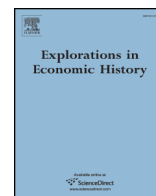




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Growing apart in early modern Europe? A comparison of inequality trends in Italy and the Low Countries, 1500–1800

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ABSTRACT

This article provides a comparison of long-term changes in inequality in two key areas of preindustrial Europe: Central-Northern Italy and the Low Countries. Based on new archival material, we reconstruct regional estimates of economic inequality during 1500–1800 and use them to assess the role of economic growth, social-demographic variables, proletarianization, and institutions. We argue that different explanations should be invoked to understand the early modern growth of inequality throughout Europe since several factors conspired to make for a society in which it was much easier for inequality to rise than to fall. Although long-term trends in economic inequality were apparently similar across the continent, divergence occurred in terms of inequality extraction ratios.

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1. Introduction

New empirical studies of medieval and early modern economic inequality have demonstrated that in most European regions inequality tended to grow in the centuries prior to the industrial revolution.¹ However, explanations for changes in long-term inequality vary. We begin to fill this lacuna by comparing two Italian states (the Sabaudian State and the Florentine State) with the Northern and Southern Low Countries. For these four European regions we reconstruct the trends in economic inequality during the period from 1500 to 1800.

Pioneering research on the causes of pre-industrial increases in inequality throughout Europe tended to single out the role of per capita economic growth in driving income and wealth disparity upwards (Van Zanden, 1995; Soltow and Van Zanden, 1998). However, for other European areas it has been argued that inequality growth cannot

be explained solely by economic growth (Alfani, 2010, 2015). Additionally, recent work on modern and current developments in inequality has tended to discredit one-dimensional explanations that focus exclusively on economic performance. Political events and processes have reclaimed their place as causal factors in economic theory and history alike (Piketty et al., 2006; Atkinson et al., 2011; Piketty, 2013). Hoffman et al. (2002) have pointed towards the impact of differential developments in commodity prices on early modern inequality levels, Alfani (2015) has argued that the rise of the fiscal-military state played a significant role, Ryckbosch (2016) has focused attention on processes of proletarianization, and family systems and international trade have been invoked as potential determinants, at least implicitly (Todd, 2011; Acemoglu et al., 2005). Since economic growth is no longer taken as the sole determinant of long-term inequality patterns in pre-industrial Europe, we compare four regions with different (and sometimes divergent) economic, social-demographic, political and institutional profiles, in order to shed some light on the possible determinants of inequality change (Fig. 1).

Our results also contribute substantially to the current debate on the 'Little Divergence'. This refers to the exceptional economic trajectory followed by Northwestern Europe, from the beginning of the early modern period, compared to the rest of the continent (and in particular to

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E-mail addresses: guido.alfani@unibocconi.it (G. Alfani), wouter.ryckbosch@ugent.be (W. Ryckbosch).¹ See on Italy: Alfani, 2010, 2015 and Alfani and Ammanati 2014; Low Countries: Ryckbosch, 2016; Spain: Nicolini and Ramos Palencia, 2015; Prados de la Escosura, 2008; Santiago-Caballero, 2011; García Montero, 2015; Poland: Malinowski and Van Zanden, 2015; and as an exception: Portugal: Reis and Martins, 2012.

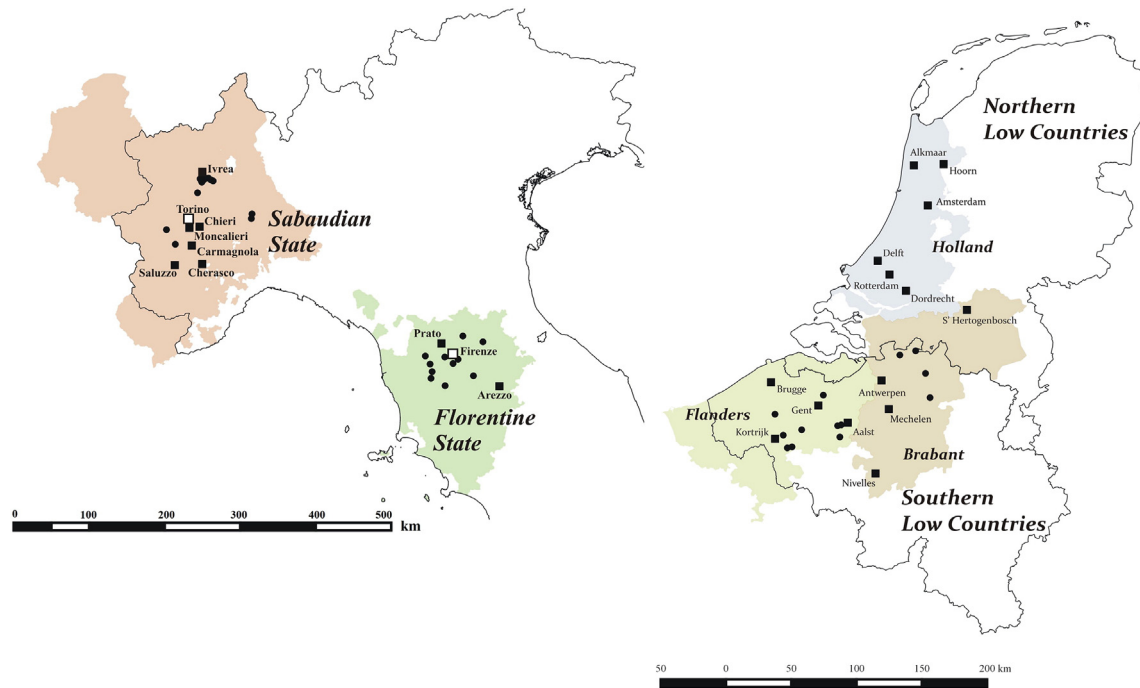


Fig. 1. The areas studied: Italy (left) and the Low Countries (right), with markers for the localities included in the study.

