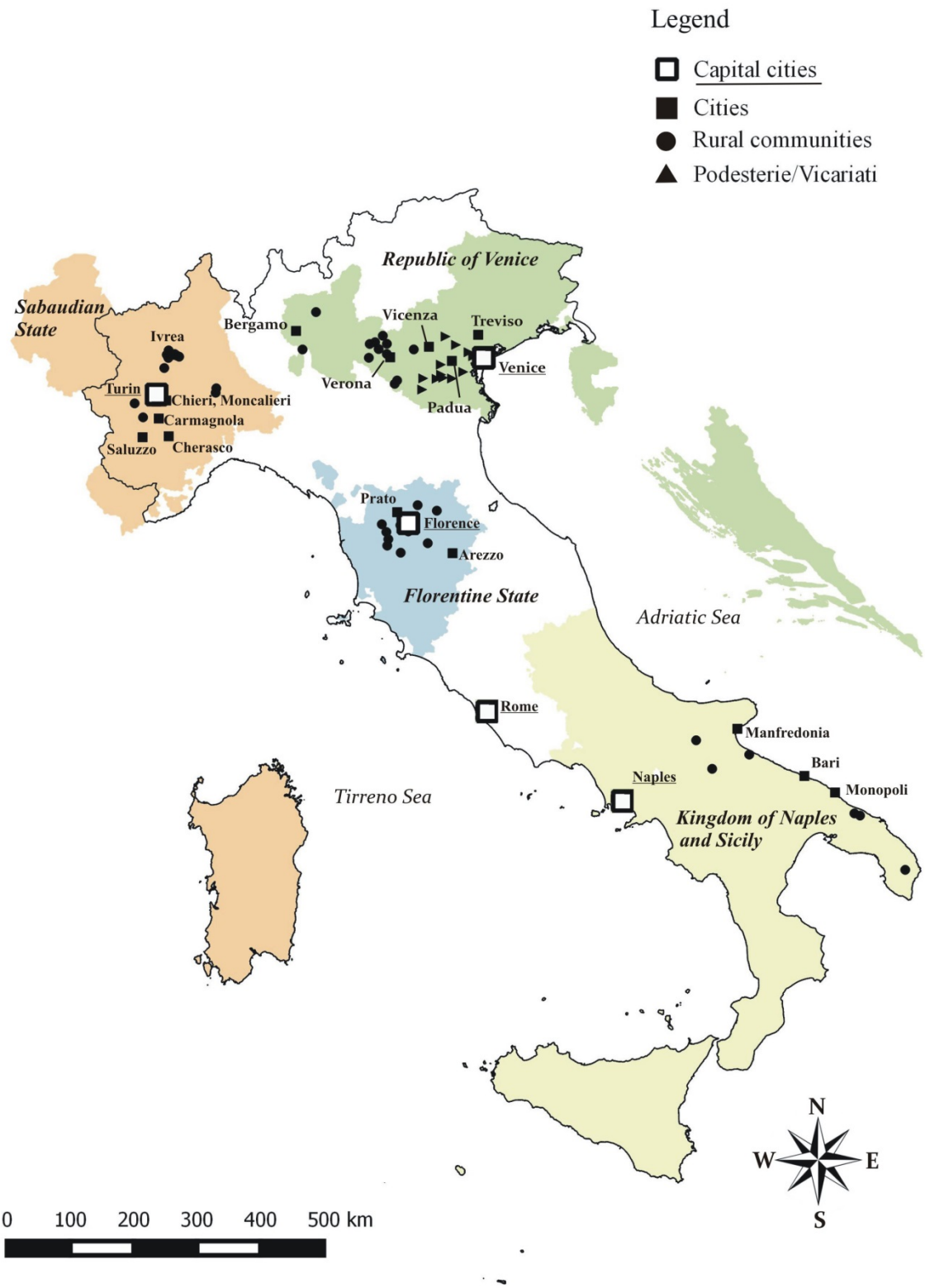
they practically interrupt the series. Of the pre-unification Italian states considered here, the first to introduce a modern cadastre was the Sabaudian State, in 1731, although many communities in the area continued for a few decades to renew also their traditional *estimi*.

decima. Consequently, it can be shown that these three kinds of fiscal records can be used to produce entirely comparable distributions (see for details Alfani and Ammannati 2014).

The four Italian states covered by this article are represented in Figure 1, where all the communities studied by EINITE are charted. In the figure, also the capital cities of each state are indicated (Turin, Venice, Florence and Naples) but they are not included in the database, due to the fact that they were, or became early on, exempt from direct taxation due their privileged status[3]. For instance, the citizens of Florence in Tuscany were spared direct taxation from as early as 1315, while in the case of Turin the exemption began around 1563, when it became the capital city of the Savoys, which had hitherto been Chambéry.

[3] Venice, whose citizens paid the "redecima" tribute, is a partial exception.

Fig. 1. The Italian sample (pre-unification Italian states in their boundaries at ca. 1750)



Outside Italy, the information we have for Catalonia is entirely comparable, as the *estimes* used there are basically the same as the Italian *estimi*, and in fact the system was imported from central-northern Italy where it had originated (García-Montero 2015). The case of the southern Low Countries is different, as here no property tax records of a kind analogous to the southern European ones are available – or at least, not with any kind of regularity in time. For the northern Low Countries (which during the early modern period corresponded to the Dutch Republic), in his seminal study of preindustrial economic inequality Van Zanden (1995) had recourse to distributions of the rental values of houses, which from the late Middle Ages were used as the basis for personal taxation in cities. In fact, the rental value of houses "was used as a common basis for personal taxation in cities in the Low Countries - and was thus explicitly taken as an external reflection of status and income" (Alfani and Rycbosch 2015, 10). Van Zanden considered the distribution of the rental value of houses to be a good proxy of income distribution. This approach has been followed also by subsequent studies, which focused mostly on the southern Low Countries (Hanus 2013; Ryckbosch 2012; 2015; Alfani and Ryckbosch 2015) – i.e. the provinces that stayed under Spanish rule even after the Dutch Revolt of the late sixteenth century.

Although it has been argued many times that in agrarian preindustrial societies, it is very unlikely that income and wealth inequality could move in different directions (Lindert 1991; 2014; Alfani 2009; 2010a; 2015), it is obvious that the information available for the Low Countries does not compare exactly with that we have for Italy and Spain. Hence, particular care is needed when attempting a comparison. There are, however, important common points, especially regarding the defects of the sources. In fact, also distributions of rental values of houses are truncated at the bottom, as many of the poor resided with other people or sublet/shared housing and consequently do not appear in the records (see Alfani and Ryckbosch 2015 for a more thorough comparison of Italian *estimi* and Low Countries records of rental values of houses).

3. Methods

Most of the recent research on top incomes or on the top rich has relied upon relatively simple measures, in particular wealth or income shares. So, for example, a popular paper by Alvaredo et al. (2013) provided an overview of the trend in the share of the top 1% during the twentieth century, while others have also considered the share of the top 5 or 10% (for example, Atkinson et al. 2011; Piketty 2014). The wealth shares of top percentiles have frequently been used also in studies of

preindustrial wealth or income inequality (Van Zanden 1995; Alfani and Ammannati 2014; Alfani 2015; Alfani and Ryckbosch 2015). This measure is so widely used and so intuitive, that it appears natural to include it in any study of the relative position of the rich over time.

The share of income or wealth owned by the top rich is surely a useful indicator - but it is not without faults. An obvious one is that by definition it does not tell us anything about the prevalence of rich people in a given society. To explore this aspect, the indicator traditionally used in studies of contemporary societies is the simple population share of rich individuals, defined as:

$$R^{HC}(\mathbf{x}) = \frac{1}{n}\sum_{i=1}^{n} 1_{x_i>\rho} = \frac{r}{n}$$

with $1_{x_i>\rho} = 1$ for $x_i > \rho$ and $1_{x_i>\rho} = 0$ elsewhere, n being the number of individuals or households, r the number of rich individuals or households, and ρ the richness line – for example, 200% of the median income or wealth (Peichl et al. 2010, 600). As can easily be seen, the population share of rich individuals is basically a headcount ratio and as such, it is not sensitive to the absolute changes in income or wealth of those who belong to the top of the distribution. To put it differently, "if nobody changes his or her status, this index is unaffected by a change in income" (Peichl et al. 2010, 598).

To address this issue, a new class of "richness" indexes has recently been introduced. Richness indicators are analogous to some well-known measures of poverty - they are, in fact, the adaptation to richness of pre-existing indicators of poverty (Medeiros 2006; Peichl et al. 2010; Bose et al. 2014). As, generally speaking, they take into account the gap existing between the rich and the others, they do not only measure the number of rich people (as with headcount indexes) but also the intensity of richness.

