

Kholodilin, Konstantin

Working Paper

Rent control from Ancient Rome to Paris Commune: The factors behind its introduction

DIW Discussion Papers, No. 2094

Provided in Cooperation with:

German Institute for Economic Research (DIW Berlin)

Suggested Citation: Kholodilin, Konstantin (2024) : Rent control from Ancient Rome to Paris Commune: The factors behind its introduction, DIW Discussion Papers, No. 2094, Deutsches Institut für Wirtschaftsforschung (DIW), Berlin

This Version is available at:

<https://hdl.handle.net/10419/300813>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

2094

Discussion Papers

Deutsches Institut für Wirtschaftsforschung

2024

Rent Control from Ancient Rome to Paris Commune: The Factors Behind its Introduction

Konstantin A. Kholodilin

Opinions expressed in this paper are those of the author(s) and do not necessarily reflect views of the institute.

IMPRESSUM

DIW Berlin, 2024

DIW Berlin
German Institute for Economic Research
Mohrenstr. 58
10117 Berlin

Tel. +49 (30) 897 89-0
Fax +49 (30) 897 89-200
<https://www.diw.de>

ISSN electronic edition 1619-4535

Papers can be downloaded free of charge from the DIW Berlin website:
<https://www.diw.de/discussionpapers>

Discussion Papers of DIW Berlin are indexed in RePEc and SSRN:
<https://ideas.repec.org/s/diw/diwwpp.html>
<https://www.ssrn.com/link/DIW-Berlin-German-Inst-Econ-Res.html>

Rent Control from Ancient Rome to Paris Commune: The Factors Behind its Introduction

Konstantin A. Kholodilin^a

^a*DIW Berlin, Mohrenstraße 58, 10117, Berlin, Germany*

Abstract

Urban areas confront a chronic shortage of housing, especially in the low-rent segment. This precarious situation is further exacerbated by major challenges, like the destruction of housing by wars and natural catastrophes, rapid increase of demand, or pandemics cutting incomes. In response, the authorities implement rent control that slows rent increases or even freezes rents. Rent control is ubiquitous, widely used at a large scale since World War I. However, its roots lie in a far more remote past, the first documented examples stemming from the Ancient Rome. Despite social and technological differences between then and now, the solutions found more than 2000 years ago bear a striking similarity with modern policies. Rapidly rising property prices, the COVID-19 pandemic, and the Ukrainian war pushed rent control back to the top of the political agenda. In this study, using logit model and survival analysis, I investigate the factors that led to introduction of rent control. I find that wars, foundation of universities, and presence of Jewish communities made the introduction of rent control more likely.

Keywords: rent control; housing policy; Antiquity; Middle Ages; logit model; Cox proportional hazards regression.

JEL codes: N40, N90, O18.

*I thank Yilu Ren for providing a very useful information on rent control in Medieval China under the Song dynasties and Sebastian Kolditz for sharing information on rent regulations during the church council in Ferrara and Florence. I am also very grateful to the librarians of DIW Berlin for their kind support in the literature search. The paper was presented on June 21, 2024, at the [4th Workshop on Rent Control](#). The author is thankful to its participants for their valuable comments. The author confirms that the paper involves no interest conflicts.

1. Introduction

Rent control is a ubiquitous and an ever recurring policy, the first documented instance of it lies in the Antiquity. As a rule, urban areas are characterized by a chronic shortage of affordable housing. Relatively small shocks suffice to render the situation unbearable, especially for households with low or modest incomes. Oftentimes, this leads governments to intervene, restricting market freedom. With landlords being accused of exploiting the supposed market failure and setting speculative rents, governments take on the role of impartial arbiter. They set the so-called fair rents, reducing rents and even exempting tenants from paying rents.