Italy, until then the most advanced area). Whereas most research on the topic has focused almost exclusively on aggregate indicators of output or income, we know very little about how economic gains were distributed across society, and how this changed over time. As a result, the processes of social change that were caused by the Little Divergence, as well as those potentially at the root of it, have remained largely hidden from view. This comparative study of Italy and the Low Countries seeks to improve our knowledge of these social processes underpinning the economic development of early modern Europe.

2. Sources and comparative methodology

Our study covers four regions in two key European areas: the Sabaudian State and the Florentine State (today roughly corresponding to the Italian administrative regions of Piedmont and Tuscany, respectively) in Southern Europe, and the Northern and Southern Low Countries in Northwestern Europe.

Around 1500, Central-Northern Italy and the Low Countries were the most economically advanced areas of Europe, as revealed by indicators such as urbanization rates, economic output, or aggregate living standards. However, from the sixteenth or seventeenth century the two areas began to diverge—with the Low Countries making considerable relative gains over the Italian states. Within the context of this ‘Little Divergence’ between the North Sea area and the rest of Europe, we study inequality in regions with divergent economic, political, and institutional profiles (see online Appendix A for a detailed discussion of the historical background of each region).

The trends in economic inequality presented in this article are based on different sources and approaches for the two main areas studied. In the case of Italy we studied the distribution of ownership of real estate, taking this as a *pars pro toto* for economic inequality. We relied on the famous Italian *estimi* (property tax records) and similar sources, from which new archival information was collected for 18 Piedmontese and 13 Tuscan communities. In the case of the Low Countries we have focused on (imputed) expenditures on the consumption of real estate (land or housing) as a proxy for economic inequality. For the Southern Low Countries we assembled a new database that includes 18 distinct communities of Flanders and Brabant, while for the Northern Low

Countries we used data published by Van Zanden (1995) based on information from 22 distinct communities in Holland. For all regions, our data cover the period 1500–1800.

The data we use are not without weaknesses. The main one is that all the distributions are truncated at the bottom—as many of the poor, i.e. the absolute property-less, were by definition not included in Italian property records, and most of them sublet or shared housing so that they do not appear in the registers of rental values of houses in the Low Countries either. As a consequence, all our measures of inequality are distorted towards a lower level. In the case of the two Italian states considered, the database does not include the capital cities (Turin and Florence) as they were exempt from direct taxation, which is also expected to lead to systematic distortion towards equality. Note that, regarding the trends, the net expected effect of the absence of both the property-less and the capital cities from our reconstruction is that the tendency for overall inequality increase that we found is less steep than it actually was. An overview of the sources used can be found in Appendices B and C.

It can be reasonably assumed that the information used for Italy approximates trends in wealth inequality, whereas that available for the Low Countries more closely approximates income inequality, as also argued by the recent literature (Van Zanden, 1995; Ryckbosch, 2016). Given this difference in the two approaches, it is to be expected that the inequality estimates (Gini indexes) produced for the Low Countries will be lower than those for Italy. This means that the analysis we present here is inherently limited to studying change over time, and comparing trends rather than absolute inequality levels.

Since our focus is on regional changes through time, we aggregated the local/municipal data in order to obtain measures representative of larger spatial units. To do this, we built regional distributions based on a recently introduced method (Alfani, 2015). We started from simplified, or ‘fictitious’ community-level distributions modeled on information about significant percentiles of income/wealth. Relying on fictitious distributions makes it easier to solve weighting problems and issues of comparability across sources. First, separate urban and rural aggregate inequality series are constructed. Then, they are weighted based on the urbanization rate in each region and time period, using a procedure similar to that described by Milanovic (2006) for

calculating ‘weighted international inequality’. An overview of the steps and assumptions necessary to construct these distributions is provided in Appendix D. The regional reconstructions for Tuscany and the Southern Low Countries are introduced here, while that for Piedmont has been discussed elsewhere (Alfani, 2015). For the Northern Low Countries we rely on the reconstruction by Van Zanden (1995).

3. Trends in inequality and inequality extraction in Italy and the Low Countries

The regional reconstructions for Piedmont, Tuscany and the Northern Low Countries all show a monotonic increase from 1500 to 1800. Only that of the Southern Low Countries shows stability during large parts of the seventeenth century (Fig. 2). In the urban reconstruction there are also short phases of inequality decline, in Tuscany from 1500 to 1550 (although of almost insignificant size: from a Gini of 0.630 to 0.623), and in the Southern Low Countries from 1600 to 1650. This being said, the general picture is clearly one of increasing inequality everywhere. In Piedmont, for example, the Gini increased from 0.610 in 1500 to 0.782 in 1800. It is important to stress that we focus on trends here, not on absolute inequality levels—as the latter potentially reflect differences in sources. The disparate measures of wealth inequality available for cities in the Low Countries (unlike the income inequality estimates used here) indicate levels that are roughly comparable to those in Italy.² There is thus no reason to assume that absolute levels of inequality in North-Western Europe were actually lower than in the South, as would be expected if the comparison of absolute levels were taken at face value. Also note that in each region, the increase in inequality was about as steep in the cities as in the country (see Figs. D4, D5 and D7 in Appendix D).