Proper richness indexes should satisfy the so-called "*Focus axiom*", according to which the index should be independent from the incomes (or the wealth) of the non-rich. This is a particularly useful feature for a study of preindustrial times, when the conditions of the poor are usually impossible to reconstruct if not in highly hypothetical ways. This does not mean that the absence of the poor has no impact on the values acquired by a richness index – but that such impact is mediated through the fixation of the value of ρ, the richness line. Were it possible to establish ρ at an absolute level independent from the distribution – say, 50 times the subsistence income -, then the value of the richness index would not be altered in any way by the inclusion or absence of the poor in the distribution. But as in most cases, for practical reasons, ρ is calculated starting with the information

available about the distribution - say, as a given multiple of the median or mean income or wealth -, the presence or absence of part or all of the poor will have some impact on the value of the indexes.

From the many richness indexes described in the literature, I decided to consider only those that can be standardized[4] to vary between the values zero and one. In fact, given the particularly long time periods considered and the variability in time and in space of the units of measurement with which wealth is expressed in our sources, standardized richness indexes help to provide a more coherent and reliable overall reconstruction.

Following Peichl et al. (2010, 603), from the family of richness indexes I selected one that is analogous to the widely-used poverty index of Chakravarty (1983):

$$R_{\beta}^{Cha}(\mathbf{x},\rho) = \frac{1}{n}\sum_{i=1}^{n}\left(1-\left(\frac{\rho}{x_i}\right)^{\beta}\right)_{+}, \qquad \beta > 0$$

When $\beta \to \infty$, R_{β}^{Cha} resembles R^{HC}, the headcount index. Regarding the meaning of β, it should be noted that its value determines the shape of the individual affluence function, *f*. When β is small (say, below 0.4), the value of the index increases slowly as the income or wealth of a rich individual increases. When β is large (say, 3 or more), an increase in the income/wealth of a rich individual brings quickly his or her contribution to the index close to the theoretical maximum of $\frac{1}{n}$ (see Peichl et al., 2010, 603 fig.1 for a graphical representation).

4. How many rich?

How many did the rich number in preindustrial Europe? Were we to answer this question honestly, we should have to admit that we simply don't know. This is only partly due to the scarcity of sources, and much more to the limited research conducted on wealth distributions in the years preceding 2007 and to the propensity of the relatively abundant studies on the European élites to focus on specific individuals or specific wealthy families only – usually, the "super-rich" of their times. There are, obviously, exceptions like the excellent book dedicated by Chauvard (2005) to the Venetian élites, or more generally, the literature produced by the Marxist school of economic history

[4] Not all potentially useful richness indexes can be standardized, essentially due to the fact that while for poverty measurements, there is a clear boundary to poverty (zero income or wealth), this is not the case with richness whose maximum value is not clearly determined. Only a subset of richness indexes (those characterized by a concave individual affluence function, *f*) can be standardized (Peichl et al. 2010).

in the 1960s and early 1970s in a variety of European countries, including Italy (Porisini 1963; Rotelli 1966). Unfortunately, this school tended to aggregate data per "class" with the risk of imposing an *a priori* structure to the wealth distributions they reconstructed. For this and for other methodological reasons[5], most of the results produced by Marxist historiography could not be used in studies of personal or household distributions of wealth or of the prevalence over time of the rich – unless we also embrace some sort of "class" definition of the rich.

A further potentially discouraging factor is the difficulty in defining the object we wish to measure– in other words, who should be considered to be "rich"? It should be noticed, however, that even studies of the rich of today societies are faced with this problem and in fact, "a characteristic of the field is that definitions of affluence and choices of units of analysis are pragmatically oriented by data imperatives" (Medeiros and Ferreira de Souza 2014, 6). Two issues are particularly serious: the frequent impossibility of observing the actual wealth (or income) of the very top rich, and the difficulty of fixing in absolute terms the "richness line", i.e. the bar above which somebody is considered to be rich.

Luckily enough, the information provided by the EINITE database is exceptional in giving us high-quality information about the almost entirety of the household wealth distribution. In fact, as argued in section 2, the only component of the rich who are missing (or more correctly, who risk being under-reported and under-rated due to the exemption from taxation of part of their patrimonies) are the nobles. This potential problem will be discussed in detail later. Regarding the second issue, i.e. the fixation of the richness line, as discussed in section 3 it would be practically impossible, with the kind of information used here, to fix it at a pre-defined absolute level (a level which would also inevitably imply some sort of moral judgement). Consequently, I follow the "multiplier" approach (Medeiros and Ferreira de Souza 2014, 14-15). A popular value for the richness line in recent studies of the contemporary rich is 200% of the median household income (Medeiros 2006; Peichl et al. 2010, 608). This, however, seems too low when applied to wealth, and I found empirically that if applied to the distributions available for preindustrial Europe, the prevalence of the "rich" usually falls within the 25-35% range – which is too high, as it would include also the upper-middle groups and not only the top of the distributions. Consequently, I also calculated the prevalence of the rich with respect to a much higher richness line, set at 10 times the median (1000%). If calculated in this

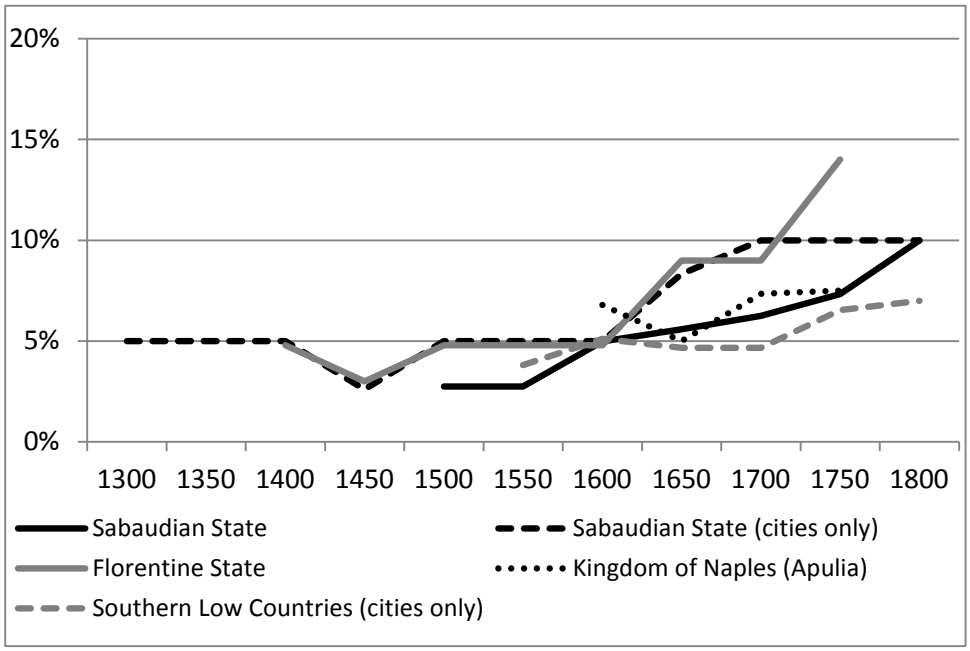
[5] In particular: 1. The fact that the entire distributions were almost never published and often only synthetic tables organized per class were published; 2. The fact that, in Italy but not only there, the method of the "data collection for totality" (*rilevazione per totalità*) was used, which was later widely criticized due to the practical impossibility of actually achieving it to a satisfactory degree. For a discussion of the issue raised by the methods used by the Italian Marxist school of economic history, see Alfani 2014, 63-4. For similar criticism raised against the French *grand théses* in rural history of the 1950s-1970s, see Boudjaaba 2010, 375-6.

way, the numbers of the rich tend to fall between 3 and 10% of the overall population. Only for the southern Low Countries, for which the available information proxies income instead of wealth, did I resort to a lower richness line (500%).

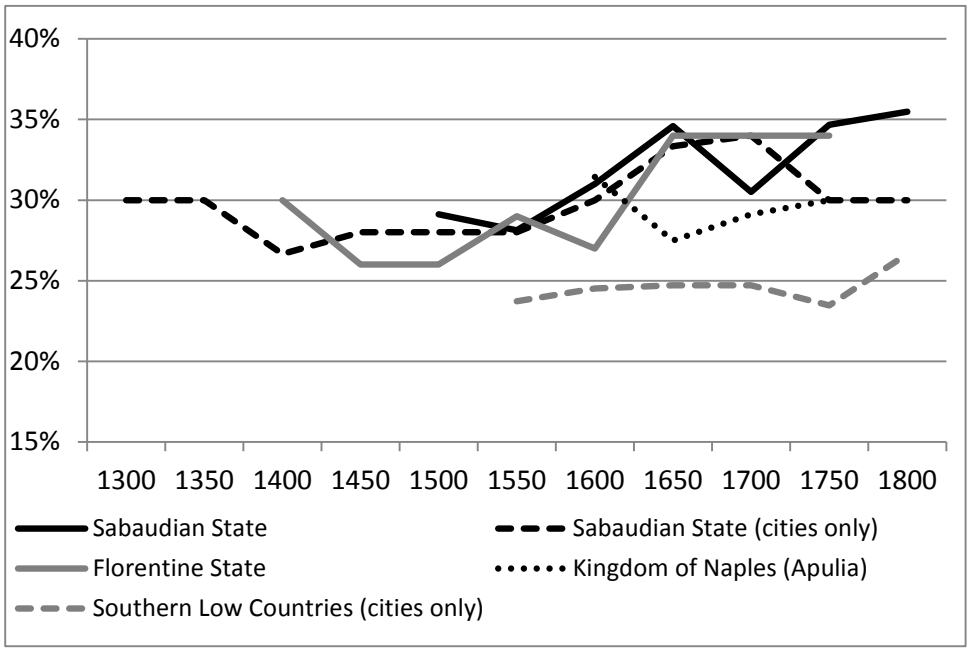
In figure 2, I present long-term trends in the prevalence of the rich for all four areas for which regional reconstructions are available: the Sabaudian State, the Florentine State and the Kingdom of Naples (Apulia) in Italy, and the southern Low Countries in northern Europe. Both richness lines (200% and 1000%) are considered. The series related to the southern Low Countries includes only cities, as no systematic information about the rental values of houses is available for the rural areas (see for details Alfani and Ryckbosch 2015). As a consequence of this, for the Sabaudian State I include the trend related to cities only, which is also useful to extend backwards the time period covered, to the beginning of the fourteenth century (very limited information about the wealth distributions of Piedmontese rural communities is available before 1500: see Alfani 2015).

