CSEF

Centre for Studies in Economics and Finance

Wealth, Inheritance, and Concentration: An 'Old' New Perspective on Italy and its Regions from Unification to the Great War

Giacomo Gabbuti and Salvatore Morelli

November 2023

University of Naples Federico II   University of Salerno   Bocconi University, Milan

Wealth, Inheritance, and Concentration: An 'Old' New Perspective on Italy and its Regions from Unification to the Great War

Giacomo Gabbuti[*] and Salvatore Morelli[†]

Abstract

Despite its relevance in 19th-century economics, wealth – its accumulation, composition, and distribution – has largely been neglected in Italian economic history. Filling this gap, we show that between the late 19th and mid-20th centuries, Italy presented a historically high value of total private wealth but had relatively small relevance in total bequests flows in proportion to national income. Then, we present novel estimates of wealth concentration between 1863 and 1914, combining national tabulations of inheritance tax records and microdata archives for Milan and Naples. During this period, wealth concentration in Italy was in line with the highest levels ever recorded since the late Middle Ages. Contrary to the evidence of declining income inequality in the period – traditionally considered the industrial 'take-off' phase of Italy – we find no clear signs of trends in wealth concentration or structural changes in wealth composition. This picture is confirmed and enriched by novel findings about wealth concentration at provincial and regional levels in the early 20th century. We show a great deal of heterogeneity beyond national aggregates but find no evidence of the classic North-South divide when looking at concentration. Likewise, we find no clear link between concentration levels and asset composition or economic development. Although contemporary inequality is much lower than early 20th-century figures, the 'real' wealth of present 'millionaires' seems much higher than that of historically rich individuals. Overall, the paper lays the basis for a very long-run view of wealth in Italy and reconsiders the impact of its industrialization at the end of the Liberal period.

JEL Classification: D31, D63, E21, H24, N33.

Keywords: inequality; inheritance; wealth; Liberal Italy; Southern Question.

[*] Scuola Superiore Sant'Anna, Pisa. Email: giacomo.gabbuti@santannapisa.it (*Corresponding author*)

[†] Università di Roma Tre, and Stone Center on Socio-Economic Inequality. Email: salvatore.morelli@uniroma3.it

1. Introduction

Wealth, its composition, and distribution play a crucial role for household well-being and prosperity, and often a different one from income. Indeed, recent scholarship has substantially shifted its attention from income to wealth, and to the extent to which they are transmitted intergenerationally through inheritance (Piketty and Zucman, 2014). Despite the growing body of research on wealth, knowledge regarding the historical evolution of aggregate personal wealth and its distribution in the 19th and 20th century remains limited. In a recent attempt to summarize wealth inequality trends since 1900, Waldenström (2021) had access to continuous data series for only the US and five European countries. This is surprising, considering that wealth has long been a key economic indicator of national wellbeing. A century and a half after Adam Smith's *The Wealth of Nations*, Corrado Gini (1914) established himself internationally by discussing the measurement of *The Amount and Composition of the Wealth of Nations* while pioneering, together with Italian economists and statisticians, modern measurement of wealth and income distribution.[2]

Recent research has revealed that contemporary Italy exhibits one of the highest wealth-to-income ratios among high-income countries. Additionally, it demonstrates growing and sizeable flows of inheritance and gifts (Acciari and Morelli, 2022) and a rising concentration of wealth at the top (Acciari et al., forthcoming). However, historians of modern Italy, while showing significant interest in the distribution of income, have largely overlooked the study of wealth. For early modern Italian states, the research group led by Alfani (2021, pp. 9-10) utilized property tax records (the so-called *estimi*) to reconstruct the evolution of wealth inequality from 1300 to 1800. For the more recent past, Cannari and D'Alessio (2018) exploited tabulated historical survey data to extend modern estimates back to 1968. Yet, no systematic evidence on wealth concentration is available for the years between 1800 and 1960, a crucial period for Italian economic development, including its unification, two world wars, and the country's transformation into a world-leading industrial power (Toniolo, 2013). We also know nothing about the importance of inheritance, and very little about wealth accumulation and composition.

This paper fills part of this large gap in several ways. Firstly, it capitalizes on Cannari et al.'s (2017) private wealth series to provide more refined wealth-to-income ratio figures from 1861 to 1938. Additionally, from 1901 to 1934, it delves into the

---

[2] For a recent survey on this literature (including, among others, Vilfredo Pareto) see Gabbuti (2020).

decomposition of private wealth by major asset categories. Furthermore, the paper introduces fresh estimates of the flow of inheritance as a ratio of national income for the years 1864-1914. When compared to the already available data for the post-World War II period, the evidence collected portrays the newly established Kingdom of Italy as an economy in which private wealth played a significant role. According to our estimates, the ratio between total private wealth and national income ranged at very high levels in historical and international perspective, between 7 and 8 from 1862 to 1895 – high levels reached only by France in that period (Waldenström, 2021). On the contrary, the aggregate flow of bequests as a share of national income, is substantially lower than those estimated for France or the UK. Both series show a notable decline from the early 20th century, driven by the acceleration of GDP growth: the composition of wealth, however, remained stable until the Great War. For the wealth-to-income ratio, the decline continued in the first decades of the 'Golden Age', reaching a minimum of 2 in 1964. According to both metrics, contemporary Italy is back to the high levels of a hundred and fifty years ago: contrary to the 'revisionist' results discussed by Waldenström (2021) for other countries, both Italian series show a marked U-shape. If capital (or better, wealth) is back, it is even more so in Italy.

Second, we present the first historical estimates of wealth concentration for modern Italy, from 1863 to 1914 – that is, from the country's unification to the outbreak of the Great War. Our figures are assembled by combining nationally representative tax tabulations of wealth left at death from the late 1880s to 1915, and micro-evidence on estate tax files for Naples (1876 and 1906) and Milan (1862-1900) – the largest city, and the primary industrial and financial centre, respectively. This approach is considered valuable in approximating national trends, mirroring the methodology employed by Piketty et al. (2006) in their study of Paris within France. Our findings indicate a significant level of wealth concentration, with averages exceeding 70% and 40% for the top 10% and top 1% wealth shares, respectively (Figure 1). This level of concentration aligns with the highest levels ever recorded in Italy since the late Middle Ages (Alfani, 2021). While only marginally lower than those observed in the most advanced economies of the period, especially when considering sources and methodological differences, our evidence suggests that wealth concentration remained stable around these levels during the whole period from the unification of the country to the Great War. This result contrasts with the contemporaneous decline in income inequality (Vecchi, 2017); in both cases,

Italian trends deviate from the theoretical predictions of 'Kuznetsian' dynamics, as previously noted in the study of wealth concentration in the UK by Alvaredo et al. (2018). On the other hand, despite a notable increase after the mid-1990s, contemporary figures remain below historical peaks, consistent with the findings of Waldenström (2021). A different perspective emerges when examining estimates of the 'real' wealth of a recently compiled historically rich list of 'millionaires.' Following Milanovic (2010), we express their wealth 'in terms of yearly unskilled wages.' According to this metric, contemporary Italian 'super-rich' individuals are considerably wealthier than capitalists and plutocrats of both liberal and fascist Italy.

Figure 1 – Wealth Concentration in Italy (Top 10%): Towards a Long-Run Picture
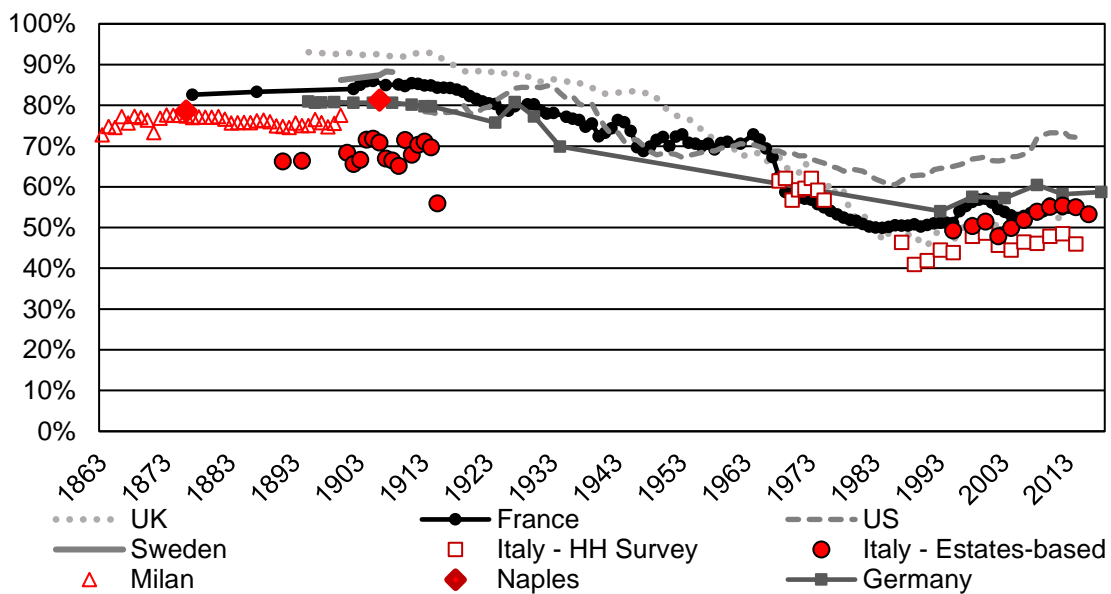
Sources: Germany from Albers et al. (2022); Sweden from Roine and Waldenström (2009) and Bengtsson et al. (2018); US, UK, and France from Wid.world (based on Saez and Zucman (2016), Alvaredo et al. (2018), and Garbinti et al. (2021), respectively, and retrieved 22/07/2021); Italy – HH Survey from Cannari and D'Alessio (2018); Italy – Estate-based from Acciari et al. (forthcoming) after 1995, authors' elaborations, documented in the paper, before 1914.

We further contribute to the literature on wealth and its distribution in Italy, by presenting the first sub-national disaggregation of wealth concentration estimates. Our results, available for the fiscal years 1902-03 and 1913-14, are provided at both regional (16) and provincial (69) levels. These findings constitute the initial evidence demonstrating the interlink between regional disparities and personal economic inequality in Italy before World War II. Estate evidence allows us also to discuss the gaps in average wealth and its composition in the same years: in doing so, the paper contributes to the literature on Italy's 'Southern Question', by adding a new dimension – or more correctly, by bringing back the first metric of this debate. Somehow surprisingly, our

4

estimates do not show any clear, North-South gradient in concentration; moreover, this indicator does not seem highly correlated either with the absolute level of private wealth, or its composition. Indeed, land and real estate were still the dominant forms of wealth holdings in the great majority of Italian provinces.

Taken all together, the paper offers a new perspective on Liberal Italy, while laying the foundation for a very long-run view on the accumulation of private wealth and inheritance, their composition and concentration in modern Italy. The rest of the paper is structured as follows: section 2 presents the series on wealth-income ratio and inheritance flows, offering a long-run perspective of the evolution of wealth and inheritance and their composition in Italy; section 3 surveys the alternative sources and methodologies for estimating wealth inequality in Italy before WWII; the estimation of our new series of wealth concentration for 1890-1915, based on nationally representative tabulations, is then documented in section 4; section 5 brings the discussion of wealth composition and concentration down at the regional and province level; in section 6, we take advantage of surviving micro-level information on Milan to extend the series back to 1863, on Naples in 1876 and 1906 to obtain more fine-grained results in support of the robustness of our estimates, and on the wealth of rich Italian to discuss their 'real' wealth in the long-run; before the conclusion (section 8), section 7 places the results in the context of existing estimates on income inequality, placing our estimates in intertemporal perspective.

2. Wealth and Inheritance in Italy: A Long-Run Perspective

Estimates of the aggregate net wealth of households are, among other things, crucial to derive estimates of wealth concentration such as top wealth shares. Building on the very rich 19th-century statistical literature, recently summarised by Maccabelli (2018), Baffigi (2008) proposed a series of private wealth for the 1872-1911 period, based on all the aggregate evidence available on estates. More recently, Cannari et al. (2017) reconstructed a long-run series of private wealth, based, on the pre-WWII period, on a careful survey of existing material, selecting the most reliable estimates available. In particular, for 1901-1936 the trend is based on the detailed reconstruction by Sergio Retti-Marsani (1936; 1937a; 1937b), unanimously considered by both coeval and contemporary scholars the most reliable series (Zamagni, 1980; Baffigi, 2008), and simply inflated for consistency with later estimates.

In aggregate terms, as we document in the Appendix (Figure A 1), the stock of private wealth increased visibly from the mid-1860s to the early 1880s, stagnated between

1885 to the end of the 19th century, and then increased again till the onset of the Great War. In Figure 2, we express this private wealth as a ratio of total national income, in line with recent literature (Piketty and Zucman, 2014). To do so, we reconstruct a measure of net national income including primary incomes derived from production abroad and excluding the value of output repaid to foreign factors of production (primary incomes paid to the rest of the world). We also subtract an estimate of the amount the depreciation of the capital stock. As in Cannari et al., we have to make use of the total net wealth of the private sector (i.e. household sector including non-profit institutions serving households), instead of the national wealth ratio most commonly displayed for the modern series.[3] For the post-WWII period, we rely on the WID figures from 1966 – much lower than those obtained as a ratio between private wealth and GDP: we use the latter to project the Wid.world figures back to 1950, obtaining a more consistent long-run picture.[4]

The resulting estimates show how, while leaving the composition of wealth stable, the acceleration in GDP growth from the turn of the century reduced its relative relevance: from 1862 to 1895, the ratio between total private wealth and national income ranged between 7 and 8; by 1913, it had declined to almost 5. After an initial increase in the first years of the Great War, the conflict left the ratio to 4. Another difference with Cannari et al. (2017) is the greater recovery in the Great Depression, before what seems more likely a steady decline from the mid-1930s to the decades of the Republic, including the 'Miracle' of the 1950s. After reaching the historical minimum level of 2 in 1964, the series gradually rose since then; an acceleration can be observed in the period of economic stagnation inaugurated by the 1992 currency crisis (Felice and Vecchi, 2015). This brought the ratio back to values around 7 and 8 in recent years, very close to the historical peak of a hundred and fifty years ago.

---

[3] Private wealth is defined as the net (assets minus liabilities) wealth of households and non-profit institutions serving households (NPISH) and is the relevant concept for estimating wealth inequality. Wealth-to-income ratios can also be based on national wealth, which is the sum of private and government wealth, where the latter is obtained as a sum of government financial and non-financial assets minus liabilities, including public debt (Piketty and Zucman, 2014, pp. 1267-1277).
[4] We document in the Appendix (Figure A 2) the difference between our new series and Cannari et al. (2017).

Figure 2 – Private Wealth-Income-Ratios, 1855-2021.
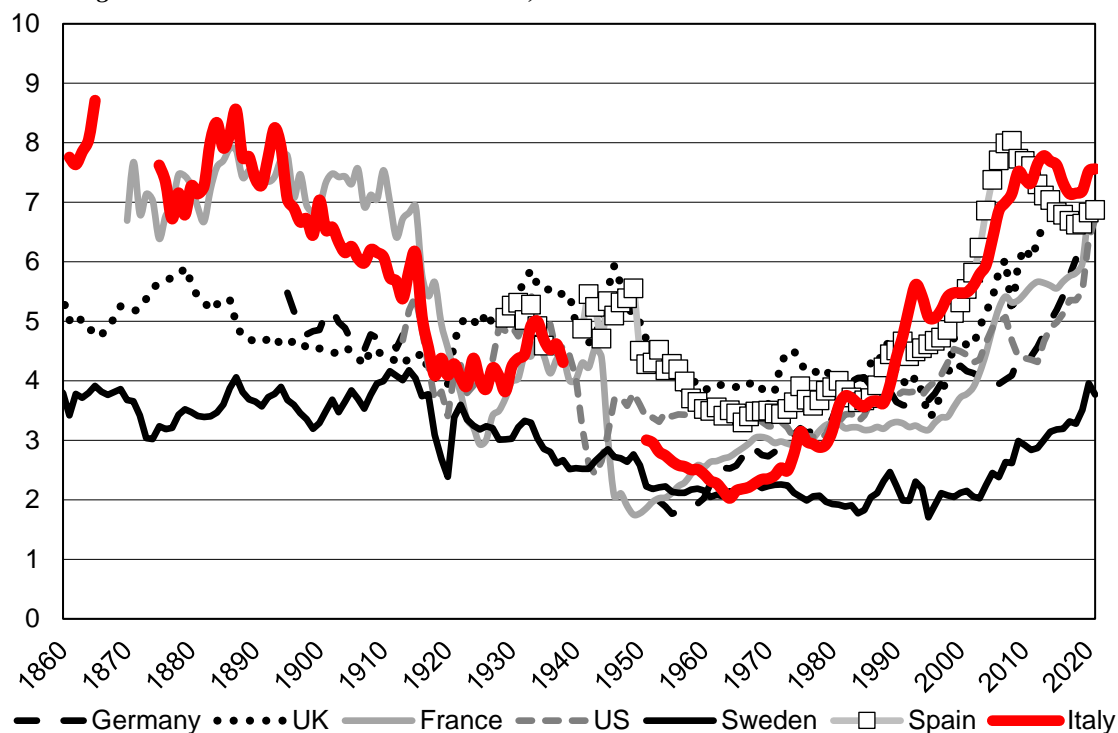
Sources: Germany from Albers et al. (2022); UK from Madsen (2019); Italy from 1966 and other countries from Wid.world (retrieved 18/7/2023); Italy before 1966 authors' elaborations. For 1950-1965, the Wid.world series is projected back using the dynamics of the ratio between private wealth from Cannari et al. (2017) and GDP from Baffigi (2015). For 1861-1938, we computed the ratio between private wealth from Cannari et al. (2017) and a set of net national income, obtained starting from the GDP series by Baffigi (2015). We subtract from it trade balance, from Federico and Incerpi for 1861-1878, and from Federico et al. (2012) for 1879-1938. Federico and Incerpi (2023) also provide us with a revised series of net interest payment for 1861-1878; interests paid to foreign investors for 1879-1914 are from Incerpi (2019); for the rest we are forced to rely on Istat (1957) - the first, highly criticised version of historical national accounts (see Fenoaltea, 2011, pp. 14-19). Finally, we subtract capital depreciation for 1890-1938 by Rossi et al. (1993); for 1861-1889, : for the previous years, we assume capital depreciation to have accounted for the same share of GDP of 1890. The very volatile data for 1866-74 have been excluded, in line with the discussion in Cannari et al. (2017).

We can then compare our series with the six countries with existing long-run series, also discussed by Waldenström (2021). As shown by the same figure, 19th-century Italy's wealth-to-income ratios were very high in international comparisons. In the late 19th century, despite being among the poorest European countries in wealth per capita terms (Cannari et al., 2017, p. 374) – a circumstance of which coeval observers were well aware (Nitti, 1905) – in terms of private wealth-to-income ratios Italy was aligned to France, and substantially above the revised series for the UK (Madsen, 2019) and Germany (Albers et al., 2022), homes of the major foreign investors into Italian industry and banking in these years. However, by the end of the Great War, it had converged to

the lowest level of a land-abundant, labours-scarce countries such as the US and Sweden.[5] At its minimum level, in the mid-1960s, Italy was possibly the least patrimonialised among these countries; in the following fifty years, its ratio grew much faster than elsewhere, so that, also in comparative terms, the country went back to the levels of the mid-19th century. Considering that both the aforementioned revisions, as highlighted by Waldenström (2021), substantially revised the previous dynamics depicted for European countries by Piketty and Zucman (2014), the distinctive U-shape of Italian series are somehow "exceptional" in the new comparative picture.

To derive details about the composition of private wealth we take full advantage of the detailed estimates by Retti-Marsani: following the so-called "inventory method" developed by Gini (1914). The statistician had indeed estimated directly, based on an array of various sources, the aggregate value of each asset; in Figure 3, the original categories reported by Retti-Marsani are re-grouped to ensure greatest comparability with existing series, such as those in Piketty and Zucman (2014). The series is partly surprising. Economic historians had traditionally debated whether it was possible to date Italy's "industrial take-off" in this latter period, named after the statesman Giovanni Giolitti. As stated by Gerschenkron (1962, p. 72), by any standard, 'It is obvious that in the decades following its political unification Italy's economy remained very backward in relation not only to that of England but also to the economies of industrially advancing countries on the continent of Europe. … At the same time, it is equally undeniable that by 1914 a great industrial transformation had taken place in Italy' (Gerschenkron, 1962, p. 72) – a picture largely confirmed since, possibly with the only exception of Fenoaltea (2011). For sure, as summarised by Toniolo (2013, 9-16), after three decades of 'tenuous growth and unfulfilled expectation', from 1896 Italy, by 'hooking into the "First Globalisation", started its long-run process of convergence with the more advanced economies. By 1913, the capital of joint stock companies (the so-called *società anonime*) increased to 23% of the GDP, from 13% in 1883.

---

[5] Sweden, the closest to Italy in per capita income terms, stands out because its private wealth series, shown in Figure 2, greatly differs in trends and levels from national wealth ones, normally discussed in the wealth literature: see Waldenström (2021) for a recent survey.

