

Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

Explorations in Economic History

journal homepage: www.elsevier.com/locate/eeh

Research Paper

Wars, Depression, and Fascism: Income Inequality in Italy, 1901-1950

María Gómez-León^a, Giacomo Gabbuti^b^a *Universitat de València, Departament d'Anàlisi Econòmica, Av. dels Tarongers, s/n, 6022, València Spain*^b *Scuola Superiore Sant'Anna, Istituto di Economia, Piazza Martiri della Libertà, 33, 56127 Pisa Italy*

ARTICLE INFO

JEL codes:

D31
E24
E25
J31
N34

Keywords:

Fascist Italy
Income inequality
Interwar Europe
Dynamic social tables

ABSTRACT

This paper presents yearly estimates of income inequality in Italy from 1901 to 1950. By constructing dynamic social tables, we comprehensively assess inequality across all elements of Italian society and compare Italy with other countries over the same period. In a context of declining inequality across Europe, interwar Italy reveals a trajectory at odds with consolidated narratives: a sharp increase of inequality during World War I, a reversal during 1918–1922, a renewed rise after the Fascist takeover, and new peaks during World War II. Our results allow us to identify sizeable short-term distributive shocks and discuss the political economy of fascist Italy, reinforcing a reinterpretation of interwar inequality trends in Europe and the regressive nature of fascist regimes.

1. Introduction

In recent years, scholars have debated the drivers of economic inequality, with key studies highlighting the “egalitarian” effects of major shocks—like wars and crises—in reducing inequality (Scheidel, 2018; Alfani, 2021). This view fits the interwar period, when advanced economies experienced a marked reduction in inequality following the two world wars and the Great Depression (Milanovic, 2016; Piketty, 2014). Yet, new evidence reveals substantial cross-country variation during this era, especially in right-wing authoritarian regimes, which often diverged from the expected egalitarian trend (Bartels 2019; Gómez-León and de Jong 2019). These patterns underscore the role of political context and power relations in shaping inequality (Alfani, 2021; Scheidel, 2024). Italy's interwar experience—marked by the rise of Fascism amid major global shocks and domestic policy realignments—offers a striking case. These transformations profoundly reshaped the country's economic and social structure, with likely distributive implications. Yet, the available empirical evidence remains limited.

This paper fills an important gap by providing the first comprehensive annual estimates of income inequality in Italy from 1901 to 1950 and assessing the impact of wars and Fascism on income distribution. We find that Italy's long-run slow decline in inequality was interrupted during both world wars. Contrary to the egalitarian effects often attributed to these decades in the international debate, in Italy inequality only fell significantly during the so-called “Red Biennium” (1919–1920)—a period marked by widespread labor unrest—and in the aftermath of World War II. These findings challenge the notion that the first half of the 20th century brought about a uniform inequality reduction across countries; instead, they highlight that the distributive impact of wars is not uniform, but rather shaped by the broader political and institutional context—such as how wars are financed, labor mobilization, and the balance of power

E-mail addresses: maria.gomez-leon@uv.es (M. Gómez-León), giacomo.gabbuti@santannapisa.it (G. Gabbuti).

<https://doi.org/10.1016/j.eeh.2025.101715>

Received 18 December 2024; Received in revised form 8 June 2025; Accepted 28 July 2025

Available online 30 July 2025

0014-4983/© 2025 The Author(s). Published by Elsevier Inc. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

between capital and labor.

Our results also highlight the regressive nature of the Fascist regime established after the March on Rome (1922): this event marked the beginning of a sustained rise in inequality, initially shaped by the restoration of middle-class privileges in the 1920s, and over time, primarily sustained by the increase in capital incomes.¹ When comparing our results with similar evidence available for other countries in the same period, our series reveal that, while the impact of both world wars on income inequality varied across nations, a common, regressive trend emerge in Germany, Italy and Spain, — where inequality tended to increase following the establishment of right-wing authoritarian regimes. This highlights the crucial role of social, political, and economic contexts in shaping distributional outcomes.

The rest of the paper is organized as follows. [Section 2](#) reviews the relevant literature, focusing on broader inequality trends in Europe and the specific historical context of Italy during the interwar period. [Section 3](#) introduces our methodology – the so-called dynamic social tables (DSTs) – and discusses its application to Italian sources. [Section 4](#) presents the long-run inequality trends from 1901 to 1950, distinguishing between overall inequality, and inequality within workers. [Section 5](#) examines short-term distributive episodes using Growth Incidence Curves (GICs), breaking down the evolution of inequality into key sub-periods; [Section 6](#) explores the drivers of inequality shifts within the labor population, with particular attention to skill and gender pay gaps; [Section 7](#) places the Italian findings in an international context. The final section concludes.

2. Background and historical framework

There is a broad consensus that middle decades of the 20th century – marked by two world wars, the collapse of global trade after the Great Depression and the dissolution of empires – brought about a sustained reversal of the prior long-run rise in inequality, at least in advanced economies.² However, detail case studies point to substantial cross-country variation in these trends. For example, [Gómez-León and de Jong \(2019\)](#) show that Britain and Germany followed divergent inequality paths during the interwar period. [Bartels \(2019\)](#) also questions the idea of a uniform equalizing effect, noting that World War I in Germany led to a shift in income distribution that favored capital over labor. In Spain, the Civil War and early Francoism reversed previous declines ([Prados de la Escosura, 2008](#)). Evidence from Bulgaria and Czechoslovakia also points to contrasting trends during the Great Depression in Eastern Europe ([Nikolić et al., 2024](#)). These findings suggest that even shared global shocks—such as globalization, economic crises, or war—produced uneven distributive effects across nations. National trajectories diverged due to differences in socio-economic structures and political power arrangements. As a result, the timing and intensity of the so-called "Great Leveling" ([Milanovic, 2016](#), p. 53) varied significantly and did not occur automatically. Among these divergent experiences, Italy stands out as a key case for examining inequality dynamics during the interwar years — in which, indeed, many potentially distributive shocks took place.

The first major distributive rupture came with World War I. While the war opened new opportunities for industrial capital, labor faced tighter control and limited gains ([Procacci, 2013](#)). The state financed most of the conflict through foreign borrowing rather than taxation, which benefited capital owners, while wage compression and authoritarian labor mobilization left skilled workers and urban employees relatively disadvantaged ([Gabbuti and Settis 2022](#), p. 849; [Frascani, 1975](#)).

During the Red Biennium (1919–1920), mounting pressure from workers pushed the state to adopt progressive tax measures and expand welfare programs, although implementation remained limited ([Gabbuti and Settis, 2022](#); [Giorgi and Pavan, 2021](#)). Rising blue-collar wages ([Zamagni, 1991](#), p.43) and middle-class anxiety over declining status ([Morris, 1996](#)) contributed to growing political instability, ultimately culminating in the rise of Fascism in 1922 ([Albanese, 2020](#)).

During its early years in power (1922–1930), the Fascist regime promoted pro-business and austerity policies, reversing many postwar reforms ([Mattei, 2022](#)). Privatizations and the dismantling of state controls from the war period boosted investor confidence and benefited large firms ([Bel, 2011](#); [Segreto, 2002](#)). These policies were soon followed by a tightening of labor rights, suppression of independent unions and aggressive wage cuts ([Zamagni, 1975](#); [Musso, 2016](#)), all of which restored profit margins and improved the relative position of the middle classes ([Sylos Labini, 1974](#); [Gabbuti, 2022](#)).

A key turning point came in 1925–1926, with the *Quota 90* policy, which abruptly revalued the lira ([Cohen, 1972](#)). While this harmed exporters, it was accompanied by wage deflation and a corporative labor regime that strongly favored employers ([Segreto, 2002](#), p.83; [Zamagni 1975](#), p.538).³ Additional legislation protected incumbent professionals, limited female labor participation—especially in the public sector—and helped preserve the social status of the self-employed and white-collar workers ([De Grazia, 1992](#); [Morris, 1996](#); [Turi, 1994](#)). Also during the 1930s, in response to the Great Depression, policies prioritized the industrial sector, channeling resources toward manufacturing ([Gualerni, 1976](#)) and implementing further wage reductions ([Zamagni, 1975](#), p. 539; [Mattesini and Quintieri, 2006](#)).

¹ The March on Rome was a coup d'état which resulted in Mussolini's National Fascist Party (PNF) rising to power in October 1922 ([Albanese, 2020](#)).

² See [Piketty \(2014\)](#) and [Milanovic \(2016\)](#). Series of top income shares for France and the USA ([Piketty, 2014](#), pp.290-300), top wealth shares for Britain and Germany ([Alvaredo, Atkinson and Morelli, 2018](#); [Albers, Bartels and Schularick, 2022](#)), and wealth-to-income ratios for Germany, France and the UK ([Piketty and Zucman, 2014](#)), all indicate, albeit to different extents and with different timings, a decline in inequality in the interwar decades.

³ From October 1925, Fascist trade unions (whose officials were nominated by the Government) became the only legal entities able to sign collective contracts with the association of industrial employers ([Mattesini and Quintieri, 2006](#), p. 418). To facilitate deflation, Fascist unions "proposed" a 10% wage cut in May 1927 and, five months later, accepted a further 20% imposed by the National Fascist Party ([Zamagni, 1975](#), p.538).

In the 1930s, the invasion of Ethiopia (1935) and the subsequent international sanctions, while creating further profit occasions for Italian corporations (Turtur, 2024), led to the abandonment of the Gold Standard and the launch of autarkic policies. Rather than being centrally imposed, these measures were developed in close coordination with industrial elites and offered significant incentives to firms, including tax breaks and a growing domestic market (Bertilorenzi et al., 2022, p. 4; Segreto, 2002, p. 87).

During World War II, despite this support for industry, Italy lacked the necessary industrial and organizational capacity to replicate the wartime mobilization of World War I. Economic activity contracted from the early years of the conflict (Zamagni, 1998, pp. 213–214) and inflation surged dramatically. The collapse of the Fascist regime and the liberation of the country in 1945 marked a turning point, paving the way for institutional and social reforms. The 1946 referendum and the 1948 Constitution introduced new political rights and laid the foundations for a democratic welfare state (Giorgi and Pavan, 2021), although in many cases, it took several decades to make them effective in ordinary laws and practices.⁴

Overall, these overlapping shocks produced ambiguous and class-specific effects on income distribution. Yet, empirical evidence on income inequality in interwar Italy has long been fragmented and incomplete. Some studies offered partial indicators suggesting that Mussolini's regime had a regressive effect on distribution, but they could not provide a comprehensive picture of overall inequality.⁵ Meanwhile, long-run reconstructions suggested a long-term decline in inequality between the country unification and 1931.⁶ However, these estimates could not capture the distributive consequences of the two world wars, as well as short and medium-run trends.⁷

To address this gap, we construct DSTs to produce annual inequality estimates covering the entire period from 1901 to 1950. This allows for a more comprehensive analysis of how Italy's political and economic transformations—including both world wars and Fascism—shaped income distribution. The following section details the construction of the DSTs and the sources underpinning our estimates.

3. Data and methodology

3.1. The dynamic social tables approach

For periods prior to the development of modern household surveys, scholars usually infer income inequality trends from the evolution of indirect estimates such as wage differentials, the wage-GDP per capita ratio, or the evolution of top income shares and labor shares. These alternatives have been particularly useful for filling gaps in trends in income inequality, and the study of specific segments of the distribution. However, when examining changes in inequality levels and aiming to cover the entire income distribution without access to micro-datasets, constructing social tables becomes the most suitable alternative.⁸

In essence, social tables compile data on the number of people belonging to different social groups and the estimated average incomes that can be attached to these groups. The methodology, which is conceptually very similar to that applied for the construction of national accounts, permits the coverage of a representative sample of the population and, moreover, captures the entire range of the distribution. Including the entire distribution is crucial when studying inequality during periods of rapid structural change characterized by sectoral shifts and inter-occupational inequalities, where changes in inequality are primarily driven by growing differences between the middle and lower parts of the income distribution.

Social tables have limitations due to the lack of information on transfers. As noted by Gómez-León and de Jong (2019, p.1079), the utilization of market income may present challenges in modern economies, but it is not problematic during periods of minimal government redistribution through transfers and taxes. In this sense, Giorgi and Pavan (2021) have documented that Italy's social spending was largely based on worker and employer contributions, with limited government redistribution; a picture confirmed in the comparative quantification of social spending by Espuelas (2015) in which Italy features among the least redistributive.