Fig. 2. Long-term trends in the prevalence of the rich in Italy and Europe, 1300-1800

2a. Richness line = 1000% of median value (500% for the southern Low Countries)



2b. Richness line = 200% of median value



Notes: the richness line refers to wealth distributions (excluding those with no property) for all areas except for the southern Low Countries, where it refers to income distributions.

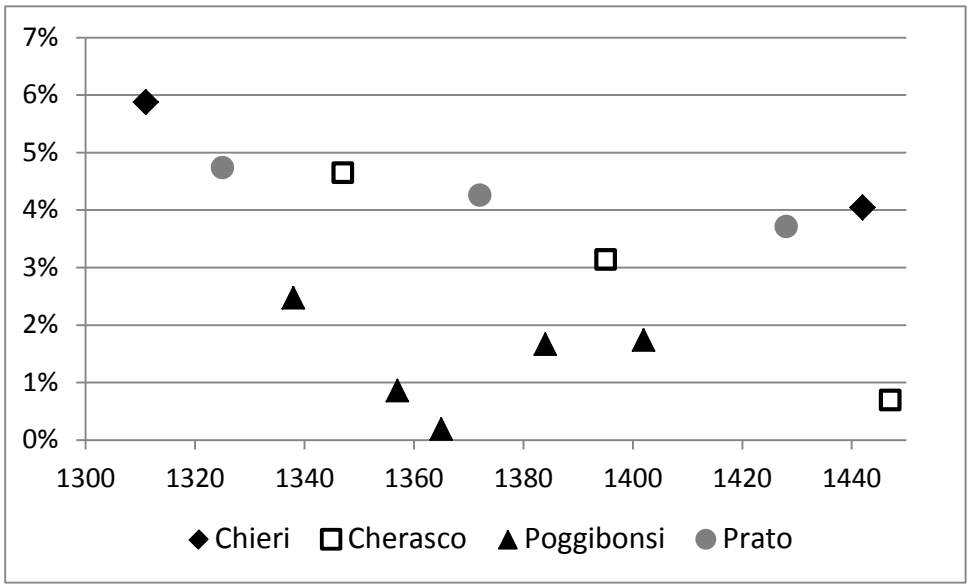
As can clearly be seen in figure 2a., if we stick to a fairly strict definition of what constituted a rich household (one with over 10 times the wealth of the median household), for early modern Italy we discover a clear tendency, from circa 1600, for the prevalence of the rich to grow almost continuously right to the end of the period covered here. Some areas, like the Sabaudian State, show increases earlier than others, like the Kingdom of Naples, but this should not hide the general picture: the rich, who were no more than 5% of the overall population during the Middle Ages and the first part of the early modern period, later become much more numerous reaching 10% of the population in the Sabaudian State by 1800, and an even higher prevalence in the Florentine State (14% by 1750).

The increase in the prevalence of the rich after ca. 1600 hints at a progressively more polarized society – as an increasing number of households became ever more distant from the median. In an earlier study of the Sabaudian State, it has been argued that during the early modern period, the rich were becoming not only much richer than the poor, but they were also distancing themselves from the middle and middle-upper parts of the distribution, as revealed by a detailed analysis of inter-decile ratios (Alfani 2015, 1073). Here, this is revealed by the relative movement of the figures calculated with different richness lines. In fact, although also the prevalence of households with 200% or more the wealth of the median increases after 1550 or 1600, this increase is of a different order of magnitude: instead of the doubling found in the prevalence of households at least 10 times wealthier than the median, the increase in the prevalence of those at least 2 times richer than the median is in the 20-30% range in the Sabaudian State and in the Florentine State (from a prevalence of 26-28% before 1550 to 34-35% in the mid-eighteenth century), while in the Kingdom of Naples there is some increase only from 1650.

The case of the southern Low Countries is only partially different. Here, too, we find a long-term tendency for the prevalence of the rich to grow in time (the peak is reached around 1800, considering both a 200% and a 500% richness line) but this process seems to concentrate in the eighteenth century if we consider only the richest households (500% of median) while if we include all the households over 200% of the median, we find an increase more spread across the early modern period and beginning at about the same time as in Italy. However, it is clear that in this area, too, the increase in the prevalence of the rich was substantial (from 3.8% in 1550 to 7% in 1800, using a 500% richness line). The lower values compared to other areas are due to the fact that the Low Countries distribution proxies income instead of wealth, which means that we should not compare directly the absolute values, but we should focus on the relative trends only.

The relative stability of our indicators during the fourteenth, fifteenth and sixteenth centuries is also an interesting and novel finding. As a matter of fact, the decline in the prevalence of the rich after 1350 has to be attributed to the Black Death, which struck almost the whole of Italy, including the Sabaudian State and the Florentine State, in 1348. The aggregate distributions used in figure 2 are a little misleading as they seem to postpone the onset of the decline (Sabaudian state) or are too short to account for the beginning of the process (Florentine State). However, it can be shown that in the case of the Sabaudian State, the decline is indeed triggered by the Black Death and the reason why this is not obvious from our series has to do with the interaction between the components of the aggregate distribution – which for this very early period, only includes the cities of Chieri and Cherasco (see Alfani 2015 for details). In the case of the Florentine State, for two communities it is possible to calculate the prevalence of the rich before and after the Black Death: the city of Prato and the large rural community of Poggibonsi, which in 1338 comprised 768 households (only 582 existed a decade after the Black Death: a decline of almost a quarter which is surely the consequence of the epidemic itself)[6].

Fig 2.The impact of the Black Death (Sabaudian State and Florentine State, 1300-1450. Richness line = 1000% of median value)



Notes: the figures for Cherasco refer to the quarter of St. Martino only, which is the only one for which I have pre-Black Death information (from an *estimo* dated 1347). For details about the case of Cherasco, see Alfani 2015; Ammannati et al. 2014.

[6] Other Tuscan rural communities (Antella and Santa Maria Impruneta) for which pre-Black Death data are included in the EINITE database are too small to calculate the measures needed in this article – although the impact of the plague on their distribution can be analysed by other methods, and in particular by comparison of Gini indexes and Lorenz curves: see Alfani and Ammannati 2014, 21-25.

In each and every case for which we have information about the pre- and post-Black Death periods, a decline after the epidemic is to be found. For example, in the city of Cherasco (quarter of St. Martino) the rich households were 4.7% of the total in 1347, on the eve of the plague, but just 3.1% in 1395. In the rural community of Poggibonsi, for which information about the post-plague years is particularly dense, the fall is even more dramatic: from 2.5% in 1338, to 0.9% in 1357 and continuing to decline, up until the bottom level of 0.2% was reached in 1365. In Poggibonsi, however, there are already signs of a recovery from the final decades of the fourteenth century, while for the other three communities no sign of recovery in the prevalence of the rich is to be found before 1450.

The decline in the prevalence of the rich after the Black Death goes hand in hand with a decline in overall economic inequality as measured by Gini indexes and in fact, the Black Death triggered the only phase of sustained inequality decline to be found during the five centuries from 1300 to 1800 (Alfani 2015; Alfani and Ammannati 2014), and although by 1800 all the European societies for which we have more information were considerably more unequal than they had been before the Black Death, it took about three centuries to reach again the early-fourteenth century inequality levels (in cities of the Sabaudian state for example this seems to have occurred around 1650). It has been argued that the overall decline in inequality after the Black Death was due to two factors: on the one side of the distribution, an increase in real wages of skilled and unskilled workers (evidence of which has been provided for different areas of Europe (see Pamuk 2007) which helped larger strata of the society to gain access to property. On the other side, the fragmentation of large patrimonies due to a mortality crisis occurring in the presence of an “unmitigated” partible inheritance system (Alfani 2010b; 2015). To these factors we can maybe add the crisis of the “middle class”, reported by Herlihy in his study of Pistoia and the surrounding area, which however seems to explain more how the recovery after the bottom level was achieved, than the decline immediately following the plague. Herlihy, in fact, hinted at polarization of wealth, with only few great families acquiring a considerable share of the property to the detriment especially of the middle part of the distribution (Herlihy 1967, 189).