*Figure 3 – The Composition of Private Wealth in Italy, 1901-1934*
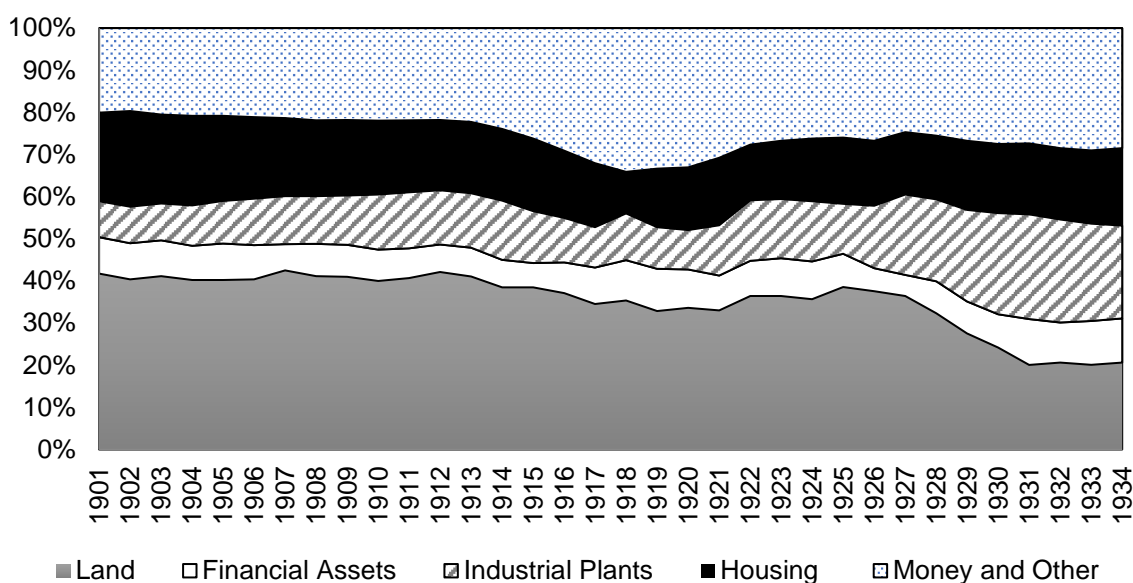
Source: authors' elaboration on Retti-Marsani (1936; 1937a; 1937b); 'Other' includes mines, *mobilia*, and livestock.

However, wealth composition does not reflect this transformation. While not covering the earlier decades after the unification, Figure 3 shows how during the Giolittian period, and even on the eve of the Great War, financial and industrial assets represented a minor part of total wealth. In fact, land dominance persisted at least until the Great Depression. After all, the share of value-added accounted by agriculture declined by 10 percentage points between 1861 and 1914, but still accounted for a third of the total; moreover, most of its previous share was accrued by services, which became the largest sector by the early 1910s. Surely, in this period Italian industry developed in almost all sectors, including the most advanced one, as testified by the birth of crucial firms such as the electricity producer Edison (1884), or the car-manufacturer Fiat (1899). Mostly located in the so-called North-western "industrial triangle" between Milan, Turin, and Genoa, and participated by foreign capitalists (whose fortunes would not appear in Retti-Marsani's figures), similar firms still accounted for a small share of the total: indeed, Italian industry was still specialized in labour intensive, backward sectors industries. As stressed by Fenoaltea (2011, p. 5), 'the "low-tech" nature of Italy's industrial development, is again typical of a partly developed economy. There were some world-level advanced sectors, …; but in the main Italy seems to have replicated the first industrial revolution, with textiles in the van' – making the limited variation in wealth composition less surprising. International comparisons do confirm the first part of Gerschenkron's statement: Italy stands out not only in terms of the ratio between private

wealth and national income, quite higher than the "richer" UK and US, but because of the largest share of land, almost double than the French and German one, in turn higher than both UK and US (Figure 4). In all other countries, the "mobile" asset class (e.g. financial securities, industrial assets, money, and other assets) accounts for a large share of total wealth.

*Figure 4 – Composition of Private and National Wealth, c. 1910*
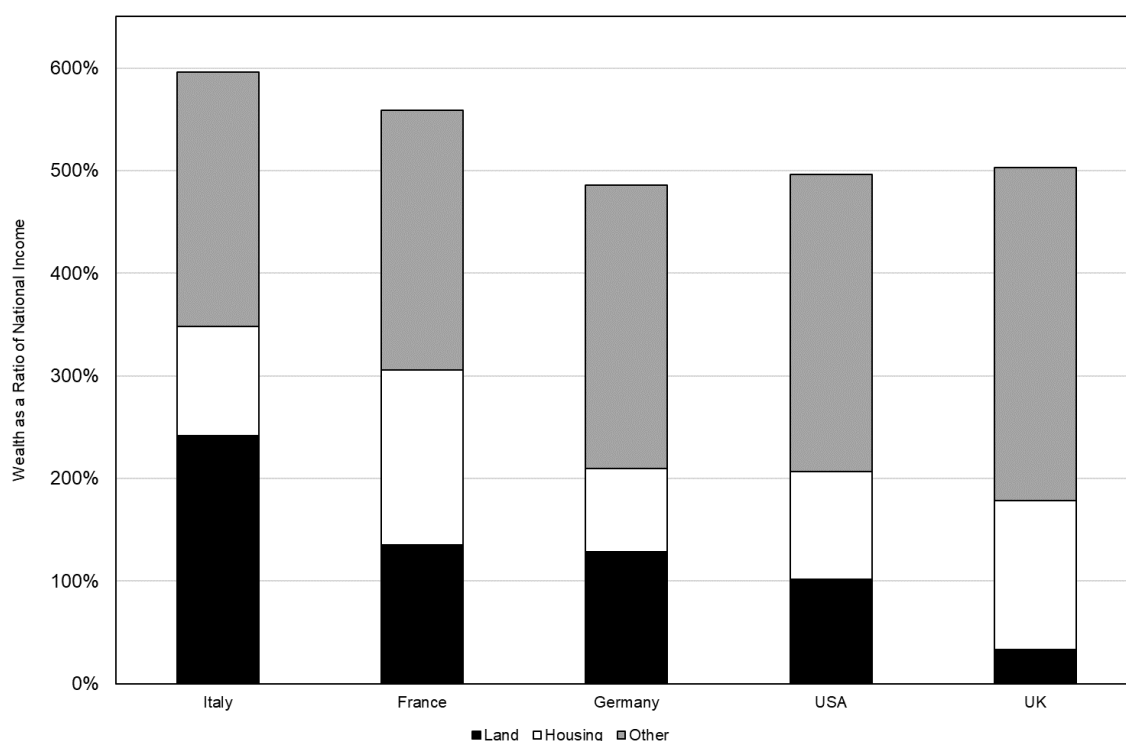
Source: for Italy, 1905-1915 averages of the series presented in Figure 2 and Figure 3; for Germany, 1899-1908 averages of the figures by Albers et al. (2022); France, USA and UK are 1910 decadal averages National Wealth Figures from Piketty and Zucman (2014) .

To further investigate the relative role of wealth in intertemporal and international comparisons, in Figure 5 we present the aggregate flow of bequests, as reported by official fiscal sources, again expressed as a share of national income. Consistently with the wealth-to-income ratio, the flow of inheritance declined from the late-19th century levels, around 16%, to around 9% in 1913, the end of the official series. In this case, the late 19th century estimated levels of the bequests to GDP ratio are substantially lower than those estimated for France or the UK, even after correcting inheritance and donations data for likely tax evasion. On the other hand, as for the wealth to income ratio, historical figures are broadly in line with those reached by Italy today according to Acciari and Morelli (2020), who revealed a striking increase in the weight of inheritance in the Italian economy since the 1990s. Both indicators, therefore, represent post-unification Italy as

an economy in which (inherited) wealth – even though still dominated by land – played an important role until the turn of the 20th century when both started a relatively fast decline. How does 19th and 21st-century Italy compare in terms of wealth concentration? Was the decline in the weight of wealth in Liberal Italy associated with a decline in its inequality? In the next section, we approach these issues, by discussing the only available source at hand – inheritance tax records.

Figure 5 – Flow of Estates and Donations as a Share of National Income
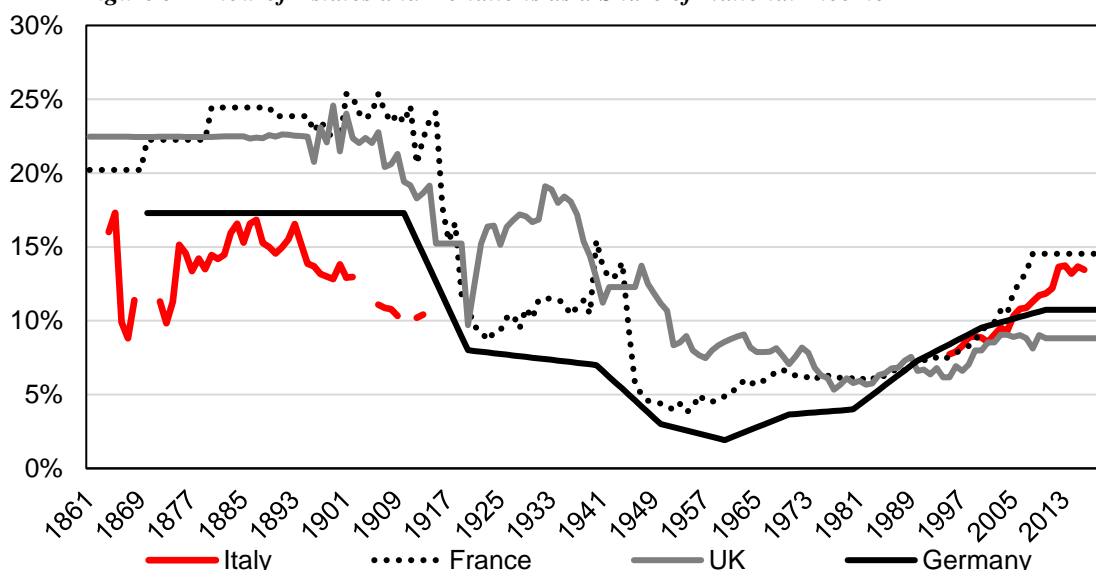
Source: for Italy, 1864-1913, elaborations on official data on declared estates and donations from fiscal sources, reported by Tivaroni (1916), inflated by 30%, to try to compensate for under-reporting, and GNP obtained as in Figure 2; for 1995-2016, data from Acciari and Morelli (2020); other countries from Alvaredo et al. (2017). Note that from 1884-1885 to the early 1960s, Italian fiscal data were reported for 'fiscal years', starting on July 1st and ending on June 30th. From that year on, as customary in the literature, we obtain "normal" yearly figures by averaging two following fiscal years.

3. Inheritance Tax Records as a Source for Wealth Inequality in Italy

Using Inheritance Tax Records to Derive Wealth Distribution Estimates

According to Piketty and Zucman (2015, p. 1319), to estimate wealth inequality 'ideally, one would want to use annual wealth tax declarations for the entire population'. Similar taxes, however, have been relatively infrequent in history; only a few Northern European and Nordic countries can rely on these sources for long-run, consistent estimates of wealth inequality. In Italian history, two levies on private wealth were enforced in the interwar period (in the immediate aftermath of the Great War, and then in the early 1940s), but no evidence on the distribution of assessed fortunes survived. Household surveys, another popular source for the estimation of wealth inequality, were carried on from the mid-20th century: the micro-data collected by the Bank of Italy include this information only from 1977; tabular evidence from earlier surveys was ingeniously

11

exploited by Cannari and D'Alessio (2018) to extend inequality estimates back to 1968, but before that year, surveys did not include any question on wealth. Scholars have, nonetheless, developed at least two alternative methodologies that rely on historical tax records to estimate wealth distribution. First, one could use information on income tax returns, and focus on the information about income flows generated from wealth and capital holdings. As discussed in the classic Atkinson and Harrison (1978), by capitalizing 'dividends, interest, rents, and other forms of capital income' it is possible to reconstruct the distribution of personal wealth – a methodology that relies on a series of strong assumptions (Katic and Leigh, 2016, p. 210). In any case, the few, surviving micro-evidence on the incomes of Italian taxpayers, surveyed in Gabbuti (2023b), are not suited for this exercise.

The remaining option, the so-called 'mortality multiplier technique', is the most commonly used in the context of historical estimates, one that can be applied in our case too.[6] The information about the estates left at death (i.e., the total value of assets and possessions bequeathed as reported on the estate or inheritance tax records) are multiplied by the mortality multipliers (the reciprocals of mortality rates) 'to arrive at the distribution of wealth among the living population' (Atkinson and Harrison, 1975, p. 13). As estate data are often tabulated, interpolation methods are used to obtain figures for 'top' groups. Then, in combination with external figures on total wealth and population, evidence on taxpayers is transformed into estimates of overall wealth concentration. While the availability of estate data varies across time and space – being affected by the same definitional issues affecting any fiscal, historical source – tabulations, and even more surviving archival evidence, are in many cases the only way to extend historical knowledge of wealth inequality; in this sense, it is also important to develop standard, consistent practices concerning the adoption of mortality multipliers – a scarcely acknowledged form of inconsistency in international comparisons.

As reported by Katic and Leigh (2016, p. 212), the first British economists working with estate data considered 'that tabulation that did not separate deceased estates by age and gender were not particularly informative,' a view that long survived among scholars working on the anglosphere.[7] Elsewhere, the data was not as rich, and even

---

[6] See for instance Alvaredo et al. (2018) for the UK, Piketty et al. (2006) for France, Bengtsson et al. (2018) Sweden, and Bengtsson et al. (2019) for Finland. The methodology is also widely applied in the modern literature, as in the aforementioned case of Acciari et al. (forthcoming) for Italy.

[7] See, for instance, Mallet (1908), and the other literature discussed by Alvaredo et al. (2018) and Katic and Leigh (2016). The economist Alberto De Stefani (1921, pp. 75-78) – the Finance Minister who

mortality data could be severely limited – so that, to work on 19th-century Finland, Bengtsson et al. (2019) had to rely on Swedish coeval multipliers. Working on the very detailed tabulations and mortality data available for the UK, Alvaredo et al. (2018, p. 32) have shown that the actual impact of age and gender multiplier is not so important as previously thought: 'In practice, for much of the period the conclusions reached regarding the degree of concentration do not change radically.' Stimulated by this evidence, in a recent work, Berman and Morelli (2022) approached the issue in analytical terms, showing that an "average multiplier" could be used to derive reasonable measures of wealth concentration if no richer set of information is available. Such analytical result has a straightforward application, making it possible to adopt previously unexploited historical evidence – starting from the Italian one. For this purpose, in the rest of the section, we discuss the surviving evidence.

Italian Inheritance Tax as a Source for Wealth Concentration

Inheritance and registry tax were introduced in most Italian states during the Napoleonic period (Banti, 1983). Starting from 1862, the inheritance tax was uniformly applied across the newborn Kingdom of Italy. In 1902, right after France, the inheritance tax became the first levy with a progressive structure in Italian history.[8] This resulted also in the regular publication, until 1914, of official tabulations, reporting the number of taxpayers subject to the different marginal tax rates – including two tabulations at the region and province level, extremely rare and valuable in the light of the history of Italian regional divides – but not distinguishing by gender and age. A special issue surveyed all tabular evidence, available for pre-1902 years, going back to 1890 (MEF, 1902, pp. 1367-1377). The tabulations of the inheritance tax were the main source not only of the early Italian literature on inequality measurement (Gini, 1914) but of the same literature on the 'Southern Question' (Nitti, 1905). However, apart from Zamagni (1980), who used them to compute Gini and top shares *within* the estates (that is, among the *dead* whose wealth was reported on tax records), Italian economic historians ignored, so far, the potential of estates for estimating wealth concentration.[9]

---

abolished inheritance tax in 1923 (Gabbuti, 2023a) – was among the few Italian economists to discuss the issue; see also the less accurate discussion by Gini (1914, pp. 432-434).

[8] As shown in the Appendix (Figure A 4), top rates remained low; revenues, increasing their share of overall direct taxation, continued to decline in terms of GDP (Figure A 5).

[9] As argued by Frascani (1978, pp. 1066-1067), social historians in the 1970s and 1980s were more interested in a class-based approach to inequality, and in particular, in the study of the emergence of modern bourgeois fortunes. As discussed below, a rich historical literature of local studies of this kind developed in Italy, including Banti (1983), Caglioti (1994), Cardoza (1995), Licini (2020), Macry (1988);

The neglect of this source of data may have been driven by its perceived limitations. The first commonly held view is that estates may underestimate the true nature of wealth holdings. Although every source of data has limitations, we discuss below why we believe this is a broadly misguided view. Another shortcoming of the surviving published tabulations is that they only include the number of decedents for each wealth bracket, and not their average or total wealth, except 1888-1891 and 1900-1902 tabulations. We explain below how the latter information can be used to infer the total wealth belonging to each wealth range in the years where no information is available and why this limitation does not lead to severe problems for the estimation of wealth concentration[10]. Moreover, with the entrance of Italy in the Great War, 'to obtain any potential economy in the expenditure for official publication, as well as to differently employ the very scarce number of employees', Italian fiscal authorities were 'exempted' from issuing the detailed reports that were customary in the Liberal period (MEF, 1917); the result was already evident in Figure 5. The publication of fiscal data had not been entirely restored by 1923 when the inheritance tax was suddenly abolished (Gabbuti, 2023a). This statistical malpractice was not ended by the later reintroduction of the tax in milder forms in the 1930s nor after 1945.

Fortunately, historians have worked extensively on the archival records, available at the local level only. Moreover, the administration of the Italian estate and inheritance tax is carried jointly with the upkeep of the real estate register (*catasto*), in turn linked to the payment of the mortgage and cadastral taxes (Acciari and Morelli, 2020); therefore, these archival records have the appealing feature of 'surviving' the abolition of inheritance tax (appealing indeed, since the country might be the only one who abolished the tax twice –in 1923-1930, and again in 2001-2006). First, working on the case of the Tuscan town of Lucca, Banti (1983) documented the source, and argued in favour of its adoption to study the evolution and composition of wealth before and after the unification. Banti's work opened a fruitful strand of historical research: historians focused on specific groups of estates (the 'millionaires,' aristocrats, professionals), or provided snapshots of the distribution of reported estates. Most notably, Macry (1988) assembled a very detailed database on all the estates reported on tax records in Naples in 1876 and 1906, and Licini

---

see Banti (1996) for a survey. Licini (2020) also showed the potential of Italian estate data for the study of women's economic position.

[10] As mentioned in Figure 5, from 1884-1885 to the early 1960s, Italian fiscal data were reported for 'fiscal years', starting on July 1st and ending on June 30th; in the paper, we will therefore refer to these fiscal years when discussing tax data.

(2020) recorded and made publicly available the gross value of all reported estates in Milan from 1862 to 1900. While these sources do not make it possible to get an overall sense of the history of wealth inequality in Italy, they could turn out to be extremely useful in combination with nationally representative tabulation, as in the case of Piketty et al. (2006).

It is worth noting that Italian inheritance tax data have several notable advantages too. First, the tax administration required anyone receiving real estate to declare all assets and goods possessions, even if the wealth transfer was fully tax-exempt (Licini, 2020, p. 24). This feature guarantees sufficient information to assess the nature and the value of the estates as well as a relatively high and constant coverage of the decedent population throughout the period. Between 1877-1914, the absolute number of estates of individuals aged 20 and above recorded in the tax records amounted to between 35% and 45% of total adult deaths every year – figures extremely high for this literature (Figure A 7). Second, the "expansion" of the value of total estates using the average mortality multiplier, allows us to cover a very high share (around 60%) of total private wealth as estimated by Cannari et al. (2017), from 1872 to the Great War. Finally, and most importantly, the estate data also allows us to observe a wide array of asset types, including financial assets. Indeed, 30% or more of the total declared estates between 1895 and 1913 are composed of financial assets on average. Likewise, we are also able to show that financial assets can also play an important role at the top of the wealth distribution.

The positive coverage rates of total adult decedents and of total wealth obtained using Italian estate data are in line with evidence from other countries (even above those reported for Paris by Piketty et al. 2006) and should reassure us on the enforcement of the law, and the ability of estates to provide a sufficiently reliable quantitative basis for estimating wealth inequality. Nonetheless, we provide further validations of the data in two main steps. First, we compare the heterogeneity of the coverage rates of estates across the country, with the frequency of 'ownership' of land and real estate as reported on the 1901 census. Strikingly, as documented in the Appendix (Figure A 8), we observe an extremely positive correlation between this information across regions, with a higher rate of ownership of assets resulting in higher reporting of estates.

