Schifano Sonia,[1] Tiago Ferreira Flores,[2] Antoine Paccoud[2]

Inequality in pre-industrial Luxembourg (1766-1842): comparing the effects of the end of feudalism in rural and urban area[3]

1. Introduction

Explaining the origins of wealth inequality remains a challenge for researchers in a variety of fields. It is commonly posited that inequality emerged and escalated alongside the increasing complexity of society. The phenomenon – linked to unequal treatment and to differences in access to essential resources such as food, housing, and land – has been studied by researchers from various disciplines including archaeology, history, and economic history, resulting in new estimations of wealth inequality (Bogaard et al. 2024, Fochesato et al. 2019, Kohler and Higgins 2016, Piketty 2014). Furthermore, in attempting to understand the trends in inequality, various mechanisms have been examined as potential explanations. Institutions, demographic shocks, and economic growth patterns have emerged as prominent factors, yet a definitive and comprehensive explanation remains elusive. While in certain contexts, such as the Dutch Republic during the seventeenth and mid-eighteenth centuries, economic growth may suffice to elucidate long-term trends (Van Zanden 1995), in other cases, such as the Republic of Venice, economic growth, demographic trends and institutions do not prove adequate if considered in isolation (Alfani and Di Tullio 2019). The complexity intensifies when considering the transmission of wealth across time and generations. The study of social mobility is challenged by the collection of longitudinal wealth data on individuals and the reconstruction of family ties across different historical periods. To address these challenges, researchers have employed diverse methodologies and datasets to generate estimates of intergenerational social mobility (Borgerhoff-Mulder et al. 2009, Clark and Cummins 2015, Piketty et al. 2006, Schifano and Paccoud 2024, Van Leeuwen et al. 2016).

In the recent years, there has been a notable emphasis on investigating pre-industrial societies, particularly concerning the collection and analysis of data pertaining to wealth inequality across different countries and historical times (Alfani et al. 2020). Several European nations have gained significant attention due to the availability of well-preserved archival materials, facilitating the examination of the

---

[1] Corresponding author. Bocconi University: sonia.schifano@unibocconi.it

[2] Luxembourg Institute of Socio-Economic Research (LISER).

[3] The paper received financial support from the Fonds National de la Recherche Luxembourg (FNR) (Grant 12553347 – AFR Individual) (FNR PhD funding: PRIDE21/16758026/D4H).

Sonia Schifano, Bocconi University, Italy, sonia.schifano@unibocconi.it, 0000-0001-8853-9067
Tiago Ferreira Flores, Luxembourg Institute of Socio-Economic Research, Luxembourg, tiago.ferreiraflores@liser.lu
Antoine Paccoud, Luxembourg Institute of Socio-Economic Research, Luxembourg, antoine.paccoud@liser.lu

Referee List (DOI 10.36253/fup_referee_list)
FUP Best Practice in Scholarly Publishing (DOI 10.36253/fup_best_practice)

Sonia Schifano, Ferreira Flores Tiago, Paccoud Antoine, *Inequality in pre-industrial Luxembourg (1766-1842): comparing the effects of the end of feudalism in rural and urban areas*, © Author(s), CC BY 4.0, DOI 10.36253/979-12-215-0667-9.17, in Angela Orlandi (edited by), *La mobilità sociale nelle società preindustriali: tendenze, cause ed effetti (secc. XIII-XVIII) / Social mobility in pre-industrial societies: tendencies, causes and effects (13th-18th centuries)*, pp. 357-375, 2025, published by Firenze University Press, ISBN 979-12-215-0667-9, DOI 10.36253/979-12-215-0667-9

wealth distribution within various communities over extended periods. Notably, Italy, Spain, France, and the Low Countries have emerged as focal points for research on pre-industrial wealth inequality, as evidenced by multiple studies conducted in these regions (Alfani and Ammannati 2017, Alfani et al. 2020, Alfani and Ryckbosch 2016, Brea-Martínez and Pujadas-Mora 2019, Nicolini and Ramos-Palencia 2021, Ryckbosch 2016). In recent years, scholars have also directed their attention towards exploring wealth inequality dynamics in Germany, Sweden, and Finland (Alfani et al. 2020, Bengtsson et al. 2017). Despite the considerable recent attention for the topic, numerous countries remain underexplored in terms of long-term wealth inequality trends. Many regions of the world, including several European countries, exhibit sparse data availability, particularly for the period before the 1950s. This scarcity is particularly pronounced in underdeveloped or developing nations, but it is not limited to them (Milanovic et al., 2011; Alfani and Schifano 2021). One economically advanced European region lacking comprehensive studies on the long-run accumulation, inequality, and transmission of wealth is Luxembourg.

The study presented in this paper tries to fill this gap in the literature through the analysis of the evolution of wealth inequality in pre-industrial Luxembourg between 1766 and 1842. The data used are partly new and collected from the archival source «Cadastre de Marie Thérèse»[4] and the land registry of 1842.[5] The information contained in these archival sources makes it possible to analyse inequality levels and social mobility in both the urban area of Luxembourg City and the rural municipality of Dudelange. The paper aims to understand how areas with different socio-economic characteristics respond to the same institutional change in terms of inequality and social mobility. The data provide insights into whether the lower end of the distribution influenced inequality in pre-industrial societies, as conjectured by Milanovic et al. (2007), and to explore the impact of the abolition of feudalism and its associated practices in Luxembourg. It is already demonstrated that despite the reduction of inequality in Dudelange from 1766 to 1872, the abolishment of feudal relations did not translate into higher social mobility in the long run (Schifano and Paccoud 2024). The analyses presented here extend these results to a comparison between the city and the countryside. This paper details the historical socio-economic landscape of Luxembourg between 1766 and 1842, describes the data employed, presents the results of the analyses and ends with concluding remarks.

[4] Luxembourg, Archives nationales (ANLux), A-XIV Cadastre de Marie-Thérèse, 1752-1772 (Fonds). Monst-St-Jean (seigneurie) (Sous-série), A-XIV-79 and A-XIV-80, Dudelange (justice) - Budersberg et Buringen (Dossier). Quartier de Luxembourg (Série), Ville de Luxembourg - haut-command (Sous-série), A-XIV-1, A-XIV-2, A-XIV-3, A-XIV-4, A-XIV-5, A-XIV-6, A-XIV-7, A-XIV-8, A-XIV-9, A-XIV-10.1, A-XIV-10.2, A-XIV-10.3, A-XIV-11.1, A-XIV-11.2, A-XIV-11.3.

[5] Luxembourg, Archives de l'Administration du Cadastre et de la Topographie (ACT), Matrice cadastrale des propriétés foncières bâties et non-bâties de 1842 et 1872, Commune de Dudelange et Luxembourg Ville.