Unlike household surveys, social tables also lack detail on family structures. They are also limited by the potential underestimation of inequality when there is a limited number of groups, or when the members of a group are considered to share the same average income. These sources of bias can be mitigated by introducing the highest possible level of disaggregation within each occupational group.

Conventionally, social tables have been used to estimate income inequality for benchmark years. However, a more recent approach, initiated by Rodríguez Weber (2017) and applied by Gómez-León (2019; Gómez-León, 2021) and Gómez-León and de Jong (2019), allows for the assessment of inequality over longer periods by allowing population shares and income of different social groups to vary

⁴ That was the case, for instance, for many aspects of gender equality (Willson, 2010, p. 148).

⁵ After the early discussion on social classes by Sylos Labini (1974), several works by Vera Zamagni (1975, 1980a, 1991) discussed the trend in industrial workers' wages and the "polarization" of those of the middle classes. More recently, Gabbuti (2021) estimated labor shares for the period, while Gabbuti (2022) presented evidence on top income shares. All these works point to an increase in income inequality during this period, but they lack comprehensive measures.

⁶ See Rossi et al. (2001) and Amendola and Vecchi (2017), both based on large collections of historical household budgets, post-stratified at census years.

⁷ See section 4 of this paper for a more detailed discussion and comparisons.

⁸ Social tables have enabled scholars to analyze income distribution from the preindustrial era (Milanovic, Lindert and Williamson, 2011) to the 20th century for a range of societies in Europe (Gómez-León and de Jong, 2019; Nikolić et al., 2024), Latin America (Rodríguez Weber, 2017), and Africa (Aboagye and Bolt, 2021). The methodology has also been recently applied to the study of the wealthy in history (see Milanovic, 2024).

year-on-year.⁹ Following this approach, we construct DSTs for Italy from 1901 to 1950, covering the first half of the 20th century, which modern household surveys do not cover. Although not directly comparable to this latter source, when similar categorizations are employed, DSTs do permit consistent comparisons of income distribution over time and across countries. Whenever possible, therefore, we adopt a similar categorization to that used in Gómez-León and de Jong (2019).

3.2. Population and income sources for Italy, 1901–50

A range of sources, such as consumption baskets, tax records and population censuses, can provide information on the number of individuals belonging to different social classes and their average income. We follow the approach of Milanovic and others by constructing social tables using information on the occupational structure of the active population provided in population censuses (Milanovic, Lindert and Williamson, 2011). As discussed in Appendix 1, we rely on the extensive Italian literature on this source to tackle well-known distortions – such as the underestimation of working women, and the potential overestimation of inequality in pluri-activity settings, as in the case of Italian agriculture.¹⁰

Despite the aforementioned adjustments, differences between benchmark years are small in terms of both coverage and structure. This approach allows us to build a representative sample which captures the whole range of the distribution (from owners at the top, to unoccupied people at the bottom). Table 1 reveals the main trends across occupational categories and sectors.

The sample represents 52 % of the total population on average (standard deviation equal to 1.1). While agricultural workers declined over the first half of the 20th century, by 1951 the sector was still employing 44 % of the labor force—down from 62 % in 1901. Meanwhile, industrial employment steadily rose from 22 % to 32 %, reinforcing the duality of a labor market still rooted in agriculture but increasingly shaped by industrial and administrative occupations. Between 1921 and 1936, both salaried employees and the self-employed increased their relative weight.¹¹

Once the occupational structure is established, we interpolate census figures using inter-census estimates of sectoral employment. Where necessary, these are supplemented with linear interpolations. We then assign yearly nominal income data to each occupation, employment status and gender category.¹²

To refine our estimates, we use additional sources to incorporate information of key groups traditionally overlooked in the literature. Specifically, we offer the first systematic effort to quantify the incomes of the self-employed workers – a sizeable group in Italian history, and the backbone of Fascist support from the regime’s origins to its downfall (Sylos Labini, 1974; Salvati, 1994). As documented in Appendix 1, we do that by utilizing previously overlooked fiscal sources, which allow us to account separately for this crucial component of the middle classes. Indeed, by assembling series on different groups of employees, we are able to analyze the evolution of the relative position of various components of the middle classes.

We also incorporate gender differentials. While longitudinal data on gender wage gaps are lacking, we use a combination of official statistics and secondary literature (see Appendix 1) to consistently estimate gender wage gaps for all major sectors at benchmark years. This is also a major improvement on the existing literature. In particular, it allows us to finally place the gender wage gap within the overall dynamics of inequality, revealing its important contribution to the long-run Great leveling of Italian incomes, but also the important reversal experienced in the Fascist era.

Finally, despite inherent source limitations (not unique to Italy), this paper explicitly incorporates capital incomes, which are unsatisfactorily captured by both household budgets and fiscal sources, despite accounting for around half of the national income during this period (Gabbuti, 2021). In the absence of reliable direct data, we allocate to owners a part of the “residual” amount obtained after subtracting the incomes of employees and self-employed from disposable national income, in line with papers such as Astorga (2024). Also within this scenario, we provide more details in Appendix 1, where we also present alternative series to show that trends are robust to alternative assumptions.¹³

It is important to stress, however, that this is the first attempt to fully account for the underestimation of capital incomes in the historical literature on personal income inequality in Italy. In this respect, our estimates are necessarily tentative, and further research is almost certainly needed. Nonetheless, the DSTs presented in this paper can be seen as an “infrastructure”, which will make it possible for the overall structure of incomes of the Italian population to be integrated whenever more refined series do become available.

Fig. 1 summarizes the resulting trends in income-to-mean ratios derived from DST, by the main work categories (including males and females). Clearly, industrial and tertiary owners were the richest groups, benefitting from both the World Wars, while those in agriculture – apart for a reversal during the autarkic and World War II years – saw their incomes declining, compared to the more stable white collars. The self-employed maintained income levels close to those of waged workers rather than capital owners, with relative fortunes being affected by both conflicts as well as inflationary periods. Waged workers followed a similar path, with a noticeable

⁹ Although not specifically labeled DSTs, Prados de la Escosura (2008) applied a very similar approach to assessing inequality in Spain from 1850.

¹⁰ In population censuses, individuals are grouped according to their stated main occupational category. Individuals in rural areas heavily dependent on farming may tend to define themselves primarily in terms of their involvement in agricultural activities. This could potentially lead to an overestimation of the agricultural workforce and an underestimation of other occupational categories, consequently resulting in an underestimation of inequality levels.

¹¹ Throughout the paper, we use the terms “salaried” or “white-collar” workers to refer to employees in non-manual, typically skilled occupations, while “waged” or “blue-collar” workers denote manual laborers, often unskilled.

¹² Appendix 2 provides full detail on the range of different historical sources from which these figures were compiled.

¹³ For alternative series under different assumptions, see Appendix 3.

Table 1
Structure of the sample by work categories and sectors.

Year	Active Population (% of Pop.)	Work Categories (% of Active Population)					Sectoral Distribution (% of Occupied)			
		Owners	Self-employed	Salaried workers	Waged workers	Female (% Occupied)	Unoccupied	Agriculture	Industry	Services
1901	52	11	26	4	56	35	3	62	22	16
1911	51	8	21	5	63	35	3	58	25	17
1921	53	13	21	5	57	33	5	58	24	18
1931	51	14	25	8	48	32	5	53	27	20
1936	53	11	26	8	45	33	9	51	27	22
1951	51	8	25	9	42	28	16	44	32	24

Sources: MAIC (1902, 1914, 1927) and ISTAT (1933, 1937, 1954). For % of total population we use the total population reported in [Istat \(2011\)](#), Table 2. See Appendix 1 for further evidence on this.

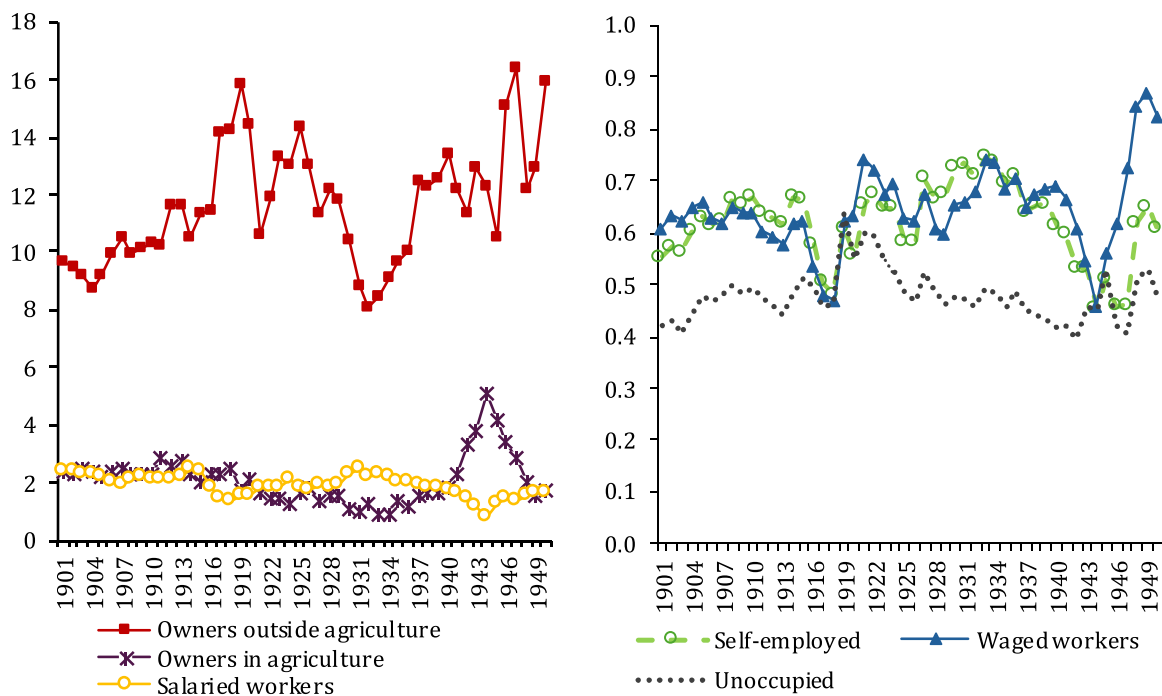


Fig. 1. Income-to-mean ratios by work categories, 1901–1951. The picture shows the ratio between the average income of a category (including all sectors, and both males and females) and the average income of the whole population. Source: authors' elaborations. Full reference list in Appendix 2, Table A.2.1.

decline around World War II, followed by a sharp rebound in 1945. Overall, the data show a persistent income hierarchy, with limited convergence between capital and labor incomes over the period.

With this information on the number of individuals within income groups and their respective associated incomes, we can compute direct annual estimates of income inequality — Gini coefficients — following conventional methodologies such as those employed by [Milanovic, Lindert and Williamson \(2011\)](#):

$$G = \sum_{i=1}^n G_i p_i \pi_i + \frac{1}{\mu} \sum_{i=1}^n \sum_{j>i}^n (y_i - y_j) p_i p_j + L \tag{1}$$

$\left\{ \begin{matrix} \text{inequality} \\ \text{within} \end{matrix} \right\} \quad \left\{ \begin{matrix} \text{inequality} \\ \text{between} \end{matrix} \right\} \quad \left\{ \text{overlap} \right\}$

where n is the number of social classes; μ is the overall mean income; p_i is the proportion of people belonging to the i th social class; and y_i is the mean income of people belonging to the i th social class, with social classes ranked in ascending order ($y_j > y_i$); G_i is the Gini among individuals belonging to i th social class; and L is the overlap between classes, which is different from 0 if members of a lower

class (i) have incomes exceeding that of members of a higher social class. Furthermore, we follow the most conventional approach where the first term (inequality within classes) and L (the overlap term) are assumed to be zero (Milanovic, Lindert and Williamson, 2011). In other words, we assume that individuals belonging to a particular group earn the same mean income and, consequently, that incomes do not overlap across classes.¹⁴

Despite the inherent limitations of this approach, it does provide a broad portrayal of the fundamental demographic and structural forces influencing inequality across the entire income distribution, capturing their year-on-year dynamics. In the realm of inequality research, where each source and methodology has its own limitations, DSTs make a valuable contribution. For instance, while household budgets and tax records face contrasting representational challenges (Gómez-León and de Jong, 2019, p.6), DSTs serve as a valuable complement, particularly when analyzed in conjunction with existing estimates derived from alternative methodologies.