An important prerequisite for the introduction of rent control is the existence of a non-negligible tenant population. Typically, its proportion is related to the size of the urban area alongside the political and economic role the area plays. In particular, administrative centers, such as capital cities, as well as university and garrison cities, tend to have a higher tenant rate, i.e., proportion of tenant households among all households ([Wenderoth, 2022](#), p. 32). In Europe, after the collapse of the Roman Empire, rental housing seemed to disappear. It is only in the 12th century that it again reemerged ([Wenderoth, 2022](#), p. 17). In German speaking countries, rental housing apparently emerged after the 14th century ([Dirlmeier, 1978](#), p. 239). Between 1200 and 1800, the tenant rate varied between 2 and 96%, with the average tenant rate being 41%, as seen in Table 1.

Rent control policy became very widespread and large-scaled during World War I ([Kholodilin, 2020](#)). Since 1914, virtually all countries, at some point, have taken advantage of rent control, sometimes covering an entire country, often combining it with protection from eviction and with rationing of housing. However, this was by no means the origin of rent control. In his neat overview, [Willis \(1950\)](#) reports quite a few examples of such policies in the more remote past: in ancient Rome, during the existence of Jewish ghetto in the Papal States, medieval France and Paris during Franco-Prussian war, following the 1755 earthquake in Portugal, and Spain in the 16th century.

Our purpose here is to provide a comprehensive overview of the early episodes of rent control, systematically examining and summarizing their properties, to the extent allowed by data availability. Compared to [Willis \(1950\)](#), I can rely on a wider set of sources, extending the geography of rent control to include the Byzantine Empire, China under the Song dynasties,

Table 1: Tenant rates in cities between 1300 and 1800

| City | Country | Year | Tenant rate, % | Reference |
|------------------|-------------|------|----------------|-------------------------------|
| Montreal | Canada | 1741 | 35 | Massicotte (1999) |
| le Cateau | France | 1750 | 44 | Vigneron (2004) |
| Comines | France | 1725 | 45 | Vigneron (2004) |
| Comines | France | 1750 | 36 | Vigneron (2004) |
| Paris | France | 1688 | 81 | Lyon-Caen (2014) |
| Paris | France | 1708 | 93 | Lyon-Caen (2014) |
| Paris | France | 1786 | 92 | Lyon-Caen (2014) |
| Paris | France | 1757 | 94 | Lyon-Caen (2014) |
| Rouen | France | 1771 | 78 | Vigneron (1996) |
| Rouen | France | 1773 | 83 | Vanneste (1986) |
| Cambrai | France | 1751 | 70 | Vigneron (1996) |
| Ansbach | Germany | 1698 | 28 | Wenderoth (2022) |
| Ansbach | Germany | 1703 | 37 | Wenderoth (2022) |
| Ansbach | Germany | 1723 | 46 | Wenderoth (2022) |
| Augsburg | Germany | 1498 | 44 | Denecke (1980) |
| Augsburg | Germany | 1554 | 55 | Denecke (1980) |
| Berlin | Germany | 1785 | 75 | Voigt (1901) |
| Bremen | Germany | 1750 | 56 | Brander (1984) |
| Dresden | Germany | 1488 | 44 | Denecke (1980) |
| Dresden | Germany | 1502 | 52 | Denecke (1980) |
| Koeln | Germany | 1487 | 82 | Greying (1904) |
| Koeln | Germany | 1589 | 68 | Greying (1904) |
| Leipzig | Germany | 1555 | 23 | Denecke (1980) |
| Leipzig | Germany | 1555 | 65 | Denecke (1980) |
| Muelhausen | Germany | 1418 | 20 | Denecke (1980) |
| Muelhausen | Germany | 1552 | 28 | Denecke (1980) |
| Nuernberg | Germany | 1561 | 61 | Wenderoth (2022) |
| Rostock | Germany | 1404 | 17 | Denecke (1980) |
| Rostock | Germany | 1430 | 19 | Denecke (1980) |
| Rostock | Germany | 1501 | 50 | Jastrow (1886) |
| Rostock | Germany | 1522 | 57 | Maschke (1967) |
| Schwabach | Germany | 1530 | 39 | Wenderoth (2022) |
| Schwabach | Germany | 1668 | 26 | Wenderoth (2022) |
| Schwabach | Germany | 1695 | 35 | Wenderoth (2022) |
| Schwabach | Germany | 1703 | 41 | Wenderoth (2022) |
| Schwabach | Germany | 1723 | 59 | Wenderoth (2022) |
| Schwabach | Germany | 1799 | 75 | Wenderoth (2022) |
| Wassertruedingen | Germany | 1603 | 23 | Wenderoth (2022) |
| Wassertruedingen | Germany | 1668 | 6 | Wenderoth (2022) |
| Wassertruedingen | Germany | 1723 | 10 | Wenderoth (2022) |
| Firenze | Italy | 1651 | 80 | Barbot (2008) |
| Milano | Italy | 1576 | 87 | Barbot (2008) |
| Milano | Italy | 1610 | 93 | Barbot (2013) |
| Milano | Italy | 1610 | 92 | Benfante (2003) |
| Milano | Italy | 1633 | 93 | Lyon-Caen (2015) |
| Roma | Italy | 1517 | 88 | Troade (2022) |
| Venezia | Italy | 1661 | 94 | Lyon-Caen (2015) |
| Venezia | Italy | 1740 | 98 | Lyon-Caen (2015) |
| Amsterdam | Netherlands | 1562 | 59 | Van Tussenbroek (2019) |
| Burgos | Spain | 1751 | 96 | de la Higuera (2017) |
| Madrid | Spain | 1751 | 97 | Cruz (1990) |
| Toledo | Spain | 1788 | 97 | Fuentes Lázaro (1974) |
| Geneve | Switzerland | 1726 | 70 | Vigneron (2004) |
| Schaffhausen | Switzerland | 1401 | 4 | Dirlmeier (1978) |
| Schaffhausen | Switzerland | 1502 | 29 | Dirlmeier (1978) |
| Norwich | UK | 1311 | 87 | Rutledge (1995) |
| Norwich | UK | 1333 | 94 | Rutledge (1995) |
| New York | USA | 1730 | 30 | Blackmar (1979) |
| New York | USA | 1796 | 46 | Blackmar (1979) |
| Philadelphia | USA | 1769 | 80 | Salinger and Wetherell (1985) |