The in-depth analysis of the earliest period suggests that it would be useful to accompany the study of the regional reconstructions with that of some “real” distribution, i.e. with community-level data to which only a minimal degree of standardization was applied (by eliminating the religious institutions and the propertyless in the few instances in which the sources provide information about them). This is what I have done in Table 1, where the information already provided graphically is

presented in numbers alongside additional information related to another Italian state (the Republic of Venice) and another non-Italian area (Catalonia). For the Republic of Venice I provide information about two large cities: Bergamo in nowadays Lombardy, and Padua in Veneto (Bergamo had about 15,000-20,000 inhabitants around 1500, growing to at least 24,000 by 1700. Padua had 35,000 inhabitants around 1550, growing to about 40,000 by 1750). For Padua, I have also included measures related to the rural district surrounding the city, i.e. the *contado*. For Catalonia, I selected from the EINITE database two communities, considering two factors: (i) the length and completeness of the time series, and (ii) the size of the communities, as too-small a community would make the kind of measures and indexes used here impossible to calculate in a reliable way. The chosen communities are Cervera, which (including the village of Vergos) numbered about 2,000 inhabitants in 1500 growing to almost 5,000 by the end of the eighteenth century, and Reus which throughout most of the period had an only slightly smaller population (see García Montero 2015 for details about Catalonia). To ease comparisons between different series, I organized measures around reference years: 50-year breakpoints from 1300 to 1800. This was not necessary for the aggregate series as they have been constructed to represent the breakpoints directly.

Table. 1. The prevalence of the rich in Italy and Europe, 1400-1800 (percent)

	Sabaudian State	Sabaudian State (cities only)	Florentine State	Kingdom of Naples (Apulia)	Southern Low Countries (cities only)	Bergamo	Padua (city)	Padua (*contado*)	Padua (city and *contado*)	Cervera	Reus
Richness line = 1000% of median value (500% for the southern Low Countries)											
1300		5.0									
1350		5.0									
1400		5.0	4.8			7.8 (1430)				0.8 (1412)	
1450		2.6	3.0			7.3 (1448)					0.6 (1445)
1500	2.7	5.0	4.8			7.3 (1537)				3.4 (1504)	1.0 (1520)
1550	2.7	5.0	4.8		3.8	10.9 (1555)	10.2 (1549)	4.3 (1549)	12.1 (1549)	4.5 (1547)	1.8 (1541)
1600	5.0	5.0	4.8	6.8	5.1	10.5 (1610)	16.9 (1575)	6.9 (1575)	13.2 (1575)	4.6 (1601)	
1650	5.6	8.3	9.0	5.0	4.7	8.7 (1640)	15.7 (1642)	6.8 (1642)	14.4 (1642)	2.8 (1654)	1.2 (1664)
1700	6.3	10.0	9.0	7.4	4.7	12.7 (1704)	14.2 (1694)	8.7 (1642)	15.9 (1642)	4.4 (1699)	1.7 (1700)
1750	7.3	10.0	14.0	7.5	6.5					2.6 (1750)	
1800	10.0	10.0			7.0					4.5 (1799)	
Richness line = 200% of median value											
1300		30.0									
1350		30.0									
1400		26.7	30.0			33.9 (1430)				20.5 (1412)	
1450		28.0	26.0			30.6 (1448)					19.5 (1445)
1500	29.1	28.0	26.0			35.1 (1537)				31.8 (1504)	23.2 (1520)
1550	28.1	28.0	29.0		23.7	36.0 (1555)	35.6 (1549)	28.5 (1549)	34.1 (1549)	31.7 (1547)	26.2 (1541)
1600	31.0	30.0	27.0	31.4	24.5	35.5 (1610)	38.8 (1575)	31.3 (1575)	35.7 (1575)	32.4 (1601)	
1650	34.6	33.3	34.0	27.5	24.7	36.3 (1640)	37.2 (1642)	31.4 (1642)	35.7 (1642)	29.8 (1654)	18.5 (1664)
1700	30.5	34.0	34.0	29.1	24.7	37.1 (1704)	38.1 (1694)	32.0 (1694)	38.5 (1694)	29.8 (1699)	21.4 (1700)
1750	34.7	30.0	34.0	30.0	23.5					27.4 (1750)	
1800	35.5	30.0			26.7					28.6 (1799)	

Notes: measures organized around reference years when needed. Actual year between parentheses. The measures refer to wealth distributions (excluding those with no property) for all areas except for the southern Low Countries where it refers to income distributions.

As can easily be seen from Table 1, the cases of Bergamo and Padua in the Republic of Venice confirm the general picture described for other Italian areas. In Bergamo, for which we have data from the beginning of the fifteenth century, an overall stability in the prevalence of the rich is to be found up until the mid-sixteenth century. The level (between 7 and 8%, taking as a reference the 1000% richness line) is higher than that which has been reconstructed for whole states/regions, but this is due to the fact that here, a large city is singled out. Generally speaking, there is a good deal of empirical evidence that large cities were more unequal than smaller cities and rural communities (Herlihy 1978; Van Zanden 1995; Alfani 2010a; Alfani and Ammannati 2014) – and it is entirely to be expected that in their more polarized societies, the rich were more prevalent (wherever we set the bar of the richness line: the above conclusions stand using both the 200% and the 1000% lines). From the middle of the sixteenth century, the prevalence of the rich tends to increase quickly, reaching 12.7% by circa 1700. Also in Padua we find a marked increase in the prevalence of the rich when moving from the sixteenth to the seventeenth century – although during the seventeenth century, the tendency is orientated towards a slight decline. The opposite is true, however, if we move from the city to the country, as in the *contado* the prevalence of the rich grows almost continuously from 1550 to 1700, resulting in a very substantial overall increase (from 4.3% to 8.7%: more than double in just a century and a half). The time series I have included for Catalonia (Cervera and Reus) are more erratic but overall, they show an increase in the prevalence from the late Middle Ages to the seventeenth and eighteenth centuries. This is particularly clear for Cervera, where the rich increase from the low level of 0.8% in 1400, to 4.5-4.6% by the end of the sixteenth century. After that, phases of decline and increase alternate, with the prevalence of the rich never exceeding 4.5% but never falling for very long below that level either.

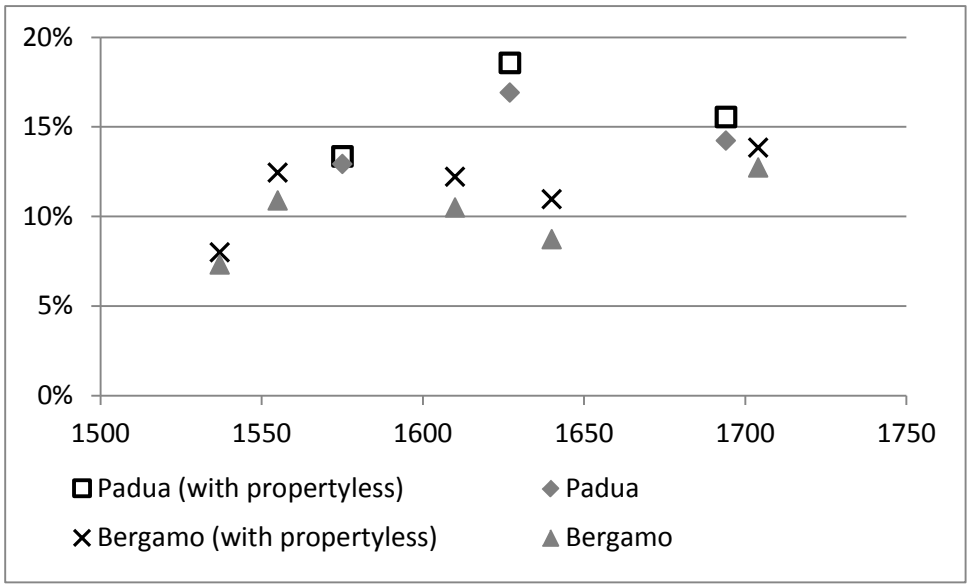
The case of Padua and its territory is particularly useful as it allows us to exemplify the consequences of aggregating urban and rural data to obtain regional distributions. To this end, in Table 1 I have provided information about the city and the country individually, as well as the aggregate series obtained by simply joining the two partial distributions (this could be done only because in this case, city and rural communities use exactly the same fiscal system: see Alfani and Di Tullio 2015). The greater prevalence of the rich (and the overall higher inequality) in the city than in the country is, as we have already seen, the consequence of the differences between urban and rural societies (on the specific point of inequality in Italian rural areas during the early modern period, see Fornasin 2002; Alfani 2009). What is less obvious is why if we consider the aggregate, we find a prevalence of the “rich” which is often higher than that of the city alone. Clearly, as the countryside had a much lower median wealth than the city, aggregating city and countryside

automatically results into more urban households being classified as rich. However, the effect of urban-rural aggregation on the prevalence of those over 1000% of the median could go in either direction, depending on factors like the relative size of the urban and rural population and the actual wealth of the richest rural households.