4. Inequality in Italy, 1901–1950

Before examining specific episodes, we consider the broad trend of Italian income inequality across the first half of the 20th century. Fig. 2 presents our annual series of Gini coefficients for Italy from 1901 to 1950, alongside existing benchmark estimates based on historical household budgets (HHB) and postwar household budget surveys for comparison. Despite expected discrepancies (due to different data and income definitions), the level of our DST-based Ginis is very close to the latest estimates by Amendola and Vecchi (2017) for overlapping years.¹⁵

More importantly, our series reveals meaningful year-to-year variations that decadal benchmarks cannot capture. Overall, we find a moderate downward trend in inequality from 1901 to 1950, consistent with a long run leveling as Italy industrialized.¹⁶ However, superimposed on this trend are several pronounced fluctuations and reversals, that coincide with major historical events and policy shifts. In particular, we identify two periods of increases in inequality that were previously overlooked: World War I (1914–1918), and the Fascist regime (1922–1943). During the two decades in which Fascists ruled Italy, the prevailing long-run trend of declining inequality was partially reversed; notably, this happened both during periods of economic growth and stagnation.¹⁷ Conversely, we observe sharp decreases in inequality during 1918–1922, and again in 1948–1949 – that is, after both world wars.

To better understand these turning points in inequality, Fig. 3 shows two series, which allow us to distinguish between within-labor inequality (i.e. inequality among workers), and overall inequality (that is, including owners' non-labor incomes). This distinction enables us to identify changes occurring within labor – completely overlooked by labor or top income shares – separately from the impact of capital incomes. Furthermore, it allows us to assess to what extent the inclusion of capital incomes amplifies or mitigates inequality shifts.

4.1. The Giolittian period and World War I (1901–1918)

After a brief decline at the turn of the century, Fig. 3 reveals a rapid increase in within-labor inequality in the years leading up to World War I – the so-called “Giolittian period”, from the name of the statesman Giovanni Giolitti, in which Italy's first industrialization took place (Toniolo, 2013). However, this was still limited, and driven by “traditional,” labor-intensive sectors such as textile. Still, the Gini index increased from 29 to 34. However, the militarization of factories during the war and the subsequent labor mobilization led to a substantial compression of income differences among workers, reducing the Gini to 21 by 1919.¹⁸

As expected, the inclusion of owners—the top segment of the distribution—affects both the level and the trend of the series.¹⁹ One notable outcome is that, when profits are taken into account, the equalizing effect of the war disappears. Despite the fall in within-labor inequality, World War I appears to have led to a rise in capital incomes among industrial owners, as well as an increase of the relative share of capital-intensive sectors such as metalmaking, causing overall inequality to increase and peak in 1918.

4.2. The Red Biennium and its aftermath (1919–1922)

During the Red Biennium, within-labor inequality began to rise again, yet overall inequality declined—reaching a low point just

¹⁴ As discussed by Modalsli (2015), this might result in the underestimation of the overall Gini, a bias we try to mitigate by including as many classes – salient groups – as possible. As argued by Milanovic (2018, p.1043), while this option is imperfect, it seems the best possible alternative to adopting arbitrary adjustments for the within-group distribution.

¹⁵ The comparison is only partially consistent, given the different definitions (households versus market income) and sources: while DSTs are, due to their construction, able to reflect all the year-by-year variations in capital incomes, gender gaps, and even different sectors of the economy, they inevitably miss other sources of variation, captured by micro-data. That said, it is reassuring that the level of our estimates is very close to the latest figures by Amendola and Vecchi (2017).

¹⁶ This result, first obtained by Rossi et al. (2001), was then confirmed by Amendola and Vecchi (2017), in both cases by means of household budgets.

¹⁷ As shown in the Appendix (Figure A.3.4), a very similar trend is also obtained by computing the Inequality Extraction Ratio (IER), as proposed by Milanovic, Lindert and Williamson (2011). Yet, as outlined in the Appendix, the application of a standard “subsistence minimum” to industrializing economies like Italy in the 20th century presents challenges that merit further discussion.

¹⁸ The extent of this compression can also be appreciated by the convergence between sectoral averages, reported in Appendix 3 (Figure A.3.3).

¹⁹ As documented in Appendix 3 (Figure A.3.2), these trends are robust both to alternative assumptions, and alternative inequality indicators, such as the Theil index.

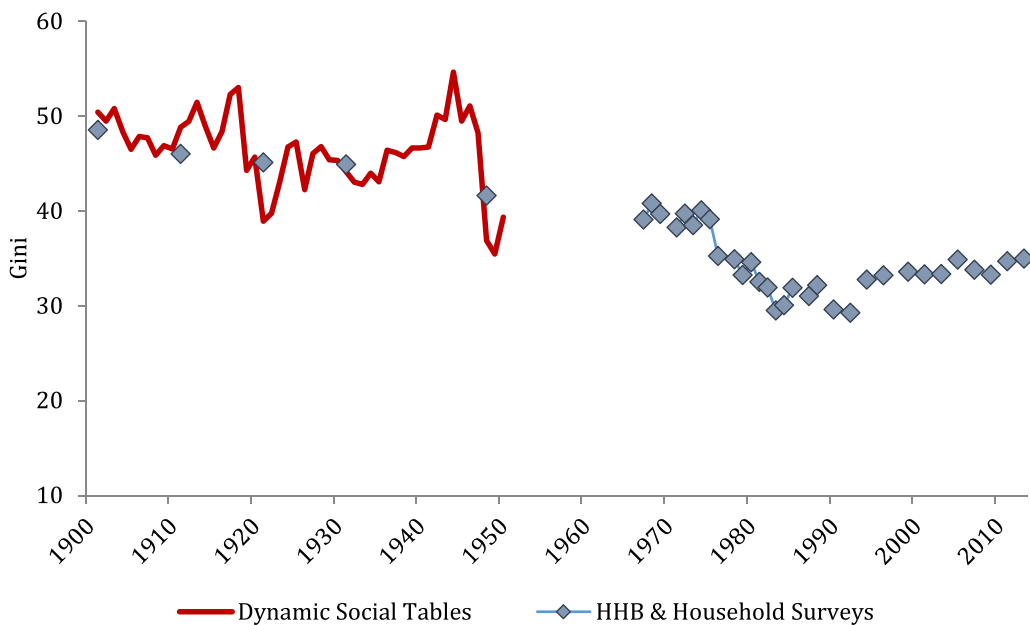


Fig. 2. Inequality in Italy, 1901–2013
 Notes: Ginis are expressed in percentages.
 Source: Dynamic social tables are authors’ elaborations based on the sources listed in Appendix 1 and 2. HHB & Household Surveys from [Amendola and Vecchi \(2017\)](#).

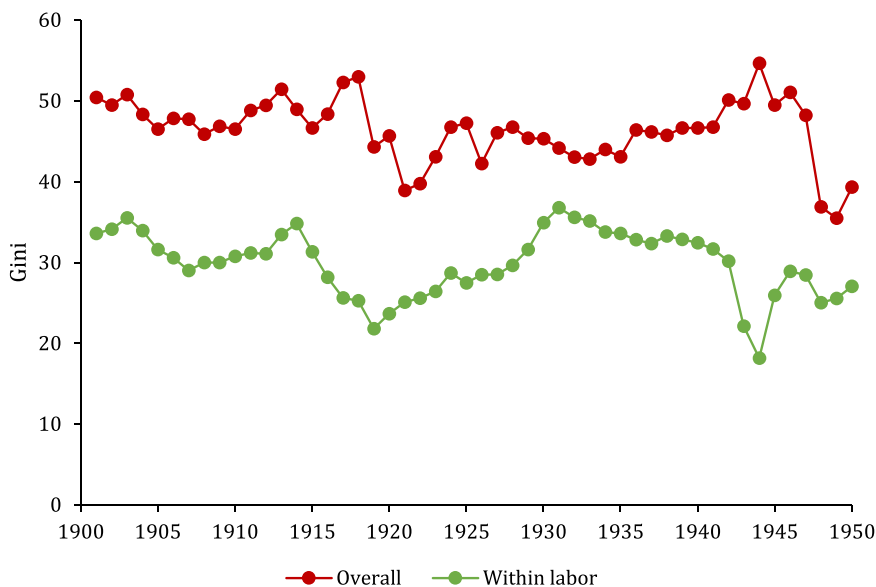


Fig. 3. Overall and Within Labor Inequality, 1901–1950.
 Source: authors’ elaborations based on the sources listed in Appendix 1 and 2.

below 40 in 1922, the lowest level recorded up to that time. This reflected a temporary weakening of capital incomes in the postwar years, in a context of intense labor mobilization and progressive fiscal reforms aimed at addressing workers’ demands.²⁰ The decline in inequality, however, was short-lived: Italy had to wait 1948 to see these levels of the Gini again.

²⁰ As shown in [Figure 1](#), declining incomes of industrial and service sector owners went alongside rising wages, reducing the share of capital incomes. Moreover, as shown by the same [Figure 1](#), in this period waged workers managed to overcome self-employed incomes.

4.3. Italy under Fascism (1922–1939)

The March on Rome marked a significant turning point in Italian distributive history. In the early years of the regime (1922–1930), inequality among workers increased by 15 Gini percentage points, and overall inequality returned to prewar levels by 1925, suggesting a rapid redistribution in favor of capital. In the 1930s, overall inequality rose again, reaching a new peak. Despite a slight decline in within-labor inequality in the 1930s, income concentration continued to intensify. Fig. 3 shows that this was driven primarily by changes in owners' incomes.²¹ Capital concentration—growing across industries from the late 1920s onward—played a major role in shaping inequality trends (Gabbuti, 2021; Giordano and Giugliano, 2015).²² The short recession caused by the deflationary *Quota 90* shock, and most importantly, the onset of the Great Depression temporarily mitigated these effects until 1931. But once the economy began to recover, capital incomes surged again, pushing overall inequality higher even as within-labor inequality remained stable or declined.²³ Overall, we can identify two major trends contributing to the rise in inequality during the early Fascist period. On the one hand, within-labor inequality increased sharply in the 1920s, returning to the highest pre-World War I levels by the end of the decade and only declining gradually thereafter. On top of this trend, most of the increase in inequality came from the widening gap between the owners and the rest of the population.

4.4. World War II and the “Reconstruction” (1939–1950)

The onset of World War II did not reverse this trend. On the contrary, although Fascist rhetoric became more anti-capitalist and claimed to represent the interests of the working class, inequality reached an all-time high in 1944. By that year, GDP per capita—already declining in real terms since 1940—had collapsed to levels below those registered at the beginning of the period. The decline in within-labor inequality, which accelerated in the high-inflation years (1942–44), was insufficient to offset elevated capital incomes, which continued to drive inequality up to a peak of 54.6 in the Gini index.²⁴

After 1944, overall inequality dropped—despite a “rebound” of within-labor inequality. The fall was extremely rapid in 1947–48, when it seems that profits were disproportionately hit also by the strong deflation enacted in those years to bring prices under control, while the GDP per capita eventually went back and above the 1940 levels.²⁵ By 1949, the Gini had fallen to 35.5—its lowest level since the early 1920s. However, a modest rebound occurred in 1950, with the Gini rising to 39.3. This increase in both within-labor and overall inequality took place just before Italy's so-called “Economic Miracle” (1952–62)—the period of incredibly rapid industrial growth and structural change, in which eventually the massive transition of workers out of agriculture was to take place—whose distributive effects are still to be investigated.²⁶

In sum, our results highlight the crucial role of major conflicts and the Fascist regime in shaping the evolution of inequality in 20th-century Italy. Both world wars produced a temporary compression of labor incomes: yet, in both cases, this equalizing effect was offset by sharp increases in capital incomes, which drove overall inequality upward. This was particularly the case during World War I, but it is an interesting result that profits counterbalanced within-labor dynamics even in a conflict, such as Italy's World War II, characterized by a dramatic fall of overall GDP. It was only in the aftermath of these wars, following the collapse of capital returns, that inequality declined significantly.²⁷ The Fascist period stands out for its persistently disequalizing effects: despite wage repression and some fluctuations in within-labor inequality, overall inequality remained high throughout, primarily due to the sustained rise in capital incomes and the restoration of middle-class privileges.

5. Tracking short-term changes in inequality

To better understand short-term changes in overall inequality, we analyze Growth Incidences Curves (GICs). Pioneered by works such as Ravallion and Chen (2003), GICs depict the compound growth rates in average real incomes for each decile or percentile of a population, between two benchmark years. They offer a powerful tool for examining the distributional effects of specific episodes. A GIC that slopes upward indicates that higher-income groups experienced faster income growth—implying rising inequality—while a

²¹ As shown in Figure 1, this was particularly driven by rising incomes among industrial and service sector owners. Agricultural owners were not only earning much lower incomes, but lost ground to white collars since the early 1920s, with the partial although sizeable exception of the World War II years.