Malta, medieval university cities, the Kingdom of Aragon, and the Kingdom of Sardinia. In addition, the availability of new information allows us to rectify some of the analysis of this excellent scholar. With these data at hand, one can analyze the factors that determined the introduction of rent control.

The next section defines the rent control policy. Section 3 presents specific cases covering different periods and places. In section 4, the logit and Cox proportional hazards models are estimated to identify the major factors behind the introduction of rent control. Section 5 concludes.

2. Rent control policy

Rent control is a specific case of price control. Its purpose is to restrict housing rent increases, either by freezing rents (no rent increases are allowed) or by capping the growth rates of rents (rents can be raised in line with overall cost of living increases or to compensate for improvements made by the landlord). In some cases, rents can even be reduced or phased out for a certain period.

Rent control typically includes three elements: 1) rules regulating the setting of rent in newly concluded rental contracts (either for the very first time after the dwelling was completed or after the previous contract was over); 2) rules regulating updating rent within the existing rental contracts; and 3) exceptions, which specify either dwellings that are not subject to the regulations or those segments of the housing market that are subject to stricter controls (Kholodilin, 2020).

Setting rent. The first element of rent control is basically about setting a *fair rent*. It is a hypothetical value that is free from a speculative component. As such, it is unobserved and, therefore, requires large intellectual efforts to be estimated, provided that it is supposed to be really fair.¹ There exist several methods of setting fair rents: 1) an amount paid at specific date (e.g., 1914); 2) a percentage of fiscal value of the property; 3) an average rent for comparable dwellings in the neighborhood; and 4) a specific amount (Willis, 1947).

¹Fogelson (2013) provides a very detailed and interesting account on the difficulties that courts in New York City faced after World War I, when the first rent control laws delegated them the task of setting fair rents for dwellings.

Updating rent. The second rule determines whether, and in which cases, rents could be increased. Basically, under rent freezes, no rent increases are allowed. However, sometimes certain exceptions from this rule are still possible. For example, rents can be raised if the landlord substantially refurbished the property or if the government increases property taxes. Moreover, if the fair rent is computed as a percentage of the fiscal value of the property or average rent for comparable dwellings, it can change as result of variation in the underlying values.