Second, we verify that the asset composition of estates is not too dissimilar from the asset composition of external independent measures of the total wealth of the households. Movable assets may be more easily hidden from tax assessments. Estates

could miss part of the new wealth of the financial and industrial super-rich, which were those showing 'the most spectacular phenomena of upward social mobility' in this period (Banti, 1996, pp. 175-176). While stressing the importance of considering evasion in international comparisons, looking at Milan Licini (2020, p. 23) argues that it most likely does not invalidate the analysis of wealth concentration and its evolution over time. Contemporary scholars, including Gini and his students, already discussed extensively the issue of tax evasion: while overall evasion was believed to be around 30%, the most serious concerns regarded movable assets, and financial ones in particular. Figure 4 shows how this component was marginal as a share of total wealth; moreover, as shown in the Appendix (Figure A 9), the asset composition of estates transmitted in Italy, provided by official sources from 1885 to 1913, shows a reassuringly similar decomposition between 'immovable' (land and real estate) and 'movable' goods (all other assets). While it is possible that in a period of strong structural change, estates could underestimate "new" forms of wealth, being more representative of older, less innovative capitalists and entrepreneurs, the available evidence on the wealth of the living suggests that this bias cannot substantially alter the picture.[11] Still, there is some difference between the two sources. In particular, estates include a substantially higher share of debt (see Appendix, Figure A 11): heirs had all the incentives to declare them, to reduce their taxable wealth, but had to prove them. On the other hand, debts could have been very differently distributed across the population.[12]

4. Wealth Concentration in Italy, 1890-1915

From the previous sections, we have all the 'ingredients' needed to apply the mortality multiplier methodology and estimate top wealth shares. As mentioned, from 1902 to 1913, the introduction of progressivity made it easier to report the number and entity of estates subject to the eleven different tax rates; moreover, MEF (1902, pp. 1376-1377) reports the tabulations for the fiscal years 1890-91 and 1892-93, based on 9 and 14 wealth classes respectively, similar enough to avoid major inconsistencies with those available for later years. Unfortunately, as discussed earlier, only the tabulations for fiscal years 1890-1891, 1900-1901, and 1901-1902 report the actual total wealth declared. In

---

[11] Such underestimation of "new" wealth is less likely as long as older and wealthier cohorts hold substantial stocks and investments in the new forms of profitable businesses.

[12] While we could not find an explicit motivation, the choice of most social historians to report gross rather than net values (as in Licini, 2020) could be seen as an implicit 'malign' interpretation of liabilities as evasion by the rich. When discussing the evidence of wealth concentration using Neapolitan microdata, we will show that results are essentially unvaried using both gross and net wealth concepts.

other years, the total wealth declared in each range can be imputed. We do so by multiplying the number of taxpayers for the average wealth reported in the 1901-1902 tabulation in each corresponding wealth bracket. This procedure effectively assumes that the distribution of wealth remains constant across years, but only within each bracket. The overall distribution of estates across wealth ranges and total wealth in each wealth range is instead free to adjust following the changes in the number of actual taxpayers reported in each bracket. In the presence of a high number of wealth brackets, this is unlikely to be a major problem as most of the variation is driven by differences between wealth brackets.

To verify that this might be a reasonable assumption we do several checks. First, in the Appendix (Figure A 12), we show that the levels of total estates as estimated from national tabulations match pretty well with a time series obtained from external official estimates of reported estates. Second, we assume that the average wealth for each wealth range assembled from microdata in Milan, for which we have full information, is the same as what was reported in the complete national tabulations in the years 1902-03. We apply these values to Milan data, discussed in section 6, for a selection of years, namely 1862, 1870, 1880, 1890, and 1900. Hence, we compute alternative top wealth shares mimicking the assumption needed to derive total wealth for each wealth range in the incomplete national tabulations. As documented in the Appendix (Figure A 16), such alternative estimates of wealth concentration are strikingly similar to our baseline. Both exercises should reassure us about the validity of the assumption we apply to complete the information of our national tabulations.

The estimation of wealth concentration series also requires an external wealth total that is consistent with estate tabulations. We start from figures compiled by Retti-Marsani (1936; 1937a; 1937b) adjusted to harmonize the concept of wealth used on the estate records. As discussed above, 'movable' assets are sufficiently reported in inheritance statistics; rather than financial assets, inheritance data seems to underestimate other less important components, such as livestock, furniture, and valuables. It is reasonable that such 'petty' forms of wealth were kept by surviving family members, and that most of them were generally not included in the assessment for the inheritance tax. Thus, we subtract the asset class named 'other wealth', from the wealth total. We then use estimates from Cannari et al. (2017) to extrapolate the series of total wealth before

1901.[13] As customary in this literature using tabulated data, the wealth ranges are finally interpolated, in conjunction with the external population and wealth totals, to derive the wealth share measures for specific fractions of the wealth distribution, such as the richest 1% or 10% of adults. The interpolations are carried out using the mean split histogram methodology. This method, adopted by most recent literature (including Acciari et al., 2023, ensuring further consistency between our historical estimates and theirs), can be considered the most 'conservative' (Atkinson, 2005, pp. 333-334).

The resulting series, shown in Figure 1 and Figure 6 for the top 10 and 1% respectively, reveal high, constant wealth concentration throughout the period. If anything, as will be shown by looking at regional figures in section 5, or decadal averages in section 7, the series shows a slightly rising trend, but the availability of yearly data allows us to better describe it as a fluctuation around a stable level. These results are compatible with recent estimates showing very high and stable capital shares from 1895 to the Great War (Gabbuti, 2021).

Figure 6 – Wealth Concentration (Top 1%) in the Lon-Run: Italy and Selected Countries
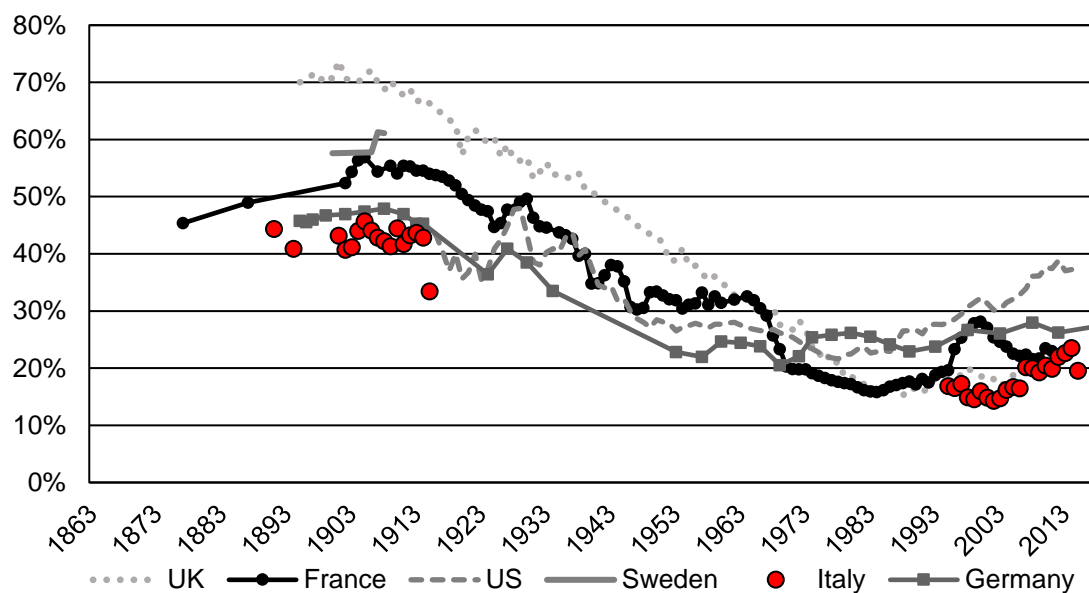
For Italy, Fiscal Years, from July 1ˢᵗ to June 30 (e.g., 1890=1889-1890). The upper graph shows the top 1% wealth shares: the lower, top 10%. Sources: authors' elaboration for Italy; Germany from Albers et al. (2022); Sweden from Roine and Waldenström (2009) and Bengtsson et al. (2018); France, UK and US from Wid.world.

---

[13] In 1900, when the two series overlap, Retti-Marsani's total is around 95% of Cannari et al. Such a ratio is used to link the two series. Such proportional linkage brings the level of total wealth in line with Retti-Marsani's figures while preserving growth rates of total wealth from Cannari et al. The resulting identified wealth is documented in the Appendix, Figure A 10; alternative figures, based on different wealth totals, are also presented in Figure A 14.

In international comparison, looking at both the top 1 and 10% series, the level of wealth inequality observed in late 19th and early 20th-century Italy is lower than the peaks registered in highly developed countries, such as the UK and France, but also another developing economy, such as Sweden, but substantially in line with Germany and the US. While all these series, apart for the German ones, are built based on estate tax data, it should be noted that not all of them express concentration in terms of an external wealth total: in this sense, and considering also the discussion on tax evasion and the high share of debt reported in our tabulations, we could conclude that wealth inequality in Italy was not significantly different from the level observed in continental Europe, at least for the top decile.

However, the flat trend in the Italian series is surprising, in several ways. First, they revise the only existing estimates, based on the concentration of estates: the work by Zamagni (1980) found a decline in wealth inequality in the early phase of Italian industrialization. A similar decline has been detected by economic historians working on historical household budgets to estimate income inequality (Rossi et al., 2001; Amendola and Vecchi, 2017). These results, together with a generally documented improvement in a set of human well-being indicators (Vecchi, 2017), led Toniolo (2013, p. 17) to point out the 'unusually "benevolent"' nature of Italy's late industrialisation.

Toniolo's interpretation did not point to institutional or policy aspects: while he reckons that 'the governments of the Giolittian era had a more open view of liberal democracy and took an inclusive stance towards moderate socialists and Catholics, both advocates of social reforms', this did not translate into major social reforms. While, as mentioned, inheritance tax became progressive in 1902, its rates were still very mild (as can be appreciated in the Appendix, Figure A 4). Moreover, Giolitti's governments failed to transform income taxation, which remained heavily based on indirect taxation until the outbreak of the Great War.[14] According to law scholars such as Rodotà (2011, p. 35), even though labour and political rights marginally increased, during the whole post-unification period, the private property remained the central value for the Italian state; together with 'freedom of industry and trade', wealth benefitted from the strongest protection. In Toniolo's account, the only way to understand the 'benevolence' of Italy's industrialisation is to appreciate that it took 'place in an increasingly open economy', in which massive 'migrations reduced both the rent-to-wage and the skilled-to-unskilled

---

[14] See Gabbuti (2023a, pp. 4-5) for a discussion.

wage ratios, while at the same time, international trade increased the worker's real purchasing power' (Toniolo, 2013, pp. 17-18).

While these factors contributed to the improvement of living standards, the decline in income inequality, and also, as seen in Figure 2, the relative relevance of private wealth, in the light of the new evidence, they were not strong enough to significantly alter the functional distribution (Gabbuti, 2021), nor the concentration of private wealth, as shown in Figure 1 and Figure 6. The only exception to the flat trend of our series is the abrupt fall observed in the last year of the series, which calls for a qualification, before interpreting it as a genuine variation. From 1915, Italy's participation in the Great War led governments to increase the progressivity of inheritance tax (Gabbuti, 2023a) – a circumstance Gini (1914) generally associated with increased tax evasion. While, as we have seen, the administration soon stopped reporting statistics on the matter, possibly a sign of reduced enforcement effort, contemporary observers believed evasion greatly increased in the following years.[15] Even in the absence of fraud, estate reporting was arguably delayed in wartime. While the law requires to report within six months (Caglioti, 1994), a more sizeable gap could occur.[16] Whatever the reason, we do observe that the total number of estates declined in all wealth ranges in 1915, concerning 1914. This happened despite a sudden, substantial rise in mortality, also a consequence of the War;[17] mechanically, this affects our mortality rate multipliers, and possibly the representativity of the reported wealth on the tax records. All in all, we do not consider 1915 as a compelling estimate.

While not declining, the Italian series do not show any substantial increase in the period of the first industrialisation of the country, contrary to what observed in most other countries – lastly, in the German case, where inequality had greatly increased from the much lower levels detected by Alfani et al. (2022) for the period before industrialisation. To further investigate the Italian case, in section 5, we will move our analysis to the subnational level, by discussing wealth and its distribution across Italian regions and provinces.

---

[15] See Appendix, Figure A 6, for 'historical' estimates of tax evasion.
[16] This aspect will be discussed in Section 6, by looking at micro evidence from Milan.
[17] The mortality series are reported in the Appendix, Figure A 3.

5. Wealth, Inequality, and Regional Divides in Liberal Italy

Before becoming the 'Holy Grail' of Italian economic history (Fenoaltea, 2011, pp. 191-203), the existence of regional divides, their magnitude and origins between South and North has been a long-lasting issue among Italian intellectuals, politicians, and the broader public opinion. In recent years, works such as those by Felice (2011) have consolidated the picture of income gaps: at the time of the unification (1861), they were already present, and arguably small (around 10%). With the only exception of Lombardy, Italy was still a traditional *ancient regime* economy', in which the limited secondary sector is 'naturally concentrated next to the court': by European standards, both North and South were 'uniformly poorer, all still agricultural economies, but with different degrees of backwardness' (Fenoaltea, 2011, p. 211). Overall regional inequality was 'lower than in other European countries at comparable levels of development' (Iuzzolino et al., 2013 pp. 572-3). Divides in per capita income and industrial production grew over the following decades, and by 1911 the emergence of the aforementioned industrial triangle was already evident – a picture confirmed by the first province-level estimates of value-added, recently advanced by Chiaiese (forthcoming)[18]. It was only with the Great War, and during the interwar decades, that Italian regional divides exploded (Felice, 2011).

This discussion has, so far, largely overlooked regional divides in private wealth stocks – the first economic metric of the Southern Question until the first decades of the 20th, when GDP was yet to be defined, and wealth was the yardstick of economic development. Indeed, in line with 19th-century standards of national wealth measurement, the earliest attempts at measuring Italian regional inequality estimated wealth gaps using (multiplied) estate figures (Pantaleoni, 1891).[19] This methodology, developed by the French economist and statistician Alfred De Foville – a major source of Piketty's (2014) work on France – was widespread before this 'indirect' approach was dismissed by the aforementioned 'direct', 'inventory' method advanced by Gini (Maccabelli, 2018) – the one followed by Retti-Marsani. Unfortunately, historians have then dismissed this component of regional divides: the only exception is Cannari et al. (2017), who reported original estimates by Nitti (1905), based on De Foville's method, and De Vita (1933),

---

[18] Indeed, provincial absolute levels of total value added and estates, as well as the share accounted by agriculture and land, are highly correlated, as documented in the Appendix (Figure A 13), further reassuring us on the quality of estate data.

[19] In the absence of comparable GDP figures, Pantaleoni's cross-country comparisons were still adopted by Gerschenkron (1962) to get a sense of the relative poverty of 19th-century Italy.

following the inventory method, for 1901-03 and 1928, respectively. According to these estimates, in the early 20th century, per capita wealth gaps were slightly wider than those recorded in GDP. For instance, Liguria, the richest region at the time, had more than 1.5 times income per capita than the national average of 1911, but close to 1.8 in terms of wealth; the other two 'corners of the North-West, Piedmont and Lombardy, increased their relative advantage from 1.2 in income terms, to more than 1.5 in wealth. Sardinia, the poorest in wealth terms, had less than half of the national wealth average, compared to 84% of the national income. Province-level tabulations, available also for 1913-14, allow to generalise to wealth both the within-region heterogeneity and the poor growth of regional divides during this period, with the emergence of the aforementioned North-Western triangle. At the provincial level, the share of value-added accounted by agriculture is also highly correlated with the share of land in the estates: all in all, the wealth at death seems to capture well the size, evolution, and nature of the regional divides in the period.

Indeed, the geographically disaggregated tabulations allow us to show wealth decomposition at the region levels for 1902-03 and 1913-14, and for the latter year, even at province level. The results, shown in Figure 7, provide us with further evidence of the substantial role played by land, even at the end of the Giolittian period. On the eve of the Great War, the only region in which this asset was not the most sizeable component of total wealth was Liguria. Piedmont was two percentage points above the national average (44 percent), while Lombardy is not so distinguishable from Tuscany and Campania under this metric. All these regions have a higher share of land than Rome's Latium, which shows the highest level of real estate. In this period, however, one cannot speak of "South" and "North" as if they were two opposite, economically homogeneous realities; provincial disaggregation reveals similarities among most rural, "internal" provinces, contrasting with the urban areas spread all around the country (Iuzzolino et al., 2013, p. 572).

Figure 7 – Composition of Estates by Region and Province, 1913-14

Source: elaborations on MEF (1914).

Provinces with the highest shares of movable assets are, as expected, Northern Milan, Turin, and Genoa, but also the harbour of Leghorn in Tuscany, as well as Naples, Catania, and Palermo in the South. On the other hand, many of the provinces with the highest share of land are in the Centre (Macerata and Ascoli Piceno, Marche, and the Tuscan Arezzo), North-East (Piacenza, Ravenna and Reggio Emilia, Emilia Romagna; the Venetian Treviso; Udine in Friuli), or even in Lombardy (Mantua). While the composition of estates does not allow us to go into deeper detail, relating other assets to the development of sectors or industries, this evidence seems to reinforce the general picture presented in section 2 in depicting a largely "backward" economy even at the dawn of the Great War. Moreover, in line with the provincial-level value-added figures by Chiaiese (forthcoming), we confirm the importance of looking within macro-areas and even regions, given the high degree of heterogeneity.

23

As mentioned, official inheritance tax tabulations make also it possible to investigate the largely unknown interplay between personal and regional inequality in modern Italy. In the absence of modern estimates of wealth, in the 1940s, very detailed figures were available for the distribution of land (Martinelli, 2016). A few years later, in 1948, a pioneering household survey made it possible to estimate income inequality at the regional level: by this time, Southern regions emerged as more unequal (Amendola and Vecchi, 2017, p. 327); according to Amendola et al. (2011, pp. 259-260), the South had become more unequal around 1911, while for the first half-century after unification, the North had shown higher inequality. The estimates presented in Figure 8, therefore, are not only the first sub-national evidence on historical wealth inequality, but also the first province-level, and the oldest evidence on personal economic inequality for modern Italy. Unfortunately, while the population over 20 can be obtained from the closest censuses (1901 and 1911), the external total wealth series[20] and mortality data are not available for regions, provinces, or single cities, so the rest of the paper adopts the same mortality multiplier adopted for the national estimates. Moreover, similarly to what was done for the derivation of national estimates in section 4, we derive total wealth in each wealth range using the corresponding averages reported in 1902-03 national tabulations. In doing so, we follow the same procedure described when national tabulations are deficient in information on total wealth reported in each range.

The last step requires the estimation of the wealth of the missing population, given that we lack truly external estimates for regions and provinces in those years. The wealth identified within the tax records, and 'expanded' using the mortality multiplier, cannot be used at face value, as it misses the value of the wealth of the population withholding assets that cannot be identified via the inheritance tax records or the under-reported wealth. To do so, as customary in the literature in the absence of reliable external wealth estimates,[21] we proportionally inflate the identified totals within each province using the relative discrepancy between the external total and identified wealth total overserved at the national level in 1902-03 and in 1913-1914. Such proportions were 26.08% and 21.75%, respectively in the two years.

The picture emerging from this exercise is quite surprising. First of all, provinces and regions experienced a variety of trajectories, as summarised in panel a) of Figure 8,

---

[20] As mentioned, Nitti (1905) is also based on estate data, and thus cannot be considered 'external'.
[21] See Atkinson and Harrison (1978) and Alvaredo et al. (2018) for a detailed discussion.

showing percentage point changes of top 10% wealth shares between 1902-1903 and 1912-1913. It is important to note that, despite the general stability of wealth concentration at the national level, isolating these two years would also indicate some increase for Italy.[22] Still, in most regions, we do observe an increase in concentration in the period – a result confirmed at the provincial level. At the same time, a few regions – mostly rural, but including Piedmont – did experience a reduction in concentration; a finding confirmed also by Turin.

In Figure 8, we also report the map of top decile concentration at the end of the period, first by regions, and then by provinces. Panel b) shows that while we can see more wealth concentration in the North, it is hard to attribute this difference to differences in the relative affluence or the composition of assets. If Lombardy is among the most unequal regions (but not *the* most unequal), the same cannot be said for Piedmont, nor Liguria, by far the richest region, as well as the one with the highest share of movable asset and the lowest of land. Both these regions show, in fact, levels of concentration below those recorded in most Southern rural regions. Latium – not exactly an industrial heartland – and the relatively backward North-Eastern regions emerge as the most unequal areas of the country.

The panel c) of Figure 8, however, reveals large heterogeneity within regions. Wealth is highly concentrated in provinces with major cities, from North to South; however, among the exceptions, we find the industrial Genoa and Turin, together with another former "court" such as Palermo. At the same time, the rural provinces of Tuscany and the North-East, but also Northern Apulia, show some of the highest levels of wealth concentration. Overall, we confirm the higher level of inequality in the North, qualifying it with great heterogeneity within each area. As shown in the Appendix (Figure A 19), no correlation is found between the concentration of wealth and the absolute level of private wealth, or other indicators of provincial economic activity. Also, only a very tenuous positive correlation is found between the concentration of wealth and the share of movable assets across provinces. Interestingly, this goes not only against our modern expectations but also the findings of the scholars of the times, who assumed a positive relation between wealth inequality and development. For instance, using the 1902-03 tabulations, Gini's student Porru (1912, p. 115) estimated higher concentration in

---

[22] In the figure, we report the change in Figure 1, obtained adopted the 'preferred' external total and consistent national-level multipliers; the average of regional figures would give an increase of 1.5 percentage points.