²² Building on real-time work by statisticians, Zamagni (1980b) calculated Gini indices of the distribution of capital across industrial stock companies for 1916 (0.75), 1932 (0.88), 1938 (0.9) and 1941 (0.92). According to Giannetti and Vasta (2006, p.53), “Concentration decreases between 1913 and 1927 ... then there is an increase between 1927 and 1952”. The alternative figures reported in Appendix 3 (Figure A.3.4) suggest a constant increase in overall inequality from 1921 to 1931.

²³ A reason for the increase in profits could be that, over this period, the share of “advanced” industrial sectors (metalmaking, engineering, chemicals) eventually reached half of the manufacturing sector (Felice and Carreras 2012).

²⁴ Inflation – which had been around 15% from the early years of the War to 1942 – reached its maximum increase (+344%) in 1944.

²⁵ Notably, this brings our series back to the relatively low levels detected by the pioneering Doxa survey in 1948, from which Amendola and Vecchi (2017) build their estimate for that year (Figure 2).

²⁶ As shown in Table 1, in 1950 agriculture still accounted for 45% of the labor force.

²⁷ By incorporating both wage compression and capital income dynamics, our DSTs provide a broader perspective than the labor share declines reported by Gabbuti (2021) for the two world wars. As shown in Appendix 1 (Figure A.1.8), the labor shares derived from our DSTs align closely with Gabbuti's estimates in both level and trend, despite relying on different underlying sources.

downward-sloping GIC suggests the opposite.

Although we cannot track individual occupations over time, the persistence of occupational groups within specific income fractiles allows us to draw meaningful inferences. Based on the occupational composition of income fractiles, we distinguish five broad social classes. The lower class (bottom 20 %) consists mainly of female wage-earners in agriculture and textile factories. The upper-lower class (P20–P50) includes female wage-earners in heavy industry and commerce, and male workers in agriculture and manufacturing. The lower-middle class (P50–P70) is composed of male wage-earners in heavy industry and commerce, and female workers in transport and services. The upper-middle class (P70–P90) includes self-employed and salaried males in industry, along with salaried professionals and public-sector workers, both male and female. Finally, the top-income group (top 10 %) consists of land-owners, business owners in industry and trade, and high-salaried males employed in the liberal professions, public administration and transport.

Fig. 4 presents GICs derived from DSTs, covering the six distinct historical phases described in Section 2.²⁸ This breakdown allows for a detailed analysis of how inequality evolved across both world wars and the successive stages of Fascist rule.

5.1. The Giolittian period (1901–1914)

In this initial phase, income growth was relatively stable across the distribution, consistent with the slow but steady economic expansion of the Giolittian era.²⁹ Real income gains were highest for the middle 40–70 percent of the distribution, while both the bottom deciles and top percentiles experienced more modest improvements. Overall, the pattern points to a period of moderate growth with mild equalizing effects before the onset of World War I.

5.2. World War I (1914–1918)

During the Great War, inequality increased significantly. While average income stagnated in line with per capita GDP, the highest income groups—especially capital owners—benefited disproportionately. During this period, substantial spending by the Weapons and Ammunition Ministry created opportunities for private industries to profit (Ecca, 2023, p.223). This effort enabled industrial owners to benefit from arbitrary procurement practices, involving insiders and fostering favoritism and corruption (Galassi and Harrison, 2005, pp.279–286). Meanwhile, most of the working middle-class saw real income losses during the war. The lowest earners—especially rural laborers—benefited modestly, likely due to reduced underemployment from mass conscription. These effects were closely linked to how Italy managed the war: like Germany, it imposed strict control over labor. But unlike in Germany, where Social Democrats supported the war, Italian Socialists stayed neutral until late 1917, delaying the involvement of trade unions in the war economy (Procacci, 2013).³⁰ Skilled workers arguably did not benefit significantly from the war, which led to wage compression that favored unskilled labor, including women.³¹

5.3. The Red Biennium and its aftermath (1918–1922)

In the aftermath of the war, the top 10 percent experienced a sharp decline in real incomes. This was driven by rising labor costs—most notably, the 1919 introduction of the 8-hour workday in the mechanics sector, which effectively aligned 8 h of pay with what had previously required 10–12 (Zamagni, 1991, p. 143)—and by the global recession of 1920–21, which further depressed top incomes. The downward slope of the GIC for the top decile reflects this dual impact. Meanwhile, working-class incomes improved modestly, as redistributive measures implemented by the final Liberal governments—under pressure from widespread labor unrest and rural protest (Frascani, 1975)—boosted wages and shortened working hours. In contrast, the urban middle classes saw their relative position weaken, leading to growing frustration over what was perceived as a decline in living standards (Morris, 1996).

5.4. Fascist Italy: “Laissez-faire” and Quota 90 (1922–1930)

From the March on Rome to the onset of the Great Depression, the GIC reveals a regressive pattern: while the economy grew rapidly, income gains were concentrated among the top 10 percent. The poorest 50 percent, particularly rural and urban workers, experienced negative real income growth. This divergence reflects the effects of early Fascist policies, notably the pro-business

²⁸ Further GICs are reported in Appendix 3, Figure A.3.5.

²⁹ Our GICs align closely with those reported by Amendola and Vecchi (2017), confirming the reliability of our DST estimates for the early 20th century.

³⁰ Italy like Germany opted for a highly authoritarian management of the war effort (Procacci, 2013). Moreover, unlike the German Social-Democratic Party, the Italian Socialists remained neutral until the Battle of Caporetto (1917), causing trade unions to engage only belatedly in “Mobilization Committees”.

³¹ Sharecroppers and other groups also benefited from the freezing of their contracts (Martinelli Lasheras and Domènech Feliu, 2024).

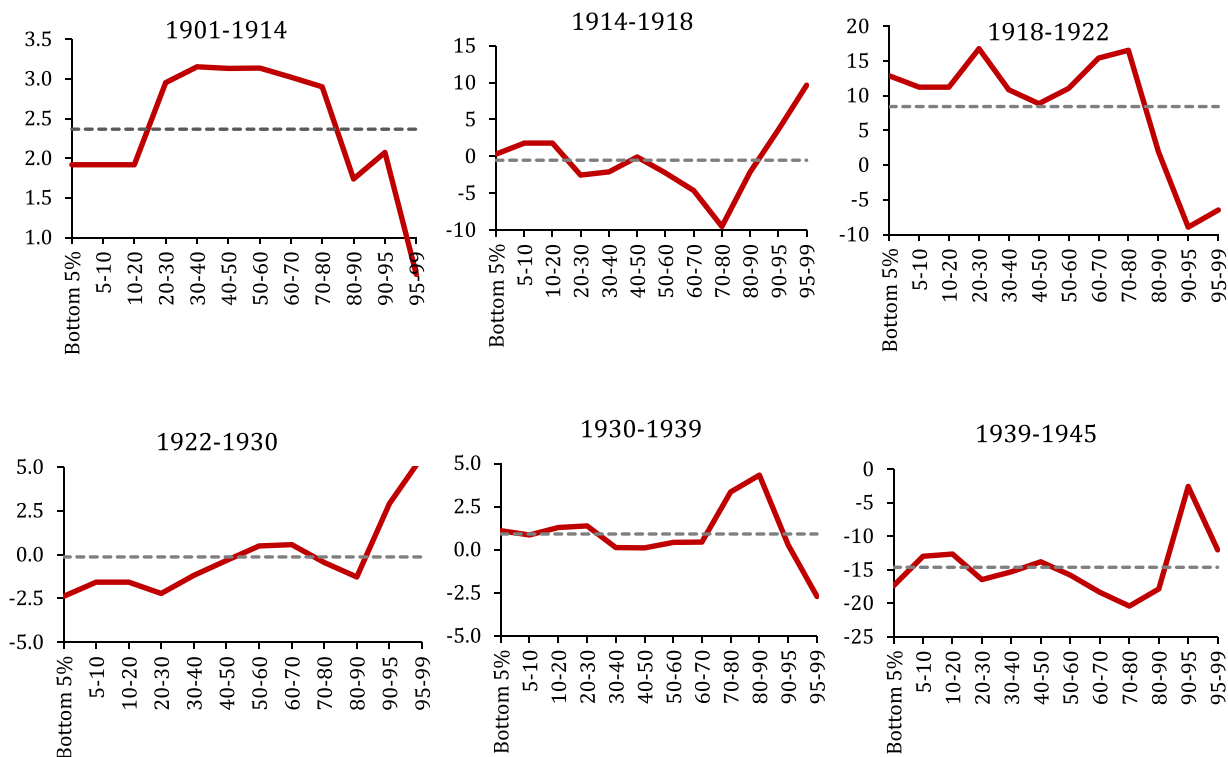


Fig. 4. Growth Incidence Curves in Italy, 1901–1950.

Notes: The y-axes show the average annual compound growth rates of real incomes (expressed in %) at different fractiles of the distribution (drawn on the X-axes) between two benchmark years. Solid lines show average annual growth for different segments of the distribution. The straight dashed lines show overall average annual growth. Series were deflated with the CPI (1913 = 100) provided by Istat (2011), tab. 21.5.

Source: authors' elaborations.

austerity program implemented by Finance Minister Alberto De' Stefani. His reforms prioritized fiscal consolidation, privatizations, and dismantled much of the wartime state intervention, while suppressing labor rights (Bel, 2011; Mattei, 2022). These measures were explicitly designed to attract domestic and foreign capital, boosting investor confidence and profits for industrial elites (Marcoaldi, 1986; Segreto, 2002). The repression of independent unions further weakened workers' bargaining power and reinforced capital's position.³²

Although the *Quota 90* deflationary policy had significant macroeconomic economic implications, it did not mark a clear break in the income distribution, as both before and after its implementation the pattern remained regressive.³³ To facilitate deflation, Fascist unions initiated a 10 % wage cut in May 1927, followed by an additional 20 % reduction imposed by the National Fascist Party later that year (Zamagni, 1975, p.538). The subsequent reduction in workers' wages immediately restored the relative status of the middle classes.

5.5. Fascist Italy: the Great Depression and Autarky (1930–1939)

From the Great Depression to the eve of World War II, inequality dynamics reflects a stagnation in real incomes for most of the population. The only groups to experience significant gains were those in the 70th to 90th percentiles, representing salaried and self-employed workers in industry, transport, and commerce— an important component of the “middle classes” — and the top 1 percent, largely industrial owners.³⁴ As shown in the Appendix, this pattern holds throughout the early 1930s recession and the partial recovery in the second half of the decade, reflecting the distributive effects of fascist economic policies that increasingly prioritized industrial

³² As summarized by Mattesini and Quintieri (2006), from October 1925, Fascist trade unions—whose leaders were appointed by the regime—became the sole legal representatives in labor negotiations. These unions primarily enforced government policies and had little actual bargaining power. As a result, employers retained full control over hiring and firing and could easily impose working conditions on a highly unstable labor force.

³³ See Appendix, Figure A.3.5.

³⁴ The apparent decline in real incomes among the top 5 percent is due to reduced salaries of professionals and public administration employees, which offsets the income increase among the top 1 percent (the latter representing proprietors).

expansion.³⁵ Wage cuts, the imposition of a 40-hour workweek without compensation (Zamagni, 1975; Mattesini and Quintieri, 2006), and sustained labor repression all contributed to stagnating or declining earnings for the working class. Meanwhile, autarkic strategies launched after the 1935 invasion of Ethiopia (Turtur, 2024)—designed in coordination with industrial elites—provided new profit opportunities for capital owners through tax breaks and domestic market protection (Bertilorenzi et al., 2022). These developments helped consolidate what Segreto (2002, pp. 87–89) described as a “second honeymoon” between Fascism and Italian industrialists, helping the wealthiest groups to benefit the most from the economic policies of the decade.

5.6. World War II (1939–1945) and the “Reconstruction”

During World War II, real incomes declined across all groups, but the losses were unevenly distributed. The top 10 percent were relatively less affected, while the middle classes—particularly salaried professionals and the self-employed—bore the brunt of the contraction. Contemporary reports (Bdi, 1947, pp. 97–99) indicate that these groups were disproportionately impacted by wartime inflation, suggesting that they were less able than the working classes to preserve the real value of their incomes.³⁶ As in World War I, within-labor inequality narrowed during the conflict; however, rising capital incomes at the top counteracted these effects. Once profits are considered, the apparent equalizing impact of the two World Wars largely disappears.