The trends reconstructed in this section are highly coherent and provide a very suggestive picture of long-term changes in the prevalence of the rich. We could wonder, however, whether they are systematically influenced by some fault in the data used. The greatest concern is with the absence from the distributions of a significant part of the poor, i.e. households who did not own even a tiny scrap of property. This is an issue which has, in fact, been analysed in depth by the studies which introduced the aforementioned regional reconstructions, and it has been argued that were it possible to add the poor to the distributions, presumably the tendency of economic inequality (as measured by Gini indexes) to increase continuously during the early modern period would be even more marked. This is because the general literature suggests that the prevalence of the poor declined after the Black Death, and increased during the early modern period (Pullan 1978; Woolf 1988). Moreover, at least in some areas, like the Sabaudian State, the prevalence of the poor (i.e. the propertyless) was fairly low, in the 8.5–9.5 percent range, and "in addition, small landownership prevailed in rural western Piedmont, and considering the tendency of the rural poor to migrate to cities, the prevalence of households with no property at all might be expected to be even less in rural communities" (Alfani 2015, 1076).

An empirical test of the relative insensitivity of richness indicators to the absence of the bottom of the distribution is surely helpful to make this claim stronger. Of the case studies covered by this article, those of the cities of Padua and Bergamo are particularly useful to this end, as for many dates we have distributions including the propertyless (who up to now have been removed from all calculations, for the sake of standardization). For Padua, we have this information for 1575 (a date not included in Table 1 as it would have been redundant, and as there was no information available about the *Contado* for that year), 1627 and 1694. For Bergamo, the dates concerned are 1537, 1555, 1610, 1640 and 1704. The prevalence of the rich calculated including or excluding the propertyless is shown in figure 4.

Fig 4. Robustness check: Prevalence of the rich, with and without the propertyless (Padua and Bergamo, 1500-1750. Richness line = 1000% of median value)



In all cases for which we have information about the propertyless, our measures of the prevalence of the rich are scarcely affected by their inclusion. In fact, for both communities and for all dates the differences are minimal, always below 1%, with the exception of Padua in 1627 and 1694, when adding the propertyless to the distributions means adding 1.7 and 1.3 percent points to the measures. Quite obviously, this does not change significantly our answer to the initial question – "how many rich?" The figure shows even more clearly that including the propertyless does not affect the trends considered above.

5. Who were the rich?

As we have seen, the rich (defined as households at least ten times as wealthy as the median) were no more than 5% of the overall population at the beginning of the early modern period - with the exception of large cities where their concentration was greater - and their numbers more or less doubled in just a couple of centuries (1600-1800). But who were they? And how did the composition of the rich change over time? Here it will be possible to provide only very partial answers to these important questions, both for reasons of synthesis and because only rarely do the fiscal sources I use provide the necessary information about occupations etc. to explore these

aspects properly. Consequently, the objective of this session is only to provide some additional historical depth to integrate the quantitative long-term analyses conducted in sections 4 and 6.
Let us begin with some examples. Of all the areas and communities covered by this study, the city of Ivrea in northwestern Italy (comprised in the aggregate distribution of the Sabaudian State) is probably the one which has been the object of the most detailed and in-depth studies of distributional issues – including the occupation and the characteristics of the rich, and the composition of their patrimonies (Alfani 2010a; 2010b; Alfani and Caracausi 2009). Here, in 1544,

«All of the larger owners came from the urban elite composed of gentillhomini [gentlemen] and professionals, such as the *spectabilis dominus* Giovanni Pietro Scaglia, the wealthiest of them all, and Bartolomeo Baijleto, a *phisicus* (doctor), the second-richest. Giovanni Pietro declared 3,057.3 denari of estate, 6.48 percent of the total wealth estimated in 1544. His house in the parish of St. Salvatore (…), which at the time was blooming with noble palaces, was worth 350 denari, or about three-times the average wealth possessed by all of the city's heads of family. He owned four other houses in Ivrea with a total value of 350 denari, as well as a variety of farmhouses, vineyards, fields, and meadows together worth more than 2,000 denari. The range of property belonging to the richest people in Ivrea had a similar composition: a vast and noble house where they lived; other houses and buildings in the city; and a variety of rural goods in the surrounding countryside, representing their main investment in real estate.» Alfani 2010a, 528.

An exceptional source dated 1613 allows us to extend the analysis beyond Ivrea, covering other Sabaudian cities. In fact in that year, all the communities of Piedmont were required to compile a kind of census of their entire population, providing detailed information about (among other things) the real estate included in the *estimo* as well as the exempt (feudal) properties and other components (credits, capital of various kind…) of the wealth owned by each household (Alfani 2010a; Alfani and De Franco 2015). The occupation of the household head was also recorded, although not for every household, and moreover in some communities this information is much more systematic than in others. Ivrea is, again, the fortunate exception as here, the profession was indicated in over 80% of cases. The picture we get is analogous to that described for 1544, as among the rich (as defined above) we find highly skilled professionals (lawyers and notaries; doctors and *speziali*, i.e. pharmacists) and high officials (the tax collector, the captain of the militia, etc.); merchants (especially of cloths and iron); and finally the "*gentillhomini*" or gentlemen, who belonged to the nobility. The richest household was that of a *referendario* of the Duke (an officer who received requests of justice or pleas to the Duke), the *magnificus dominus* Teodoro Reverdino, whose net wealth amounted to almost 8,500 *scudi*. As far as I know, apart from Ivrea, the 1613 census

survived for two other cities, Moncalieri and Susa (with respectively 6,590 and 4,639 inhabitants at the time – Ivrea had 4,435), plus the capital city of Turin, which had about 24,400 inhabitants and where unfortunately the documentation is incomplete covering a part of the urban area only. In Susa, where information about occupations is relatively sparse, we know at least that the richest household was that of an "*oste*" (innkeeper) – although his very considerable wealth of 11,200 *scudi* altogether, came also from his secondary activities as leaser of the properties of the priory of Susa and probably most importantly, as tax collector (he had the sub-tender for the *dacito*, an indirect tax on the transit of goods through the Susa valley, for which he employed directly two agents). The second richest was another individual holding an important office: the governor of the city, who declared ownership of properties worth about 8,500 *scudi*. The other components of the local rich for whom an occupation is declared include notaries, merchants and owners of the local tanning activities (*affaytori de corami*). In Moncalieri, a city close to Turin, the richest individual was, again, a high-ranking officer: the *maggiordomo* of His Highness (a kind of superintendent), who owned property to the value of 19,000 *scudi*. In second position we find, each with 15,000 *scudi* of wealth, the prefect of the city and a landed noble, Bernardo Numbello of Cavoretto. In Turin, the capital of the State, the presence among the very richest (say, the top 0.1% of the distribution) of high officials of the ducal court and of nobles is even more clear – and also clear is a marked difference in the extent of their wealth compared to that of the top rich of the secondary Sabaudian cities. So, among the top 10 rich we find a landed noble, the count of Solere (who declared 50,000 *scudi* of propery); the governor of Vercelli (who also had feudal properties); a variety of officers including an *auditore di camera* (a minister of the Duke) and a *referendario*; and the personal doctor of the Duke himself. But in this case the richest of all (at least among those residing in the part of the city for which we have information) was Giovanni Paolo Fontanella, a merchant and owner of storehouses (a *fondighero*) originating from Milan, whose fortune was estimated at 55,000 *scudi*.

This information, though sparse, is sufficient to give a general idea of who it was that made up the rich élite of at least one of the areas covered by this study at the beginning of the early modern period. A more detailed analysis would require a considerable amount of additional research, and is beyond the scope of this article. Something more, however, should be said about long-term changes in the composition of the rich. In their study of wealth concentration in France, 1807-1994, Piketty et al. (2006, 244-246) measured that in Paris in 1807 (a date close to the end of the period covered by this article), the aristocracy accounted for about 18% of the members of the top 1% (calculated on those dying that year). These figures, which include both Old Regime nobles and the new

nobility created by Napoleon and mostly composed of chief military officers, would increase during the nineteenth century, peaking in 1847 at about 29%, only to decline later due to the rise of financiers and industrialists.