2. Historical context

Throughout the late seventeenth and early eighteenth centuries, Luxembourg's trajectory was significantly influenced by broader European dynamics, particularly the War of the Spanish Succession, triggered by the death of the childless Spanish Habsburg, King Charles II. This conflict, which lasted from 1701 to 1714, culminated in the treaties of Utrecht (1713) and Rastatt (1714), which transferred control over Luxembourg to Charles VI of Habsburg (Kreins 2007, 39-68). This transition heralded a new era of Habsburg domination, which lasted until the French Revolutionary forces claimed Luxembourg in 1795. During this period, Charles VI was determined to secure the succession for his daughter, Maria Theresa, despite legal provisions favouring his brother Joseph's daughter. Despite the prevailing Salic law, which barred women from succession in many European realms, Charles VI's determination saw him undertake extensive diplomatic manoeuvres, culminating in the Pragmatic Sanction. This was a legal framework designed to ensure Maria Theresa's unchallenged succession to the Habsburg dominions (Mahan 1932).

Maria Theresa's ascendancy to the throne in 1740 after her father's death saw her initiate a series of reforms aimed at reducing inequalities (Kreins 2007, 52-53). These reforms, which included the pioneering Maria Theresa land survey introduced in 1766, sought to redistribute the fiscal burden, placing a greater onus on the wealthiest segments of the population, including the clergy and nobility, while alleviating financial pressures on the poorest. These measures were partly instrumental in financing the establishment of state schools and a healthcare system across the Habsburg domains, reflecting Maria Theresa's commitment to welfare and equity (Mahan 1932).

The period of reforms that started with Maria Theresa aimed at increasing and supporting industrial and agricultural production and at protecting the private ownership of land (Trausch 1993, 35). However, the government's intention to protect the poorest is visible in the conflicts that emerged between the State and the feudal lords with respect to the latters' practice of regularly increasing the amount of work and resources asked from the peasants. The nobility and the clergy also opposed the introduction of the *dénombrement* of 1766 that in addition to recalculating the fiscal distribution according to the family units populating the region, did not exempt the upper classes from paying the taxes that were until that time shouldered solely by peasants, farmers and artisans. The society of that era was stratified into various social groups with specific functions and responsibilities, including villagers, the clergy, the nobility, guild members, and officials. As in other pre-modern societies, despite constituting 98 percent of the population, the third estate remained unrepresented in direct governance, with elected representatives predominantly drawn from the ranks of the bourgeoisie and officers rather than from peasants and farmers.

Until the mid-nineteenth century, Luxembourg predominantly functioned as a rural society, its connectivity with neighbouring France, Belgium, and Germany hampered by the rugged Ardennes and a lack of paved roads. These geographical challenges contributed to elevated costs and limited the import of goods and food, marking the Grand Duchy's economy with a degree of isolation (Trausch 1993). Despite this, Luxembourg City emerged as an economic hub, fortified by its strategic fortress and a vibrant community of artisans and a foreign garrison, distinguishing itself from the broader agricultural economy that characterized much of the region, including areas like Dudelange. Agricultural production across Luxembourg was modest and faced with challenges in productivity. Wheat emerged as the predominant crop, while potatoes, introduced in the mid-eighteenth century, became increasingly popular following efforts by Maria Theresa to promote their cultivation. This initiative, aimed at preventing famines and addressing malnutrition, showcased the Empress's foresight in agricultural innovation. The land registry introduced during her reign categorized arable lands based on their cultivation potential, from lands suitable for regular farming to *terre sartable*, which were less fertile and cultivated only once every two decades due to their inferior quality. Beyond agriculture, Luxembourg witnessed the nascent development of its steel industry and textile manufacturing, leveraging the natural availability of charcoal, water, and iron-ore. The economic landscape of Luxembourg City, in particular, was enriched by the presence of skilled artisans, among whom the most affluent was a tanner, as noted in the Marie Thérèse cadastre. The endorsement by Charles VI in 1736, allowing the nobility to engage in steel production without forfeiting their titles, marked a significant shift in the economic practices of the time. This move underscored the evolving economic landscape and the adaptability of Luxembourg to emerging industrial opportunities, setting the stage for the gradual transition from its agrarian roots towards industrialization and economic diversification.

Parallel to these overarching political and economic reforms, the feudal system that had long governed property relations within Luxembourg, as in much of Europe, was slowly undergoing its own evolution. Outside of Luxembourg City, which was emancipated in 1244 by Countess Ermesinde, the relationship between lords (the owner of the land) and tenant (the owner of the right to cultivate the land) was traditionally defined by the tenants' obligations to pay dues, render services, and perform *corvée* labour. However, the introduction of the legal notion of 'custom' in 1623, following an imperial ordinance, marked a pivotal shift towards recognizing the rights of tenants, including granting them lands in perpetuity, thereby ensuring land conservation and altering the traditional dynamics of property ownership (Pauly 2011, 55). The evolution of property relations in Luxembourg became markedly evident with the implementation of the Maria Theresa land survey, wherein both lords and tenants were ordered to pay taxes on land used or owned. In the years preceding the French Revolution, property relations in Luxembourg further shifted in favour of tenants. It was Joseph II of Habsburg-Lorraine, the eldest son of Emperor Francis of Lorraine and Empress Maria Theresa, who, in 1782 – two years after assuming control of Luxembourg following his mother's death – reinforced the property rights of the inhabitants and abolished serfdom, eliminating forced labour throughout the Habsburg territories (Pauly 2011, 61). However, lords continued to exercise control over their domains. In Dudelange, for instance, feudal dues were not officially abolished until July 24, 1796 (Thiel 1947, 58). The comprehensive concept of property ownership in Luxembourg was solidified with the introduction of the Napoleonic Civil Code in 1804, following Luxembourg's integration into France as part of the *Département des Forêts* in 1795, subsequent to the capitulation of Luxembourg City. This legal framework effectively provided tenants with almost immediate ownership of their lands, thereby dismantling the feudal system in both principle and practice.

The Congress of Vienna in 1815, the result of Napoleon's defeat, split Luxembourg, with its eastern part going to Prussia and the remaining forming the Grand Duchy of Luxembourg, thus ending the French domination over the region. The Grand Duchy of Luxembourg was under Dutch control, which lasted until 1839, and introduced new taxes and customs tariffs that limited commercial activities, leaving Luxembourg predominantly rural. While Luxembourg was acknowledged as a distinct entity, William I of the Netherlands treated it as part of his kingdom, seeking to prevent its incorporation into the newly formed Belgian Kingdom after the Belgian Revolution in 1831. The 1839 Treaty of London resolved the dispute, leading to a partition: a significant portion of the Grand Duchy of Luxembourg joined Belgium (now constituting the Walloon province of Luxembourg), while the remaining area became the independent Grand Duchy of Luxembourg, in its current-day borders. The nation's sovereignty was reaffirmed by the second Treaty of London in 1867.

Throughout the first half of the nineteenth century, Luxembourg remained primarily rural, engaging minimally in the textile industry, particularly in fabric and shoe production. It was only in the latter half of the century that Luxembourg experienced the ascendancy of the steel industry, which ultimately became the country's dominant economic sector until well into in the twentieth century.