Northern Italian regions, compared to the South, and attributed his findings to the differences in wealth accumulation. On the other hand, in the absence of a regional breakdown of remittances, at first sight, the picture does not show an immediate correlation with the origins of migrants (Gomellini et al., 2017).

Figure 8 – Wealth Concentration across Italian Regions and Provinces in Early 20th Century
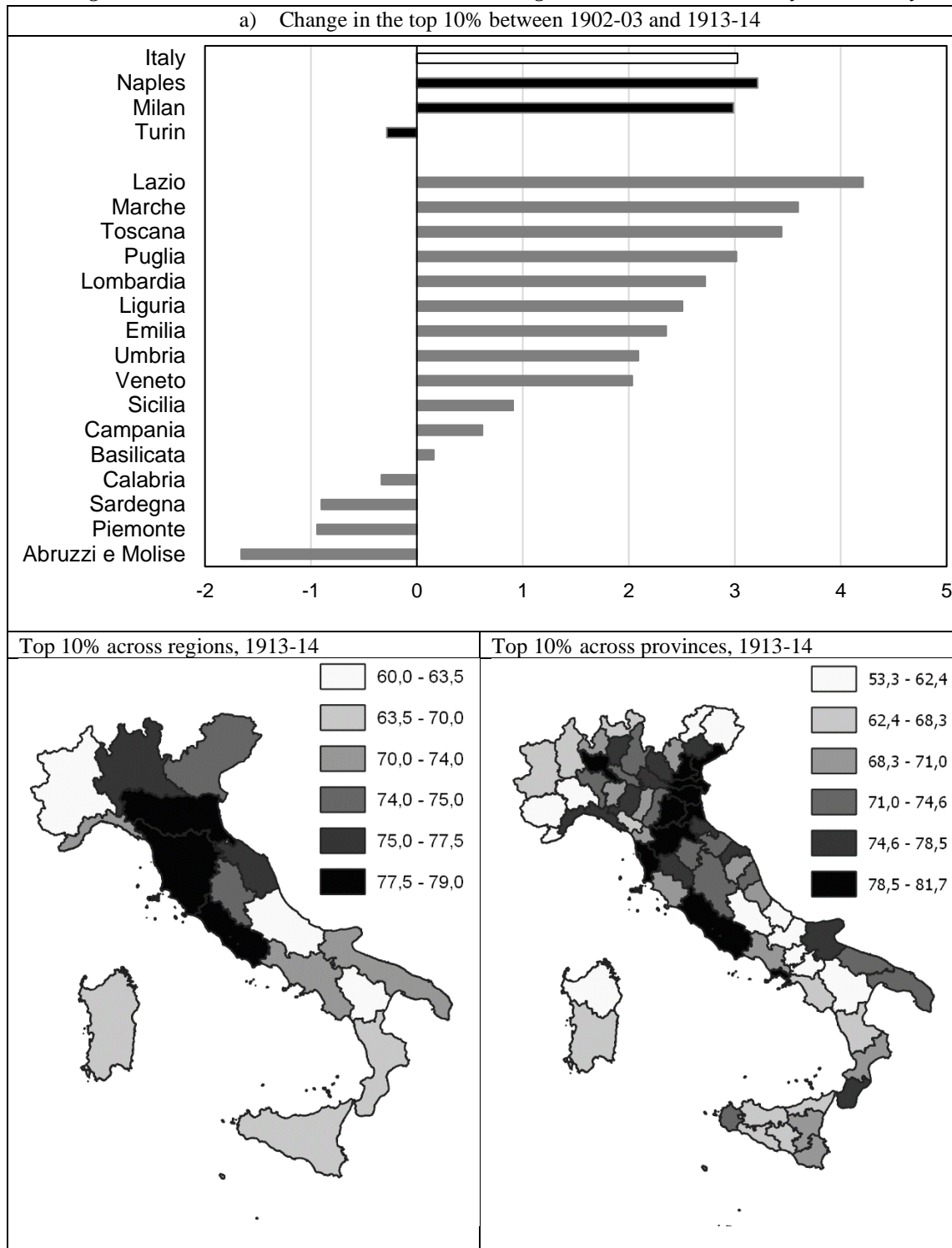
Sources: elaborations on MEF (1903; 1915), HMD, and MAIC (1902, 1914); Italy's figures from Figure 1. Complete figures are reported in the Appendix, Figure A 17 and Figure A 18.

26

6. Wealth Inequality from Estate Micro-Data

As discussed in section 3, official tabulations of estates are not the only source available to study the distribution of wealth in Liberal Italy: archival records of the original declarations survived across Italy. Unfortunately, these records are not accessible in a single, centralized archive; access, even the possibility to access these sources is very different across the country, making it impossible to collect any 'representative' sample. Nevertheless, several social historians worked on local cases – most notably, Licini (2020) collected all gross estate values transmitted in Milan, arguably the most important industrial and financial centre, from 1862 to 1900, while Macry (1988, 1990) those transmitted in 1876 and 1906 in the largest city of the time, Naples. Despite the lack of a clear-cut relationship behind wealth concentration in liberal Italy, Figure 8 shows that both provinces were 'at the frontier' of wealth concentration. At the end of the period, the top decile was around 81 percent in both provinces, some ten points above the national estimate, and showed inequality trends very similar to those observed using national tabulations. Also, as shown before in Figure 7, the provinces of Milan and Naples were among those with the highest share of movable assets in Italy. Even though neither of them (nor any Italian city) played a role comparable to Paris for France – although, according to Licini (2020, p. 11), the comparison of wealth in 19th century would be meaningful for Milan – this result motivates us to explore wealth concentration in these two cities, to extend our discussion, in line with Piketty et al. (2006).

The Gold of Naples, 1876 and 1906

According to the 1861 census, Naples was the only Italian city close to half a million inhabitants; Turin, then the capital, followed with barely 200,000. The former capital of the largest pre-unitary state, Naples hosted the largest university, and until the Great War, it could still be considered a European capital' (Barbagallo, 2015). Only in the interwar Milan, and eventually, Rome, became more populous. It was also the richest city in Southern Italy: the GDP per capita of its region, Campania, was some 10% above the national average in 1871, and still at 96% in 1911 (Felice, 2011). Hence, the possibility of estimating the concentration of wealth in Naples, even for just two years, could be very informative. The historian Paolo Macry (1988; 1990) collected all individual estates reported in the years 1876 and 1906 from the local State Archive: the resulting database is extremely accurate, reporting all the components of wealth (rural real estate, land, public bonds, money, credits, financial assets, furniture, and so on), as

well as age, profession, place of birth, father and mother's names, marital status, and similar demographic information, whenever reported by the source (unfortunately, that was seldom the case).

Unfortunately, it was not possible to find external estimates on those deceased in the city in those years, but those can be derived from the coverage figures reported in Macry (1990). Population above 20 was obtained working on available censuses (1871 and 1881, and 1901 and 1911, taking the average figure), while mortality and wealth totals were obtained for the sub-national figures discussed in section 5. We follow the same procedure to estimate total wealth from the total estate identified within the declarations, that is, we proportionally inflate the identified totals using the average proportional discrepancy between the external total and identified wealth total observed at the national level. For the year 1876 we use the nearest available estimates, the average proportional discrepancy between 1890 and 1894 (equivalent to 27.33%). For the year 1906, we use the average proportional discrepancy between 1900 and 1906 (equivalent to 22.97%). Estimates were also derived assuming a 25% or 30% missing wealth in both years, and results are substantially stable.

Despite these limitations, after reproducing tabulations following the same ranges of wealth adopted by national and regional tabulations, it was possible to estimate wealth concentration for Naples in 1876 and 1906. In Figure 9, top wealth shares are presented for the city, together with the share of movable and immovable assets. Both indicators suggest a strong concentration of Neapolitan fortunes, above the comparable national estimates, and some increase between the two years. Interestingly, a greater change is visible in the asset composition of the top fortunes: in 1906, the share of non-movable assets had declined to 50% in both the top decile and percentile.

Figure 9 – Wealth Concentration in Naples, 1876 and 1906
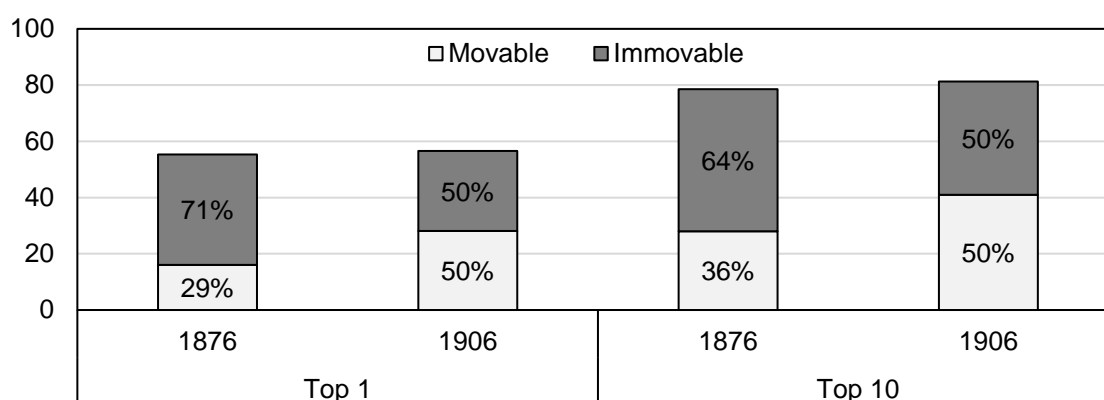
Source: elaborations on Macry (1990).

The detailed Neapolitan microdata allows us to check some important assumptions behind our estimates of national wealth concentration, as documented in the Appendix (Figure A 15). First, adopting the same multiplier for different gender and age group does not alter the estimates, in line with the empirical results of Alvaredo et al. (2018) for the UK, and the analytical discussion by Berman and Morelli (2022). Moreover, adopting gross, instead of net values (that is, after subtracting any liability from the overall value of transmitted assets), does not change the results either: this is reassuring, to adopt the data collected by Licini (2020) for Milan.

Estates and Wealth Concentration in Milan, 1863-1900

The complete database on the estates reported to the Milanese Registry Office, collected by Licini, is a unique source. From June 1st, 1862, to the end of 1900, it reports names, date of death, and gross wealth of all declarations, resulting in a database larger than most comparable studies, including the Parisian data collected for selected years by Piketty and coauthors (Licini, 2020, pp. 27-28). In this section, we use these estates to estimate Milan's wealth concentration in the late 19th century. Throughout the period, Milan accounted for some 8% of estates transmitted every year, compared to a population that was less than 1% of the Italian total. As mentioned, the city was among the most industrialised parts of the country and hosted the major banks and stock exchange: even though, as discussed by Tolaini (2022), the aristocratic financial investors of Genoa probably accounted for some of the major fortunes of the country, we can assume that Milan estates were representative of new forms of wealth and investment, resulting from the industrialisation process. Indeed, they showed some sizeable wealth, and the highest number of millionaires recorded by historians in this period (Licini, 2020, p. 45).

Also in this case, as for all provinces and the city of Naples, we had to rely on the national mortality multiplier, available only from 1872,[23] and we obtained internal wealth totals adjusted for the missing wealth.[24] As for Naples, population totals were obtained by working and interpolating censuses,[25] and we reproduced the same wealth brackets adopted by official tabulations. In Milan, however, we can tabulate estates by the year of death, instead of the year in which they were reported (i.e. year of account); the difference between the two increased over time. The results are presented in Figure 10 reproduces the estimates for wealth concentration in Milan, from 1863 to 1900, together with the provincial figures for 1902-03 and 1913-14, and the national estimates presented in section 4. In line with Licini's result, wealth concentration remained remarkably stable throughout the period: evidence from Milan 'does not confirm the tendency of increasing wealth concentration with industrialisation' (Licini, 2020, p. 10-11) – at least, not before the aforementioned increase detected by the provincial tabulations in the first decade of the 20th century. Indeed, compared to her results, we can add, following section 5, that Milan and the other industrially advanced areas of Italy were not exceptionally unequal in regional and provincial comparisons.

Not surprisingly, the top 1% is more volatile, due to the lower number of observations; some increase is evident only in the very first years, in which the volatility is the highest due to the even lower number of declarations. Interestingly, however, this measure is even closer to the first national tabulations. All in all, even in the financial and industrial centre of Italy's first industrial 'take-off', estates do not show any clear sign of an30ncreasee in wealth concentration. Our analysis allows us to compare Milan to the rest of the country: as for Naples, and both provincial estimates, the level of the series is just above the national one. It is thus tempting to conclude that, in the absence of major redistributive reforms, given the limited impact of structural change even in Milan, Italian

---

[23] For earlier years, we thus used the 1872 multiplier. The absence of local multipliers is disappointing, given that both coeval observers and modern historians discussed at length how Milanese mortality rates exceeded the national average in all age brackets (Mortara, 1908, p. 174; Hunecke, 1982, pp. 122-143). This was the case for all major urban centres, including Naples; the case of Milan was peculiar because this differential persisted across all age groups.

[24] For Milan, the average discrepancy between the external total and identified wealth total observed at the national level between 1890 and 1894 was 27.33%. To check the robustness of the assumption, we carry out the estimations using a second total obtained by scaling down national wealth totals by the ratio between the value of estates transmitted in Milan and the overall value recorded for Italy. As documented in the Appendix, Figure A 21, the two totals are reassuringly similar, as the resulting estimates (Figure A 22).

[25] Following Hunecke (1982), figures were corrected to account for an inconsistent reporting of age groups in the 1901 census, and it was necessary to adopt a slightly different definition of the adult population, which is people older than 18.

wealth concentration arguably remained high and stable from the very early days of the Kingdom to the outbreak of the Great War.

Figure 10 – Wealth Concentration (Top 10%): Milan, Naples, and Italy, 1863-1914
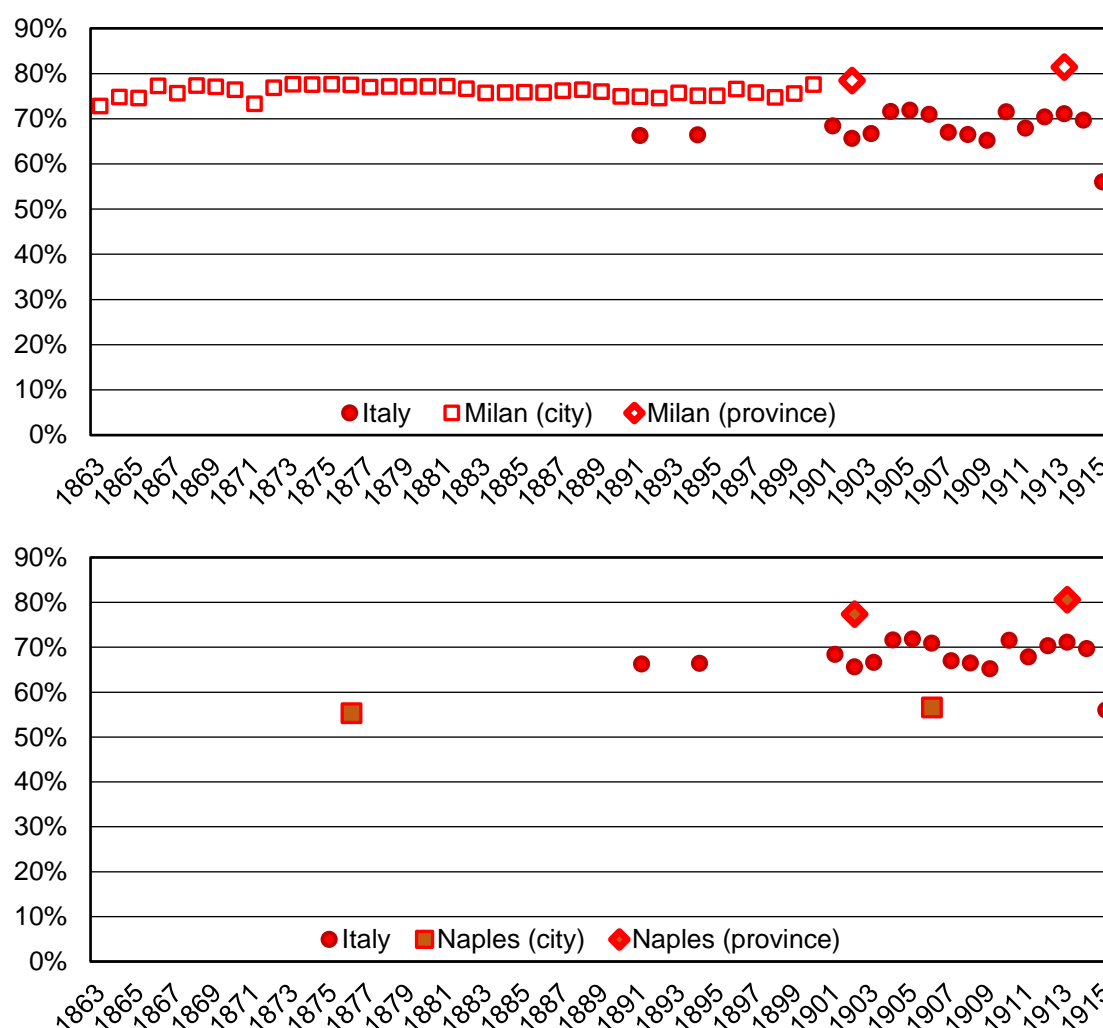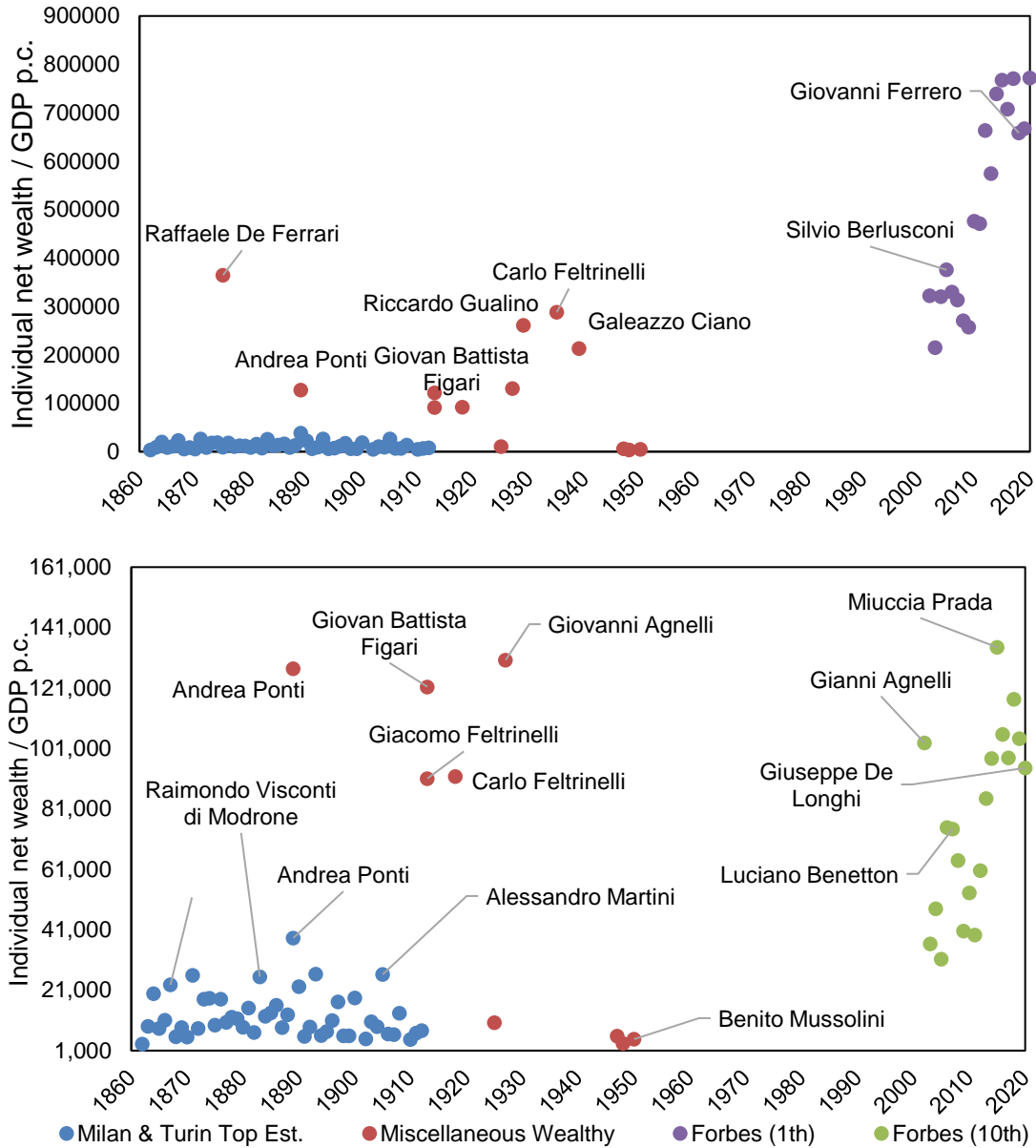

Source: elaborations on Licini (2020), MAIC (1874, 1883, 1902), Hunecke (1982), and HMD.