In these trouble years, real wages fell even more than profits, but this trend was reverted in the last year of the War (1945), and most of all, in the following years. According to the GIC we computed for 1943–1950, reported in the appendix, in this period – when overall incomes grew by some 6 % - the richest 5 % incomes grew by less than half while those of the following 5 % even fell by 6.5 %.³⁷

6. Exploring inequality shifts within labor

To better understand the drivers of within-labor inequality, we turn to two key indicators: the evolution of the skill ratio and the relative fortunes of the working and middle classes—dimensions that are central to the political economy of Fascist Italy. These indicators shed light on how differences in work status and occupational group shaped inequality across the major historical episodes of the period.

During World War I, as we have seen, within-labor inequality declined significantly. As shown by the evolution of the skill ratio in Figure 5—defined as the income ratio between salaried and waged workers—the war brought a compression in earnings by work status. This supports the evidence of a declining Gini coefficient for workers discussed earlier. Salaried employees and self-employed workers were less able to protect their earnings from inflation, while the incomes of unskilled laborers—especially women and rural workers—rose relatively, narrowing the income gap. Similarly, the urban middle classes, including both white-collar workers and the self-employed, experienced a marked deterioration in their relative position. Their incomes failed to keep pace with inflation, resulting in a convergence with the wages of blue-collar workers by 1919.

On this metric, the compression continued into the Red Biennium, when the incomes of unskilled laborers increased more rapidly than those of other working groups, contributing to a decline in the skill ratio (Zamagni, 1991). The rise in the within-labor Gini during this period reflects stronger growth among industrial workers compared to agricultural laborers, who still formed the majority of the lower-income population.³⁸

During the early years of Fascism, the skill ratio rose steadily, with the expanding wage gap between white-collar and blue-collar workers becoming the primary contributor to rising within-labor inequality. Alongside internal dynamics and policy decisions, another contributing factor was the significant restriction on emigration during the 1920s. This constraint likely played a key role, as previous research has shown that migration had a positive effect on unskilled wages before World War I (Gomellini et al., 2017).

In the 1930s, the skill ratio peaked, reflecting the continued advantage of salaried employees over manual laborers. While Fascist authorities partially relaxed wage repression after the invasion of Ethiopia (arguably in an effort to strengthen the “internal front”) and slightly improved the position of blue-collar workers (Musso, 2016, pp. 276–279), these changes were limited, and the earnings gap between salaried and waged workers remained close to its peak throughout most of the decade.

With Italy’s entry into World War II in 1940, a sharp reduction in the skill ratio occurred, signaling renewed compression in earnings differences by work status. This pattern mirrors the reduction in within-labor inequality observed in World War I.

This indicator, indeed, helps trace how Fascist labor policies affected inequality. As noted by Toniolo (1980 pp.XII-XIII), labor control was likely the regime’s most distinctive economic feature. Rather than simply compressing all wages, Fascist labor policies increased the gap between salaried and waged workers, reversing the equalizing effects of the Great War, with lasting effects until the outbreak of World War II.

To analyze the evolving position of the urban middle classes—an essential dimension of Fascist Italy’s political economy, as

³⁵ See Appendix 3, Figure A.3.5.

³⁶ The GIC confirms that income compression was most pronounced in the middle of the distribution. As shown in the Appendix, this pattern reversed after the war, with the top 10 percent registering the smallest gains during the postwar recovery.

³⁷ As shown in the Appendix, our DSTs confirm the increase in the labor share, which in this period finally converged to Western European averages (Gabbuti, 2021), arguably for the combined effect of political and civil freedom (including the right for workers to organize independent unions) and the collapse of the economy, which eventually hit profits.

³⁸ The sharp increase in the Industry/Agriculture sectoral ratio is shown in Appendix 3 (Figure A.3.3). Its temporary decrease during the Great Depression contributed to the initial decrease in within-labor inequality, driven at that time by the upward trend in the skill ratio.

previously discussed—Fig. 5 also tracks the relative fortunes of salaried employees (both public and private) and the self-employed over time. After a relative improvement in the early 20th century, the outbreak of World War I marked a turning point. Between 1914 and 1919, the incomes of salaried and self-employed workers declined relative to those of wage earners. Inflation eroded the purchasing power of middle-class groups, which were less able to protect their earnings than blue-collar workers. This led to a marked convergence of middle- and working-class incomes, confirming and extending the observations made by contemporary analysts (Zamagni, 1981, pp. 517–522). These dynamics reinforced the perception of relative impoverishment among the urban middle classes during the crisis of Liberal Italy (Morris, 1996, p. 285), regardless of whether they actually experienced the “red menace” (Acemoglu et al., 2022, p. 1233). The period of intense labor mobilization did little to reverse this convergence. By the time of the March on Rome in 1922, middle-class incomes had not recovered and remained close to those of blue-collar workers.

From the early years of the Fascist regime, a clear reversal took shape. The relative position of white-collar workers and self-employed individuals improved steadily throughout the 1920s, contributing significantly to rising within-labor inequality. The shift was underpinned by monetary stabilization and specific policy measures, such as the legal protection of the self-employed through corporative legislation.³⁹ Public employees, in particular, benefitted from the regime’s bureaucratic expansion, while the creation of professional orders and restrictive shop-licensing rules further shielded middle-class men from market competition (Turi, 1994; De Grazia, 1992). These changes support findings by Zamagni (1980a) and Sylos Labini (1974), who documented rising status and earnings among public and white-collar employees during this phase. Our data suggest that this upward trend extended to a broader spectrum of the middle classes, beyond salaried workers, to include artisans and shopkeepers. Establishing whether the move found its “rationale” in the aim of consolidating the support of these groups goes beyond the scope of this quantitative reconstruction, but we can conclude that, whether intended or not, this was the outcome.

Somehow at odds with the conventional narrative that views the late 1930s as the moment of greatest middle-class support for Mussolini’s regime (De Felice, 1976), it was in this period that the fortunes of the urban middle classes seem to have declined. As mentioned above, following the increase in public expenditure to finance the invasion of Ethiopia, Italy at this time was eventually forced to abandon the Gold Standard (Toniolo, 1980, pp 287–294). According to our series, the various urban middle classes were less able than blue-collar workers to shield themselves from inflation. However, it was also in this period that the Fascist welfare state eventually developed. Out of all the workers, this favored white-collar workers and particularly employees (Giorgi and Pavan, 2021), whose numbers increased in line with the expansion of both state and “para-state” organizations.

6.1. The relative position of women

The construction of DSTs allows us to explore another important source of within-labor inequality: the gender pay gap. Fig. 6 shows a long-term narrowing of the male-to-female income ratio, making gender convergence one of the forces behind Italy’s Great Leveling. Our data show a gradual narrowing of the gender gap over the first half of the 20th century.⁴⁰ Around 1900, women earned on average about half as much as men.⁴¹ The gap widened during early industrialization but narrowed significantly during World War I and the Red Biennium, when labor shortages and mobilization favored the relative position of unskilled workers, among whom women were overrepresented.⁴²

The equalizing effect of the Great War was strongest in heavy industry, but common to all sectors, including the various services. Meanwhile, worker mobilization in 1920–1921 led to a general improvement in the position of unskilled workers, particularly benefitting women as most were considered “unskilled” in the pay structure (Bettio, 1988). This trend continued, rather less positively, in the first years of the Fascist government, this time due to the reduction in wages experienced by male industrial workers.

From 1925 to 1933, however, we can observe what looks like a reversal in this long-run declining trend. In just a few years, gender wage gaps went back to pre-war levels, contributing to the overall increase in within-labor inequality – between 1924 and 1930, the distance between the Gini series with and without women goes from 2.2 to 4.3 Gini percentage points. This reversal, common to all industrial and tertiary sectors for which we have evidence, has no equivalent in Britain or Germany in the interwar period. As De Grazia (1992) and Bettio (1988) noted, Fascist trade unions, dominated by male cadres, prioritized the defense of male employment and promoted legislation that limited women’s access to public sector jobs and confined them to lower-paid occupations. The introduction of family allowances in 1934, reserved for male-headed households (Giorgi and Pavan, 2021), further entrenched gender-based income disparities, beyond what our DSTs can capture.

In the 1930s, the gender gap narrowed again, though this was largely due to shifts in female employment composition—particularly the exit from agriculture (De Grand, 1976)—rather than real pay convergence. Despite the regime’s rhetoric against female employment, women expanded their presence in retail, services, healthcare, and both light and heavy industry (Pescarolo, 2019). This

³⁹ The monetary stabilization also benefitted homeowners and small renters, whose savings and investments in public bonds were preserved, contrary to the postwar inflationary period (Einaudi, 1961). Sylos Labini (1974) emphasized the role of monetary stabilization in securing middle-class support for the regime.

⁴⁰ This is consistent with the earlier, and for long only, discussion by Bettio (1988).

⁴¹ A level consistent with early modern estimates by de Pleijt and van Zanden (2021) and the prewar reconstruction by Federico et al. (2021, p. 15).

⁴² By 1921, Italian gaps were the lowest, compared to Britain (which had started from a higher level, showing a slow but steady convergence in the period) and Germany, which had started with a 60% gap, but had declined in the war period. See Gabbuti and Gómez-León (2024) for a more extended comparison and discussion.

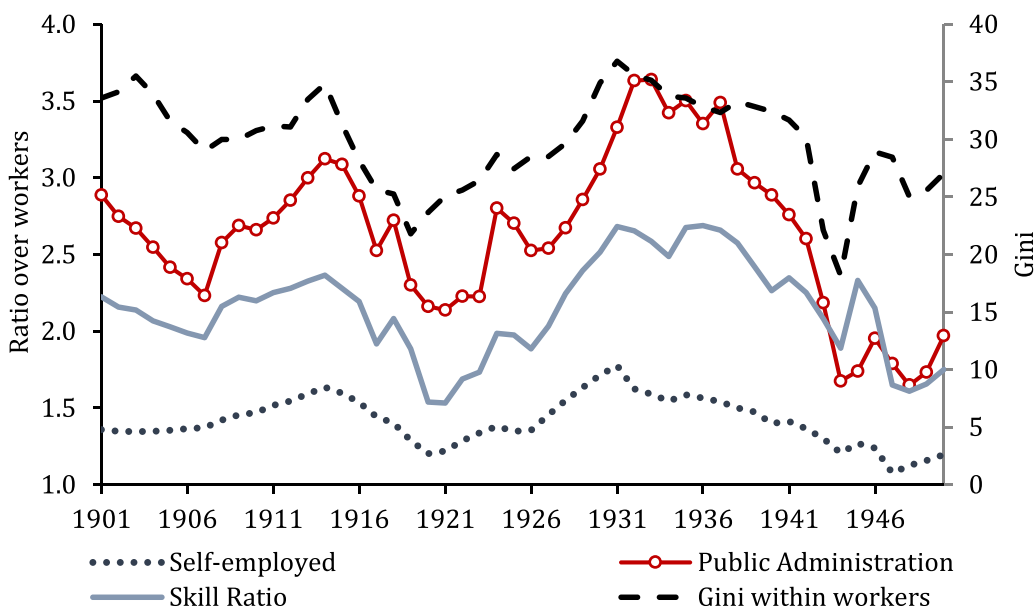


Fig. 5. Skill Ratio and the Relative Position of Middle Classes, 1901–1950.

Notes: Gini within workers as in Fig. 2 (represented on the right y-axes). The skill ratio is a weighted average of salary versus wage earners, by sector; it excludes, therefore, workers in agriculture (for sectoral ratios, see Appendix 3, Fig. A.3.3), professionals, personal services and people without a specified profession. Public administration and self-employed ratios are obtained as the ratios of, respectively, salary earners in public administration, and the self-employed in industry and services, over the same denominator for the skills ratio.

Source: authors' elaborations based on the sources listed in Appendix 1 and 2.