3. Data

Luxembourg, at the time of the introduction of the Maria Theresa land survey and until 1795, was part of the House of Habsburg-Lorraine. The Maria Theresa cadastre in Luxembourg is the sum of the individual declarations made by the owners or users of the land in the municipality where the land was situated. The law clearly stated that the property tax had to be paid by owners and users alike, with no distinction made between the nobility, clergy, and the rest of the population. This reform aimed, on the one hand, at collecting more taxes to finance wars and, on the other hand, at creating a more egalitarian social state. The declarations of the 1766 cadastre are self-reported and do not rely on real measurements done by professionals. The law clearly stated that if someone was reported to the authorities as having declared less than what they really owned or used, they would have lost the net revenues associated with the part of property that was not declared. The net revenues linked to the unreported land were to be shared equally by the State and the person who had correctly reported the fraudulent declarant.[6] Despite this dual control system, historians estimate that a quarter of the land surface of the region of Luxembourg was missing from the declarations (Thewes 2008, 350). Since the declarations were not based on real measurements, it is probable that this is the result of imprecise knowledge of the real surface owned or used. Although the Maria

[6] ANLux, B-0103 Cadastre de 1766 - Lois et instructions sur le nouveau cadastre, 1227-1238 (Dossier), Placcard concernant le rapport et l'estimation générale de tous les biens fonds de nos Pays, Duché de Luxembourg et Compté de Chiny, du 12 Mars 1766, Art. 4.

Theresa land survey is imperfect, it represents a valuable and reliable source to study inequality in 1766.

Each declaration starts with details related to the district where the *biens fonds* (property owned or used) were situated, followed by the name, surname, profession, and declarant's place of residence. The declaration table continues with the list of the property to declare arranged in different sections and categories. The first section groups seven categories of land, including arable land, gardens, forests, vineyards, meadows, enclosures, ponds, pastures, and wastelands. The second section in the tables relates to buildings, which includes real estate such as houses. The last section is called *droits et prestations*, which are fees paid to the owners to use or cultivate the land or to rent a building. We are still in a feudal system based on the payment of fees to the clergy and nobles. The different categories of fees reported are the tithe, *cens* and rents, *banalités* (a tax to pay to use the facilities of the owner such as mills and ovens), the *terrage* (the right for the feudal lord to keep part of the harvest), and other feudal taxes not included in the previous categories (Hudemann-Simon 1985). When the declarant was not the one receiving the *droits et prestations* but the one paying them, this amount was subtracted from the sum of the revenues to obtain the total. Each declaration ends with the total revenues left after the payment or reception of the feudal burdens (total revenue was set at 0 if these payments were superior to the potential revenue generated from the land owned or used).

For Luxembourg City, there are 1,119 declarations; after merging the declarations made by the same individual (most of the time representing the head of the household) and after the exclusion of institutions and groups, we obtain 839 individual observations. In Luxembourg City, 16 percent of the declarants are female. For Dudelange, there are 273 declarations; after merging the declarations that share the same name and excluding the declarations related to the church of Ottange, the abbey of Marienthal, the church, and the commune of Dudelange, we have 266 observations, and only 10 percent of the declarants are female. The monetary unit used to fill in the declarations is not always the same. In Dudelange, declarants use deniers, sols (one corresponds to 12 deniers), escalins (one is made of 7 sols), and écu (one is made of 8 escalins). The declarations for Luxembourg City are mostly in deniers, sols, and florins; the latter is made of 20 sols. For comparability reasons, we converted the total net revenues into écu.

The profession is available in around 70 percent of the declarations. The most common professions in Luxembourg City are daily labourer, merchant, and bourgeois, while in Dudelange, there is an overrepresentation of daily labourers and ploughmen. This reflects, of course, the different economic structure of the two municipalities, with one being an urban centre and the other a feudal rural area. In 1766 and 1842, 96 and 93 percent of the declarants in Luxembourg City were residents of Luxembourg respectively. This percentage is similar in Dudelange even though the municipality borders France: the percentage of declarants that were residents of Luxembourg was 95 percent in 1766 and 97 percent in 1842.

The land registry of 1842 includes the list of property owners and the monetary evaluation associated with the land they owned (always expressed in florins and centimes). The land or estate was evaluated according to specific criteria established at the municipal level and computed by civil servants. The land registry also presents information on the residence and profession of the owners. For both places, we also have information on the value of the house or of the industrial factory in a separate column. In this context, we will use only the total value associated with all of the property owned. Additionally, the land registry includes transactions that occurred between one registry and the following one. If a hectare of land was sold or donated, the registry reports the name of the new owner. This information helps in identifying a specific property owner and in reconstructing his or her family tree. In 1842, feudalism was already abolished, translating into full ownership, meaning that propertyless individuals do not appear in the land registry.

4. Inequality analysis

In 1766 Luxembourg City was a fortified city and the economic centre of the region while Dudelange was a feudal lordship reliant on agriculture. The average wealth in the two places is 23.1 and 17.2 *écu* respectively. The average wealth associated with land and real estate is not so different among urban and rural places in Luxembourg. However, the main question is whether wealth is equally distributed among declarants and if the potential productivity of the land and of real estate are enough to assure the same standards of living in the two municipalities. Figure 1.a illustrates two distinct wealth distributions for 1766 using the inverse hyperbolic sine transformation.[7] The wealth distribution for Luxembourg City appears more normally distributed, while Dudelange's distribution is skewed to the right, indicating a higher concentration of individuals with very low wealth and fewer individuals owning a significant percentage of wealth.

The two distributions share the widow de Chanclos among the richest 5 percent, a resident of Brussels who was the owner of part of the Dudelange lordship. She is also the richest in absolute terms if we consider the declarations filled in in both municipalities. The wealth owned by de Chanclos is more than three times what is declared by François-Albert de Boland, the second richest person and owner of the rest of the Dudelange lordship, and more than eight times the wealth declared by the third richest person, a merchant residing in Luxembourg City. Dudelange reflects the feudal system, with a social structure revolving around the figure of the feudal lords. Luxembourg City presents a different picture based on industrial and craft activities that laid the foundation for the development of the bourgeoisie. Indeed, the richest person in the city of Luxembourg was a tanner as reported in Sprunck (1980, pp. 94) and confirmed by the cadastre.