Exceptions. The sphere of application of rent control can be defined in various ways. In some cases, all dwellings can be subject to rent control. However, often regulators specify segments of rental housing market, persons, or regions that are either subject to stricter controls or are exempted from control. Typically, the former include low-cost dwellings or low-income households. In some cases, minorities can enjoy a special protection. Rent control can also cover specific cities and surrounding areas or settlements with tight housing markets. The exemptions from rent control can include newly built or luxury housing but also can be applied to specific types of landlords, for example, those who hold large housing stocks. The exceptions can also be used as a discriminatory tool against certain minorities.²

3. Rent control episodes

A concise overview of rent control episodes is presented in Table 2 and Figure 1, where rental regulations are listed in chronological order. Column “Period” contains the time duration of rent control. Question marks indicate that the end of this policy is unknown. Column “Context” describes the socioeconomic and political situation in the moment of introduction of rent control. In column “Subject,” the population group that was protected by rent control is indicated. Column “Policy” specifies what kind of regulations were adopted: exemption denotes the case where tenants were allowed not to pay rent for certain period; fair rent implies setting rents by valuers at some reasonable level accounting for the quality and location of dwelling; freeze means the fixation of rents at some constant level that prevailed prior to some event that

²For instance, during Nazi rule in Germany and Romania, Jews were excluded from tenant protection: *Gesetz über Mietverhältnisse mit Juden* of April 30, 1939, and *Decret-lege nr. 693 pentru prelungirea contractelor de închiriere* of March 17, 1941, respectively.

triggered the implementation of rent control; and reduction refers to the cases where rental prices were reduced. Finally, column “Legal act” contains the title of a law or decree that imposed rent control, if available.

Table 2: Chronology of documented rent control episodes

| Period | Place | Context | Subject | Policy | Reference | Legal act |
|-----------|-------------------------------------|----------------|-------------|------------|------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| 48–47 BC | Rome (Roman Republic) | War | all | exemption | Rosillo-López (2022) ; Suetonius Tranquillus (1913) ; Frier (1977) | Legem quidem conductionis servari oportet nec pensionum nomine amplius quam convenit reposci |
| 253–260 | Rome (Roman Empire) | Growth | all | freeze | Iustinianus (2007) | |
| 775–969 | Constantinople (Byzantine Empire) | Growth | all | reduction | Syuzuymov (1966) | |
| 1075–1279 | Hangzhou (Southern Song) | Growth | all | exemption | Xú (2014) | |
| 1158–? | Bologna (Free commune of Bologna) | University | scholars | fair rent | Pini (1988) | Lictere Generales, establishing the University of Naples |
| 1214–? | Oxford (Kingdom of England) | University | scholars | reduction | Kibre (1954) | |
| 1215–? | Paris (France) | University | scholars | fair rent | Jourdain (1877) | |
| 1222–? | Padua (Free commune of Padua) | University | scholars | fair rent | Chiarantoni (2004) | |
| 1224–? | Naples (Kingdom of Naples) | University | scholars | fair rent | Frederick II (1998) | |
| 1231–? | Cambridge (Kingdom of England) | University | scholars | fair rent | Brooke and Leader (1988) | |
| 1233–? | Toulouse (France) | University | scholars | fair rent | Denifle (2014) | |
| 1246?–? | Siena (Republic of Siena) | University | scholars | fair rent? | Chiarantoni (2004) | |
| 1254–? | Salamanca (Kingdom of Castile) | University | scholars | fair rent | Ackerlind (1981) | |
| 1259–? | Vercelli (Free commune of Vercelli) | University | scholars | fair rent? | Miethke (2012) | |
| 1289–? | Montpellier (Kingdom of Aragon) | University | scholars | fair rent | Dumas (2015) | Real Cédula |
| 1290–? | Lisbon (Portugal) | University | scholars | fair rent | Ackerlind (1981) | |
| 1291–? | Ferrara (Free commune of Ferrara) | University | scholars | fair rent? | Chiarantoni (2004) | |
| 1300–? | Lerida (Kingdom of Aragon) | University | scholars | fair rent | Cuevas Subías (2008) | |
| 1303–? | Rome (Papal States) | University | scholars | freeze | | |
| 1306–? | Orleans (France) | University | scholars | fair rent | Lusignan (1999) | |
| 1308–? | Coimbra (Portugal) | University | scholars | fair rent | Ackerlind (1981) | |
| 1309–? | Avignon (France) | Avignon Papacy | all | fair rent | Payan (2022) | |
| 1349–? | Perpignan (Kingdom of Aragon) | University | scholars | fair rent | Barcala (1985) | |
| 1354–? | Huesca (Kingdom of Aragon) | University | scholars | fair rent | Cuevas Subías (2008) | |
| 1360–? | Venice (Republic of Venice) | Prostitutes | prostitutes | fair rent | Coletti (2017) | |
| 1364–? | Cracow (Kingdom of Poland) | University | scholars | fair rent | Casimir, King of Poland (1364) | |
| 1365–? | Vienna (Duchy of Austria) | University | scholars | fair rent | Ubl (2005) | |