The point raised by Piketty et al. – how much was the share of the aristocracy? – is a crucial one, for at least two reasons. First, because of a technical issue: as feudal property, being exempt from local taxation, was not included in the *estimi*, the nobles are the component of the rich most at risk of being underestimated (both regarding their numbers, and their relative wealth). Secondly, because the origin of the increase in the prevalence of the rich during the early modern period which has been described in the earlier section, probably lies in the rise of new wealthy groups (non-nobles)

Regarding the first point, the data I have does not allow for any kind of thorough test of the potential distortion caused by the exclusion of feudal property from the *estimi*. However in the Sabaudian State, feudal property was very limited (it was just 2.5% of the total in Ivrea in 1665, and 1.2% in Saluzzo in 1772. Alfani 2015, 1063) and the same is true for the Florentine State and elsewhere – but not, for example, for the Kingdom of Naples (although of the southern Italian regions, Apulia was one of those where feudal property was less prevalent: Alfani and Sardone 2015). At least for the Sabaudian State, there is some comfort in the fact that in 1613, in practically all instances in which the sources distinguish the value of feudal and *estimo* properties, the latter would have been sufficient to classify a noble as rich (richness line = 1000% of median) – although at a lower wealth level. If we accept this as a reasonable and generalizable assumption, we must conclude that the absence of feudal property does not affect much any form of "headcount" indicator of the prevalence of the rich[7] – although it could still cause some significant distortion to other indicators, including both wealth shares of the top rich, and richness indexes (see next section).

Regarding changes in the composition of the rich, this is not a question that could be answered solely on the basis of information taken from property tax records. Also, generally speaking, we lack reliable studies of long-run changes – with one exception: the works of the Marxist school of economic history, already mentioned in section 4. This school detailed the rise in the share of wealth (real estate) owned by a specific social "class" - the bourgeoisie. For example, in the territory of Ravenna in the northern Italian region Emilia-Romagna, the bourgeoisie owned 18.97%

[7] Notice that increasing the wealth of those who are already above the richness line – which is, by definition, set at a higher level than the median – does not affect the median value and consequently does not alter the richness line.

of the whole in 1569, 19.58% in 1612-14, 20.88% in 1659, 33.38% in 1731, and 42.53% in 1835 – the rest being owned by the nobility and by institutions, especially religious ones (Porisini 1963, 43-45). In other northern Italian areas the bourgeoisie was much less able to expand its properties. For example, in the city of Imola the bourgeoisie owned 26.63% of all real estate in 1637 and 28.42% in 1778 (Rotelli 1966, 115) – a small-scale increase, but still the tendency is clear. Notice that all these measures refer to values (not surface area) and that they involve only taxable properties.

A huge problem in using this data lies in the definition of "bourgeois" property – which these authors tended to define simply as that owned by non-noble households. However, many of these households were in fact peasant households owning small properties, which could not be considered to belong to any kind of bourgeoisie defined in functional terms. In fact, the data from the *estimi* does not allow us to easily distinguish the rise of merchant élites or of other bourgeois groups like civil servants and high officials, professionals, and great "capitalistic" landowners – a point which was also raised by the distinguished Italian historian Marino Berengo (1970), helping in no small way to determine the crisis of the research program started by the Marxist school. In other words, from the perspective of a study of the rich using the categories and methods of contemporary research on economic inequality, we would need much more information about the heads of households than that which is usually provided by the fiscal sources alone, in particular about occupations – but this is a very research-intensive task, requiring the linkage of sources of different kinds, and therefore could not be accomplished on the large scale of analysis adopted in this article. There is, however, an important point which older historiography allows to be made: the resilience and the continued importance of noble households as owners of *non-feudal* lands. For example in Ravenna in 1835, nobles still owned 25.37% of all real estate (Porisini 1963, 43) –a relative position not much different from that of the Paris nobles mentioned earlier. As a consequence, although it seems certain that most of the increase in the prevalence of the rich during the early modern period was due to the rise of specific non-noble groups, it would surely be a mistake to consider the nobles passive bystanders, or even "prey", in this complex process.

To complicate matters, we should also point out that the nobility was not impermeable to the upward social mobility of other groups. In many areas, waves of new ennoblements are to be found across time. The new rich, including many merchants, were keen to acquire a title as they saw it as a further step up the social ladder. It has been argued that in Milan, for example, throughout the early modern period, it was relatively easy to become a member of the nobility, also because the rules designed to limit the process were not fully applied (Mocarelli 2009). In the Sabaudian State, a

large number of new fiefs were created in 1618 and the corresponding titles were sold to provide the Duke with the cash he badly needed after the first War of the Montferrat Succession (Alfani 2013). Finally, as in France (see above), also in many parts of Italy and Europe a new wave of ennoblements took place in the Napoleonic period (see for example the case of Ravenna in Porisini 1963). While the permeability of nobility to the new rich is another reason why household-level distributions are always to be preferred to class-based ones, it should be noticed that even when they became nobles, merchants and other members of the economic élite did not renounce their non-feudal patrimonies – thereby remaining within the perimeter of the rich which can be observed and measured on the grounds of our fiscal sources.

In the long period we considered, social mobility was not mono-directional and many rich households became impoverished and moved downward the social ladder. In general, it would be particularly useful to be able to measure the intensity of upward and downward social mobility through time – as, for example, the long phase of inequality growth characterizing the early modern period would have different economic implications were it coupled with prevailing upward, or downward social mobility. However, studying these processes requires to be able to follow households through time, which is impossible in most instances due to the lack of the needed archival documentation. Future research projects will be aimed at this and will focus on cases for which exceptional documentation exists, like that of Ivrea (see in particular Alfani 2010b). This will also allow to raise an important question about causality: was the rich status obtained by households due to the occupation of their members, or did their members involve in specific activities due to their wealth? Obviously, both processes are possible – a household could become rich *because* it was led by a successful merchant, or an individual could become the tax collector of a city *because* he came from a wealthy household and could provide the necessary financial guarantees. It would be important, however, to identify and measure, for different areas and periods, the prevailing paths and processes of occupational and wealth mobility.

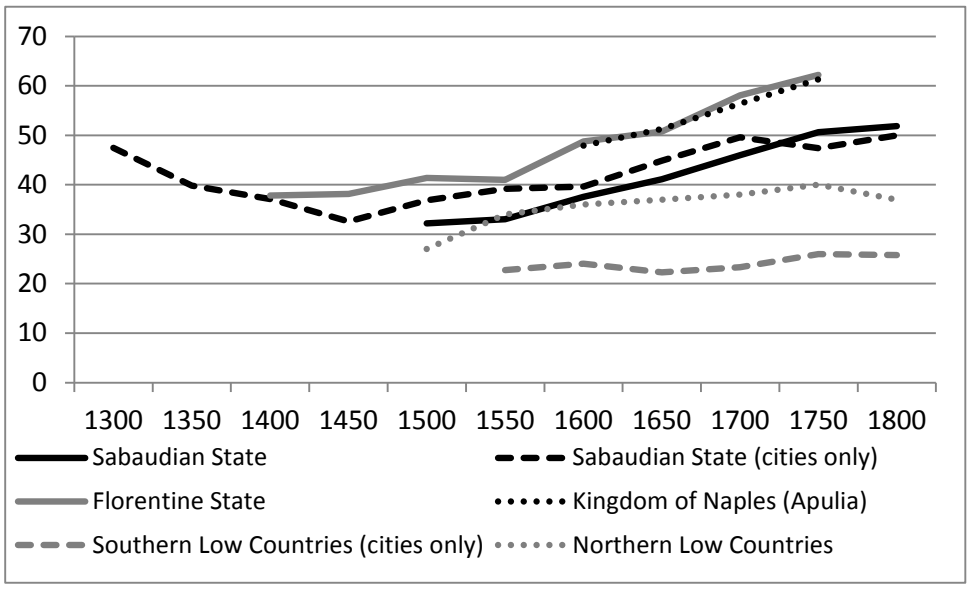
6. Long-term changes in the share of the top rich and in “richness”

Until now, measures of the prevalence of the rich have been considered – but we still need to clarify how much of the overall wealth was concentrated in their hands. To do this, the most commonly used indicator is the share of all wealth that was held by those in the richest group.

Figure 5 presents the share of wealth (usually) or income (for the Low Countries) held by the top

5%, for the same communities that were included in figure 2 plus the northern Low Countries (Dutch Republic) documented by Van Zanden (1995). Clearly, the trends in the prevalence of the rich (figure 1) and in the share of overall wealth held by the top 5% are very similar. This is not a given as in the case of the second indicator, the proportion of the rich taken into account is fixed in time (the top 5%). The share of the richest 5% shows, more clearly than the prevalence, the distributive impact of the Black Death (also see the case of Tuscany in Alfani and Ammannati 2014, especially graph 6 at p. 31). It also shows a tendency for a continuous increase throughout the early modern period which actually seems to begin a century or so earlier than the analogous increase in the prevalence of the rich.

Fig. 4. Long-term trends in the share of the top 5% rich in Italy and Europe, 1400-1800



Notes: the series for the Northern Low Countries has been elaborated from data published by Van Zanden (1995). As no information was available for 1600, 1650 and 1700, the gap was filled in by linear interpolation. The measures refer to wealth distributions (excluding those with no property) for all areas except for the southern Low Countries where it refers to income distributions.

As has been argued by the studies that introduced the aggregate series used here (Alfani 2015; Alfani and Ryckbosch 2015; Alfani and Sardone 2015), the trend in the share of the top rich goes hand in hand with the trend in general inequality, as measured by Gini indexes. This is an

interesting finding, as it confirms the empirical regularity described for contemporary societies by many authors (Atkinson et al. 2011; Alvaredo et al. 2013; Piketty 2014; Roine and Waldenström 2015).