Our results indicate that the differences in the regional socio-economic, demographic, and institutional structure of the four regions considered did not have important effects on the outcome of long-term growth in inequality. On the contrary, they seem to suggest that underlying commonalities were responsible for a largely similar process of widening income and wealth disparities in otherwise dissimilar areas

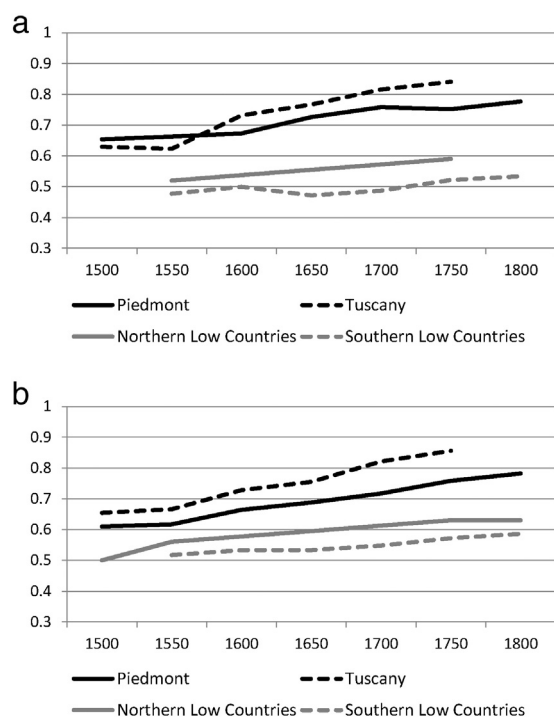


Fig. 2. Long-term trends in income inequality across Europe, 1500–1800 (Gini indexes of concentration) a. Urban trends in inequality (Gini coefficients) b. Regional reconstructions of inequality (Gini coefficients).

of Europe. However, when studying inequality in pre-industrial societies—where living standards were relatively low and where a large share of economic production was needed for the provision of subsistence minima—it has to be taken into account that the maximum level of inequality that could be achieved depended on the amount of economic surplus (over subsistence) created. For this reason, Milanovic developed the concept of the ‘inequality possibility frontier’, and its derived notion of ‘inequality extraction’ (Milanovic, 2006, 2013; Milanovic et al., 2011).

The inequality extraction ratio aims to measure how much inequality is actually produced in a society, relative to the total amount of inequality that is physically possible within it. This maximum feasible inequality is limited at the bottom by the physiological subsistence level, rather than by an income level of zero as in the case of a normal computation of the Gini coefficient. The maximum feasible Gini is thus determined by the maximum level of inequality that can be attained, not by distributing the total amount of income produced in society, but by distributing only the surplus amount remaining after deduction of the income needed to give all members a subsistence minimum. It represents a dystopian hypothetical society in which an infinitesimally small elite receives all the income, while the rest of the population lives at subsistence level. The maximum inequality can be written as:

$$G^* = 1 - \frac{s}{m}$$

where s is the subsistence minimum, and m is the mean income in the economy. The inequality extraction ratio (IER) expresses the ratio between the actually measured Gini and this maximum feasible Gini. It can be expressed mathematically as:

$$IER = \frac{G}{G^*}$$

The maximum Gini can be derived for each of the regions studied based on the GDP per capita (here in its identity as mean income m), and with the assumption of a stable physiological subsistence minimum s of \$300 in 1990 purchasing power parity (Milanovic et al., 2011). The GDP per capita figures have been taken from the Maddison Project database (Bolt and Van Zanden, 2014), with some adjustments to the Italian estimates (cf. infra). However, as mentioned above, it is problematic to compare the inequality measures between the four regions, and interpretations based on the ‘absolute’ level of either the Gini index or the IER may be unreliable due to the differences in the proxies used. Therefore a ‘relative’ representation of the results is preferable—both when comparing the series to one another, and when comparing each to the inequality possibility frontier. To achieve this, the four IER series have been converted to indices with 1550 as the base year. Moreover, the inequality levels have been re-calculated based on the hypothetical scenario that at the beginning of the period under scrutiny the extraction ratio was the same in all four regions, and that this extraction ratio was situated at 76%—which is the level found by Milanovic et al. (2011) for Holland in 1561. This amounts to a somewhat unusual index where 1550 is the base year, and the base IER is 76 rather than 100. This is shown in Fig. 3, where the inequality possibility frontier is also plotted, showing the maximum attainable Gini for each corresponding level of GDP per capita.

In all four regions the inequality levels gradually moved towards the inequality possibility frontier, but far more clearly so in the regions characterized by relative economic stagnation: Tuscany, Piedmont, and to a somewhat lesser degree the Southern Low Countries. This is

² For instance in Aalst estimates of wealth inequality based on probate inventories range between 0.67 and 0.72 in the seventeenth and eighteenth centuries. Estimates of wealth inequality based on fiscal sources in Alkmaar, Haarlem and Leiden in the 15th and 16th centuries range from 0.63 to 0.84 (Ryckbosch, 2012, 119; Van den Berg and Van Zanden, 1993, 203).