The Real Wealth of Italian 'Rich', 1862-2020

Micro-data on estates makes also possible to discuss the 'real' value of the richest fortunes throughout historical periods. Indeed, face-value or even price-adjusted comparisons are not very insightful: for this reason, following Adam Smith, Milanovic (2010, pp. 41-45), suggested, measuring the wealth of a man 'according to the quantity of labor which he can command'. Following Milanovic (2010), in Figure 11 we show the 'real' value of the richest estates reported in the literature on wealth in liberal Italy. Moreover, the graph includes evidence of noteworthy individual fortunes from secondary sources from business and economic history, and, for the last two decades, the individuals reported yearly by *Forbes Magazine*.

Figure 11 – The 'Real' Fortunes of Wealthy Italians, 1862-2020

Source: elaborations on per capita GDP from Baffigi (2015); individual estate records from Licini (2020) and Cardoza (1995); fortunes of the top and tenth richest Italian according to *Forbes* World's Billionaires lists from 2002 to 2020, and miscellaneous evidence on wealthy Italians, discussed in the main text.

Under this metric, the fortunes of today's super-rich Italians, such as *Nutella*'s Giovanni Ferrero, would be worth more than 700,000 times the average income, entirely overshadowing their 'forefathers' – including the quintessential rich of Roman history, the 'fabulously rich triumvir Marcus Crassus', that according to Milanovic (2010, p. 42), was 'worth' c. 32,000 average roman incomes of his times. Crassus' wealth is comparable with the value of 19th-century millionaire estates; the heir of the Milanese noble family, Visconti di Modrone, was worth 25,000 times the average income in 1883. To get meaningful comparisons, we have to adjust the scale, limiting it to the tenth-richest

Italians today: the richest estate, the textile producer, Andrea Ponti, would barely enter this 'club'. In his survey of the family archives of Genoese aristocracy, Tolaini (2022) documents the impressive 131 million lira held by Raffaele de Ferrari – an exceptional nobleman who had 'invested in many European railway societies and played an important role in the establishment of the modern banking'. The richest of this sample, de Ferrari's wealth is worth just below the late Silvio Berlusconi in 2005. For the interwar, no systematic source is available, but some information is reported by secondary literature, such as the biography of Fiat founder, Giovanni Agnelli (Castronovo, 1977, p. 334), the history of the Feltrinelli family by Segreto (2011), or the fortunes of some of the leading figures of the fascist regime, collected by Volpini and Canali (2019).

According to this rather unsystematic survey, the only comparable fortune was the very particular document reported by Guarino and Toniolo (1993, pp. 608-613) on the controversial businessman Riccardo Gualino, when listing his private wealth as collateral for the bailout of his own *Snia Viscosa*. The scattered information just presented could suggest that by the 1920s, with the broader transformations experienced by Italy during and after the Great War, similar fortunes were no more a matter of a few, super-rich nobles. In line with evidence from labour shares (Gabbuti, 2021), the interwar decades, for both economic and political reasons, could thus be a better period to look for substantial shocks to the concentration of wealth – especially to the top 1%, that could have possibly converged to other European countries in this period. On the other hand, this metric provided us with a very different impression than Figure 1 and Figure 6: the 'real' wealth of the richest Italians of the 19th and 20th centuries was nothing close to the early 21st century millionaires.

7. Wealth Concentration in Italy in The Long Run

After the extensive analysis of estate data carried on in this paper, we have assembled a sizeable set of evidence, at the national and subnational level, on wealth inequality in Italy, from 1872 to 1913. As discussed in the introduction, similar estimates were already available not only for the last three decades (Acciari et al., forthcoming), but for several centuries before the Unification of the country. Indeed, as shown in Figure 12, the combination of urban, provincial, regional, and national figures allows us to offer a very long-run series of wealth inequality in Italy; one that fully exploits the wealth of estimates available for Italian early modern states and cities. Indeed, while Alfani (2021, p. 37), compared 'an average of the Sabaudian State, the Florentine State, the Kingdom

of Naples (Apulia), and the Republic of Venice' and one of France, UK, and Sweden (our terms of comparisons in Figure 1), we obtain a very similar trend by comparing homogeneous territorial entities. We then extrapolate back to 1863 our national figures, relying on the trend of the series for Milan presented in Figure 10. We take advantage of the availability of a richer set of regional figures to increase the inter-temporal comparability of the national series, derived in Alfani (2021) as a simple average of the four available regions. In 1902-03, the average between the same four regions[26] was some 5 percentage point higher than the actual national figures, and even showed some increase between that year and 1913-14. To account for the limited selection of regions, we rescale down the pre-1800 national series by the same proportion.

In terms of sources and methodology, as discussed in section 2, our series are entirely consistent with those adopted by Acciari et al. (forthcoming): while modern data is more detailed, we ensured the greatest inter-temporal comparability, by selecting the most consistent specification among their estimates. Pre-19th century estimates are based on a conceptually similar, but different source, property tax records, which does not require the application of mortality multipliers.

Figure 12 – Wealth Inequality in the (Very) Long Run: Italy and Its Regions
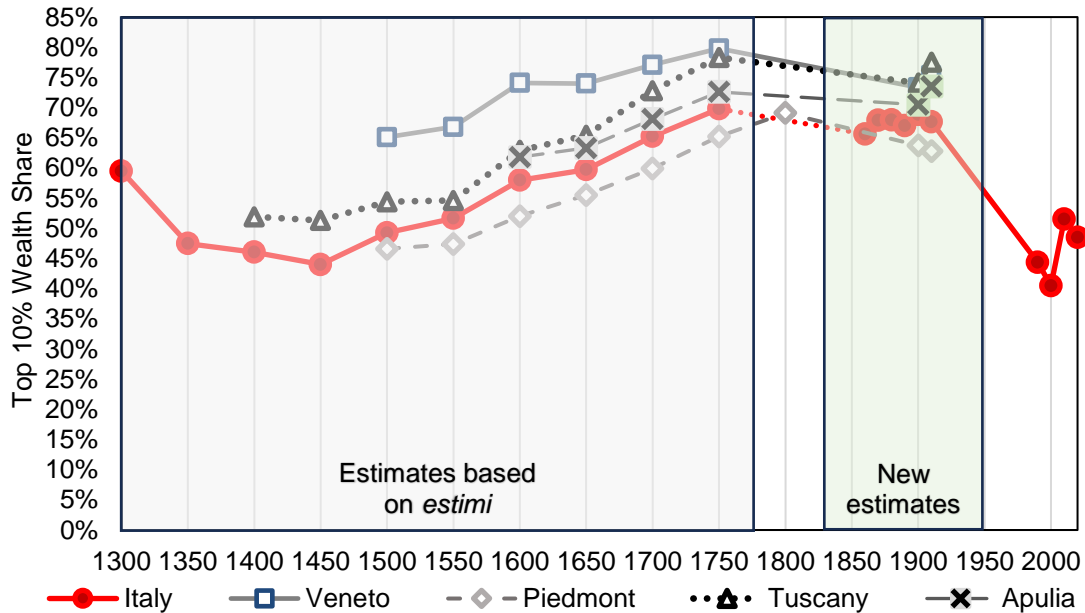
Sources: authors' elaborations on Alfani (2017), Alfani and Di Tullio (2019), Acciari et al. (forthcoming), and Figure 10. Italy before 1750 is the average between the regional series, scaled down by the difference

---

between the average of the same regions and national figures in 1902. New estimates are decadal averages of national figures, and before 1890, of their projections by means of the Milan series.

As summarised by Alfani (2021, p. 10), after the decline arguably induced by the Black Death, in Italy 'from circa 1450 or 1500 until 1800, economic inequality (of both wealth and income) has tended to increase almost monotonically'. Just as the average of continental European countries in Alfani's graph, the first, truly 'Italian' figures from the late 19th century are very close, when considering the differences in the underlying sources, to the levels reached at the end of this long-run increase. However, at least until the Great War, the following story seems different: throughout the 19th century, Italian wealth concentration remained stable around that level. This result is confirmed by most subnational series; moreover, relative 'rankings' seem pretty stable across centuries, with Apulia in between the unequal Veneto and the less concentrated Piedmont; the only exception is Tuscany, rising from Apulian to Venetian levels, and beyond; but also this trend seems to originate much earlier then unification. It would be tempting to see some of these regions as stereotypical examples of different land property regimes: while Apulia saw the presence of the infamous Southern latifundia, and Piedmont was traditionally dominated by small, independent farmers, Tuscany was the quintessential example of a sharecropping area – resulting in most rural workers having no 'property' in the strict sense. On the other hand, Alfani and Di Tullio (2019) extensively discussed the extractive, regressive nature of the Republic of Venice fiscal state as a key driver of the high wealth inequality in the *Serenissima*, a (partially) distinctive feature lost from the early 19th century. On the other hand, if we go back to the comparisons with Germany from section 4, the similar level of the mid-19th century originated from very different stories: contrary to the increasing concentration resulting from sustained structural change, as in the German case, Italian evidence seems to highlight the persistence of pre-industrial and pre-unification local elites of landowners, in line with the local studies mentioned in section 3. Further research on the determinants of the provincial estimates presented in section 5 could test the importance of fiscal and land regimes; in any case, Figure 12 testifies that even at the end of the first "industrial take-off", both national figures and regional differences in wealth concentration persisted from the preindustrial period.

In dynamic terms, Alfani (2021, pp. 4-5) noted that his early-modern contradicts the implicit assumption in Kuznets (1955), 'that before circa 1800 or 1750 at the earliest, income inequality was relatively low and stable over time', challenging the role of

economic growth as the main explanation for the rise of inequality. When considering our new long-run comparisons, Italy emerges as an extreme case; one in which, after centuries of increase, wealth inequality plateaued (or even if it increased, it did so at a much lower rate) precisely when modern economic growth started, and income inequality started to decline. While explicitly addressing the 'personal distribution of income', Kuznets (1955) discussed 'forces' of inequality change that could apply also to wealth inequality: among those increasing inequality in the long run, he listed 'the concentration of savings in the upper-income brackets'; among the 'factors counteracting' concentration, on the other hand, he mentioned 'legislative interference and "political" decisions"', that might be 'aimed at limiting the cumulation of property directly through inheritance taxes and other explicit capital levies', as well as the 'diminishing proportional weight' of the 'property assets that originated in older industries' resulting from technological change. Indeed, as we have seen, 'Kuznetsian' arguments were implicit in Porru's (1912) comparison of estate concentration across Italian regions; based on his and others' results, Gini (1914, pp. 495) also discussed the 'direct relationship between wealth concentration and average wealth, apparently taking place across places, as well as over time'; Zamagni (1980, p. 139) herself mentioned Porru when comparing the lower level of concentration in Italian estates, compared to the UK.

How to interpret, then, the lack of support for Kuznets' hypothesis in the new Italian series? In post-unification Italy, the forces discussed by Kuznets could have been contrasted by others. As discussed in section 4, from the turn of the century, Italy 'hooked' the first globalisation (Toniolo, 2013): in a land-scarce, labour abundant country such as Italy, the factor-price convergence associated with the Heckscher-Ohlin model, and the massive flows of Italian emigrants, arguably counterbalanced the concentrating tendencies of industrialisation – a result 'confirmed' by the stability of the capital and labour shares between 1895 and 1915 (Gabbuti, 2021). On the other hand, as discussed, it is not immediate to see these forces at work when looking at regional disaggregation. Subnational figures (including those of Milan), in line with wealth composition, would rather suggest the limited level of structural change experienced by most of Italy in this period: to look for a Kuznetsian story, like the German one, we should arguably look at later periods.

8. Conclusions

In this paper, we took advantage of several different sources to contribute to the history of private wealth and inheritance in modern Italy, as well as their personal and regional distribution. We presented refined figures of the wealth-to-income ratio from 1861 to 1938, and the first estimates of the flow of inheritance as a ratio of national income for 1864-1914: when compared to more recent figures, both series show a marked U-shape – somehow at odds with the revised estimates for other countries. Before the first industrialisation experienced in the early 20th century, Italy was an economy dominated by private wealth, ranging between 7 and 8 times national income. These levels, hardly matched by other economies, have been reached again in the aftermath of the three decades of stagnation and recession that followed the 1992 crisis. While not confirming the cross-country comparison, estate flows also followed a marked U-shape trajectory, reaching only in the aftermath of the Great Recession the high level of the late 19th century.

Estates also allowed us to investigate wealth concentration in the period. First, we took advantage of the surviving official tabulations to obtain consistent estimates of wealth concentration between 1890 and 1913, disaggregated at the provincial and regional level for 1902 and 1913. In light of the recent literature (Berman and Morelli, 2022), despite the lack of detail on the gender and age of the decedents, the resulting sources are suitable to consistently estimate wealth concentration. Taking advantage of archival microdata, collected by historians in Milan and Naples, we extended our series back to 1862, thus presenting a novel set of results on wealth concentration for Italy, its regions and provinces, from the country's Unification and the Great War. While greatly improving the existing knowledge on historical economic inequality in Italy, the first result of the paper was to prove the reliability of the sources produced by the working of inheritance tax, resulting from a discussion of the tax and the sources themselves, the similarity between their composition and external sources on private wealth, as well as their ability to reflect income gaps at the provincial and regional level. Moreover, the detailed evidence available for Naples allowed us to confirm that these sources are not affected by the lack of detail on the age and gender of the decedents, as traditionally believed in the literature.

At the national level, we could thus offer a new picture, at odds with the established one on income inequality: wealth concentration was high, and stable (if

anything, moderately on the rise) in liberal Italy. The richest decile of Italian adults accounted for some 70-75% of the total private wealth, and the top percentile around 40-45%, for the whole period. Very similar levels were also experienced in the city of Milan – which both in theory and in the light of provincial figures, was at the 'frontier' of wealth concentration in the period – from 1862 to 1900: we interpret this evidence as a further sign of stability of Italian top wealth shares in the late 19th and early 20th century. These high levels were just below, or in line, with those of more advanced economies, and possibly the highest ever recorded in Italy since the late Middle Ages. This result is an important contribution to the literature on long-run wealth inequality: in Italy, its increase would have halted precisely at the start of modern economic growth, after centuries of increase despite economic stagnation. From a not-so-long-run perspective, the sharp increase in wealth concentration experienced by Italy at the beginning of the 21st century did not bring it back to the 19th century. On the other hand, a discussion of the "real" wealth of the rich – expressed, in line with Smith (via Milanovic), according to the number of yearly minimum or unskilled wages that could be bought using that wealth – suggests that contemporary millionaires enjoy a level of richness never experienced in any period of Italy's "united" history.

Our regional and provincial level estimates are the first historical evidence on the interplay between personal and regional inequality, at this level of breakdown, and for such an earlier period. As for other metrics, the virtue of disaggregation revealed very different histories of inequality across Italy. The stability of wealth concentration hides substantial heterogeneous patterns across and within regions; inequality does not show a clear North-South divide, nor a clear correlation with asset composition, or relative development. A comparison with estimates for early-modern Italian states suggests that regional differences in wealth concentration originated in earlier historical periods and persisted for centuries, pointing to factors other than economic growth. While we suggested the potential role played by land property regimes, more extended comparisons could also discuss the impact of the same political Unification, and the change in taxation, the wealth of elites across the new Kingdom, and its concentration.

The evidence collected also offers the impression of a country that, at the outbreak of the Great War, was still at a very early stage of structural change. Wealth composition figures for the early 20th century show the high, stable role played by land, at least until the Great Depression, revealing the limited impact of the first industrialisation of the

country on its stock of private wealth. In comparative terms, the composition of Italian wealth is extremely tilted towards land when compared to both France and the UK. This picture was reinforced by the regional evidence on the composition of declared estates – remarkably similar across most provinces, with only a few cities, scattered from North to South, showing more considerable shares of movable assets. While, as discussed, we could not observe any "Kuznetsian" increase in inequality, even regional rankings seem to reflect secular, pre-industrial dynamics. Bringing wealth back into the literature thus reinforces the so far isolated, "pessimist" interpretation of Liberal Italy by Fenoaltea, against the 'optimist' mainstream, starting from Gerschenkron (1962). In the words of Fenoaltea (2011, p. 2): 'In the half-century that followed Unification, Italy … emerged from the broad ranks of the still traditional, stagnant economies: that by itself was a considerable achievement. … It contained its lag behind the leaders, but did not reduce it; its development remained weak, partial, disappointing', as proved by the massive emigration, slowed down only by the Great War; the same war was to prove the 'lamentable economic weakness' of the country.

Unfortunately, the Great War, and the abolition of inheritance tax in 1923, stopped the publication of nationally represented tabulations. This is unfortunate, considering that both the war and the following, Fascist period, represented major deviations in Italy's long-run decline in income inequality (Gabbuti, 2021), and would call for an exploration of the effects of the 1923 abolition of inheritance tax (Gabbuti, 2023a), as well as to look for the wealth of "new" rich as those discussed in Figure 11. However, the sources and methods developed in this paper, as well as the discussion of private wealth levels and composition, would make it possible to extend the Italian series to these periods, as well as to the post-WWII "Economic Miracle", bridging the 'hole' between Cannari and D'Alessio (2018) and Acciari et al. (forthcoming) figures. As discussed by Berman and Morelli (2020), these methods could be fruitfully applied also to other similar historical evidence from other countries, to extend our knowledge of the history of wealth and its distribution. Indeed, Italy's example shows the importance of looking at wealth in economic history, even for periods in which modern national accounts are available.

References

Acciari, P., Alvaredo, F. & Morelli. S. (forthcoming). 'The concentration of personal wealth in Italy: 1995-2016', *Journal of European Economic Association*.

Acciari, P., & Morelli. S. (2020). 'Wealth Transfers and Net Wealth at Death: Evidence from the Italian Inheritance Tax Records 1995–2016', *NBER Working Paper* w27899.

Albers, T., Bartels, C., & Schularick, M. (2022). Wealth and Its Distribution in Germany, *1895-2018, CESIfo Working Papers* 9739.

Alfani, G. (2017). 'The rich in historical perspective: evidence for preindustrial Europe (ca. 1300–1800)', *Cliometrica,* 11: 321–348.

--- (2021). 'Economic Inequality in Preindustrial Times: Europe and Beyond,' *Journal of Economic Literature*, 59/1: 3-44.

--- (2022). 'Economic Inequality in Preindustrial Germany, ca. 1300–1850', *The Journal of Economic History*, 82: 87-125.

Alfani, G., & Di Tullio, M. (2019). *The Lion's share: Inequality and the rise of the fiscal state in preindustrial Europe*. Cambridge: Cambridge University Press.

Alvaredo, F., Atkinson, A. B., & Morelli, S. (2018). 'Top Wealth Shares in the UK over More than a Century,' *Journal of Public Economics*, 162: 26-47.

Alvaredo, F., Garbinti, B. & Piketty, T. (2017). 'On the Share of Inheritance in Aggregate Wealth: Europe and the USA, 1900–2010', *Economica*, 84: 239-260.

Amendola, N., Brandolini, A. & Vecchi, G. (2011). 'Disuguaglianza', in G. Vecchi (ed.), *In ricchezza e in povertà*. Bologna: il Mulino, pp. 235-269.

Amendola, N. & Vecchi, G. (2017). 'Inequality', in G. Vecchi (ed.), *Measuring Wellbeing: A History of Italian Living Standards Since 1861*. Oxford: Oxford University Press, pp. 293-332.

Atkinson, A. B. (2005). 'Top Incomes in the UK over the 20th Century', *Journal of the Royal Statistical Society*, 168/2: 325-343.

Atkinson A. B. & Harrison, A. J. (1975). 'Mortality Multipliers and the Estate Duty Method,' *Oxford Bulletin of Economics and Statistics*, 37: 13-28.

--- (1978). *Distribution of Personal Wealth in Britain*. Cambridge: Cambridge University Press.

Baffigi, A. (2008). 'Estimates of Private Wealth in Italy after Unification: Historiography and Statistical Method,' *Bank of Italy Research Paper*, No. A11.

Baffigi, A. (2015). *Il PIL per la storia d'Italia*: Venice: Marsilio.

Banti, A. M. (1983) 'Una fonte per lo studio delle élites ottocentesche: le dichiarazioni di successione dell'Ufficio del Registro', *Rassegna degli Archivi di Stato*, 43: 83-118.

--- (1996). *Storia della borghesia italiana*. Rome: Donzelli.

Barbagallo, F. (2015). *Napoli bell'époque*. Rome-Bari: Laterza.

Bengtsson, E., Missiaia, A., Olsson, M. & Svensson, P. (2018). 'Wealth Inequality in Sweden,' *The Economic History Review*, 71: 772-794.

Bengtsson, E., Missiaia, A., Nummela, I. & Olsson, M. (2019). 'Unequal poverty and equal industrialization: Finnish wealth, 1750–1900', *Scandinavian Economic History Review*, 67: 229-248.

Berman, Y., & Morelli, S. (2022). 'On the Distribution of Estates and the Distribution of Wealth: Evidence from the Dead,' in R. Chetty, J. N. Friedman, J. C. Gornick, B. Johnson and A. Kennickell (Eds.), *Measuring and Understanding the Distribution and Intra/Inter-Generational Mobility of Income and Wealth*, NBER Volume. Chicago: University of Chicago Press.

Caglioti, D. L. (1994). 'La gerarchia del denaro: successioni e patrimoni a Catanzaro nel XIX secolo', *Studi Storici*, 35: 489-509.