The size of the share of the top 5% rich in preindustrial societies was impressive – see Table 2, where the share of the top 10% is also included. Before the Black Death, it amounted to 47.4% in Piedmontese cities, then falling to a multi-secular minimum of 32.6% by circa 1450. After that, it increased continuously, reaching 50% by 1800. If we consider the series representative of entire regions or states, around 1800 we find even higher shares: 51.9% in the Sabaudian State, 61.3% in the Kingdom of Naples and 62.2% in the Florentine State[8]. Shares are lower in the Low Countries – but they refer to income and not to wealth so this was to be expected. If we look at the data related to specific communities of the Republic of Venice and of Catalonia (Table 2 includes the same communities presented in Table 1), we find basically the same trends already described for the prevalence of the rich, namely, (i) a relative instability in the Catalan time series (although in the case of Cervera, the long-run increase in the share of the top 5% rich is clear: from a multi-secular minimum of 25.3% in 1400, to a maximum level of 37.4% reached at the end of the period considered), and (ii) a graduation in the share of the top rich (and in inequality) in the territory of Padua, where the rich of the *contado* have lower shares compared to those of the city – but also, where the whole territory (city + *contado*) shows even higher concentrations than the city alone. For example, in 1600 the wealth share of the top 5% is 48% in the *contado*, 50.9% in the city, and rises to 62% if both are considered. As discussed in section 4, this is the consequence of differences in the relative positions of urban and rural "rich" households.

[8] These figures probably under-estimate slightly the real situation, as the capital cities (Turin, Naples and Florence) are not included due to the lack of sources (see section 1, as well a detailed discussion for the Sabaudian State in Alfani 2015).

Tab. 2. The share of the top 5% and 10% rich in Italy and Europe, 1400-1800

	Sabaudian State	Sabaudian State (cities only)	Florentine State	Kingdom of Naples (Apulia)	Southern Low Countries (cities only)	Northern Low Countries	Bergamo	Padua (city)	Padua (*contado*)	Padua (city and *contado*)	Cervera	Reus
Share of top 5%												
1300		47.4										
1350		39.8										
1400		37.1	37.8				39.1				25.3	
1450		32.6	38.1				40.3					25.4
1500	32.2	36.8	41.4			27.0	43.0				33.4	28.0
1550	33.1	39.2	41.0		22.8	34.0	45.0	46.4	41.4	52.1	34.3	31.5
1600	37.6	39.6	48.7	47.9	24.1		39.7	50.9	48.0	62.0	32.5	
1650	41.1	44.9	50.7	51.3	22.3		37.6	52.9	49.0	58.4	27.9	31.6
1700	45.9	49.6	58.0	56.4	23.3		43.7	50.6	48.3	60.7	32.8	30.9
1750	50.6	47.4	62.2	61.3	26.0	40.0					32.0	
1800	51.9	50.0			25.8	37.0					37.4	
Share of top 10%												
1300		61.3										
1350		54.1										
1400		50.9	51.9				54.5				39.0	
1450		46.8	51.3				56.4					25.4
1500	46.6	51.2	54.4			40.0	58.4				48.2	28.0
1550	47.4	53.2	54.6		35.5	46.0	60.9	61.7	55.2	66.7	49.2	31.5
1600	52.0	54.4	62.9	61.8	36.9		57.4	67.4	62.1	75.5	47.1	
1650	55.5	60.8	65.4	63.3	34.7		53.9	70.2	63.0	72.7	43.8	31.6
1700	59.9	65.6	72.8	68.1	35.8		61.9	68.2	63.9	74.4	48.1	30.9
1750	65.2	64.5	78.3	72.6	39.2	54.0					46.3	
1800	69.1	68.9			39.8	52.0					52.0	

Notes: Measures organized around reference years when needed. For actual years, see table 1. The measures refer to wealth distributions (excluding those with no property) for all areas except for the northern and southern Low Countries where they refer to income distributions.

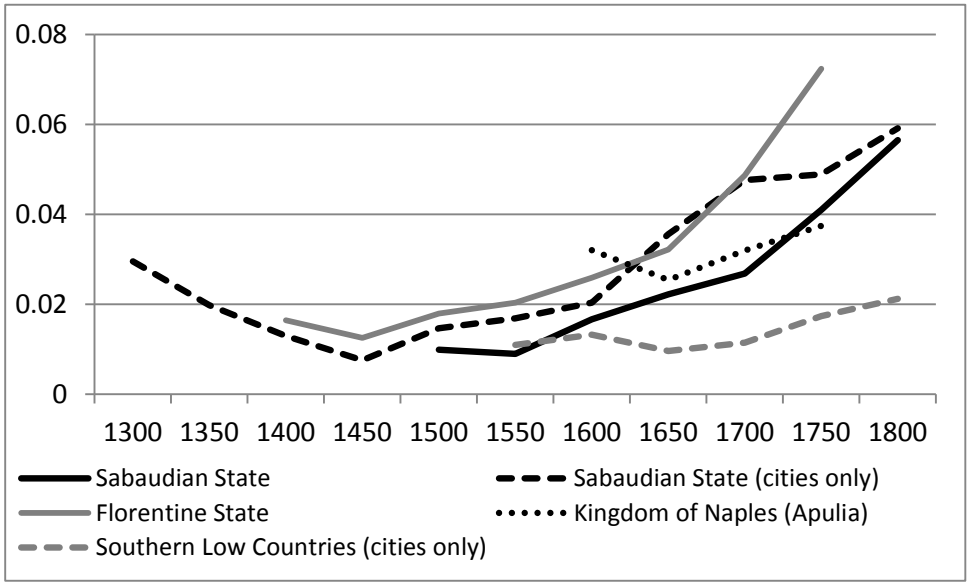
For a full realization of the significance of these figures, we can compare them with the measures of wealth inequality proposed by Piketty (2014, 336-350) for a few European countries (France, Sweden and the U.K.) and the U.S., covering the period 1810-2010. In Europe, in 1810 (a date close

to the end of the period we cover) the share of the top 10% was slightly above 80%, while in the U.S. it was slightly below 60%. During the nineteenth century, the tendency was for a slow but continuous increase, until the all-time maximum was reached around 1910 when the European and American 10% came to own, respectively, about 90% and 80% of all wealth.

These recent shares have been measured from fiscal assessments of patrimonies used for calculating taxes on estates. Although the source material does not correspond exactly to what is available for preindustrial times (see section 2), there are substantial similarities, and it is striking that, allowing for some source-induced differences in the measures, the final point of my series seems to approach Piketty's European "averages" for 1810. In fact, by 1800 I found a top 10% share of 69.1% in the Sabaudian State, while in the Florentine State and in the Kingdom of Naples already by 1750 the top 10% owned 78.3% and 72.6% respectively, with a clear tendency to grow in time which, if projected, would easily reach or even slightly exceed 80%. It is also interesting to note that today top 10% shares (which Piketty places at slightly over 60% in 2010 Europe) are similar to those characterizing all three pre-unification Italian states during the seventeenth century for which overall estimates are available – and might also be similar to those experienced by Europeans on the eve of the Black Death.

The analysis of richness indexes allows us to combine the findings about the trend in the prevalence of the rich, and in the share of the top 5 and 10%. As discussed in section 3, the value assumed by a richness index depends, in fact, only on the rich individuals (or households), i.e. those above the richness line (for the sake of simplicity, here I will consider only the 1000% of median line), and consequently reacts to changes in the prevalence of the rich, but at the same time the richer an individual, the greater his contribution to the overall value of the index. In other words, the richness index also captures the changes in the relative position of the rich compared to the non-rich, increasing as a society becomes more polarized. Figure 6 provides a graphical representation of the long-term trends in richness.

Figure 6. Long-term trends in richness in Italy and Europe, 1300-1800 (R_1^{Cha}. Richness line =1000% of median value)



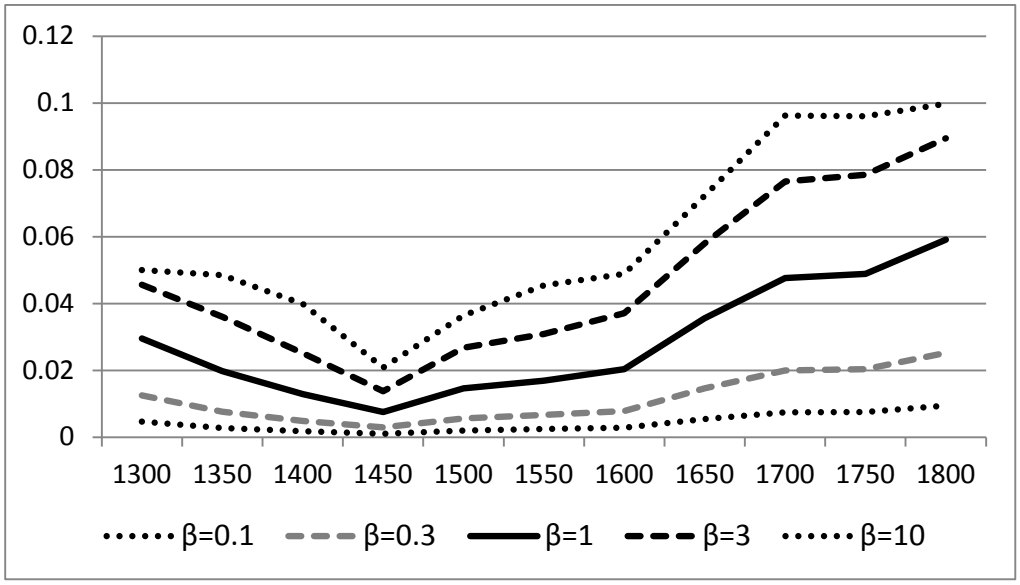
Notes: the richness index has been calculated on wealth distributions (excluding those with no property) for all areas except for the southern Low Countries, where it refers to income distributions.