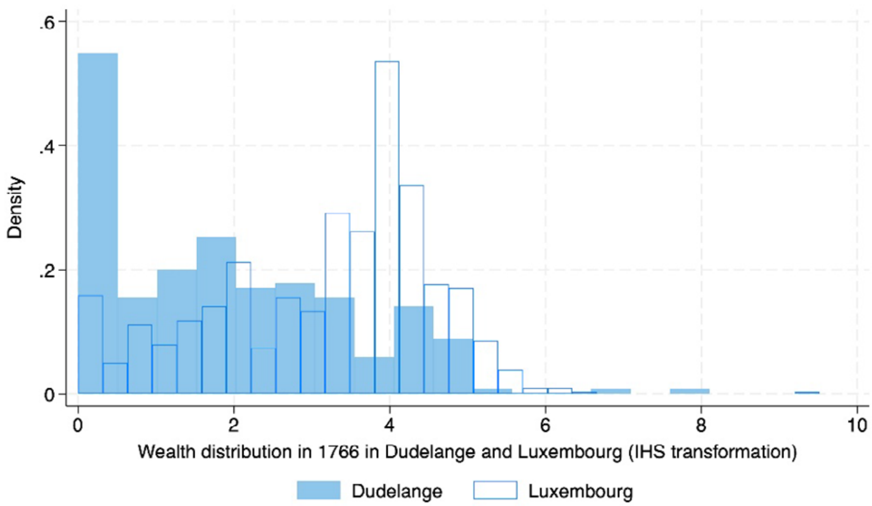
Figure 1.a shows that the two wealth distributions in 1766 are very different, despite the source and the year of study being the same for the two municipalities. This difference is confirmed by the Lorenz curves and the Gini coefficients. The Lorenz curve serves as a valuable tool for graphically comparing two distributions. When the two curves do not intersect, it becomes feasible to compare the degree of egalitarianism by examining the gap between each curve and the equality line, which corresponds to a 45-degree angle. In essence, the lower the curve, the higher the level

[7] IHS(x) = log(x + sqrt(x^2 + 1))

of inequality. Complementarily, the Gini coefficient is an index utilized to quantify inequality, ranging from 0 to 1, where 0 signifies perfect equality and 1 signifies perfect inequality. The Lorenz curves in Figure 2.a show that inequality is lower in Luxembourg City and that in Dudelange the high number of declarants reporting null wealth leads this trend. These people, visible on the left-hand side of the Dudelange distribution, had net revenues that were lower than the feudal taxes that they had to pay to the feudal lord. They represented around 16.5 per cent of the total number of declarants. It is worth noting that in Luxembourg City, we have very few declarants that have duties higher than their revenues, thus wealth is almost always greater than zero and the Lorenz Curve starts to outdistance the x-axis from the very beginning. For Luxembourg City the Gini is 0.51 while for Dudelange is 0.84.

Fig. 1. **Land distribution in Dudelange and Luxembourg City in 1766 and 1842 (IHS transformation)**

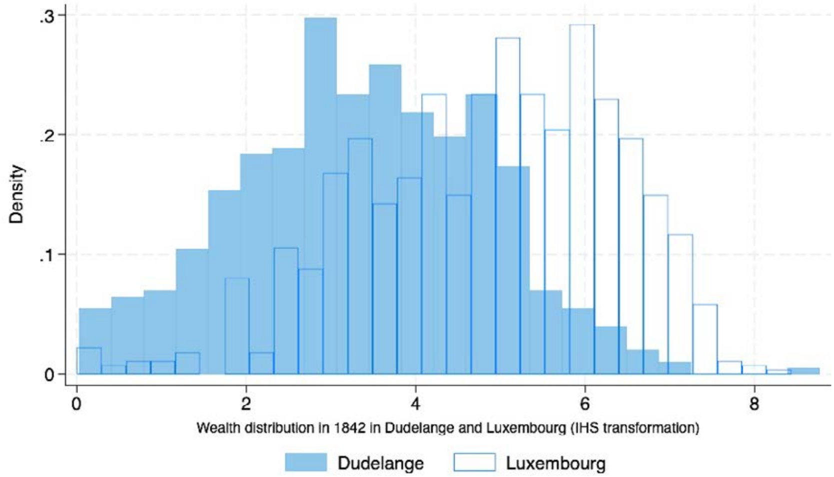
a. 1766



Source: Authors' elaboration based on the data extracted from:
- Luxembourg, Archives nationales, A-XIV Cadastre de Marie-Thérèse, 1752-1772 (Fonds), Quartier de Luxembourg (Série), Monst-St-Jean (seigneurie) (Sous-série), A-XIV-79 and A-XIV-80, Dudelange (justice) - Budersberg et Buringen (Dossier).
- Luxembourg, Archives nationales, A-XIV Cadastre de Marie-Thérèse, 1752-1772 (Fonds), Quartier de Luxembourg (Série), Ville de Luxembourg - haut-command (Sous-série), A-XIV-1, A-XIV-2, A-XIV-3, A-XIV-4, A-XIV-5, A-XIV-6, A-XIV-7, A-XIV-8, A-XIV-9, A-XIV-10.1, A-XIV-10.2, A-XIV-10.3, A-XIV-11.1, A-XIV-11.2, A-XIV-11.3.

Note: Distribution of land in Luxembourg City and Dudelange in 1766. Inverse Hyperbolic Sine transformation applied.

b. 1842



Source: Authors' elaboration based on the data extracted from the Luxembourg, Archives de l'Administration du Cadastre et de la Topographie, Matrice cadastrale des propriétés foncières bâties et non-bâties de 1842, Commune de Dudelange et Luxembourg Ville.

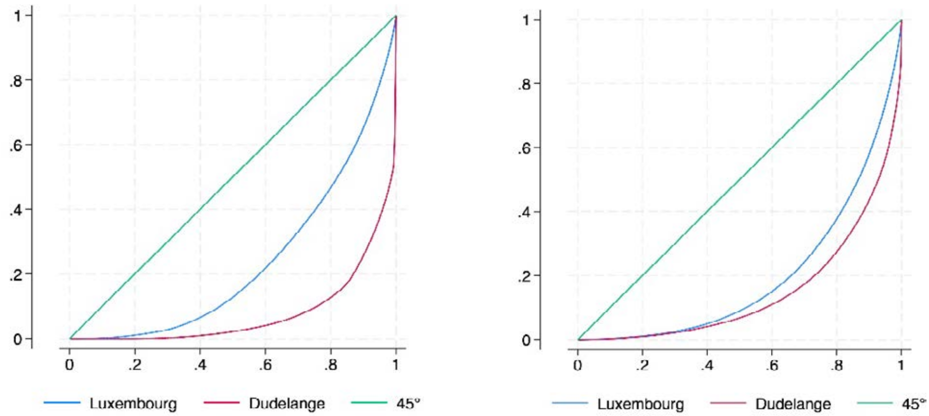
Note: Distribution of land in Luxembourg City and Dudelange in 1842. Inverse Hyperbolic Sine transformation applied.

This confirms the political and economic differences between the two places considering that only Luxembourg City was a city while Dudelange was a lordship. For Dudelange, the Lorenz Curve lies on the x-axis for the bottom 40 per cent of the distribution, showing that its high inequality level is driven by the high feudal burdens weighing on the population.

We have different hypotheses on why the Gini coefficient for Luxembourg City is lower than in Dudelange in 1766. One possibility is self-selection among people living in the city, meaning that declarants in Luxembourg City had a higher probability of owning land or buildings reported in the declaration rather than merely being users, and that the nobility probably resided in cities where economic and political powers were concentrated. The second explanation strictly relates to the nature of the cadastre and the city itself. In cities, the majority of the property-less do not work the land contrary to what happens in rural areas. Many of them were probably employed in commercial activities as shop boys or apprentices, and probably lived in the shops where they worked or were provided accommodation by the shop owner. If the living space was provided in exchange for hours of work and not in exchange for a rent, these people would not have been obliged to make a declaration. If this second hypothesis is true, the Gini coefficient for Luxembourg would be downward biased compared to Dudelange, where those without property had to rent land and cultivate it for survival. This second hypothesis seems more probable, especially considering that the number of declarations for Luxembourg City is lower than expected given the city's population in 1766.