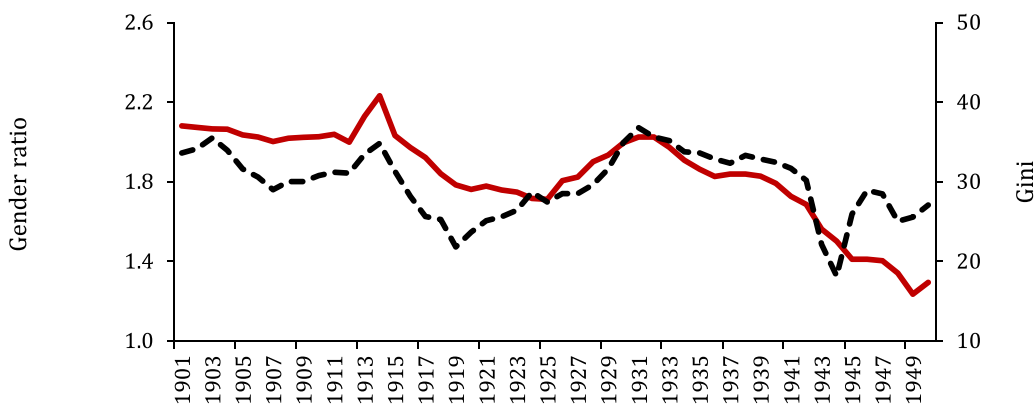


Fig. 6. Gender Income Ratio in Interwar Italy.

Notes: Gini within workers as in Fig. 2 (represented on the right y-axes). The Gender ratio is the weighted average of female versus male incomes, and includes all sectors.

Source: authors' elaborations based on the sources listed in Appendix 1 and 2.

reflected more the economic cycle – and employers' interest in low-wage labor (Musso, 2016) – than the effectiveness of discriminatory policies.

Only after World War II, with democracy and free trade unions, was equality established on a more positive basis, within general pay increases and economic growth. But then, the female participation rate collapsed again, reaching its absolute historical minimum in 1961 (Mancini, 2018, p.55).

Compared to other authoritarian regimes, Italy's gender and family policies were less systematic than those of Nazi Germany, but shared the aim of restoring traditional patriarchal norms (Ginsborg, 2003). As De Grazia (1992, p. 9) observed, the regime expected women to remain economically active through informal or part-time labor while taking on increasing responsibilities in the domestic sphere. These contradictions were resolved through a system that imposed tight control and segregation rather than outright exclusion. Our estimates suggest that this period saw a significant interruption in the long-term process of gender pay convergence—an outcome that distinguishes Italy from other European cases (Gabbuti and Gómez-León, 2024) and deserves further research.

7. Inequality in interwar Europe: authoritarian exceptions to the Great leveling?

How exceptional was Italy within the inequality dynamics of the interwar period? The construction of DSTs for Italy enables us to situate our findings within a broader European context. The DSTs methodology allows us to draw consistent comparisons with “democratic” Britain, and most notably, with two of the other major right-wing autocratic regimes of the period for which comparable estimates have been built: Nazi Germany and Francoist Spain. Additionally, the recent contribution by [Nikolić et al. \(2024\)](#) provides valuable estimates for Czechoslovakia and Bulgaria, extending the scope of comparison.⁴³ However, due to methodological differences, comparisons with these two countries should be treated with caution. That said, the data suggest that, like Spain, Italy reached higher inequality levels (above 50) than more industrialized economies such as the United Kingdom, Germany, and also Czechoslovakia (below 47), and significantly higher than in Bulgaria (below 40), which consistently emerges as the least unequal country in the group.⁴⁴

Furthermore, since right-wing autocratic regimes in Germany and Spain were inspired, to a certain degree, by Mussolini’s example and enacted similar policies to those of Fascist Italy, especially in the labor market, the comparison of their trajectories with that of Britain offers an opportunity to broaden the discussion to interwar distributive policies across Europe. What was the net impact of the world wars and the Great Depression? Did European authoritarianism increase inequality in the first half of the 20th century? Can the policies of authoritarian regimes explain this major deviation from the Great leveling? While answering this question would require more formal empirical testing, in the rest of this section we draw on existing scholarly works on the countries represented in [Fig. 7](#) to contribute to the broader issue of how institutional settings, especially in the labor market, could contribute to explain inequality trends.

7.1. The early 20th century and the Great War

In the early 20th century, inequality remained relatively stable in Britain and Germany. By contrast, Spain experienced a marked increase, while Italy consistently displayed high inequality levels. These findings, based on more comparable data, confirm the results of [Hauner, Milanovic, and Naidu \(2020\)](#), pp. 14–16), who identified Italy as having relatively high inequality on the eve of World War I.

The war, however, had a strongly disruptive effect on income distribution: Britain experienced a decrease in inequality while the opposite trend was observed in Germany, Italy and Spain. One potential explanation lies in the different ways in which each country decided to finance the war and its legacy in labor bargaining power. Britain was more willing (and capable) to impose tax on owners and the wealthy than Germany was, with the latter relying more on loans and inflation, as did Italy ([Kocka, 1984](#)). In this sense, as discussed for the preindustrial period by [Alfani \(2021\)](#), the observed trends in inequality can be explained by the progressivity of the fiscal system, and by political choices regarding the distribution of the war’s costs, rather than by the war *per se*.

During the war, British workers also gained recognition from the state and, through increased bargaining power, achieved substantial increases in average annual earnings and improved real incomes for the majority of the wartime workforce ([Aldcroft, 1970](#)). This resulted in decreasing inequality, with the Gini declining from 44 to 36. One can also identify clear differences between Germany and Italy, though both saw an increase in inequality. In Germany, the studies by [Bry \(1960, p.202\)](#), [Kocka \(1984, p.28\)](#), and others show that despite the pressure to increase wages due to labor shortages, unskilled workers and particularly those employed in civilian industries experienced a decline in income compared to skilled workers in war-related industries and business. [Gómez-León and de Jong \(2019\)](#) further emphasize the growing disparity between different categories of workers: contrary to the Italian situation, skill and gender ratios increased in Germany. However, what really affected the rise in inequality during this period was the growing gap between owners and workers, with the first earning up to six times more than the latter ([Gómez-León and de Jong, 2019, p.1089](#)). As a result, the increase in inequality appears to have been more dramatic in Germany than in Italy: at the end of the conflict, the two countries had similar Gini levels, but the former had suffered an increase of more than 10 percentage points, compared to 4 percentage points in the latter.

Interestingly, Spain also shows a rise in inequality, with the Gini increasing from 49 to 53. Spanish industrialists also enjoyed greater benefits compared to workers: Spain’s neutrality in the conflict facilitated a surge in exports, particularly benefitting industries operating in textiles, machinery, and chemical products that traditionally operated within a highly protected domestic market ([Rosés and Sánchez-Alonso, 2004](#)). However, rather than experiencing higher economic growth, Spain suffered from elevated inflation rates — something Italy and most of all Germany would experience more during the post-war period — and significant shifts in relative prices, potentially impacting income distribution ([Prados de la Escosura, 2017](#)). Consequently, while industries reaped extraordinary profits due to increased foreign demand and import substitutions, labor unions failed to secure wage adjustments in response to the rising prices ([Maluquer de Motes and Llonch, 2005](#)).

⁴³ These estimates are presented alongside ours in Appendix 3, Figure A.3.5.

⁴⁴ As shown in [Nikolić et al. \(2024, Figure 2\)](#), in 1930 Czechoslovakia had both higher per capita GDP and share of industrial workforce than Italy. [Nikolić et al. \(2024, p. 19\)](#) also correctly pointed out, their accounting of within class income dispersion makes their values appear artificially higher compared to those of other countries presented in [Figure 7](#). In this sense, the result that Italy exhibited higher inequality than Czechoslovakia can be considered a robust one.

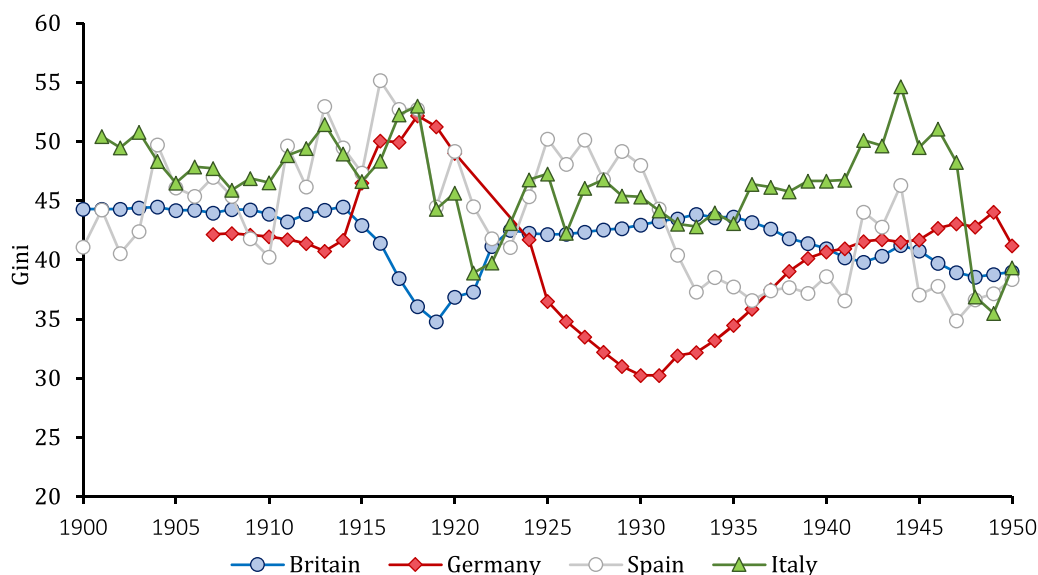


Fig. 7. Inequality in Europe, 1900–1950.

Notes: Gini coefficients are expressed in percentages.

Source: Ginis for Britain and Germany, based on DSTs, are from Gómez-León and de Jong (2019); those for Spain are from Prados de la Escosura (2008) based on a similar approach.

7.2. The Postwar period and the 1920s

Once the war was over, international trends apparently shifted: income inequality rose in Britain, and declined in Germany, Italy, and Spain. In Britain, owners regained ground lost during the war and resisted wage controls amid union weakness. Aldcroft (1970) highlights that downward pressure on wages prevailed during the 1920s, as a means of reducing production costs and adhering to deflationary policies aimed at restoring the Gold Standard (indeed, Britain was the only one among these countries not to experience any serious inflationary tendency). Recently, Mattei (2022) compared these “austerity” policies in Britain, especially fiscal ones, to those enacted by the Italian Fascist government from 1922 to 1925: indeed, the result was a sharp increase in inequality in Britain from the late 1910s to the early 1920s, and then a much more gradual increase over the rest of the decade.

Similar to the war-time period, the experience of Italy after the conflict seems comparable to that of Germany and Spain. Bresciani-Turroni (1937, p.301) and Bry (1960, p.38) point out that the German Revolution of 1918–1919 marked a watershed in labor conditions; the Weimar Republic, born out of these developments, established parity between capital and labor through collective bargaining. During the years of hyperinflation, labor unions, frequently supported by government arbitration, increased their bargaining power and kept nominal wages at pace with rising prices (Galofré-Vilà, 2023). Meanwhile, the richest (bondholders and rentiers) experienced the biggest losses (Balderston, 1989). This contributed to rebalancing the scale by narrowing differences between owners and workers, thus reducing inequality (Gómez-León and de Jong, 2019; Bartels, 2019), as was the case in Italy between 1918 and 1922. In Spain, significant structural and institutional changes — including new social laws, shorter working hours and increased union influence (Silvestre, 2006) — also contributed to a reduction in the wage-property income gap during this period (Prados de la Escosura, 2008), as reflected by the 7-percentage-point decrease in the Gini index between 1918 and 1924.

7.3. The Great Depression and the 1930s

The 1930s are the most interesting period for our comparisons: this was the same moment in which authoritarian right-wing regimes took over both in Germany and Spain. As suggested by Fig. 7 the finding that Italian fascism increased inequality also applied to other contexts: the arrival in power of the Nazis in Germany (1933) and Franco in Spain (1939) also appear to have disrupted the declining trends of inequality.

In the case of Germany, evidence from the studies by Bartels (2019) and Gómez-León and de Jong (2019) shows that once Hitler was elected in March 1933, the upper classes saw soaring profits. Nazi connections likely played a role in exacerbating income concentration among the largest firms (Ferguson and Voth, 2008). Meanwhile, the dissolution of labor unions and the implementation of maximum wage limits further worsened the relative position of both skilled and unskilled industrial workers (Bry, 1960). Overall, the example of Germany illustrates how gains achieved during the Weimar democracy were diminished. The analysis of GICs (Gómez-León and de Jong, 2019) and the evolution of top income shares (Bartels, 2019) offer valuable insights into the declining prosperity experienced by the upper echelons of income distribution prior to the emergence of Nazism. The top-income and middle-to-upper classes were the most affected (in relative terms) during the postwar Revolution, hyperinflation and the Great Depression — as was the case in the Italian Red Biennium, although the period was shorter. Just as in Mussolini’s Italy, when Hitler

reached power, the situation was reversed at the expense of workers, especially in industry, who had benefitted from the expansion of their labor rights.