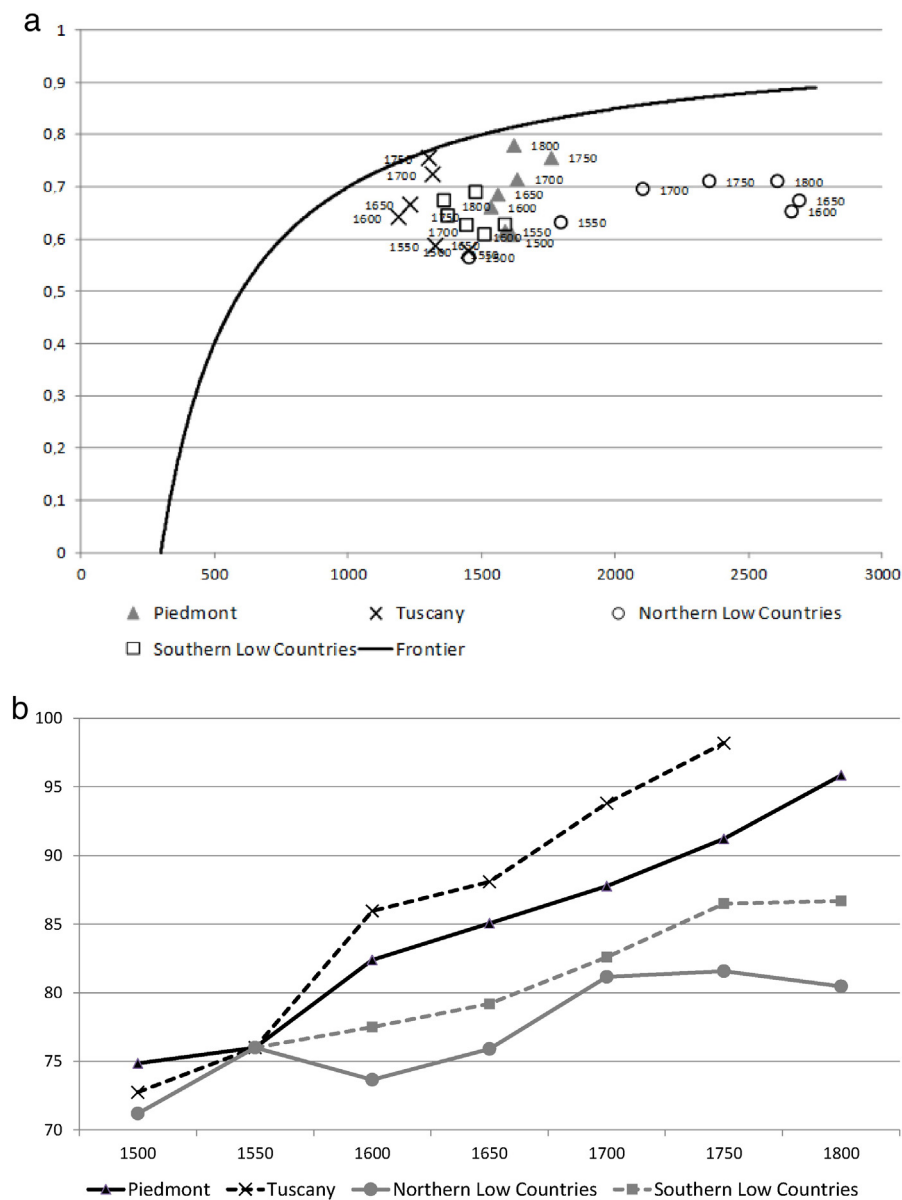


Fig. 3. Inequality extraction ratios, 1500–1800 a. Converted Gini indexes (1550 = 76% extraction ratios) b. Inequality extraction ratios (1550 = 76%)

demonstrated even more clearly by the development of the extraction ratios (Fig. 3b). In spite of a superficial similarity in patterns of inequality between all four regions, there was, in fact, a substantial divergence in the inequality actually extracted from the population. By 1750, when we can calculate inequality extraction ratios for all four regions, Tuscany was practically at the frontier with a 98% extraction ratio, i.e., 22 percentage points over the ‘original’ 76% in 1550, while at the other extreme the Northern Low Countries had experienced an increase of just 6 percentage points, with a tendency to decline afterwards. Piedmont and the Southern Low Countries (91% and 87% extraction ratios respectively) were positioned inbetween. Note that, were we able to include the capital cities of Piedmont (Turin) and Tuscany (Florence) in our reconstruction, the tendency towards a growing differential in inequality extraction ratios between central-northern Italy and the Low Countries would probably be somewhat steeper.

In order to better grasp the meaning of these figures, an inequality extraction ratio of 98% in 1750 places Tuscany slightly below the most unequal societies of that time, like 1790 Nueva España (105.5%) or 1750 Moghul India (112.6%). The relatively low inequality extraction ratio of the Northern Low Countries (82%) was about on a par with

that of other western European areas, like 1788 France (76.1%) or 1752 Castille (88%). However, such a level is much higher than anything we find today in western Europe (in 1999–2000, the inequality extraction ratio was 28.5% in the Netherlands and 36.5% in Italy) and, in fact, only some sub-Saharan countries reach the levels that we reported for European regions at the end of the early modern period (77.9% in 2000 Tanzania; 123.9% in 2004 Congo) (data from Milanovic et al., 2011, 263–4).³

4. Assessing trends in inequality across Europe

4.1. Accounting for differences

Although the general trend towards inequality was the same in all four regions, the intensity of the process, and the degree of inequality extracted, indicate that this was more markedly the case in Italy than

³ Note that our estimates for the Northern Low Countries in the eighteenth and nineteenth centuries differ from those proposed by Milanovic et al. due to the fact that we re-calculated them using an updated reconstruction of per-capita GDP (See infra).

in the Low Countries. Inequality extraction rose the most in Tuscany and the least in the Northern Low Countries, while Piedmont and the Southern Low Countries were located in between these extremes. Which aspects of the regional context help account for this difference? We survey some of the main economic, demographic, and institutional determinants of inequality: (i) economic performance and international trade, (ii) inheritance and family systems, and (iii) political institutions. To a large degree, our analysis is conjectural but it points towards promising areas for future research.