Fig. 2. Lorenz Curve for Luxembourg City and Dudelange 1766 and 1842

a. 1766 b. 1842



Source: Authors' elaboration based on the data extracted from:

- Luxembourg, Archives nationales, A-XIV Cadastre de Marie-Thérèse, 1752-1772 (Fonds), Quartier de Luxembourg (Série), Monst-St-Jean (seigneurie) (Sous-série), A-XIV-79 and A-XIV-80, Dudelange (justice) - Budersberg et Buringen (Dossier).
- Luxembourg, Archives nationales, A-XIV Cadastre de Marie-Thérèse, 1752-1772 (Fonds), Quartier de Luxembourg (Série), Ville de Luxembourg - haut-command (Sous-série), A-XIV-1, A-XIV-2, A-XIV-3, A-XIV-4, A-XIV-5, A-XIV-6, A-XIV-7, A-XIV-8, A-XIV-9, A-XIV-10.1, A-XIV-10.2, A-XIV-10.3, A-XIV-11.1, A-XIV-11.2, A-XIV-11.3.
- Luxembourg, Archives de l'Administration du Cadastre et de la Topographie, Matrice cadastrale des propriétés foncières bâties et non-bâties de 1842, Commune de Dudelange et Luxembourg Ville.

Note: Lorenz Curves based on the distribution of land in Luxembourg City and Dudelange in 1766 and 1842.

To account for this second hypothesis, we recalculated the Gini coefficient after including an estimated number of individuals without property who did not fill in a declaration. Considering that the population of Luxembourg City in 1765 was 8,500 inhabitants (Atten 1989, 31), and that according to the *dénombrement*, the family multiplier was between four and five, while for nobles it was 3.5 (Hudemann-Simon 1986), the Marie Thérèse Cadastre should include around 1,800 declarations. The individual declarations recorded from the cadastre amount to 839. When 938 property-less individuals are added to the analysis, more than doubling the number of observations originally considered, the Gini coefficient increases to 0.77. Even accounting for the different social and economic structure between Luxembourg City and Dudelange, adding property-less individuals who, in the city, do not work the land and are free, inequality in the city remains lower. If we assume that these people are absent from the Maria Theresa land survey because they were working for someone else, then they were likely better off than declarants in Dudelange who had to pay a fee to live and work the land in the lordship, and who often ended up with negative net wealth due to the feudal taxes they had to pay.

Regardless of the explanation for this low inequality, Luxembourg in 1766 appears to be less unequal than Dudelange a century later, as in 1872 Dudelange registered a Gini coefficient of 0.69 (Schifano and Paccoud, 2024). Additionally, if we exclude de Chanclos from the analysis, the Gini coefficient of Dudelange is 0.76 in 1766. If we further exclude both de Chanclos and de Boland, along with those not resident in Dudelange, the Gini becomes 0.72. In contrast, performing a similar exercise for Luxembourg City leaves the Gini coefficient almost unchanged. This suggests that, in addition to the wealth owned by the richest, the fact that there are so many people with little wealth also drives inequality in the rural place, as Figure 1.a predicted.

Table 1 illustrates the percentage of wealth owned by each decile of the distribution in 1766. In the city of Luxembourg, the percentage of wealth owned grows gradually from one decile to the next. In Dudelange, the tenth decile owns 74.3 per cent of wealth, with 48 per cent of this being owned by the top 1 per cent of the distribution. This reflects the different economic and institutional background of the two places, considering that Dudelange was still trapped in a feudal and rigid society.

Tab. 1**. Distribution of wealth in Luxembourg and Dudelange in 1766: deciles and top percentages**

	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	95-100	99-100	N
Luxembourg City	0.2	1.1	2.1	4.3	6.8	8.9	11.1	13.4	18.4	33.7	20.5	5.9	839
Dudelange	0	0	0.2	0.7	1.2	1.9	3.1	5.5	13.0	74.3	62.5	48.0	266

Source: Authors' elaboration based on the archival data extracted from:

- Luxembourg, Archives nationales, A-XIV Cadastre de Marie-Thérèse, 1752-1772 (Fonds), Quartier de Luxembourg (Série), Monst-St-Jean (seigneurie) (Sous-série), A-XIV-79 and A-XIV-80, Dudelange (justice) - Budersberg et Buringen (Dossier).
- Luxembourg, Archives nationales, A-XIV Cadastre de Marie-Thérèse, 1752-1772 (Fonds), Quartier de Luxembourg (Série), Ville de Luxembourg - haut-command (Sous-série), A-XIV-1, A-XIV-2, A-XIV-3, A-XIV-4, A-XIV-5, A-XIV-6, A-XIV-7, A-XIV-8, A-XIV-9, A-XIV-10.1, A-XIV-10.2, A-XIV-10.3, A-XIV-11.1, A-XIV-11.2, A-XIV-11.3.

Note: Percentage of wealth owned by each decile of the distribution, the top 5 and top 1 percent in 1766.

Figure 1.b presents the two distributions in 1842 (using the IHS transformation), showing that they are more alike than in 1766. This similarity is related to the abolishment of feudal privileges, which clearly translates into an observable reduction

in inequality resulting from the absence of the feudal taxes that peasants had to pay to the feudal lords or to the Clergy. If we focus on table 2, the distribution of wealth is more similar between the two places than what it was in 1766, although we can still observe important differences when we look at the percentage of wealth owned by the top 5 percent or the top 1 percent of the distribution. Indeed, the richest 1 percent of the population owned 8.1 percent of the overall wealth in Luxembourg while in Dudelange the percentage of wealth owned is 29.9%, still very high but much lower than in 1766.

Tab. 2. **Distribution of wealth in Luxembourg and Dudelange in 1842: deciles and top percentages**

	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	95-100	99-100	N
Luxembourg City	0.3	0.8	1.4	2.4	4.0	6.0	9.2	13.4	20.3	42.1	26.6	8.1	941
Dudelange	0.2	0.7	1.2	1.9	2.7	4.2	6.4	10.1	16.1	56.5	49.4	29.9	530

Source: Authors' elaboration based on the archival data extracted from:
- Luxembourg, Archives de l'Administration du Cadastre et de la Topographie, Matrice cadastrale des propriétés foncières bâties et non-bâties de 1842, Commune de Dudelange et Luxembourg Ville.

Note: Percentage of wealth owned by each decile of the distribution, the top 5 and top 1 percent in 1842.