Table 2: continued...

| Period | Place | Context | Subject | Policy | Reference | Legal act |
|-----------|----------------------------------------------------------------|----------------|----------------|-----------|----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1386–? | Heidelberg (Electorate of the Palatinate) | University | scholars | fair rent | Classen and Wolgast (1983) | Decretum Camerae Apostolicae in fauorem inquilinorum |
| 1387–? | Pavia (Signoria of Padua) | University | scholars | fair rent | Crotti (2007) | |
| 1409–? | Leipzig (Electorate of Saxony) | University | scholars | fair rent | Zhang (2010) | |
| 1410–? | Rome (Papal States) | | all | | Vaquero Piñeiro (1995) | |
| 1414–? | Konstanz (Imperial city of Holy Roman Empire of German Nation) | Church council | clergy | fair rent | Richental (2011) | |
| 1419–? | Rostock (Duchy of Mecklenburg) | University | scholars | fair rent | Michael (2013) | |
| 1425–? | Louvain (Duchy of Burgundy) | University | scholars | fair rent | Kivinen and Poikus (2006) | |
| 1425–? | Poitiers (France) | War | royal officers | freeze | Guérin (1896) | |
| 1431–? | Basel (Switzerland) | Church council | clergy | fair rent | Widmer (1992) | |
| 1438–? | Ferrara (Free commune of Ferrara) | Church council | clergy | fair rent | Kolditz (2013) | |
| 1439–? | Florence (Republic of Florence) | Church council | clergy | fair rent | Kolditz (2013) | In favorem inquilinorum et subinquilino- rum |
| 1480–? | Mdina (Malta) | Growth | all | freeze | Wettinger (1993) | |
| 1516–? | Venice (Republic of Venice) | Ghetto | Jews | freeze | Boccatto (2007) | |
| 1522–? | Lorca (Spain) | Prostitutes | prostitutes | fair rent | Molina Molina (2000) | |
| 1531–1798 | Valletta (Malta) | Growth | all | fair rent | Borg Cardona (1951) | |
| 1549–1550 | Rome (Papal States) | Holy Year | all | freeze | Kleinlerer (1944); Prato (1918); Vuoli (1914a) | |
| 1553–? | Sevilla (Spain) | Prostitutes | prostitutes | fair rent | Molina Molina (1998) | |
| 1562–? | Rome (Papal States) | Ghetto | Jews | freeze | Gasperoni (2018) | |
| 1564–1842 | Madrid (Spain) | Growth | all | fair rent | Alonso and Nieto (1956) | |
| 1592–1594 | Paris (France) | War | all | reduction | Grasilier (1916a); Richet (1968) | Ordenanzas de la mancebía de Sevilla de 1553 Dudum a felicis recordationis Resolución de Consejo Real de 27 de octubre de 1564; Ley sancionada sobre inquilinato de casas y otros predios de 9 de abril de 1842 Cédula Real de Felipe III sobre la tasación de viviendas de alquiler en la ciudad de Valladolid |
| 1601–1605 | Valladolid (Spain) | Growth | all | fair rent | Pérez Gil (2004) | |
| 1610–? | Mantua (Duchy of Mantua) | Ghetto | Jews | freeze | Calabi (1997) | |
| 1619–? | Paris (France) | Plague | all | reduction | Grasilier (1916a) | |
| 1627–? | Ferrara (Free commune of Ferrara) | Ghetto | Jews | freeze | Pesaro (1880) | |
| 1649–1652 | Paris (France) | War | all | reduction | Grasilier (1916b) | |
| 1652–? | Bordeaux (France) | War | all | reduction | Dinges (1988) | |
| 1679–? | Turin (Duchy of Savoy) | Ghetto | Jews | | Levi (1977) | |
| 1692–? | Paris (France) | War | all | reduction | | |
| 1698–? | Rome (Papal States) | Ghetto | Jews | reduction | Milano (1931) | |