More than twenty years ago, Van Zanden argued that the early modern growth in economic inequality in Holland was 'over-explained' by economic growth (Van Zanden, 1995, 661), and discussed three different ways in which economic growth could have promoted inequality growth: through (1) increasing urbanization, (2) increasing skill premium, and/or (3) changes in the functional distribution of income. Nevertheless, in our comparative study we find no clear association between the occurrence of economic growth and trends in inequality. The most straightforward way to study this is to examine GDP per capita.⁴ Although estimates are available for both the Southern and Northern Low Countries, for Italy we only have an estimate for Central-Northern Italy as a whole. To create a better proxy of GDP per capita in Piedmont and Tuscany, we broke up the 'Central-Northern Italy' figures. While keeping the average equal to the Central-Northern Italy figures, we split it into two new series for Piedmont and Tuscany, based on the relative movement of the urbanization rates in both regions (Table 2).

Of the four regions studied here, one experienced substantial economic growth (Northern Low Countries), one went through a period of decline (Tuscany), and two others were stagnant until a sudden resurgence in the eighteenth century (Southern Low Countries and Piedmont). Remarkably, the strongest economic performer experienced the weakest growth in inequality (Northern Low Countries), whereas the weakest economy suffered the biggest widening of economic disparities (Tuscany). In other words, this comparison does not confirm the positive association between pre-industrial growth and inequality posited by earlier research. Even in the case of the Northern Low Countries, there seems to be no obvious relationship between inequality and growth, since per-capita GDP declined by 22% in the second half of the seventeenth century while inequality continued to grow. Only in the case of the seventeenth-century Southern Low Countries do we find a decline in per-capita GDP associated with a (small) decline in urban economic inequality. Contrary to what could be expected based on the argument presented in Acemoglu et al. (2005), there does not seem to be a clear positive association between the Atlantic trade (of our regions, only the Northern Low Countries actively participated in it) and the growth of inequality.

In recent years, many economists have pointed out the role of institutions in shaping economic growth and its distribution within societies (North, 1990; Acemoglu et al., 2005; Engerman and Sokoloff, 2002). One of the most fundamental institutions in shaping long-term patterns of inequality is probably the family. Debates on the precise delineation and character of different family systems throughout early modern Europe are still very much on-going (Hajnal, 1965, 1982; Reher, 1998; Viazzo, 2010; Todd, 2011), but if we concentrate on the dimension most pertinent to economic inequality itself—inheritance and cohabitation systems—each of the four regions developed different institutional contexts during the early modern period. Based on the classification used by Todd (2011), both Italian regions developed mostly egalitarian inheritance systems, whereas the Low Countries embraced non-egalitarian inheritance family systems. Within each area they were differentiated by different degrees of cohabitation between generations. Tuscany was part of the 'communitarian' family system region, where

Table 2

Estimates of per-capita GDP, 1500–1850 (in 1990 Geary-Khamis dollars PPP). Sources: The Maddison Project database (<http://www.ggdc.net/maddison/maddison-project/home.htm> consulted June 2015) for Central-Northern Italy, Southern Low Countries, and Northern Low Countries, and own estimates for Piedmont and Tuscany based on regional urbanization rates: Alfani, 2015 for Piedmont; Breschi and Malanima, 2002 for Tuscany.

	Central-Northern Italy	Piedmont	Tuscany	Southern Low Countries	Northern Low Countries
1500	1533	1613	1453	1467	1454
1550	1459	1589	1329	1512	1798
1600	1363	1535	1191	1589	2662
1650	1398	1561	1235	1445	2691
1700	1476	1633	1319	1375	2105
1750	1533	1761	1305	1361	2355
1800	1363	1621	1105	1479	2609

egalitarian inheritance was combined with a dominance of the extended family. The Southern Low Countries was similar with respect to the frequent occurrence of extended families, but within a non-egalitarian system (the so-called 'incomplete stem family'). Piedmont and the Northern Low Countries, on the other hand, were characterized mostly by a predominance of the nuclear family ('egalitarian nuclear family', and 'absolute nuclear family', respectively).

Given the fact that the parameters of inequality used here measure inequality between households, the expected effect of family institutions would be for both non-egalitarian inheritance and nuclear family types to raise inequality compared to regions with other family systems. However, our comparative analysis does not confirm this straightforward association. If the inequality trends we found were the result of divergent developments in family institutions, we would expect inequality to rise fastest in the absolute nuclear family region (Northern Low Countries) and slowest in the communitarian family area (Tuscany). Since we established the opposite to be true, this seems to indicate that the tendency towards growing inequality throughout early modern Europe was realized despite developing family institutions, rather than because of it.

Political, not just family, institutions have attracted considerable attention from economic historians in recent years (North and Weingast, 1989). Van Zanden et al. (2012) have argued that the flowering of 'representative' political institutions can help explain the concentration of social and human capital, and economic efflorescence in specific parts of early modern Europe. According to this thesis, such representative institutions flourished in the fifteenth- and sixteenth-century Low Countries—both North and South—and continued to do so in the North during the seventeenth and eighteenth centuries. In Northern Italy, by contrast, such representative institutions did not develop, or at least did not last beyond the late medieval period. Although no direct claims are made in the literature with regards to the immediate link between representative institutions and income or wealth inequality, it seems reasonable to assume that representative institutions would flourish more easily in a more egalitarian context, and that such political institutions would also result in more equal-access economic institutions, and thus in lower levels of inequality. Contrary to the explanatory factors considered above, the strength of representative political institutions fits the pattern of inequality growth rather well, and thus suggests either that these institutions could thrive better in a less unequal context, or that they helped to mitigate the effects of rising inequality trends throughout the early modern period.