Tab. 3. **Different Gini coefficients and samples**

	Original Sample 1766		Original Sample 1842		Estimated full population 1766		Estimated full population 1842	
	Obs	**Gini**	**Obs**	**Gini**	**Obs**	**Gini**	**Obs**	**Gini**
Luxembourg City	839	0.51	941	0.61	1,777	0.77	1,954	0.81
Dudelange	266	0.84	530	0.7	266	0.84	530	0.7

Source: Authors' elaboration based on the data extracted from:
- Luxembourg, Archives nationales, A-XIV Cadastre de Marie-Thérèse, 1752-1772 (Fonds), Quartier de Luxembourg (Série), Monst-St-Jean (seigneurie) (Sous-série), A-XIV-79 and A-XIV-80, Dudelange (justice) - Budersberg et Buringen (Dossier).
- Luxembourg, Archives nationales, A-XIV Cadastre de Marie-Thérèse, 1752-1772 (Fonds), Quartier de Luxembourg (Série), Ville de Luxembourg - haut-command (Sous-série), A-XIV-1, A-XIV-2, A-XIV-3, A-XIV-4, A-XIV-5, A-XIV-6, A-XIV-7, A-XIV-8, A-XIV-9, A-XIV-10.1, A-XIV-10.2, A-XIV-10.3, A-XIV-11.1, A-XIV-11.2, A-XIV-11.3.
- Luxembourg, Archives de l'Administration du Cadastre et de la Topographie, Matrice cadastrale des propriétés foncières bâties et non-bâties de 1842, Commune de Dudelange et Luxembourg Ville.

Note: Gini coefficients on different sample of the distribution. Dudelange 1766 and 1842. Luxembourg City 1766 and 1842, Luxembourg City extended sample 1766 and 1842.

Inequality in 1842 exhibits a somewhat different trend between the two places. In Luxembourg City, the Gini coefficient is 0.61, precisely in the middle between the Gini coefficient of 1766 based on the original sample and on the estimated full population. This indicates that there was no significant redistribution of property among citizens, especially given that the number of declarants did not increase. In Dudelange, the abolition of feudal privileges and taxes led to a decrease in the Gini coefficient to 0.70, primarily driven by the abolition of feudal taxes rather than by a redistribution of land (for a more in-depth discussion, see Schifano and Paccoud, 2024). If we account for the property-less individuals that are missing from the declarations in Luxembourg also for 1842, we get a Gini coefficient of 0.81, which confirms the increasing inequality trend in Luxembourg City in contrast to what happened in Dudelange with the abolishment of the feudal system.

5. Social mobility analysis

The social mobility analysis was realised based on intergenerational links between declarants in 1766 and in 1842. For Dudelange, Pauly (2014) was used to create genealogical links between ancestors in 1766 and descendants in 1842 based on the work presented in Schifano and Paccoud (2024). Starting from the declarants in 1766, their descendants were identified and linked with the declarants in 1842. The declarants in the two sources are linked through the mother and father lineages. This means that we can have more than one ancestor for each declarant in 1842: for example we may have the grand-father from the father's side and the great grand-father from the mother's side. To account for this, we weighted ancestor wealth according to the generational distance between the declarant and the different ancestors that were present among the 1766 declarants and we then computed an average wealth based on the weighted wealth declared by each ancestor. This allowed us to use all of the available information.

To establish the links between property owners in Luxembourg City in 1842 and their ancestors in 1766, we relied on the website Luxroots.org, a comprehensive digital genealogy database. This platform provided access to extensive records of births, deaths, and marriages, facilitating the identification and tracking of family lineages across generations. For every person listed in the 1842 land registry, we tried to trace their and their spouses' ancestral roots as far back as possible, often reaching into the mid-16th century. This process involved a detailed examination of civil records alongside land registries from multiple years, ensuring a robust connection between past and present family ties. The method takes into account both the patrilineal and matrilineal lineages, offering a holistic view of marriage and inheritance patterns, as well as of property transmissions.

This information was also used to adjust wealth according to the generational distance between ancestors and descendants in the case of Luxembourg City and we also used the average adjusted wealth for all the ancestors we were able to find in 1766.

Tab. 3. **Social mobility tables for Dudelange and Luxembourg between 1766 and 1842**

Social mobility table Dudelange 1766-1842						**Social mobility table Luxembourg City 1766-1842**						**Summary table**		
Quartile:	1842					Quartile:	1842						Dudelange	Luxembourg
1766	1	2	3	4	Tot	1766	1	2	3	4	Tot			
1	38	25	20	6	89	1	24	19	7	6	56	UM	35.2%	32.1%
2	18	22	24	25	89	2	19	14	13	9	55	DM	31.5%	31.2%
3	19	25	26	25	95	3	7	11	20	17	55	0M	33.2%	36.7%
4	14	17	19	32	82	4	6	12	14	23	55			
Total	89	89	89	88	355	Total	56	56	54	55	221	TM	66.8%	63.3%

Legend: UM=Upward Mobility; DM=Downward Mobility; 0M=No Mobility; TM=Total Mobility (UM+DM)

Source: Authors' elaboration based on the data extracted from:
- Luxembourg, Archives nationales, A-XIV Cadastre de Marie-Thérèse, 1752-1772 (Fonds), Quartier de Luxembourg (Série), Monst-St-Jean (seigneurie) (Sous-série), A-XIV-79 and A-XIV-80, Dudelange (justice) - Budersberg et Buringen (Dossier).
- Luxembourg, Archives nationales, A-XIV Cadastre de Marie-Thérèse, 1752-1772 (Fonds), Quartier de Luxembourg (Série), Ville de Luxembourg - haut-command (Sous-série), A-XIV-1, A-XIV-2, A-XIV-3, A-XIV-4, A-XIV-5, A-XIV-6, A-XIV-7, A-XIV-8, A-XIV-9, A-XIV-10.1, A-XIV-10.2, A-XIV-10.3, A-XIV-11.1, A-XIV-11.2, A-XIV-11.3.
- Luxembourg, Archives de l'Administration du Cadastre et de la Topographie, Matrice cadastrale des propriétés foncières bâties et non-bâties de 1842, Commune de Dudelange et Luxembourg Ville.

Note: Social mobility tables show the number of declarants in each quartile of the distribution and for 1842 combined with the number of ancestors in the different quartile for the ancestors in 1766.

Table 4 shows the declarants in 1842 in each quartile of the distribution according to the position of the ancestors. The number in the cell corresponding to quartile 1-1 counts the number of declarants in 1842 that are in the first quartile and that have ancestors that were in the first quartile of the distribution according to their average weighted wealth. This signals that there was no change in the social class of destination of the descendants with respect to their ancestors. The number in cell 1-2 provides information on the number of descendants in 1842 that are in the second quartile of the distribution but whose ancestors were in the first quartile. For the people in this cell, it means that there was upward mobility. The remaining cells can be read in the same way.