Of the three indicators used in this article, richness is the one that shows more clearly the U-shaped curve generated by the Black Death and later recovery. As in the case of the share of the top 5%, the turning point is placed around 1450 – as now is visible not only in the Sabaudian State, but also in the Florentine State. The richness indexes also show very clearly an increase in the pace of the trend from the seventeenth century. Finally, by the end of the period the change in the value of the indexes well exceeds the pre-Black Death values (when measurable), to suggest that the rich had not only recovered their share (see the trend in the top 5% in figure 5), but had also distanced themselves considerably from the rest of society (as also confirmed by the in-depth analysis of the Sabaudian State in Alfani 2015).

The actual value assumed by the richness indexes I used, however, depends on the value of β. As will be remembered from section 2, the higher the β, the larger the increase in the index as the wealth/income of a specific individual/household increases. One could wonder, then, if the trend I described stands only for specific values of β. To this end, I conducted extensive robustness checks which confirm that the trend is not "artificial" but truly reflects social and economic change. This can be seen in Figure 7, where for the Sabaudian State (cities only – the longer time series used

here) different values of β are used (from 0.1 to 10), as well as in Table 3, in which for all the communities or areas included in earlier tables, richness indexes for the most commonly-used values of β are provided (0.3, 1 and 3).

Figure 7. Robustness of the general trends to changes in the value of β: the case of the Sabaudian State, cities only (R_1^{Cha}. Richness line =1000% of median)



Tab. 3. Long-term developments in "richness" in Italy and Europe, 1400-1800

	Sabaudian State			Sabaudian State (cities only)			Florentine State			Kingdom of Naples (Apulia)			Southern Low Countries (cities only)					
	β = 0.3	β = 1	β =3	β = 0.3	β = 1	β =3	β = 0.3	β = 1	β =3	β = 0.3	β = 1	β =3	β = 0.3	β = 1	β =3			
1300				0.012	0.030	0.046												
1350				0.008	0.020	0.036												
1400				0.005	0.013	0.025	0.007	0.016	0.028									
1450				0.003	0.008	0.014	0.005	0.013	0.021									
1500	0.004	0.010	0.019	0.006	0.015	0.027	0.007	0.018	0.032									
1550	0.003	0.009	0.017	0.007	0.017	0.031	0.008	0.020	0.035				0.004	0.011	0.022			
1600	0.006	0.017	0.030	0.008	0.020	0.037	0.011	0.026	0.040	0.013	0.032	0.054	0.005	0.013	0.025			
1650	0.009	0.022	0.037	0.015	0.036	0.058	0.014	0.032	0.054	0.011	0.025	0.042	0.003	0.010	0.019			
1700	0.011	0.027	0.045	0.020	0.048	0.077	0.021	0.049	0.075	0.014	0.032	0.050	0.004	0.011	0.023			
1750	0.018	0.041	0.063	0.020	0.049	0.079	0.033	0.072	0.107	0.017	0.037	0.058	0.006	0.017	0.033			
1800	0.025	0.056	0.084	0.025	0.059	0.089							0.008	0.021	0.040			
	Bergamo			Padua (city)			Padua (*contado*)			Padua (city and *contado*)			Cervera			Reus		
	β = 0.3	β = 1	β =3	β = 0.3	β = 1	β =3	β = 0.3	β = 1	β =3	β = 0.3	β = 1	β =3	β = 0.3	β = 1	β =3	β = 0.3	β = 1	β =3
1400	0.012	0.030	0.052										0.000	0.001	0.004			
1450	0.011	0.028	0.049													0.001	0.001	0.003
1500	0.012	0.030	0.049										0.004	0.009	0.018	0.002	0.004	0.007
1550	0.019	0.045	0.075	0.019	0.045	0.073	0.007	0.016	0.028	0.026	0.060	0.092	0.006	0.015	0.027	0.003	0.007	0.013
1600	0.017	0.044	0.074	0.041	0.091	0.133	0.013	0.031	0.050	0.032	0.070	0.104	0.002	0.004	0.007			
1650	0.014	0.035	0.060	0.036	0.082	0.122	0.013	0.032	0.051	0.037	0.081	0.117	0.002	0.006	0.014	0.002	0.005	0.008
1700	0.026	0.062	0.098	0.032	0.074	0.111	0.017	0.041	0.065	0.041	0.089	0.128	0.005	0.014	0.026	0.003	0.007	0.012
1750													0.003	0.009	0.016			
1800													0.007	0.018	0.030			

Notes: Measures organized around reference years when needed. For actual years, see table 1.The measures refer to wealth distributions (excluding those with no property) for all areas except for the southern Low Countries where it refers to income distributions.

All things considered, richness indexes seem to be the measure best suited to capture the different aspects of those changes in the wealth and income distributions, which led to the overall increasing dominance of the rich in both the society and the economy that characterised the early modern period. They testify to more unequal and polarized societies in which the rich were ever more "visible" (more numerous, more divergent from the condition of all the other components of the society), possibly favouring that change in the very perception of a condition of inequality among human beings which seems to invest Western societies especially from the eighteenth century (Alfani and Frigeni 2013). Although indirectly, the indexes also reflect the change in the composition of the rich which has been hinted at in the earlier section – as the surge in the number of the rich was mostly due to the rise of new, non-noble groups, like the members of those merchant and financial élite which from the beginning of the early modern period began to invest in lands, quickly making it to the top of the patrimonial distribution bringing with them a significant part of the overall wealth. These are aspects, though, that require additional research to be explored properly.

Conclusion

In this article, I had recourse to three different methods to study long-term changes in the relative conditions of the rich: headcount indexes, the share of the top rich, and richness indexes. Seen together, they give us a more robust picture, and also a deeper understanding, of the historical processes leading to the increasing dominance of the rich in society and the economy. The measures I have presented for different Italian pre-unification states (Sabaudian State, Florentine State, Kingdom of Naples and Republic of Venice) as well as for the southern and (when possible) the northern Low Countries and for a couple of towns in Catalonia, all suggest that throughout the early modern period the rich tended to become both more prevalent, and more distanced from the other strata of society. The only period during which the opposite process took place was the late Middle Ages, following the Black Death epidemic of the mid-fourteenth century.

The new data presented in this article provide a novel view on the development in time of European preindustrial societies, as (to my knowledge) this is the first ever attempt to estimate systematically the number of the rich at different points in time, and to provide a complete and comparative analysis of their relative position in society and of their contribution to overall inequality. Around 1500, in Italy the rich (defined as those households owning at least 10 times the wealth of the median household) were about 3-5% of the total population. By 1800, their prevalence had doubled.

In the same span of time, the share of wealth held by the top 10% had grown from about 45-55% to about 70-80%. The implications of this momentous change, of which I found clear signs also elsewhere in the continent, will only be fully realised after much additional research.

The wealth of new information provided for the late medieval and early modern periods also places in a somewhat different perspective recent findings about how the conditions of the rich have changed in the last two centuries. There seems, indeed, to be solid enough ground to argue that the tendency for wealth to concentrate in few hands in nineteenth century Europe (Piketty et al. 2006; Piketty 2014) was in fact only the final part of a much longer process, which had started around 1450. In particular, the share of the top 10% which I reconstructed for 1800 seems to have approached Piketty's European average at 1810, which recent research placed at slightly over 80%. Consequently, the time series presented here serve to extend by about five centuries current debates on very long-term changes in economic inequality and in the relative position of the rich. It is also interesting to notice that, if we accept the idea that what led to a reduction in wealth concentration during the twentieth century (after the all-time maximum reached ca. 1910) were the shocks occurred in 1915-45 and related to the two World Wars (as argued by Piketty 2014, 368-370), then we find an obvious similarity in the five centuries covered by this article, as another high-magnitude shock, the Black Death, triggered the only phase of sustained decline in the relative position of the rich – with the top 10% losing their grip on about 15% of the overall wealth (notice that the same did not occur with subsequent plagues, due to institutional adaptation: see Alfani 2010b; 2015). Here again, additional research will be needed to substantiate this interesting similarity. The provisional conclusion is that wealth and income inequality seem to have undergone deep changes and even some violent oscillations during the medieval and early modern period, and knowing about them could lead us to a better understanding of recent and current developments.

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