In Spain, the positive developments in income distribution witnessed from the early 1920s — eclipsed by Primo de Rivera's dictatorship (1923–1930) — continued in the 1930s with the advent of the Spanish Second Republic (1931–1936), only to be abruptly halted by the Civil War (1936–1939) and Franco's dictatorship (1939–1975). In the 1930s, Spanish democracy was, indeed, an anomaly in the European context, where “all the republics that came after 1910, except for Ireland, had been falling under the influence of fascism” (Robledo, 2022, pp.222–223). The Second Republic eventually opened the doors to revolutionary syndicalism. Labor unrest and the strengthening of labor unions contributed to the rise of wages and the increase of labor costs (both in cities and rural areas), narrowing the gap between property and labor incomes (Prados de la Escosura, 2008; Robledo, 2022), as had been the case in post-World War I Italy and Germany. As a result, inequality declined (by 10 percentage points on the Gini index) in the context of increasing social polarization (Prados de la Escosura, 2008).

However, the reduction in inequality experienced during the 1930s was interrupted by the Spanish Civil War and Franco's victory — with the decisive intervention of military aid from Hitler and Mussolini (Casanova, 2010). This initiated one of the longest right-wing dictatorships in Europe. The establishment of the Francoist new labor order (explicitly inspired by the Fascist and Nazi models) laid the groundwork for state intervention in labor affairs while restricting trade-union freedom.⁴⁵ New laws establishing minimum wage scales and a strong state interventionism both in urban and rural areas (Ortega López, 2007) contributed to an increase in the gap between property and labor. Despite the ban of trade unions, wage compression took place as a result of the re-ruralization of the economy (both in terms of output and employment), which rewarded landowners at the expense of rural workers (Ortega López, 2007). While not shown here, Spanish inequality reached a new peak in 1953 (Prados de la Escosura, 2008).

While in Italy, Spain, and Germany, the formation of “corporatist” trade unions led to the restraint of industrial wages and a growing divergence between employers and workers, in Britain — by this time, the only democracy among the four countries — property and labor incomes were more evenly distributed. Despite the high pools of unemployment following the Great Depression, labor demands resulted in wages falling less and a reduction in pay inequalities, particularly in those industries crucial for the rearmament and the war effort (Gazeley, 2006). Moreover, British elites still had to respond to workers' demands in order to prevent the spread of socialism — an issue authoritarian regimes had solved in Germany, Italy and Spain.

7.4. World War II and the 1940s

Finally, as in the Great War, opposite patterns began to appear during World War II, with increasing inequality in Fascist Italy, Germany, and non-belligerent Spain, while inequality declined in Britain. During World War II, income inequality in Italy seems to have reached higher levels than those of Germany and Spain. The peak, achieved in 1944, surpassed the one seen at the end of World War I. It was only at the end of the war that inequality levels of the four countries tended to converge. While World War II also appears to have disproportionately benefitted capitalists, in the end it had a destructive effect on their assets, as evidenced by the decrease in Ginis and in wealth-income ratios (Piketty, 2014) — even though, according to Cannari et al. (2017), in Italy most of the decline in this latter indicator took place only after the Economic Miracle. It is surely true that, in the “Golden Age” that followed World War II, European countries (with some exceptions, Spain among them) expanded both public expenditure and the welfare state, while at the same time adhering to international controls on capital flows, and greatly increasing progressive taxation on both inheritance and incomes (Piketty, 2020).

8. Conclusion

Using DSTs, this paper offers new annual series on income inequality in Italy during the first half of the 20th century, shedding light on previously overlooked distributive dynamics. While our findings broadly confirm a long-term decline in inequality, they also uncover marked short-term fluctuations associated with major political and economic events.

The Great War marked a major distributive rupture. While labor mobilization and inflation contributed to a compression of incomes among workers—leading to a decline in within-labor inequality—rising capital incomes among industrial elites drove overall inequality to new highs. During the Red Biennium, labor mobilization, wage gains, and modest redistributive reforms contributed to a temporary decline in inequality. However, the March on Rome marked a turning point. During the Fascist regime, inequality among wage earners strongly increased in the 1920s, driven by the increase first in skill differentials, and the broader recovery of the relative positions of the middle classes, and then of gender gaps. Over the whole period, however, the main driver of rising inequality was the growing income gap between capital owners and the rest of the population. Overall inequality remained high throughout the Fascist period, sustained by capital concentration and policies that favored industrialists. During World War II, a renewed compression of labor incomes—due to the erosion of middle-class earnings—was again offset by persistent capital income gains. Only after the collapse of capital returns in the postwar years did inequality fall significantly.

To contextualize these results, we compare Italy's trends with those of other countries over the same period. While the effects of the two world wars on inequality were heterogeneous, Italy's trajectory mirrors patterns seen in other countries under authoritarian rule. The rise of right-wing dictatorships in Germany and Spain—like in Italy—reversed earlier reductions in inequality and consolidated

⁴⁵ Notably, in drafting the legislation, the government had taken as references the Italian labor charter of 1927 and the German law on the organization of national work of 1934 (Clavera et al., 1973, p.71).

the advantages of higher-income groups. Our results reinforce recent research that challenged the supposedly “benign” and unambiguously progressive impact of wars (Bartels, 2019; Gómez-León and de Jong, 2019). Instead, differences in taxation, monetary policy, and labor relations help explain why the same war-induced shock can produce widely varying outcomes—reinforcing the idea that “human agency” plays a key role in shaping inequality (Alfani, 2021).

Methodologically, we believe the findings of this article underscore the importance of approaches in economic history that capture year-on-year variations in inequality across the entire income spectrum. Especially in turbulent times, only sufficiently fine-grained series can capture the short-term impacts of economic shocks and political shifts. DSTs offer precisely this kind of evidence—one that, as Milanovic (2023, p. 295) recently emphasized, helps to understand inequality as shaped by, and embedded within, broader political and social structures.

In this sense, unlike approaches focused on top income shares, our use of DSTs captures the full income distribution, revealing shifts in skill, gender, and labor dynamics. This broader lens highlights the importance of political and institutional features—especially in the labor market, with the role of trade unions and their evolving bargaining power—in shaping inequality. In this respect, it is notable that this also held true during events such as world wars, falsifying simplistic interpretation on their redistributive effect. Even more, we illustrate the role of policies and institutions in the post-World War I years: while democracies like Britain also adopted austerity policies (Mattei, 2022; Maier, 1975), Fascist Italy went further, imposing direct control over labor through the dismantling of unionized labor (Tonio, 1980). Our findings illustrate the consequences of such a policy in Italy, and point to telling parallels with similar developments in interwar Germany and Spain.

CRedit authorship contribution statement

María Gómez-León: Methodology, Data curation, Writing – review & editing, Investigation, Conceptualization, Writing – original draft, Formal analysis. **Giacomo Gabbuti:** Writing – original draft, Conceptualization, Investigation, Writing – review & editing, Formal analysis.

Acknowledgments

We thank the editors and two anonymous referees for their constructive feedback. We also benefited from discussions at the XVI AISPE Conference, the Zurich Virtual FRESH Meeting, the Oxford Graduate Economic History Seminar, the Economic History Seminars at the Universitat de Barcelona and Universitat Pompeu Fabra, the “Lost Highway” Webinar, and the Third Inequality Meeting at the Universidad de Zaragoza. We are grateful to Stefano Manestra, Leandro Prados de la Escosura, and Stefan Nikolić for kindly sharing their data, and to Brian A’Hearn, Víctor Durà-Vilà, Pablo Martinelli, Branko Milanovic, Alessandro Nuvolari, and Vera Zamagni for their helpful suggestions. The usual disclaimer applies. María Gómez León acknowledges support from Fundación Ramón Areces and the project PID2021–127636NB-I00 (MCIN/AEI/10.13039/501100011033 and ERDF “A way of making Europe”). Giacomo Gabbuti acknowledges funding from the project “Economic development in Italy from the Middle Ages to today: a regional perspective,” funded by the Italian Ministry of University and Research, Progetti di Rilevante Interesse Nazionale (PRIN) Bando 2020, no. 20207WZ9XH_002

Supplementary materials

Supplementary material associated with this article can be found, in the online version, at [doi:10.1016/j.eeh.2025.101715](https://doi.org/10.1016/j.eeh.2025.101715).

Data availability

Data will be made available on request.

References

- Aboagye, P.Y., Bolt, J., 2021. Long-term trends in income inequality: winners and losers of economic change in Ghana, 1891–1960. *Explor. Econ. Hist.* 82, 101405.
- Acemoglu, A., De Feo, G., De Luca, G., Russo, G., 2022. War, Socialism and the Rise of Fascism: An Empirical Exploration. *Q. J. Econ.* 137, 1233–1296.
- Albers, T., Bartels, C., Schularick, M., 2022. Wealth and Its distribution in Germany. *J. Eur. Econ. Assoc.* 1895–2021.
- Aldcroft, D.H., 1970. *The Inter-War economy: Britain, 1919–1939*. Columbia University Press, New York.
- Alfani, G., 2021. Economic inequality in preindustrial times: Europe and beyond. *J. Econ. Lit.* 59, 3–44.
- Albanese, G., 2020. *The March on Rome. Violence and the Rise of Italian Fascism*. Routledge, Abingdon, NY.
- Alvaredo, F., Atkinson, A.B., Morelli, S., 2018. Top Wealth Shares in the UK over More than a Century. *J. Public Econ.* 162, 26–47.
- Amendola, N., Vecchi, G., 2017. Inequality. In: Vecchi, G. (Ed.), *Measuring Wellbeing: A History of Italian Living Standards*. Oxford University Press, Oxford-New York.
- Astorga, P., 2024. Revealing the Diversity and Complexity behind Long-Term Income Inequality in Latin America: 1920–2011. *J. Econ. Hist.* 84, 1029–1065.
- Balderston, T., 1989. War finance and inflation in Britain and Germany, 1914–1918. *Economic History Review* 4, 222–244.
- Banca d’Italia (BdI), 1947. *Adunanza Generale Ordinaria Dei partecipanti, Tenuta in Roma il Giorno 31 Marzo 1947*. Banca d’Italia, Rome.
- Bartels, C., 2019. Top incomes in Germany, 1871–2013. *J. Econ. Hist.* 79, 669–707.
- Bel, G., 2011. The First Privatisation: Selling SOEs and Privatising Public Monopolies in Fascist Italy (1922–1925). *Cambridge J. Econ.* 35, 937–956.