Tab. 5. **Social mobility analysis Dudelange and Luxembourg between 1766 and 1842 (controlled by age at the declaration)**

	Dudelange Rank 1842	Luxembourg Rank 1842
Avg rank 1766	0.34***	0.48***
	(0.05)	(0.058)
N	355	221
R-squared	0.19	0.20

Source: Authors' elaboration based on the data extracted from:

- Luxembourg, Archives nationales, A-XIV Cadastre de Marie-Thérèse, 1752-1772 (Fonds), Quartier de Luxembourg (Série), Monst-St-Jean (seigneurie) (Sous-série), A-XIV-79 and A-XIV-80, Dudelange (justice) - Budersberg et Buringen (Dossier).
- Luxembourg, Archives nationales, A-XIV Cadastre de Marie-Thérèse, 1752-1772 (Fonds), Quartier de Luxembourg (Série), Ville de Luxembourg - haut-command (Sous-série), A-XIV-1, A-XIV-2, A-XIV-3, A-XIV-4, A-XIV-5, A-XIV-6, A-XIV-7, A-XIV-8, A-XIV-9, A-XIV-10.1, A-XIV-10.2, A-XIV-10.3, A-XIV-11.1, A-XIV-11.2, A-XIV-11.3.
- Luxembourg, Archives de l'Administration du Cadastre et de la Topographie, Matrice cadastrale des propriétés foncières bâties et non-bâties de 1842, Commune de Dudelange et Luxembourg Ville.

Note: Results of the regression of wealth of declarants in 1842 on averaged adjusted wealth of ancestors in 1766. The higher the coefficient the higher the persistence of wealth over generations. Ranks post sample selection. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Overall, the total social mobility registered between 1766 and 1842 is 66.8 percent in Dudelange and 63.3 percent in Luxembourg City. This is an interesting result since Luxembourg City is shown to be less mobile despite the lower level of inequality registered in both 1766 and 1842 in comparison to Dudelange, at least when we consider only the declarations we officially have.

This phenomenon may be explained by the fact that affluent individuals, already situated in the top quartile in 1766, accrued additional land, thereby exacerbating inequality within this upper class. In fact, by 1842, the top 20 percent in Luxembourg owned 10 percent more of overall wealth compared to their counterparts in 1766 (tables 1 and 2).

The results are confirmed if we consider the regression analysis presented in table 5 and that is based on the ranks of the declarants computed after the sample was selected. The coefficients reported, corresponding to the average weighted wealth declared by the ancestors in 1766, tell us that there is a stronger persistence between the wealth declared in 1766 and the one declared in 1842 for Luxembourg City as compared to Dudelange.

The results that we obtain from the social mobility analysis and the Gini coefficients generated after including the property-less individuals in Luxembourg City shed light on the influence that including or not the property-less may have on the interpretation of the inequality estimates for pre-industrial periods when we focus on urban places. Overall, for both Luxembourg City and Dudelange, the reduction in inequality linked to the abolishment of feudalism is not really associated with a redistribution of land. In addition, the lower amount of upward social mobility that we register in Luxembourg City may be explained by the fact that the economy of the city was less constrained by feudal practices than Dudelange already in 1766, as confirmed by the larger economic diversification of the capital city as compared to Dudelange.

6. Conclusions

In this paper, we conducted an analysis of the wealth distribution in Dudelange, a municipality in the south of Luxembourg, and in Luxembourg City, the capital of the Grand Duchy. The use of the same sources, the Maria Theresa cadastre of 1766 and the 1842 land registry in both locations, allows for a comparative analysis as well as an estimation of inequality in both areas. This study reveals that inequality was significantly lower in the city than in rural Dudelange, which was entirely immersed in the feudal system in force in 1766, as evidenced by the fact that the two wealthiest declarants were also the owners of the lordship. In Dudelange, the high number of individuals with zero net wealth in 1766 influences the Lorenz curve, as it follows the x-axis for the poorest 40 per cent of the distribution, a fact clearly reflected in the Gini coefficient. In Luxembourg City, very few property-less declarants appear in the Maria Theresa land survey, while a considerable number likely did not fill in a declaration as they were guests in houses owned by the employer or multiple families were sharing the same apartment. The estimated number of property-less for Luxembourg City in 1766 is around 900 and adding them to the analysis narrows the gap between the Gini coefficients in Luxembourg City and Dudelange in 1766 but does not fully explain the disparity.

The inequality analysis in 1842 reveals the impact of the abolition of feudal privileges and of the reduction in inequality between Luxembourg City and Dudelange. The land registry of 1842 compiles information on assets owned by declarants in the two places and demonstrates, as expected, that the abolition of feudal taxes had a more significant positive effect in Dudelange, still organised around a feudal society in 1766, than in Luxembourg City. This effect is exacerbated if we include in the analysis the property-less in Luxembourg City: doing so generates a Gini coefficient higher than that of Dudelange. The social mobility analysis showed that the effects of abolishing feudalism were not as clear as those observed in the context of the inequality outcomes. The substantial reduction in inequality witnessed in Dudelange, principally due to the alleviation of fiscal burdens on peasants, did not result in the redistribution of land. Similar estimates of social mobility are found in Luxembourg City, notwithstanding its lack of a reduction in wealth inequality between 1766 and 1842.

The abolition of feudalism in Luxembourg exerted a more pronounced impact on the distribution of wealth in rural areas. In Dudelange, even in the absence of property redistribution, the abolition of the feudal system made poorer people richer. In Luxembourg City, however, the lack of a society structured around feudal institutions facilitated the accumulation of greater wealth by the affluent class, not only the nobility, over time. In terms of social mobility, we find similar results in both places, which seems to indicate a limited impact of changes in the institutional rules governing property relations on wealth social mobility. Overall, these results may suggest the importance of fiscal policies that target specific social classes in order to get a more egalitarian society and the importance of an inheritance tax to increase social mobility over time. This is especially important in Luxembourg, given the lack of such fiscal tools and the high level of land and property inequality that is still found in the country today (Paccoud, 2020).

BIBLIOGRAPHY

Alfani, Guido, and Francesco Ammannati. 2017. "Long-term trends in economic inequality: The case of the Florentine State, c. 1300–1800." *The Economic History Review* 70, 4: 1072-102.

Alfani, Guido, and Matteo Di Tullio. 2019. *The lion's share inequality and the rise of the fiscal state in preindustrial Europe*. Cambridge: Cambridge University Press.

Alfani, Guido, Matteo Di Tullio, and Mattia Fochesato. 2020. "The determinants of wealth inequality in the Republic of Venice (1400-1800)." CAGE Working Paper No. 483.

Alfani, Guido, Victoria Gierok, and Felix Schaff. 2022. "Economic inequality in preindustrial Germany, ca. 1300–1850." *The Journal of Economic History* 2,1: 87-125. 10.1017/S0022050721000607.

Alfani, Guido and Wouter Ryckbosch. 2016. "Growing apart in early modern Europe? A comparison of inequality trends in Italy and the Low Countries, 1500–1800." *Explorations in Economic History* 62 : 143-53.

Alfani, Guido, and Sonia Schifano. 2021. "Wealth inequality in the long run." In *How Was Life? Volume II: New Perspectives on Well-being and Global Inequality since 1820*, ed. Jan Luiten Van Zanden et al., 103-23. Paris: OECD Publishing.

Atten, Alain. 1989. *Le Luxembourg à la Fin de l'Ancien Régime : structures politiques, sociales et économiques: Expostion documentaire du 6 au 31 Janvier 1989 au cercle municipal de Luxembourg*. Luxembourg: Archives nationales.