Cannari, L., & D'Alessio, G. (2018). 'Wealth Inequality in Italy: Reconstruction of 1968-75 Data and Comparison with Recent Estimates', *Rivista di storia economica*, 34: 357-396.

Cannari, L., D'Alessio, G., & Vecchi, G. (2017). 'Wealth', in G. Vecchi (ed.), *Measuring Wellbeing: A History of Italian Living Standards Since 1861*. Oxford: Oxford University Press, pp. 373-414.

Cardoza, A. (1995). 'La ricchezza e i ricchi a Torino, 1862-1912', *Società e Storia* 68: 297-340.

Castronovo, V. (1977). *Giovanni Agnelli. La FIAT dal 1899 al 1945.* Turin: Einaudi.

Chiaiese, D. (forthcoming). 'Unveiling the Roots: A Reconstruction of Italy's Value-Added at Provincial Level, 1871-1911', *Rivista di storia economica/Italian Review of Economic History.*

De Stefani, A. (1921). *La dinamica patrimoniale nell'odierna economia capitalistica.* Padua: La Litotipo.

De Vita, A. (1933). 'La ricchezza privata dell'Italia al 1928 e la sua ripartizione regionale', *La vita economica italiana*, 2: 48-64.

Federico, G., Natoli, S., Tattara, G., & Vasta, M. (2012). *Il commercio estero italiano. 1862-1950*. Rome-Bari: Laterza.

Federico, G., & Incerpi, A. (2023). Italy's lost decades: trade, capital flows and economic policy after Unification, *Discussion papers, E-papers of the Department of Economics e Management – University di Pisa.*

Felice, E. (2011). 'Regional Value Added in Italy, 1891–2001, and the Foundation of a Long-term Picture', *The Economic History Review,* 64: 929-950.

Felice, E., & Vecchi, G. (2015). Italy's Growth and Decline, 1861-2011. *The Journal of Interdisciplinary History*, 45: 507–548.

Fenoaltea, S. (2011). *The Reinterpretation of Italian Economic History*. Cambridge: Cambridge University Press.

Frascani, P. (1978). 'Per la storia della stratificazione sociale in Italia: i ruoli dell'imposta di ricchezza mobile', *Quaderni Storici*, 13: 1063-1114.

Gabbuti, G. (2020). 'Between Pareto and Gini: The Origins of Personal Inequality Measurement in Italy, 1894–1939', *History of Political Economy,* 52: 435-454.

--- (2021). 'Labor Shares and Inequality: Insights from Italian Economic History, 1895-1970', *European Review of Economic History*, 25: 355-378.

--- (2023a). Wealth and Ideology in Italy: The 1923 "Quasi Abolition" of Inheritance Tax and Fascists' "Middle Class Politics", *LEM Working Paper Series 2023/04.*

--- (2023b). 'Fiscal Sources and the Distribution of Income in Interwar Italy: The Italian Historical Taxpayers' Database,' *Annals of the Fondazione Luigi Einaudi*, 57 (in press).

Garbinti, B., Goupille-Lebret, J. & Piketty, T. (2017). 'Accounting for Wealth Inequality Dynamics: Methods, Estimates, and Simulations for France (1800-2014)', *Banque de France Working Paper* No. 633.

Gerschenkron, A. (1962). *Economic Backwardness in Historical Perspective*. Cambridge, MA: Belknap Press.

Gini, C. (1914). *L'Ammontare e la Composizione della Ricchezza delle Nazioni*. Turin: Utet.

Gomellini, M., O'Grada, C. & Vecchi, G. (2017). 'Migrations', in G. Vecchi (ed.), *Measuring Wellbeing: A History of Italian Living Standards Since 1861*. Oxford: Oxford University Press, pp. 215-254.

Guarino, G. & Toniolo, G. (eds.) (1993). *La Banca d'Italia e il sistema bancario, 1919-1936*. Rome-Bari: Laterza.

Human Mortality Database (HMD), https://www.mortality.org/

Hunecke, V. (1982). *Classe operaia e rivoluzione industriale a Milano, 1859-1892*. Bologna: Il Mulino.

Incerpi, A. (2019). 'Balancing the Current Account: Remittances and Tourism in Italy, 1861-1914', *Rivista di storia economica*, 35/3: 269-294.

Istituto centrale di statistica (Istat) (1957). Indagine statistica sullo sviluppo del reddito nazionale dell'Italia dal 1861 al 1956, *Annali di statistica*, Serie VIII, vol. 9.

Iuzzolino, G., Pellegrini, G., & Viesti, G. (2013). 'Regional convergence', in G. Toniolo (ed.), *The Oxford Handbook of the Italian Economy since Unification*. Oxford: Oxford University Press, pp. 572-597.

Katic, P., & Leigh, A. (2016). 'Top Wealth Shares in Australia 1915–2012', *Review of Income and Wealth*, 62: 209-222.

Kuznets, S. (1955). 'Economic growth and income inequality,' *American Economic Review*, 45: 1–28.

Licini, S. (2020). *Ricchi e ricchezza a Milano nell'Ottocento*. Rome: Tab edizioni.

Maccabelli, T. (2018). 'Quanto è ricca l'Italia? La costruzione di un sapere nazionale (e transnazionale)

tra otto e novecento', *Il pensiero economico italiano*, 26: 11-26.

Macry, P. (1988). *Ottocento. Famiglia, élites e patrimoni a Napoli*. Turin: Einaudi.

--- (1990). 'La città e la società urbana', in P. Macry & P. Villani (eds.), *Storia d'Italia, Le regioni dall'Unità a oggi. La Campania.* Turin: Einaudi, pp. 91-182.

Madsen, J. B. (2019). 'Wealth and inequality over eight centuries of British capitalism,' *Journal of Development Economics*, 138: 246-260.

Mallet, B. (1908). 'A method of estimating capital wealth from the estate duty statistics,' *Journal of the Royal Statistical Society*, 71: 65–101.

Milanovic, B. (2010). *The haves and the have-nots: A brief and idiosyncratic history of global inequality*. New York: Basic Books.

Ministero di agricoltura, industria e commercio, Direzione generale della statistica (MAIC) (1874), *Censimento 31 dicembre 1871*. Rome: Stamperia Reale.

--- (1883). *Censimento della popolazione del Regno d'Italia al 31 dicembre 1881*. Rome: Tipografia Bodoniana.

--- (1902). *Censimento della popolazione del Regno d'Italia al 10 febbraio 1901*. Rome: Tipografia Nazionale di G. Bertero.

--- (1914). *Censimento della popolazione del Regno d'Italia al 10 giugno 1911*. Rome: Tipografia Nazionale di G. Bertero.

Ministero delle Finanze, Direzione generale del demanio delle tasse e sugli affari (MEF) (1901-1919). *Bollettino di statistica e di legislazione comparata*, Voll. I-XVIII.

Mortara, G. (1908). *Le popolazioni delle grandi città italiane - studio demografico*. Torino: Utet.

Nitti, F. S. (1905). *La ricchezza dell'Italia: quanto è ricca l'Italia: come è distribuita la ricchezza in Italia*. Turin: Roux & Viarengo.

Pantaleoni M. (1891). Delle regioni d'Italia in ordine alla loro ricchezza ed al loro carico tributario, *Giornale degli Economisti*, Serie seconda, 2: 48-89.

Piketty, T. (2014). *Capital in the 21st Century*. Cambridge, MA: Harvard University Press.

Piketty, T., Postel-Vinay, G., & Rosenthal, J.-L. (2006). 'Wealth Concentration in a Developing Economy: Paris and France, 1807–1994', *The American Economic Review*, 96: 236-256.

Piketty, T., & Zucman, G. (2014). 'Capital is back: Wealth-income ratios in rich countries 1700–2010'. *The Quarterly Journal of Economics*, 129: 1255-1310.

--- (2015). 'Wealth and inheritance in the long run,' in A. B. Atkinson & F. Bourguignon (eds.), *Handbook of Income Distribution*, Vol. 2B, Amsterdam: Elsevier, pp. 1303-1368.

Porru, E. (1912). *La concentrazione della ricchezza nelle diverse regioni d'Italia*. Cagliari: Tip. G. Dessì.

Retti-Marsani, S. (1936). 'Variazioni annuali della ricchezza italiana dal 1901 ai giorni nostri. Parte prima.', *La vita economica italiana*, 3: 19-29.

--- (1937a). 'Variazioni annuali della ricchezza italiana dal 1901 ai giorni nostri. Parte seconda', *La vita economica italiana*, 2: 35-45

--- (1937b). 'Variazioni annuali della ricchezza italiana dal 1901 ai giorni nostri. Parte terza e parte quarta,' 3: 33-55.

Rodotà, S. (2011). *Diritti e libertà nella storia d'Italia*, Rome: Donzelli.

Roine, J., & Waldenström, D. (2009). 'Wealth Concentration over the Path of Development: Sweden, 1873–2006', *Scandinavian Journal of Economics*, 111: 151–187.

Rossi, N., Sorgato, A., & Toniolo, G. (1993). 'I conti economici italiani: una ricostruzione statistica, 1890-1990', *Rivista di storia economica*, 10: 1-47.

Rossi, N., Toniolo, G., & Vecchi, G. (2001). 'Is the Kuznets Curve Still alive? Evidence from Italian Household Budgets, 1881-1961', *The Journal of Economic History*, 61: 904-925.

Saez, E., & Zucman, G. (2016). 'Wealth inequality in the United States since 1913: Evidence from capitalized income tax data'. *The Quarterly Journal of Economics*, 131: 519-578.

Segreto, L. (2011). *I Feltrinelli: Storia di una dinastia imprenditoriale (1854-1942)*. Milan: Feltrinelli.

Tivaroni, J. (1916). *L'imposta sulle successioni nella finanza contemporanea*. Turin: UTET.

Tolaini, R. (2022). 'The Genoese nobility: Land, finance and business from restoration to the First World War,' *Business History*, 64: 297-326.

Toniolo, G. (ed.) (2013). *The Oxford Handbook of the Italian Economy since Unification*. Oxford: Oxford University Press.

Vecchi, G. (ed.) (2017). *Measuring Wellbeing: A History of Italian Living Standards Since 1861.* Oxford: Oxford University Press.

Volpini, C., & Canali, M. (2019). *Mussolini e i ladri di regime*. Milan: Mondadori.

Zamagni, V. (1980). 'The Rich in a Late Industrialiser: The Case of Italy, 1800-1945', in W. D. Rubinstein (ed.)*, Wealth and the Wealthy in the Modern World.* London: Croom Helm, pp. 122-166.

Waldenström, D. (2021). 'Wealth and History: A Reappraisal', *CEPR Discussion Paper* 16631.

World Inequality Database (Wid.world).

Appendix

A. Aggregate Wealth

Figure A 1 – Alternative Totals for Private Wealth, 1862-1915
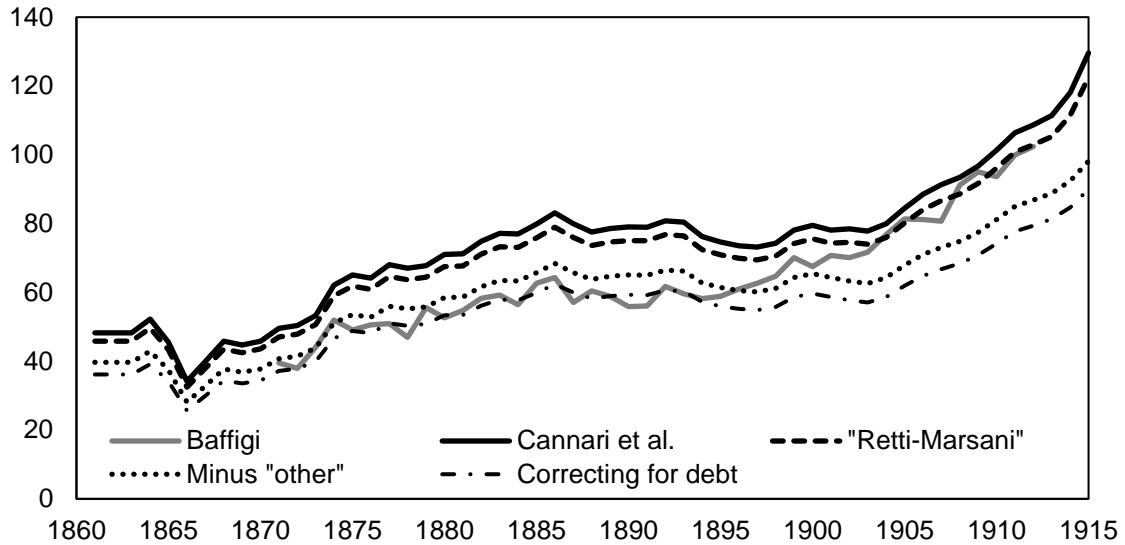
Source: authors' elaboration on Cannari et al. (2017), Baffigi (2008), Retti-Marsani (1936; 1937a; 1937b).

Figure A 2 – Private Wealth to Income Ratios in Italy, 1862-2016: Alternative Estimates
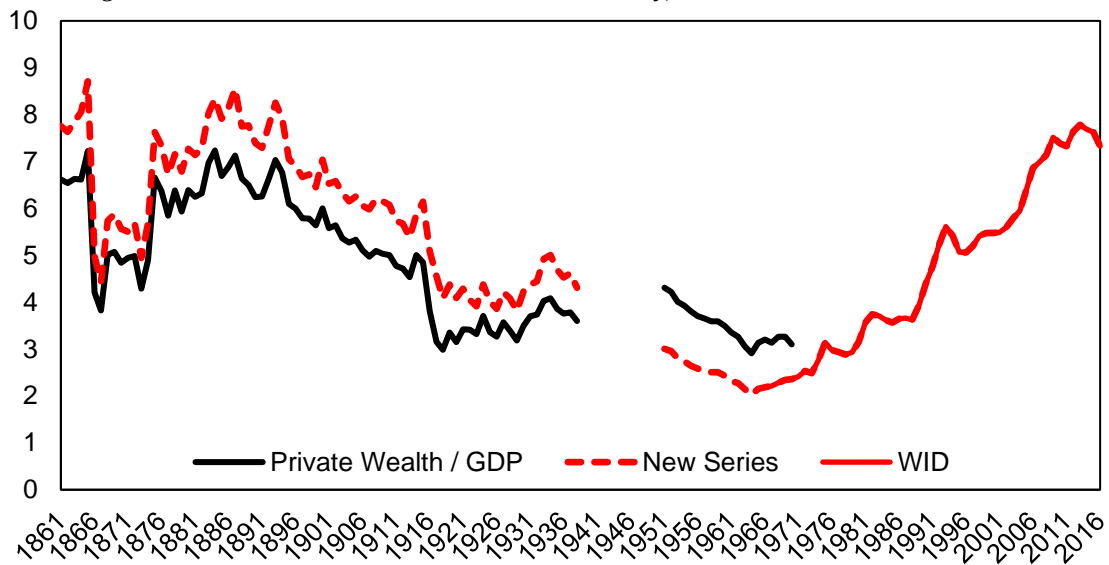
Sources: 'authors' elaborations. New Series' are Italy's series, presented in Figure 2; WID from Wid.world (retrieved 18/7/2023); 'Private wealth / GDP' obtained as ratio between private wealth from Cannari et al. (2017) and GDP from Baffigi (2015).

B. Mortality Multiplier

Figure A 3 – Aggregate Mortality Multipliers
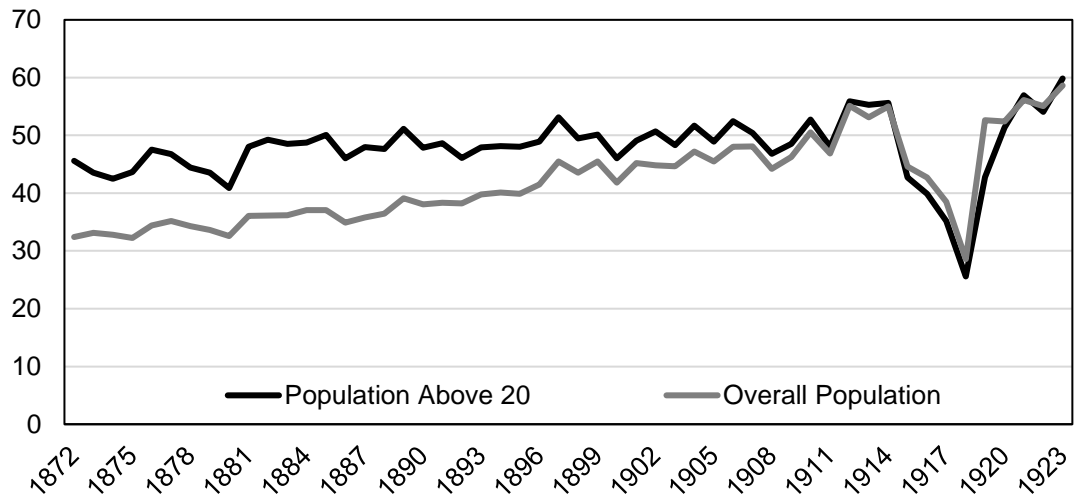
Source: authors' elaborations on Human Mortality Database.

C. The Working of Inheritance Tax: Rates, Returns, Evasion Estimates

Figure A 4 – Top Marginal Rates for Direct Wealth Transfers, 1862-1945
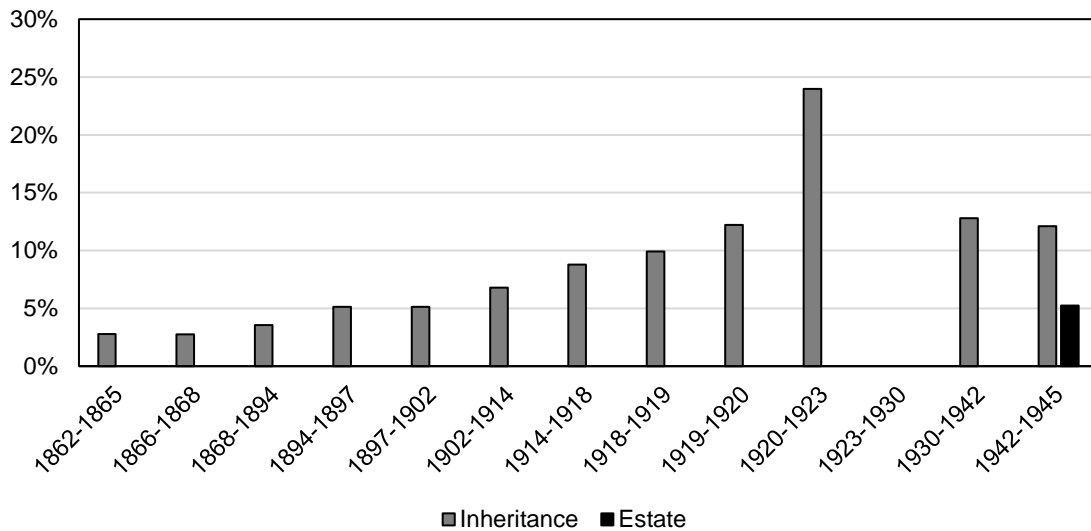
Source: authors' elaborations on official statistics, provided by Stefano Manestra.

Figure A 5 – Revenues from Inheritance Tax, 1862-1945
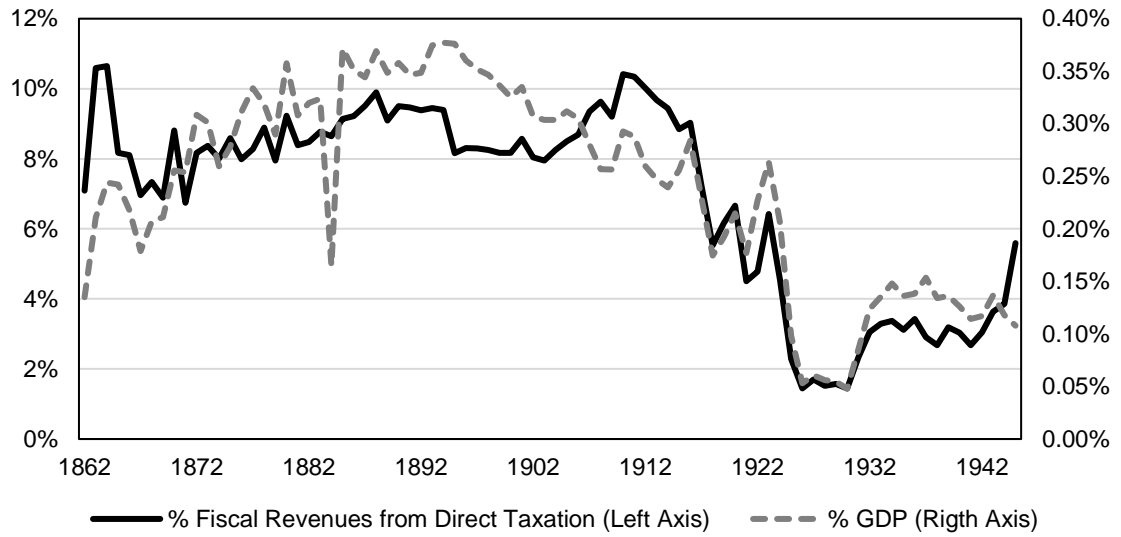
Source: authors' elaborations on official statistics, provided by Stefano Manestra, and Baffigi (2015).