- Bertilorenzi, M., Cerretano, V., Perugini, M., 2022. Between Constraints and Opportunities: Big Italian Business and Autarky, 1934-1943. *Rivista di storia economica/ Italian Review of Economic History* 38, 303-336.
- Bettio, F., 1988. *The Sexual Division of Labour*. Clarendon Press, Oxford.
- Bresciani-Turroni, C., 1937. *The Economics of inflation: a Study of Currency Depreciation in Post-War Germany, 1914-1923*. George Allen&Unwin, London.
- Bry, G., 1960. *Wages in Germany 1871-1945*. Princeton University Press, Princeton, NJ.
- Cannari, L., D'Alessio, G., Vecchi, G., 2017. Wealth. In: Vecchi, G. (Ed.), *Measuring Wellbeing: A History of Italian Living Standards Since 1861*. Oxford University Press, Oxford, pp. 373-414.
- Casanova, J., 2010. *The Spanish republic and Civil War*. Cambridge University Press, Cambridge.
- Clavera, J., Esteban, J., Monés, A., Hombravella, J.Ros, 1973. *Capitalismo español: De La Autarquía a La Estabilización*. Edicusa, Madrid.
- Cohen, J.S., 1972. The 1927 Revaluation of the Lira: a Study in Political Economy. *Economic History Review* 25, 642-654.
- De Felice, R., 1976. Fascism: An Informal Introduction to Its Theory and Practice: An Interview With Michael A. Ledeen. Transaction Books, New Brunswick, N.J.
- De Grand, A., 1976. Women Under Italian Fascism. *The Historical Journal* 19, 947-968.
- De Grazia, V., 1992. *How Fascism Ruled Women: Italy, 1920-1945*. University of California Press, Berkeley.
- De Pleijt, A., van Zanden, J.L., 2021. Two worlds of female labour: gender wage inequality in western Europe, 1300-1800. *Econ. Hist. Rev.* 74, 611-638.
- Ecce, F., 2023. War Profits and Tax Evasion: italian Fiscal Policies in the First World War and After the War, 1915-1924," in S. Guex. In: Buclín, H. (Ed.), *Tax Evasion and Tax Havens Since the Nineteenth Century*. Palgrave Macmillan, London, pp. 223-238.
- Einaudi, L., 1961. *Cronache Economiche e Politiche Di Un trentennio*, vol. V, 1919-1920. Einaudi, Turin.
- Espuelas, S., 2015. The Inequality Trap. A Comparative Analysis of Social Spending between 1880 and 1930. *Economic History Review* 68, 683-706.
- Federico, G., Nuvolari, A., Ridolfi, L., Vasta, M., 2021. The race between the snail and the tortoise: skill premium and early industrialization in Italy (1861-1913). *Cliometrica (Berl)* 15, 1-42.
- Felice, E., Carreras, A., 2012. When did modernization begin? Italy's industrial growth reconsidered in light of new value-added series, 1911-1951. *Explor. Econ. Hist.* 49, 443-460.
- Ferguson, T., Voth, H.J., 2008. Betting on Hitler: The Value of Political Connections in Nazi Germany. *Q. J. Econ.* 123, 101-137.
- Frascani, P., 1975. *Politica Economica e Finanza Pubblica in Italia nel Primo Dopoguerra (1918-1922)*. Giannini, Napoli.
- Gabbuti, G., 2021. Labour Shares and Inequality: Insights from Italian Economic History, 1895-1970. *Eur. Rev. Econ. Hist.* 25, 355-378.
- Gabbuti, G., 2022. Those Who Were Better Off: Capital and Top Incomes in Fascist Italy. *LEM Working Paper Series* 31.
- Gabbuti, G., Gómez-León, M., 2024. Incomes and Employment of Italian Women, 1900-1950. In: Mosca, M. (Ed.), *Women At Work in Italy (1750-1950), Their Economic Thought and Actions*. Springer, pp. 131-155.
- Gabbuti, G., Settis, B., 2022. Difendere la produzione, difendersi dalla redistribuzione. *Stud. Stor.* 63, 829-864.
- Galassi, F., Harrison, M., 2005. Italy at War, 1915-1918. In: Broadberry, S., Harrison, M. (Eds.), *The Economics of World War I*. Cambridge University Press, Cambridge, pp. 276-309.
- Galofré-Vilà, G., 2023. Spoils of War: The Political Legacy of the German Hyperinflation. *Explor. Econ. Hist.* 88, 101479.
- Gazeley, I., 2006. The levelling of pay in Britain during the Second World War. *Eur. Rev. Econ. Hist.* 10, 175-204.
- Giannetti, R., Vasta, M. (Eds.), 2006. *Evolution of Italian Enterprises in the 20th Century*. Physica-Verlag, Heidelberg-New York.
- Ginsborg, P., 2003. The family politics of the great dictators. In: Kertzer, D.I., Barbagli, M. (Eds.), *The History of the European Family. Vol. III: Family Life in the Twentieth Century*. Yale University Press, New Haven and London, pp. 174-197.
- Giordano, C., Giugliano, F., 2015. A Tale of Two Fascisms: Labour Productivity Growth and Competition Policy in Italy, 1911-1951. *Explor. Econ. Hist.* 55, 25-38.
- Giorgi, C., Pavan, I., 2021. *Storia Dello Stato Sociale in Italia. il Mulino*, Bologna.
- Gomellini, M., Gráda, C.Ó., Vecchi, G., 2017. Migration. In: Vecchi, G. (Ed.), *Measuring Wellbeing: A History of Italian Living Standards*. Oxford University Press, Oxford-New York, pp. 215-253.
- Gómez-León, M., 2019. The rise of the middle class in Brazil, 1850-1950. *Eur. Rev. Econ. Hist.* 23, 482-498.
- Gómez-León, M., 2021. The kuznets curve in Brazil, 1850-2010. *Rev. Hist. Econ.- J. Iber.Lat. Am. Econ. Hist.* 3913761.
- Gómez-León, M., De Jong, H.J., 2019. Inequality in turbulent times: income distribution in Germany and Britain, 1900-50. *Econ. Hist. Rev.* 72, 1073-1098.
- Gualerni, G., 1976. *Industria e fascismo: Per Una Interpretazione Dello Sviluppo Economico Italiano Tra Le Due Guerre*. Vita e pensiero, Milan.
- Hauer, T., Milanovic, B., and S. Naidu. "Inequality, Foreign Investment, and Imperialism", MPRA Paper No. 83068 (2020).
- Istat, 2011. *L'Italia in 150 anni: Sommario Di Statistiche storiche, 1861-2010*. Rome: Istat.
- Kocka, J., 1984. *Facing Total war: German society, 1914-1918*. Harvard University Press, B. Weinberger, trans. Cambridge, MA.
- Maier, C.S., 1975. *Recasting Bourgeois Europe: Stabilization in France, Germany, and Italy in the Decade after World War I*. Princeton University Press, Princeton.
- Maluquer de Motes, J., Llonch, M., 2005. Trabajo y relaciones laborales. In: Carreras, A., Tafunell, X. (Eds.), *Estadísticas Históricas De España (Vol. III)*. Fundación BBVA, Bilbao, pp. 1155-1245.
- Mancini, G., 2018. Women's Labor Force Participation in Italy, 1861-2011. *Rivista di storia economica* 34, 3-68.
- Marcoaldi, F., 1986. *Vent'anni Di Economia politica: Le Carte De' Stefani (1922-1941)*. Franco Angeli, Milano.
- Martinelli Lasheras, P., and J. Domènech Feliu, «Red fear» and a «spontaneous land reform» in post-Great War Italy, in "Rivista di storia economica, Italian Review of Economic History" 2/2024, pp. 153-194.
- Mattei, C., 2022. *The Capital Order. How Economists Invented Austerity and Paved the Way to Fascism*. Chicago University Press, Chicago.
- Mattesini, F., Quintieri, B., 2006. Does a Reduction in the Length of the Working Week Reduce Unemployment? Some Evidence from the Italian Economy during the Great Depression. *Explor. Econ. Hist.* 43, 413-437.
- Milanovic, B., 2016. *Global Inequality: A New Approach for the Age of Globalization*. Harvard University Press, Cambridge.
- Milanovic, B., 2023. *Visions of Inequality. From the French Revolution to the End of the Cold War*. Harvard University Press, Cambridge.
- Milanovic, B., 2018. Towards an explanation of inequality in premodern societies: the role of colonies, urbanization, and high population density. *Econ. Hist. Rev.* 71, 1029-1047.
- Milanovic, B., 2024. How rich were the rich? An empirically-based taxonomy of pre-industrial bases of wealth. *Explor. Econ. Hist.* 93, 101592.
- Milanovic, B., Lindert, P.H., Williamson, J.G., 2011. Pre-Industrial Inequality. *The Economic Journal* 121, 255-272.
- Modalsli, J., 2015. Inequality in the very long run: inferring inequality from data on social groups. *J. Econ. Inequal.* 13, 225-247.
- Morris, J., 1996. Retailers, Fascism and the Origins of the Social Protection of Shopkeepers in Italy. *Contemp. Eur. Hist.* 5, 285-288.
- Musso, S., 2016. Lavoro e sindacato nell'economia fascista. In: Neri Serneri, S. (Ed.), *1914-1945: L'Italia Nella Guerra Europea Dei Trent'anni*. Viella, Rome, pp. 273-285.
- Nikolić, S., Novokmet, F., Larysz, P.P., 2024. Income inequality in Eastern Europe: bulgaria and Czechoslovakia in the twentieth century. *Explor. Econ. Hist.* 94 (2024), 101594.
- Ortega López, T.M., 2007. Las miserias del fascismo rural. Las relaciones laborales en la agricultura española, 1936-1948. *Hist. Agrar.* 43, 531-553.
- Pescarolo, A., 2019. *Il Lavoro Delle Donne Nell'Italia Contemporanea*. Viella, Rome.
- Piketty, T., 2014. *Capital in the 21st Century*. Harvard University Press, Cambridge.
- Piketty, T., 2020. *Capital and Ideology*. Harvard University Press, Cambridge.
- Piketty, T., Zucman, G., 2014. Capital is back: Wealth-income ratios in rich countries 1700-2010. *Q. J. Econ.* 129, 1255-1310.
- Prados De La Escosura, L., 2008. Inequality, Poverty and the Kuznets Curve in Spain, 1850-2000. *Eur. Rev. Econ. Hist.* 12, 287-324.
- Prados De La Escosura, L., 2017. *Spanish Economic Growth, 1850-2015*. Palgrave Macmillan, London.
- Procacci, G., 2013. *Warfare-Welfare. Intervento dello Stato e diritti Dei Cittadini (1914-18)*. Carocci, Rome.
- Ravallion, M., Chen, S., 2003. Measuring pro-poor growth. *Econ. Lett.* 78, 93-99.
- Robledo, R., 2022. *La Tierra Es vuestra. La reforma agraria. Un problema No Resuelto En España: 1900-1950. Pasado y Presente*, Barcelona.

- Rodríguez Weber, J.E., 2017. *Desarrollo y Desigualdad En Chile (1850-2009) Historia de Su Economía Política*. DIBAN-Centro de Investigaciones Diego Barros Arana, Santiago.
- Rosés, J.R., Sánchez-Alonso, B., 2004. Regional Wage Convergence in Spain, 1850–1930. *Explor. Econ. Hist.* 41, 404–425.
- Rossi, N., Toniolo, G., Vecchi, G., 2001. Is the Kuznets Curve Still Alive? Evidence from Italian Household Budgets, 1881–1961. *J. Econ. Hist.* 61, 904–925.
- Salvati, M., 1994. Da piccola borghesia a ceti medi. Fascismo e ceti medi nelle interpretazioni dei contemporanei e degli storici. *Ital. Contemp.* 194, 65–84.
- Segreto, L., 2002. Entrepreneurs and the Fascist Regime in Italy: From the Honeymoon to the Divorce. In: James, H., Tanner, J. (Eds.), *Enterprise in the Period of Fascism in Europe*. Routledge, London, pp. 78–93.
- Scheidel, W., 2018. *The Great Leveler: Violence and the History of Inequality from the Stone Age to the Twenty-first Century*. Princeton University Press, Princeton.
- Scheidel, W., 2024. Inequality reduction between tragedy and progress: The great leveler and recent scholarship. SSRN 2017–2024. <https://doi.org/10.2139/ssrn.4939891>.
- Silvestre, J., 2006. Wage compensation for workplace disamenities during industrialization: The case of Spain, 1909–20. *Labor. Hist.* 47, 43–72.
- Sylos Labini, P., 1974. *Saggio Sulle Classi Sociali*. Laterza, Rome-Bari.
- Toniolo, G., 1980. *L'economia Dell'italia Fascista*. Laterza, Rome-Bari.
- Toniolo, G., 2013. An Overview of Italy's Economic Growth. In: Toniolo, G. (Ed.), *The Oxford Handbook of the Italian Economy Since Unification*. Oxford University Press, Oxford-New York, pp. 3–36.
- Turi, G., 1994. *Libere Professioni e Fascismo* (Ed.). Franco Angeli, Milan.
- Turtur, N., 2024. Radical Mercantilism and Fascist Italy's East African Empire. *Bus. Hist. Rev.* 98, 165–202.
- Willson, P., 2010. *Women in Twentieth-Century Italy*. Palgrave Macmillan, London.
- Zamagni, V., 1975. La dinamica dei salari nel settore industriale, 1921-1939. *Quad. Stor.* 10, 530–549.
- Zamagni, V., 1980a. Distribuzione Del Reddito E Classi Sociali Nell'Italia Fra Le due Guerre. *Annali Della Fondazione Feltrinelli* 20, 17–50.
- Zamagni, V., 1980b. 'The Rich in a Late Industrialiser: the Case of Italy, 1800-1945'. In: Rubinstein, W.D. (Ed.), *Wealth and the Wealthy in the Modern World*. Croom Helm, London, pp. 122–166.
- Zamagni, V., 1981. *La Distribuzione Commerciale in Italia fra Le Due Guerre*. Franco Angeli, Milan.
- Zamagni, V., 1991. Industrial Wages and Workers' Protest in Italy during the 'Biennio Rosso' (1919-1920). *Journal of European Economic History* 20, 137–153.
- Zamagni, V., 1998. Italy: How to Lose the War and Win the Peace. In: Harrison, M. (Ed.), *The Economics of World War II*. Cambridge University Press, Cambridge.