Table 2: continued...

| Period | Place | Context | Subject | Policy | Reference | Legal act |
|-----------|-----------------------------|------------|----------|-----------|------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1718–? | Cervera (France) | University | scholars | fair rent | Rubio y Borrás (1916) | |
| 1742–? | Naples (Kingdom of Naples) | Growth | all | freeze | De Simone (1976) ; De Sarnis (1796) | |
| 1749–? | Turin (Kingdom of Sardinia) | Growth | all | fair rent | Vuoli (1914b) | Regie Patenti del 10 luglio 1749 colle quali S. M. commette al Vicario di Torino di conoscere e provvedere circa le differenze per eccessivo aumento di fitto tra li padroni di case poste in detta Città ed i loro affittavoli, e di procedere ove d'uopo alla tassa de' luoghi appigionati |
| 1755–? | Lisbon (Portugal) | Earthquake | all | reduction | Araújo et al. (2007) | Lei, para que se não levantem os alugueres das casas que ficaram salvas do Terramoto do dia primeiro do mês |
| 1815–? | Modena (Duchy of Modena) | Growth | all | fair rent | | Legge della vendita, e successiva locazione al venditore col patto della ricupera |
| 1870–1871 | Paris (France) | War | all | reduction | | Décret de la Commune du 29 mars 1871; Loi sur les loyers du 21 avril 1871 |

Overall, 62 documented episodes of rent control are identified. The most common type of rent regulations was setting fair rents (over 60% of cases). In the further 16% of cases, rents were frozen at prevailing level. I also find at least ten episodes of rent reductions, sometimes equaling three-fourths of the original rental price. In 3% of the cases, tenants were completely exempted from paying rents. Apart from rent control, a few cases of implementing protection for tenants from eviction and housing rationing (requisition of vacant dwellings) are also found.

In what follows, I discuss specific rent control episodes in different countries. The narrative flows in both chronological and alphabetical order.

3.1. Ancient Rome

Tenant protection originated during the Antiquity. Specifically, they were introduced in Rome known for its multi-storey and multi-family rental houses known as *insulae*. The first documented rental housing market regulations are known from the 40s B.C. ([Rosillo-López, 2022](#)). First, in 49 B.C., rent cancellation was implemented in the small town of Ostia, near Rome ([Rosillo-López, 2022](#), p. 182). Later, for one year, Julius Caesar set the maximum rent at 2000 sesterces in the city of Rome and at 500 sesterces in other Italian places ([Suetonius Tranquillus, 1913](#), p. 38). According to [Frier \(1977\)](#), this happened in 48 BC, during the civil war

between Julius Caesar and Pompey. Thus, the destruction of housing stock alongside inflation could have contributed to the deterioration of living conditions of Roman citizens. Maximum rents did not take into account any locational or structural characteristics of dwellings and appear to be quite low compared to the market rents of those times. In 41 B.C., Emperor Octavian again took advantage of rent control ([Rosillo-López, 2022](#), p. 182). The rent of tenants who lived in the city of Rome and paid a rent not exceeding 2000 sesterces was entirely remitted; for those who dwelled in the rest of Italy, it was reduced by 75% for one year ([Dio, 1917](#), p. 239).