Studying changes in inequality in early modern Europe in a comparative perspective indicates that neither economic performance nor family systems account for the differentials in the rate of growth in inequality between the North Sea area and the Mediterranean. On the other hand, differences in the political structure do correspond well with the observed regional differences in inequality growth.

⁴ An alternative way to study this is to use the urbanization rate as a proxy for growth, yet they yield the same general results (a lack of correlation). The results are available from the authors upon request.

4.2. Accounting for similarities

As traditional explanations fail to make clear the differences in the intensity of the growth of inequality in Italy and the Low Countries during the early modern era, we now look for clues in what these regions had in common, not in what set them apart. We turn to two processes that are likely to have contributed to the growth in inequality in all the regions studied. Differences in the intensity of these processes can also explain why inequality grew more significantly in some areas than in others. We offer two hypotheses that may account for at least some of the inequality increase in all four case studies: (i) the gradual expropriation from their means of production of a growing share of Europe's laboring population, and (ii) the formation of fiscal-military states almost everywhere throughout the continent.

The hypothesis on the existence of an early modern proletarianization process is an old one, but it has received little attention in recent economic history. The basic idea is that during the early modern period a growing share of the European population became proletarianized (i.e. no longer owned any means of production), and consequently depended on selling labor for wages (Tilly, 1984). Although proletarianization does not always lead to impoverishment or growing inequality, over the long term growing market dependence could have contributed to higher levels of inequality. If, as several eighteenth- and nineteenth-century thinkers suspected, the early modern period had witnessed the gradual expropriation of (mostly) agricultural masses from their means of production, then it seems likely that this process went hand-in-hand with increasing inequality (Macpherson, 1962; Le Roy Ladurie, 1966, 567–81). Historians have indeed identified tendencies towards the proletarianization of specific layers of the population during the early modern period, such as in the rural enclosure movements, in the rise of putting-out systems in rural and urban proto-industrial production, in the phenomenon of subcontracting within guild-organized industries, and in the concentration of urban development in the hands of an increasingly small number of real estate developers.

In the Low Countries, the ownership of land became increasingly concentrated. In the sixteenth century 60% of the agricultural land in Flanders (Southern Low Countries) had been owner-occupied, a proportion that declined to 33% in the eighteenth century, and to less than 20% in the second half of the nineteenth century. In Holland around 55% of the land had been owner-occupied in the sixteenth century, a proportion that would fall to 27% in central Holland in the seventeenth century, recover in the eighteenth, but decline again in the nineteenth century (Van Bavel et al., 2010, 175; Brusse et al., 2010, 202). Not only was land ownership increasingly concentrated, landholdings also became more fragmented. In sixteenth-century Flanders 35% to 40% of landholdings were smaller than 1 ha; by the nineteenth century this had grown to 50% to 80% (Thoen, 2001; Brusse et al., 2010, 207). This fragmentation went hand-in-hand with a strong growth of rural proto-industrialization in both Holland and Flanders, which entailed at least a partial proletarianization of the rural population (Van Zanden, 1993, 11–39). Despite the fact that in both regions urban landownership expanded at the expense of the peasantry, urban society itself was also characterized by proletarianization processes. In the Flemish town of Aalst, the share of probated households with income-yielding (invested) capital declined from 57% in the seventeenth century to 34% by the end of the eighteenth century (Ryckbosch, 2016). By that time, both the Southern and Northern Low Countries were plagued by chronic underemployment, increasing poverty, and frequent migration of poor daylaborers (De Vries and Van Der Woude, 1997, 724–41).

In Italy, too, a crisis of small peasant property with a subsequent concentration of wealth has been reported for many areas, especially from the second half of the sixteenth century, when population pressure grew. Subsistence crises, such as the infamous 1590–93 famine, accelerated the process (Cattini, 1984; Alfani, 2013, 76–7). Across central-northern Italy there is evidence of an increasing prevalence of propertyless peasants, especially at the turn of the seventeenth century. For

example, in the city of Bergamo households entirely devoid of property were just 3% of the total in 1537, rose to 7% in 1555, and peaked at 10% in 1610. In Padua, 3% of households were propertyless in 1575, rising to 10% in 1627. After the terrible 1630 plague the pressure on small ownership declined, but the prevalence of landless peasants stabilized at levels much higher than those of the early sixteenth century. For example, in Padua in 1694 propertyless households were 7% of the total, and higher in the surrounding rural areas (8%) (Alfani and Di Tullio, 2015). What's more, among those households that owned at least some property, the prevalence of very small owners increased considerably, including in Piedmont as shown by the growing polarization of the property distribution (Alfani, 2015, 1072–6). For Tuscany, the degree of proletarianization is more difficult to assess due to the earlier rise of urban ownership and the greater prevalence of sharecropping. However, there as well the concentration of land in the hands of rich urban elites, which had started as early as the beginning of the fourteenth century, continued during the early modern period (Alfani and Ammannati, 2014). Moreover, although sharecroppers might have been better off in some respects, they were in a more dependent position compared to peasant owners—at least if we take literally the late-medieval Florentine saying, that 'Those who have a house and farm might bend, but do not fall' (reported by Cherubini, 1996, 66–7, our translation).