Bengtsson, Erik, Anna Missiaia, Mats Olsson, and Patrick Svensson. 2017. "Wealth inequality in Sweden, 1750–1900", *Economic History Reviw* 7,3: 772–779.

Bogaard, Amy et al. 2024. "The global dynamics of inequality (GINI) project: analysing archaeological housing data." *Antiquity* 98, 397: e6. doi: 10.15184/aqy.2023.188.

Borgerhoff-Mulder, Monique et al. 2009. "Intergenerational wealth transmission and the dynamics of inequality in small-scale societies." *Science* 326: 682-88.

Brea-Martínez, Gabriel, and Joana-Maria Pujadas-Mora. 2019. "Estimating long-term socioeconomic inequality in southern Europe: The Barcelona area, 1481–1880." *European Review of Economic History* 23, 4: 397-420.

Clark, Gregory, and Neil Cummins. 2015. "Intergenerational wealth mobility in England, 1858–2012: surnames and social mobility." *The Economic Journal* 125, 582: 61-85. https://doi.org/10.1111/ecoj.12165.

Fochesato, Mattia, Amy Bogaard, and Samuel Bowles. 2019. "Comparing ancient inequalities: the challenges of comparability, bias and precision." *Antiquity* 93, 370: 853-69. doi: 10.15184/aqy.2019.106.

Hudemann-Simon, Calixte. 1985. *La Noblesse Luxembourgeoise Au XVIIIe Siècle*. Paris/Luxembourg: Publications De La Sorbonne et Section Historique De L'Institut Grand-ducal De Luxembourg.

Hudemann-Simon, Calixte. 1986. "Une noblesse en déclin à la fin de l'Ancien Régime. Le rôle des circonstances et les effets des comportements dans l'échec du second ordre luxembourgeois." *Histoire, économie Et Société* 5, 1: 77-102.

Kohler, Timothy A. and Rebecca Higgins. 2016. "Quantifying household inequality in early Pueblo villages." *Current Anthropology* 57: 690-97.

Kreins, Jean-Marie. 2007. *Histoire du Luxembourg des origines à nos jours*. Paris cedex 14: Presses Universitaires de France.

Mahan, Jabez Alexander. 1932. *Maria Theresa of Austria*. New York (State): Thomas Y. Crowell company.

Milanovic, Branko, Peter H. Lindert, and Jeffrey G. Williamson. 2007. "Measuring pre-industrial inequality." NBER Working Paper No. 13550. Cambridge, MA: National Bureau of Economic.

Milanovic, Branko, Peter H. Lindert, and Jeffrey G. Williamson. 2011. "Pre-industrial inequality." *The Economic Journal* 121, 551: 255–272. https://doi.org/10.1111/j.1468-0297.2010.02403.x.

Nicolini, Esteban A., and Fernando Ramos-Palencia. 2021. "Comparing income and wealth inequality in pre-industrial economies: the case of Castile (Spain) in the eighteenth century." *European Review of Economic History* 25, 4: 680-702.

Paccoud, Antoine. 2020. "The top tail of the property wealth distribution and the production of the residential environment." *International Journal of Housing Policy* 20, 1: 100-19.

Pauly, Michel. 2011. *Geschichte Luxemburgs*, Munich: C.H.Beck.

Piketty, Thomas. 2014. *Capital in the twenty-first century*. Cambridge (MA): Harvard University Press. https://doi.org/10.4159/9780674369542.

Piketty, Thomas, Gilles Postel-Vinay, and Jean-Laurent Rosenthal. 2006. "Wealth Concentration in a Developing Economy: Paris and France, 1807-1994." *American Economic Review* 96, 1: 236–256.

Pauly, Marc. 2014. *Chronique familiale de la ville de Dudelange depuis 1645*. Diddeleng: Gemeng.

Ryckbosch, Wouter. 2016. "Economic inequality and growth before the industrial revolution: the case of the Low Countries (fourteenth to nineteenth centuries)." *European Review of Economic History* 20: 1-22.

Schifano, Sonia, and Antoine Paccoud. 2024. "The distribution of land in Luxembourg (1766-1872): family-level wealth persistence in the midst of institutional change." *The Journal of Economic History*. Published online 2024:1-31. doi:10.1017/S0022050724000421.

Sprunck, Alphonse. 1980. *Affaires économiques et sociales du Duché de Luxembourg sous le régime autrichien*. In Les Amis de l'histoire, fasc. 12, pp. 3-101.

Thewes, Guy. 2008. *Le cadastre de Marie-Thérèse au duché de Luxembourg: mythe et historiographie. In Hémecht. Actes des deuxièmes assises de l'historiographie luxembourgeoise*, ed. Sonja Kmec, 343-62. Luxembourg: St. Paul Print.

Thiel, B.J. (O.S.B.). 1947. *Zur Kulturgeschichte der Stadt Düdelingen. Düdelingen, historische Abhandlungen, Band II.* Sankt-Paulus-Druckerei, Luxemburg.

Trausch, Gilbert. 1993. Le Luxembourg sous l'Ancien Régime : (17e, 18e siècles et débuts du 19e siècle). In *Manuel d'histoire luxembourgeoise*, 3rd edition. Luxembourg: Ministère de l'Éducation nationale.

Van Leeuwen, Marco H.D., Ineke Maas, Danièle Rébaudo, and Jean-Pierre Pélissier. 2016. "Social mobility in France 1720-1986: effects of wars, revolution and economic change." *Journal of Social History* 49,3: 585-616. http://www.jstor.org/stable/43920715.

Van Zanden, Jan Luiten. 1995. "Tracing the beginning of the Kuznets Curve: western europe during the early modern period." *The Economic History Review* 48, 4: 643-64. https://doi.org/10.2307/2598128.

ARCHIVAL SOURCES

Luxembourg, Archives de l'Administration du Cadastre et de la Topographie, Matrice cadastrale des propriétés foncières bâties et non-bâties de 1842, Commune de Dudelange et Luxembourg Ville.

Luxembourg, Archives nationales, B-0103 Cadastre de 1766 - Lois et instructions sur le nouveau cadastre, 1227-1238 (Dossier), Placcard concernant le rapport et l'estimation générale de tous les biens fonds de nos Pays, Duché de Luxembourg et Compté de Chiny, du 12 Mars 1766, Art. 4.

Luxembourg, Archives nationales, A-XIV Cadastre de Marie-Thérèse, 1752-1772 (Fonds), Quartier de Luxembourg (Série), Monst-St-Jean (seigneurie) (Sous-série), A-XIV-79 and A-XIV-80, Dudelange (justice) - Budersberg et Buringen (Dossier).

Luxembourg, Archives nationales, A-XIV Cadastre de Marie-Thérèse, 1752-1772 (Fonds), Quartier de Luxembourg (Série), Ville de Luxembourg - haut-command (Sous-série), A-XIV-1, A-XIV-2, A-XIV-3, A-XIV-4, A-XIV-5, A-XIV-6, A-XIV-7, A-XIV-8, A-XIV-9, A-XIV-10.1, A-XIV-10.2, A-XIV-10.3, A-XIV-11.1, A-XIV-11.2, A-XIV-11.3.