Another attempt to control rents in Ancient Rome was undertaken three centuries later. Between 253 and 260, Emperors Valerian and Gallienus prohibited rent increases within the contract period.³ This inevitably led to landlords making very short-term contracts.

3.2. *Byzantine Empire*

The Eastern Roman Empire, known as the Byzantine Empire, existed between 330 and 1453, also took advantage of rent control. However, it appears to be used exclusively in 9th–10th centuries. This was a period of economic and political recovery for the Empire after devastating defeats experienced in the 8th century. At that time, the population of Constantinople dropped from 600,000 persons in 618 to 40,000–100,000 persons around mid-8th century ([Kaplan, 2010](#), p. 74). At that time, in Constantinople, the housing market was subject to strict governmental control, the corresponding provisions being contained in the Eparch’s Book, or the Book of the Prefect. In particular, several emperors — Leo VI (866–912), Romanos I (920–944), and Nikephoros II Phokas (963–969) — prohibited rent increases or, in some cases, required rent reductions. These measures were often taken to prevent popular riots ([Syuzuymov, 1966](#), p. 11).

However, during the last six centuries of the Byzantine Empire, rent control was no longer in use ([Maniatis, 2003](#), p. 404), with legislation explicitly providing for free market transactions. Nevertheless, Byzantine legislation knew the notion of a just price, which was applied for transactions with land and building contracts determined either by competitive markets, by

³*Legem quidem conductionis servari oportet nec pensionum nomine amplius quam convenit reposci* ([Iustinianus 2007](#), Liber 4, Caput 65).

local customs, or by designated experts ([Maniatis, 2003](#), p. 440–441).

The presence of rent control in the earlier Byzantine Empire and its absence in the later days can possibly be explained by different demographic dynamics. While during the former period, the population of the empire and particularly of Constantinople was rapidly growing, during the latter period, it was declining, such that many houses stood empty.

3.3. China

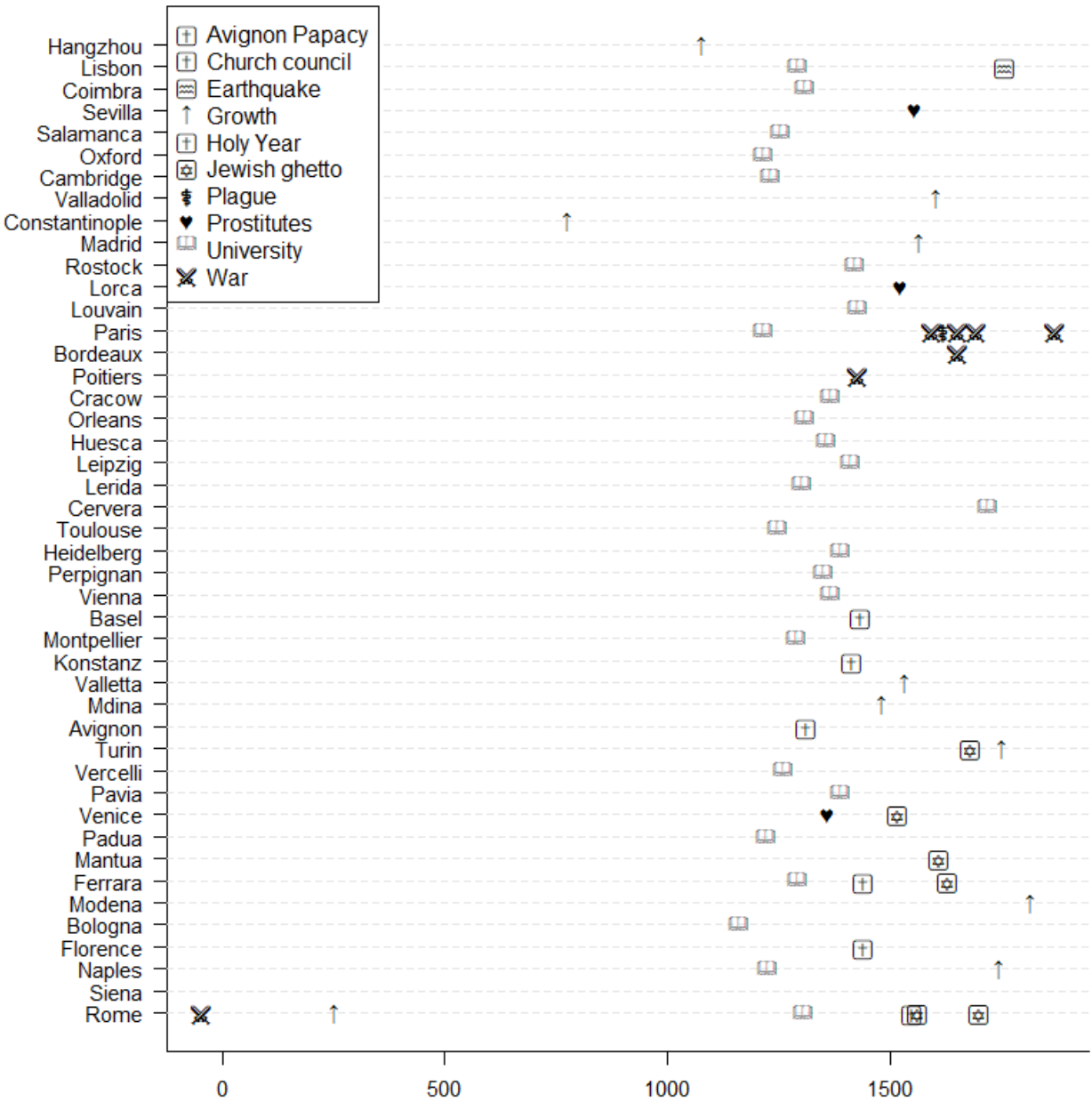
In China, the first known experiments with rent control were undertaken during most of both the Northern Song (960–1127) and the Southern Song (1127–1279) dynasties ([Bí, 2013](#)).