Figure A 6 – Estimates of Inheritance Tax Evasion, 1893-1938
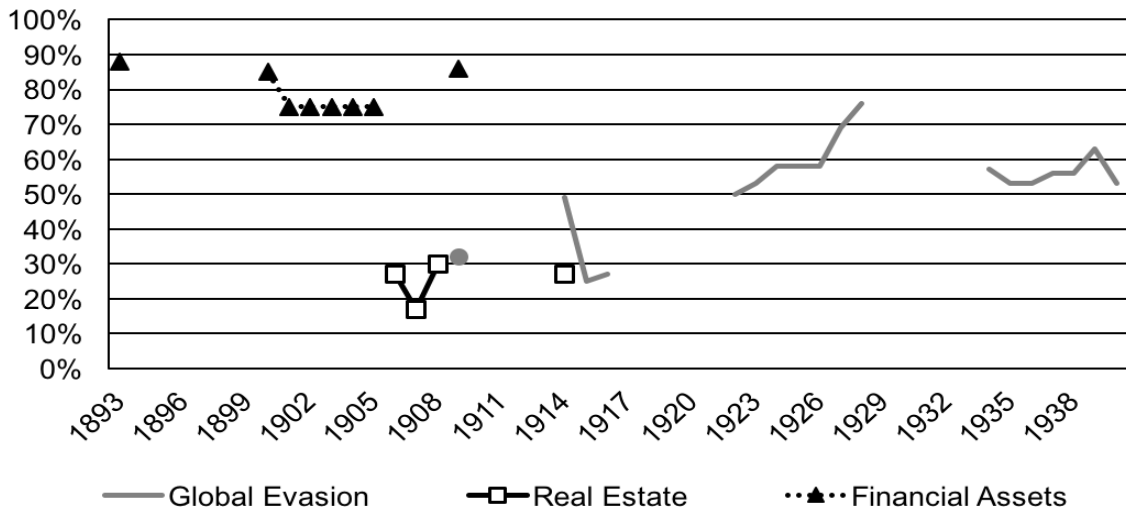
Source: authors' elaboration on Manestra (2010).

D. Reliability and Coverage of Italian Estate Data

Figure A 7 – Coverage of Deaths above 20, and Identified Total Private Wealth from Estates

Source: elaborations on estates from MEF (various years), mortality data from HMD, and total private wealth from Cannari et al. (2017). Estates reported by fiscal year from 1884-1885.

Figure A 8 – Estate Coverage and Share of Ownership
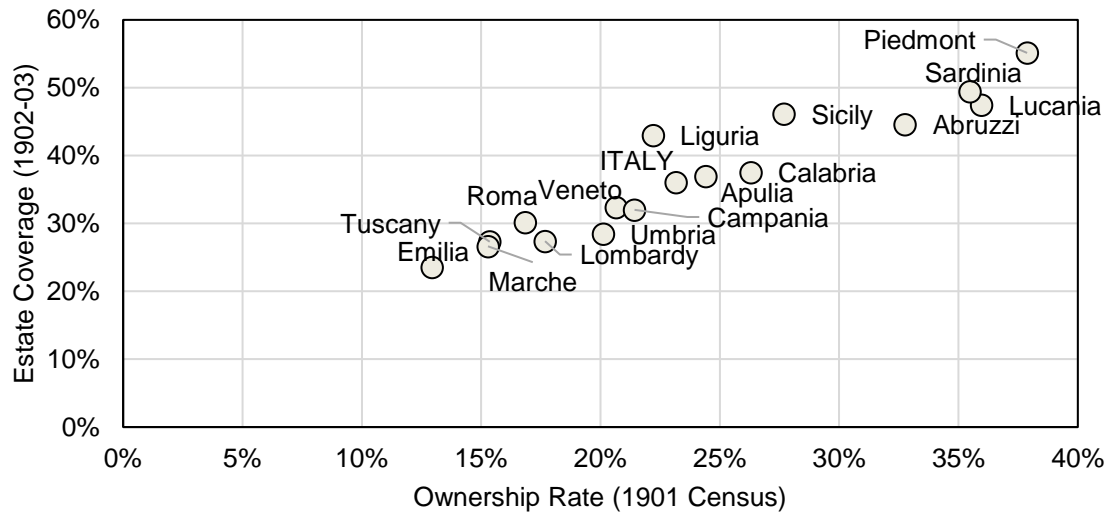
Source: elaborations on MAIC (1903; 1904) and MEF (1903). Estate coverage is the ratio between declared estates and adult deaths. Ownership rate refers to individuals above 22 years of age.

Figure A 9 – Composition of Total Estates and Wealth in Italy, 1901-1913
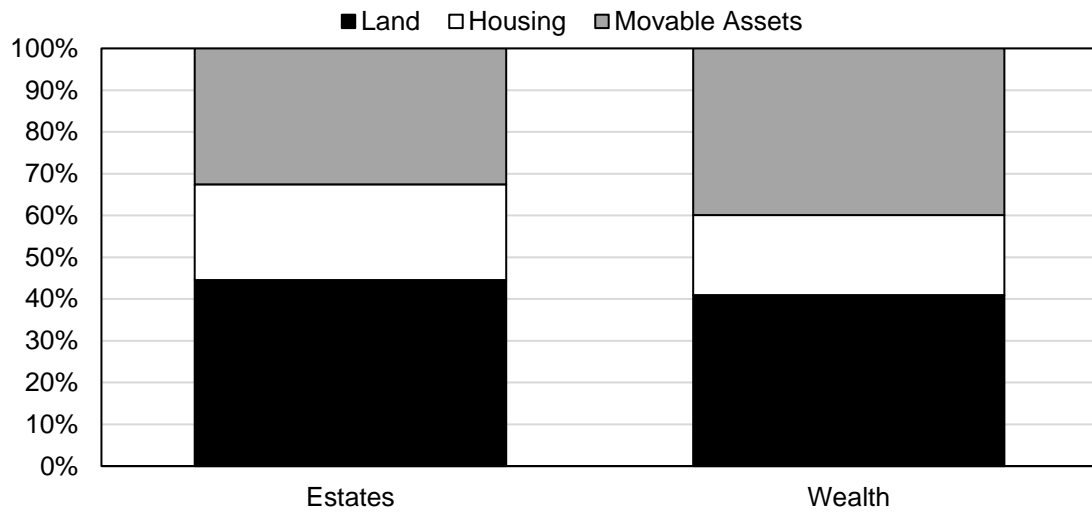
Source: elaboration on official estate data, reported by Baffigi (2008), and the wealth composition by asset reported in Retti-Marsani (1936; 1937a; 1937b).

**Figure A 10 – Identified Wealth Total, 1872-1915**
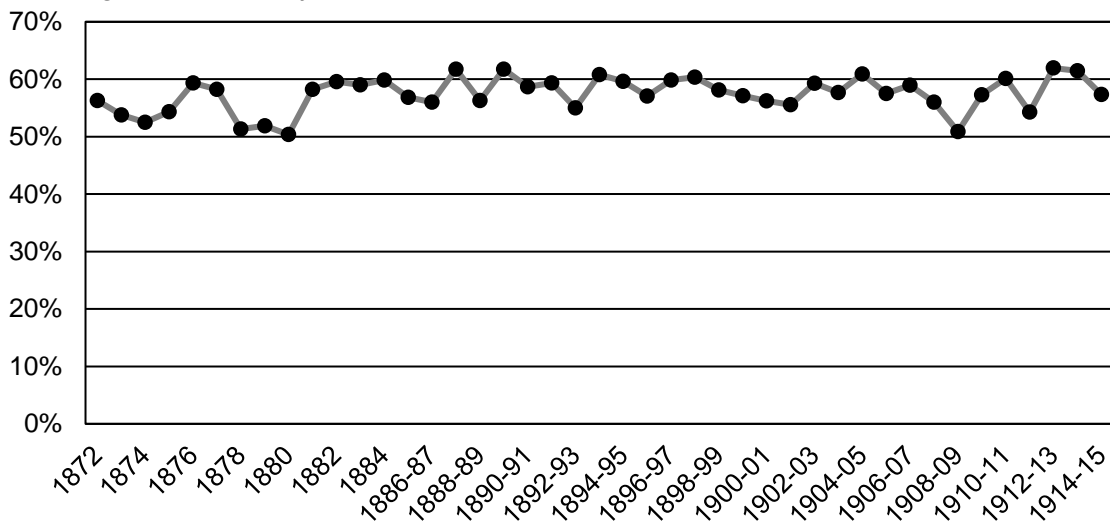
Source: elaborations on estates from MEF (various years), mortality data from the Human Mortality Database (2017), and total private wealth from Cannari et al. (2017).

*Figure A 11 – Percentage of Debt in Declared Estates and Retti-Marsani's Wealth Estimates*
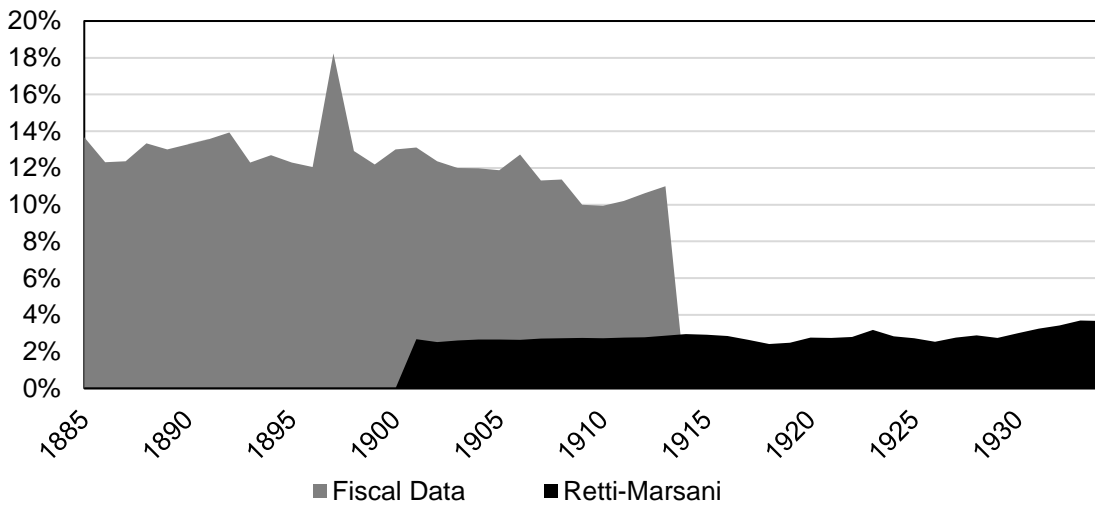
Source: authors' elaboration on Baffigi (2008) and Retti-Marsani (1936; 1937a; 1937b). Ratios are about net totals.

Figure A 12 – Total Estates: Official Estimates vs. Estimation from Tabulated Data
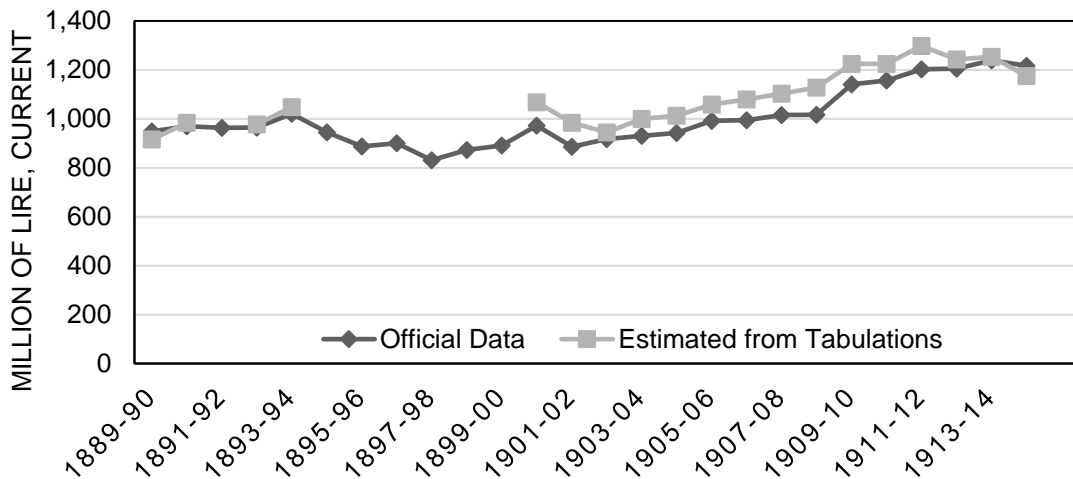
Source: authors' elaborations on official data, collected from Baffigi (2008) for 1872 to 1884-85; from MEF (1903-04) for 1885 to 1902-03; from MEF-DG (1914) from 1904-05 to 1913-14.
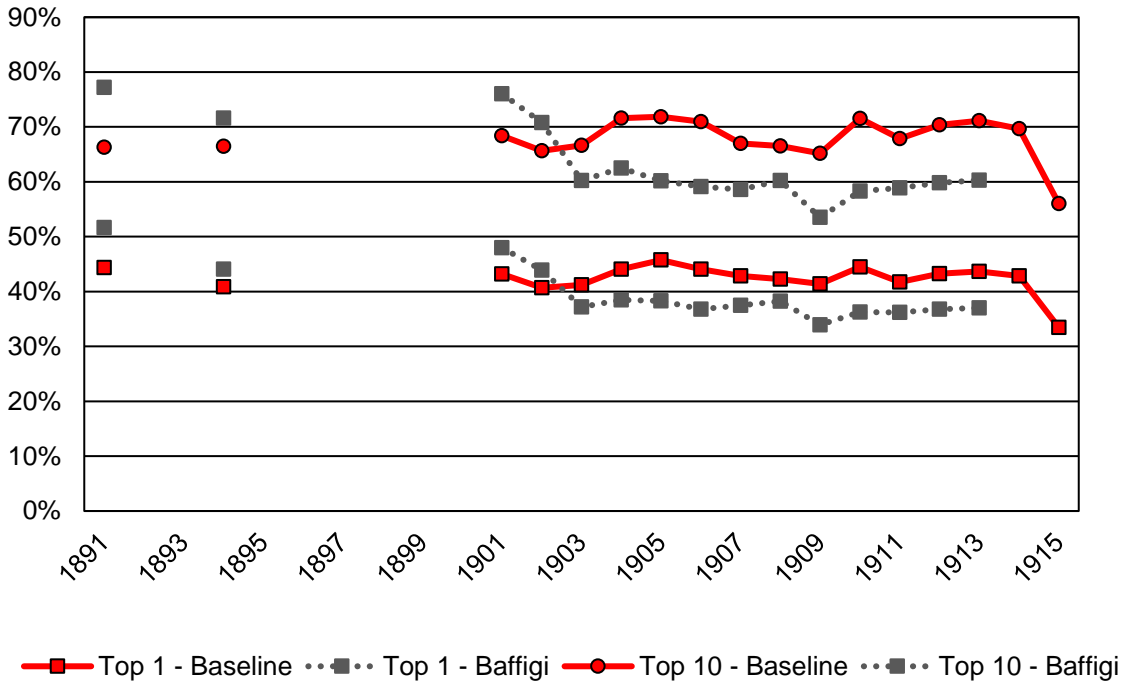
Figure A 13 – Province-Level Comparisons between Estate and Value Added Data
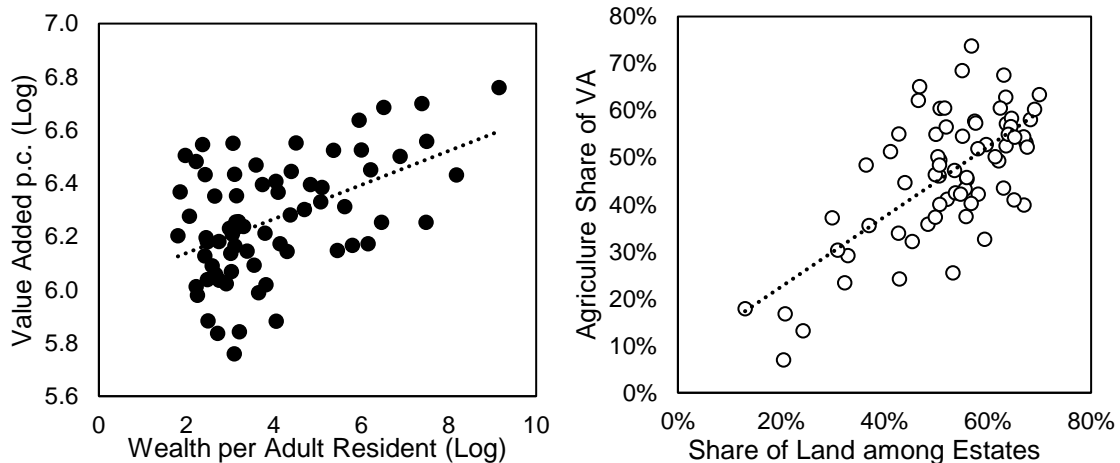
Source: authors' elaborations on Chiaiese (forthcoming) and MEF (various years).

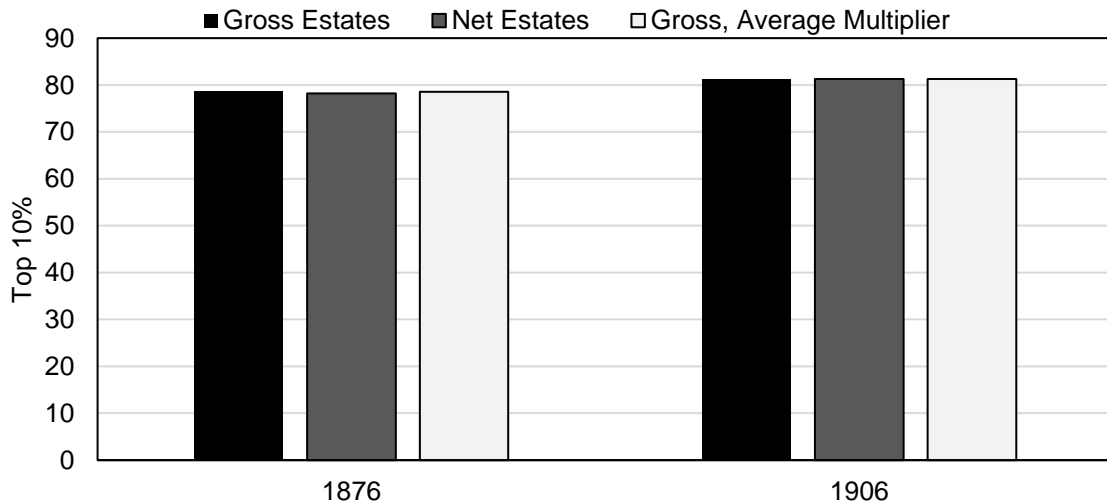## E. Alternative Estimates of Top Wealth Shares and Robustness Checks

Figure A 14 – Alternative Estimates of Top Wealth Shares in Italy, 1890-1915

Source: elaborations on MEF (various years); Human Mortality Database; Cannari et al. (2017); Baffigi (2008); Retti-Marsani (1936; 1937a; 1937b).

It is worth noting that the adoption of different wealth totals may lead not simply to different levels of wealth concentration but also to slightly different trends. The 'internal' total from Baffigi (2008) points to a slight decline in wealth concentration between 1893 and 1902. This difference is mainly because total wealth from Baffigi (2008) shows a more pronounced positive trend compared to our benchmark total (see Figure A 1).