The evidence on the nominal wages of building craftsmen across Europe gathered by Allen (2001) indirectly supports the 'proletarianization hypothesis'. In none of the regions under scrutiny—represented in Allen's database by Amsterdam, Antwerp, and Florence—do we find a tendency for the skill premium between skilled and unskilled craftsmen to rise between 1500 and 1800. Insofar as the skill premium is a proxy for wage inequality, this suggests that the growth in inequality was more likely the result of the growth of inequality in and between other types of income, such as capital income.

The proletarianization processes that took place during the early modern period in all the regions we covered were mostly to the advantage of the richest part of the population, whose share of overall property grew considerably (Alfani, 2016). Consequently, it seems very probable that proletarianization contributed to the general trend towards rising inequality levels.

A second feature of European history that increasingly defined early modern societies was the rise of the fiscal state. During the early modern period the growing cost of warfare increased states' needs for more permanent flows of financial means. In turn, a larger and more efficient military allowed for concentration of coercive power, providing the means to impose a growing fiscal extraction. States sought to satisfy their financial necessities by adopting new institutional arrangements, of which a larger public debt and a more effective fiscal system were the most important (Brewer, 1990; Bonney, 1999; Yun-Casalilla and O'Brien, 2012).

All four regions studied here belonged to the 'urban belt' of pre-industrial Europe, which formed the heartland of the regions closest to the ideal-type of the medieval city-state. Their institutions remained steeped in a communal tradition, based on concepts of contractual citizenship that constrained the power of the executive, and safeguarded property rights and urban mercantile interests (Van Zanden and Prak, 2006; Prak and Van Zanden, 2009; Yun-Casalilla, 2012). Several historians have argued that this opposed them to the more coercive-intensive path taken by Europe's great monarchies such as France, Spain, and (to a lesser extent) England (North and Weingast, 1989; Epstein, 2000; Van Zanden and Prak, 2006)—although, of all the Italian states, the Sabaudian State was the one to follow more closely the French and Spanish example. Nevertheless, these highly urbanized regions also witnessed tendencies towards state formation, the growth of public debt, and a gradual process that can be recognized as the rise of the fiscal state.

Although the distributional impact of early modern state formation has rarely been studied comprehensively, there were certainly repercussions on the distribution and re-distribution of economic gains.

Most obvious is the growth of fiscal pressure per capita. Between 1600 and 1750, the per-capita tax burden doubled in France and Holland, and grew fourfold in England (De Vries and Van Der Woude, 1997). We estimate that it trebled in both Flanders and the Sabaudian state—see Fig. 4, where we include the State of Milan as an additional Italian example, given the absence of useful information for seventeenth- and eighteenth-century Tuscany.

Most medieval and early modern taxes were regressive in nature—which means that they taxed the poor proportionally more heavily than they did the rich. This was partly due to attempts to protect the private interests and property of those able to influence decision-making in fiscal affairs, but also because excises on basic consumption goods often turned out to be relatively convenient to collect and enforce in the context of slight bureaucracies and policing forces. In the countryside, taxes on land use and tithes tended to shift the tax burden towards peasants and farmers rather than landowners, while the latter (especially the clergy and nobility) often continued to be exempt from most taxes. In the cities, the bulk of revenue usually came from excises on such basic consumption goods as beer, cereals, and meat, which proportionally took a larger chunk out of the budget of the poor than of the rich.

Pezzolo (2012) noted that in the principalities of Northern Italy, including the Sabaudian State and the Florentine State, the importance of indirect taxes on consumption increased considerably as taxable revenue from international commerce dwindled in the sixteenth and seventeenth centuries. Meanwhile, the Southern Low Countries has been described by Janssens (2012) as a region characterized by a comparatively low, but nevertheless almost unbearable fiscal burden. Although taxes were distributed less arbitrarily than in neighboring France, they weighed heavily on agriculture and the urban masses, whose incomes and labor productivity were low. In the eighteenth century approximately 55% of tax revenues came from consumption, complemented by approximately 40% from income from real estate, and less than 5% from property, salary, and profit taxes combined.

Given the predominantly regressive nature of taxation in both Central-Northern Italy and the Low Countries, the increase in the tax burden since the late Middle Ages tended to deepen existing income and wealth disparities. The Dutch Republic is the odd one out in this story. Early modern political economy in the Northern Low Countries, after the Dutch Revolt, exhibited a long-term trend towards progressive

taxation until the beginning of the nineteenth century. Particularly after the 1670s the growing importance of excises on luxury commodities and the real-estate tax made the Dutch fiscal system relatively progressive—and uniquely so in the early modern European context (De Vries and Van Der Woude, 1997; Van Zanden and Prak, 2006; Fritschy et al., 2012). This is at least one factor that helps to account for the slower growth of inequality extraction in the Northern Low Countries compared to Italy and the Southern Low Countries.

Regardless of the skewed distribution of the tax burden, the fiscal/financial system sorted distributional effects of its own. In Italy, a clear ‘identification of interests between creditors and ruling elites’ came about in the early modern period (Pezzolo, 2012, 279–280). As both the regressive tax burden increased and a growing public debt was consolidated, this implied the strengthening of a steady income flow from predominantly lower and middling social strata (taxable subjects) to those who were higher up in the income and wealth distributions (public creditors). The fiscal state then, tended to carry with it a tendency to reinforce the existing income gaps in society. Despite its relatively progressive tax base, this mechanism probably helped to drive up inequality extraction even in the Dutch Republic. During the eighteenth century about two-thirds of public expenditure there went to interest payments (Fritschy et al., 2012).