Figure A 15 – The Impact of Alternative Assumptions (Naples, 1876 and 1906)

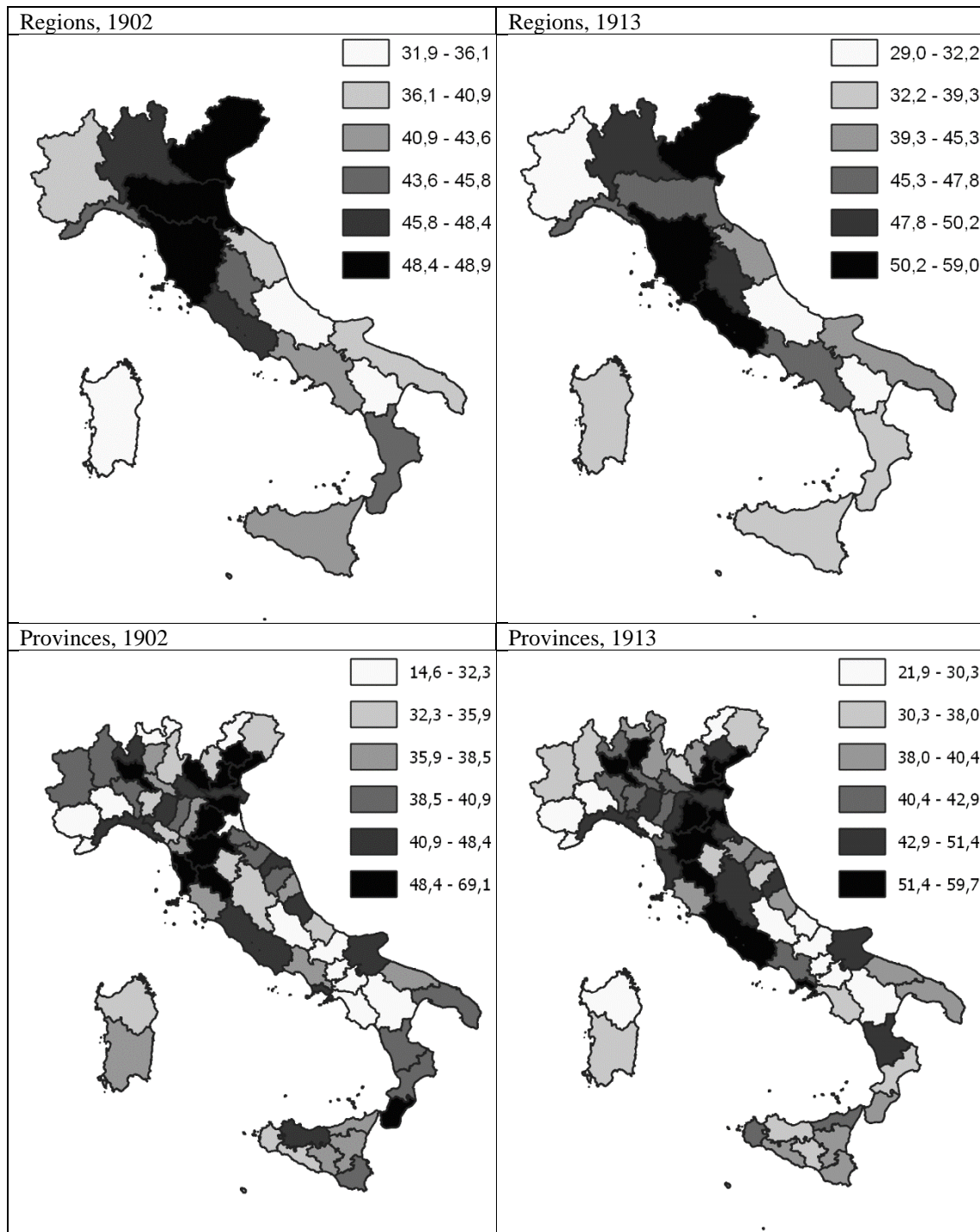Source: elaborations on Macry (1990).

Figure A 16 – Top Wealth Shares in Milan, 1863-1900: Alternative Estimates
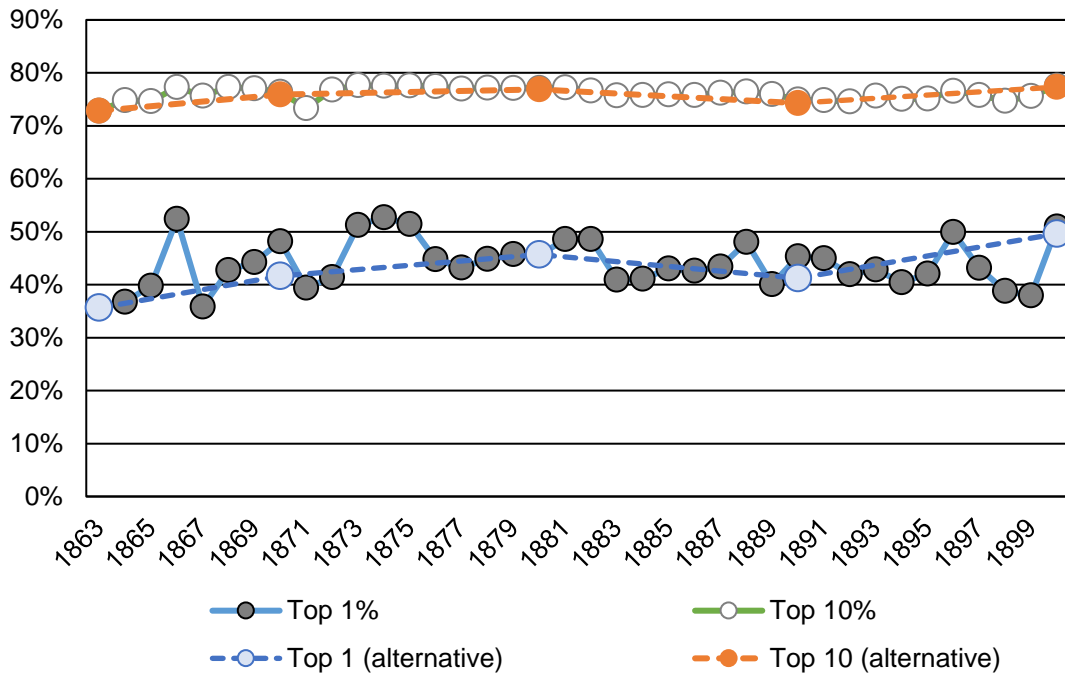
Notes: The alternative estimates are derived applying 1902-03 mean wealth from national tabulation to each corresponding wealth range in the tabulated data for the city of Milan. 1902-03 observations are applied to every selected year: 1863, 1870, 1880, 1890, and 1990.
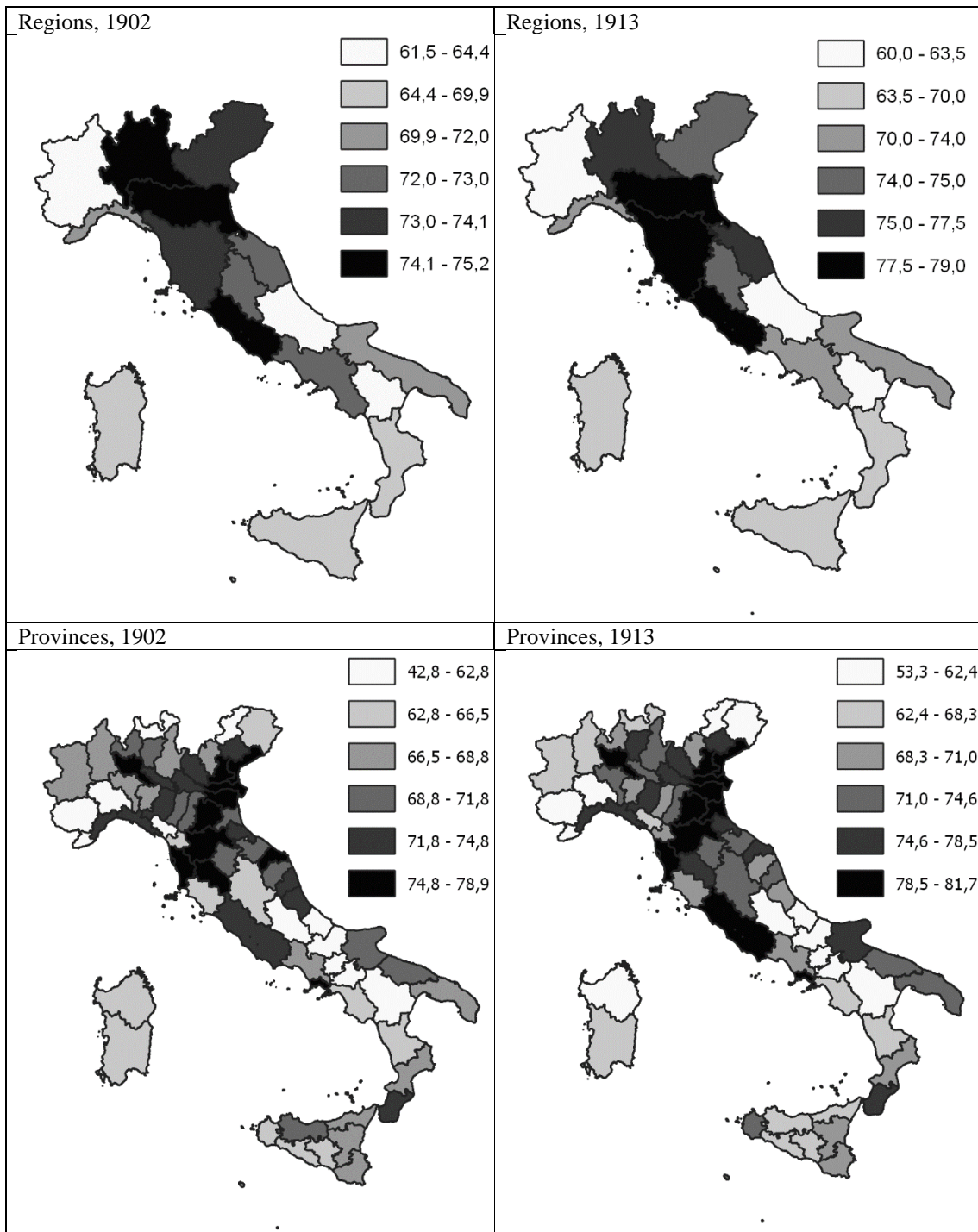
F. Regional Wealth Concentration

*Figure A 17 – Top 1%: Regions and Provinces, 1902-03 and 1913-14*

Regions, 1902	
	31,9 - 36,1
	36,1 - 40,9
	40,9 - 43,6
	43,6 - 45,8
	45,8 - 48,4
	48,4 - 48,9

Regions, 1913	
	29,0 - 32,2
	32,2 - 39,3
	39,3 - 45,3
	45,3 - 47,8
	47,8 - 50,2
	50,2 - 59,0

Provinces, 1902	
	14,6 - 32,3
	32,3 - 35,9
	35,9 - 38,5
	38,5 - 40,9
	40,9 - 48,4
	48,4 - 69,1

Provinces, 1913	
	21,9 - 30,3
	30,3 - 38,0
	38,0 - 40,4
	40,4 - 42,9
	42,9 - 51,4
	51,4 - 59,7

Sources: see Figure 8

Figure A 18 – Top 10%: Regions and Provinces, 1902-03 and 1913-14

Regions, 1902
- 61,5 - 64,4
- 64,4 - 69,9
- 69,9 - 72,0
- 72,0 - 73,0
- 73,0 - 74,1
- 74,1 - 75,2

Regions, 1913
- 60,0 - 63,5
- 63,5 - 70,0
- 70,0 - 74,0
- 74,0 - 75,0
- 75,0 - 77,5
- 77,5 - 79,0

Provinces, 1902
- 42,8 - 62,8
- 62,8 - 66,5
- 66,5 - 68,8
- 68,8 - 71,8
- 71,8 - 74,8
- 74,8 - 78,9

Provinces, 1913
- 53,3 - 62,4
- 62,4 - 68,3
- 68,3 - 71,0
- 71,0 - 74,6
- 74,6 - 78,5
- 78,5 - 81,7

Sources: see Figure 8

53

Figure A 19 – Correlating Wealth Concentration with Economic Indicators
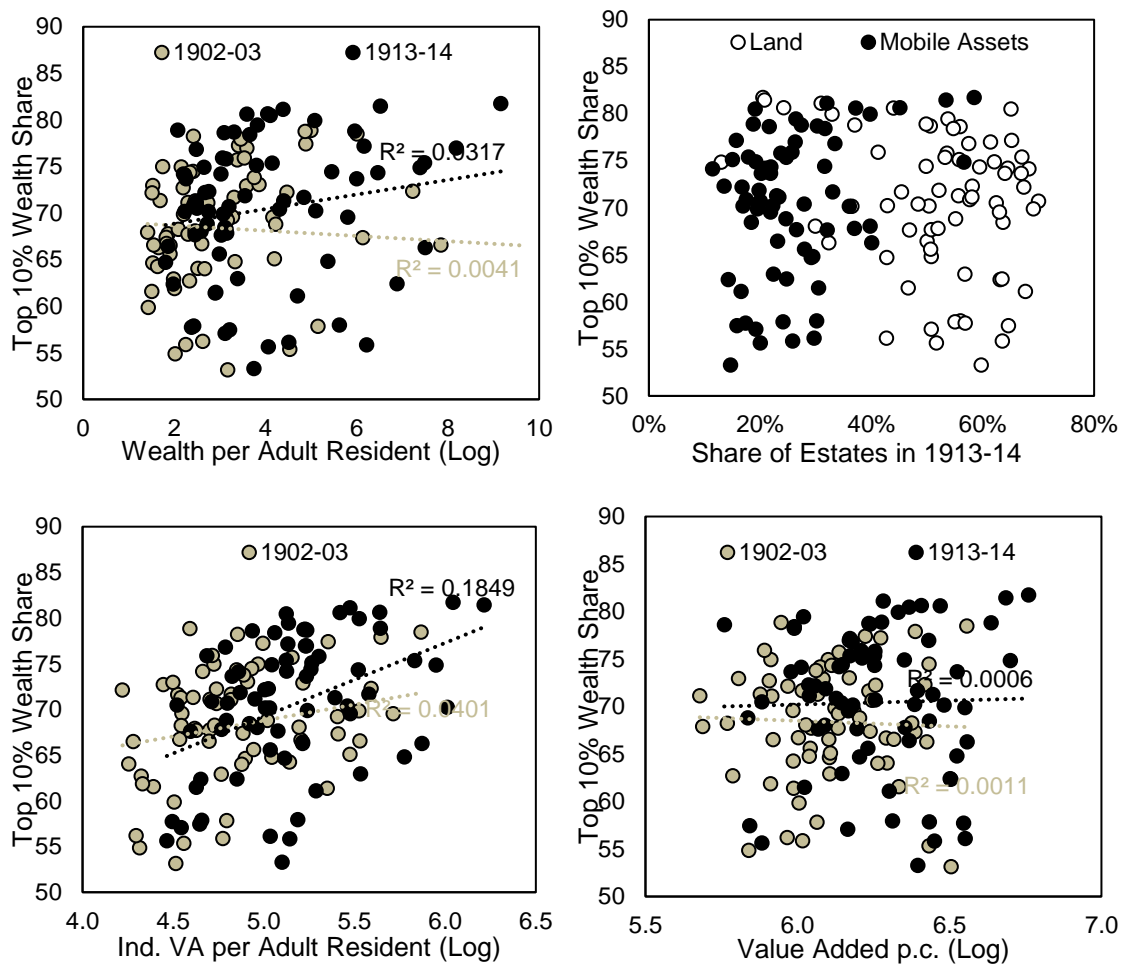
Source: Top Wealth Shares from Figure A 18; Wealth per Adult Resident is the external total underlying those estimates, discussed in Section 5; Industrial VA obtained from Ciccarelli and Fenoaltea (2013); Share of Land as in Figure 7; Value Added from Chiaiese (forthcoming).

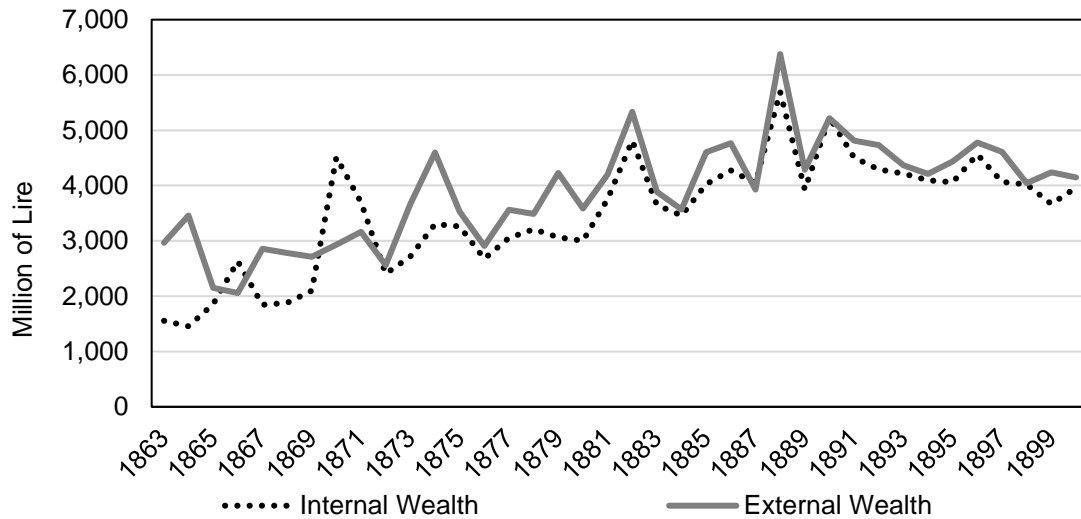## G. Additional Figures and Alternative Estimates for Milan

Figure A 20 – Number of Estates and Coverage Rates of Total Deaths in Milan: 1863-1900
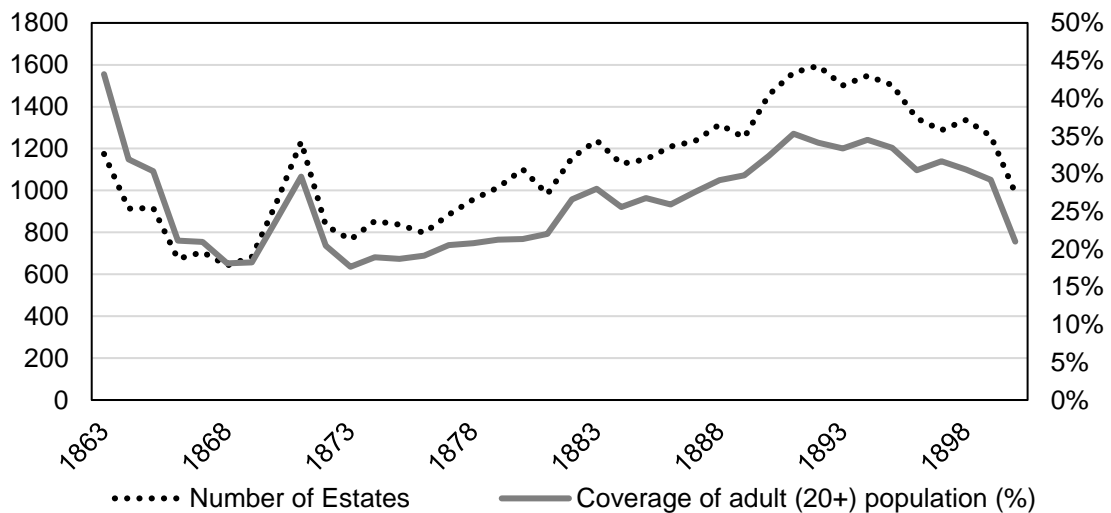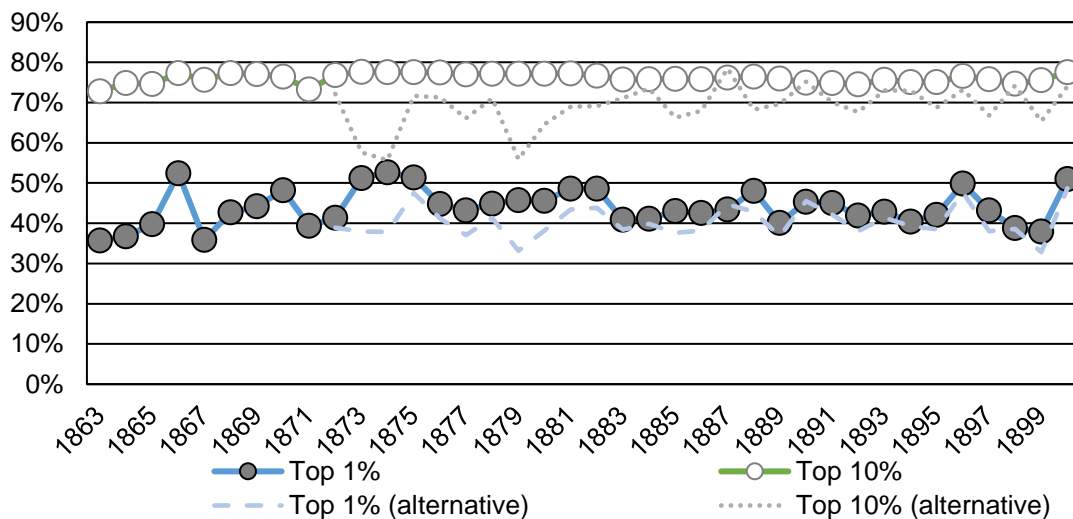
Source: authors' elaborations on Licini (2020).

Figure A 21 – Alternative Wealth Totals for Milan, 1863-1900

Source: elaborations on Licini (2020) and wealth total from Figure 10.

Figure A 22 – Robustness Estimates using Alternative Total Wealth

Sources: authors' elaborations, see Figure 10 and Figure A 21.

Additional References

Ciccarelli, C., & Fenoaltea, S. (2013). 'Through the magnifying glass: provincial aspects of industrial growth in post-Unification Italy,' *The Economic History Review*, 66: 57-85.

Manestra, S. (2010). 'A Short History of Tax Compliance in Italy,' *Bank of Italy Occasional Paper*, 81.

Ministero di agricoltura, industria e commercio, Direzione generale della statistica (MAIC) (1903). *Movimento della popolazione secondo gli atti dello stato civile nell'anno 1901.* Rome: Tipografia Nazionale di G. Bertero

--- (1904). *Annuario Statistico Italiano 1904*. Rome: Tipografia Nazionale di G. Bertero.

Ministero delle Finanze, Direzione generale delle tasse sugli affari (MEF-DG) (1914). *Le tasse sugli affari nell'esercizio 1912-913,* Rome: Tipografia Cooperativa Sociale.