The rise of the fiscal state also exerted indirect influence on the distribution of income. Since the early modern state did not concentrate on the provision of public goods, the re-distributive effect of public expenditure was very limited compared to modern states. After all, the largest expense categories, in Italy and the Low Countries alike, were warfare and building. Building did not have an obviously demonstrable distributive effect (Janssens, 2012), while it has been argued that expenditure on warfare had inegalitarian distributive consequences, favoring military contractors and other members of the social and economic elite (Alfani, 2015). Only a tiny fraction of expenditure went to social provisions such as poor relief, and this probably did not increase significantly during the early modern period (Prak, 1999). Nevertheless, the Dutch Republic is again the exception, as De Vries and Van Der Woude (1997) have argued that poor relief in the Dutch Republic was distributed less restrictively and more generously than in other European countries. More recently, Van Bavel and Rijpma (2016) have estimated that during the early modern period, social spending in Holland might have been twice as high (as a share of per-capita GDP) as that of

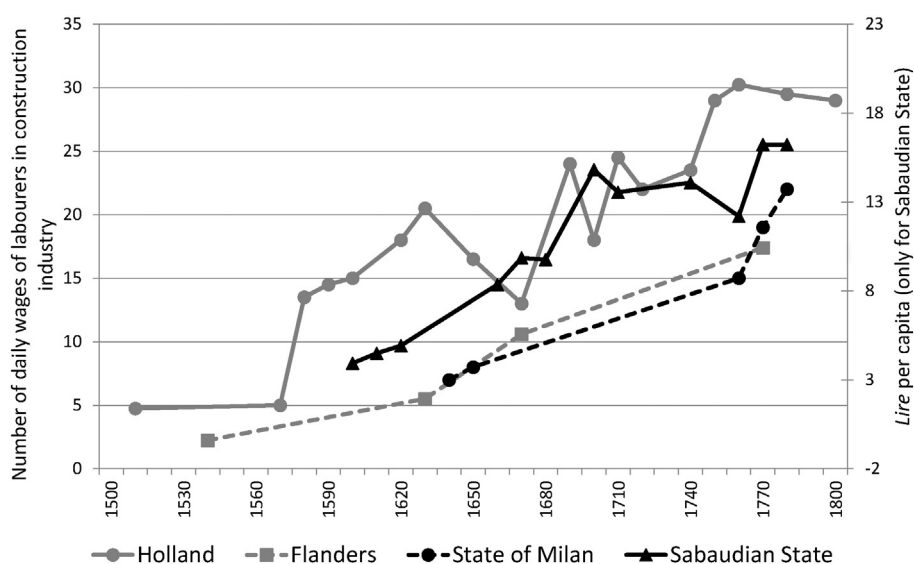


Fig. 4. Estimates of per capita tax pressure in Holland, Flanders, the Sabaudian State and the State of Milan.

Sources: For Holland, Van Zanden, 2009, 218. For the State of Milan, Pezzolo, 2012, 283. For Flanders, our own estimates based on Blockmans, 1987, 88–89; Prevenier, 1983, 270; Janssens, 2012, 217; Thoen and Soens, 2008. For the Sabaudian State, our own estimates based on Stumpo, 1979, 37–49 and Storr, 2009, 217–8. Notes: Tax pressure estimated as number of daily wages of laborers in the construction industry, exception made for the Sabaudian State for which per-capita revenues in Lire are provided.

Central-Northern Italy, and was also markedly higher than in the eastern part of what is currently Belgium. As a consequence, redistribution through early welfare might have contributed in a non-negligible way to lower inequality extraction in the Northern Low Countries compared to the other regions studied here.

5. Conclusion

Our comparative study of inequality trends in four different early modern regions confirms the view that the overall tendency was for income and wealth disparities to widen during the early modern period. However, the rise of inequality was not the same everywhere: seemingly it was steeper in both Italian regions than in the Low Countries. Even more clearly, the extraction of inequality was not the same everywhere: extraction grew much more, and was probably much higher by the end of the seventeenth century in Tuscany and in Piedmont than in the Low Countries. In particular, the relatively low extraction ratio in the Northern Low Countries points to a different experience from the rising inequality with stagnant or declining living standards in the Southern Low Countries and Central-Northern Italy.

In trying to account for these differences, our comparative analysis does not support the idea of a positive relationship between either economic performance or participation in Atlantic trade, and the growth of economic inequality. Non-egalitarian inheritance systems and the predominance of nuclear family types also show no positive association with stronger trends towards inequality. However, the presence of representative political institutions, and a relatively progressive fiscal system with higher social expenditure might be able to account for some of the differences observed, as they probably contained the growth of inequality extraction in the Northern Low Countries.

This leaves the question of how the general growth in income and wealth disparities across both Northwestern and Southern Europe should be accounted for. In this paper we have argued that some aspects of what can be described as a ‘proletarianization process’—involving the growing concentration of capital and the means of production—could be found in all four regions, and might help to explain their common trend towards higher inequality. Tendencies towards the formation of a stronger and more centralized fiscal-military state can also be established in all four regions and probably contributed to the growth of inequality.

At the very least, this article demonstrates that during the early modern period it was easier for inequality to rise than to fall. There was no clear trade-off between economic growth and inequality during the period of the Little Divergence in early modern Europe. In an era where political, institutional, social, demographic, and economic factors more often worked to raise inequality rather than to depress it, inequality tended to grow in most places, regardless of economic growth.

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Appendices and Supplementary data

Appendices A, B, C and D and supplementary data to this article can be found online at: http://didattica.unibocconi.eu/Alfani_database and <http://dx.doi.org/10.1016/j.eeh.2016.07.003>.

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