Strong imperial government controls on rent were realized through orders from the Chinese Emperor and became the norm during the Southern Song dynasty. These rent regulations were mainly aimed at curbing the rising rental costs in order to ensure the affordability of rental housing. From 1006 to 1008, Emperor Zhenzong (968–1022) issued several orders to stabilize the rental housing market ([Xú, 2014](#)). In 1075, during Shenzong’s reign (1048–1085), an imperial edict was passed to prohibit rent increase ([Xú, 2014](#)). As a result, landlords were prohibited from raising rents at will.

In 1127, after losing control of northern China to the Jin Dynasty, the Song court retreated south and established a new capital at Lin’an (currently, Hangzhou). The population of the city rapidly increased. Consequently, housing costs and other consumer expenses skyrocketed. The focus of rent control policies shifted to a proportional reduction of rent. Throughout the Southern Song period (1127–1279), the central government implemented Emperors’ orders on rent reduction approximately every ten years and, in most cases, 30% of the current rent was remitted.

In addition, the Southern Song dynasty often exempted both public and private tenants in their capital city from paying rents ([Hui, 2013](#), 98). Such temporary exemptions were granted during festivals, celebrations, famines, plagues, or wars. The first documented case of exempting housing rent took place in 1012 under the reign of Zhenzong of Song dynasty ([Gāo, 1989](#)). These exemptions ranged from days to years, according to the specific situations, and usually were carried out within specific localities and were revoked as soon as the situation returned to normality ([Bí, 2013](#)).

Figure 1: Time schedule of rent control introductions between 48 BC and 1871



3.4. France

In France, since the 13th century, rent control has been employed as a means of combating rental inflation, implemented on many occasions, the most recent, prior to World War I, during the Franco-Prussian war. Below, I describe each of these episodes separately.

Avignon Papacy. During the Avignon Papacy between 1309 and 1376, the popes were forced by French kings to stay in the town of Avignon in the south of France. The arrival of the pope’s court to a town confined to a relatively small area by its walls meant a substantial increase in demand for housing. It is estimated that additional 500–600 persons joined the pre-existing population of 5000–6000 persons (Payan, 2022). To prevent rent increases, the authorities took measures. A commission comprising three Cardinals and three representatives from the city council drew up housing regulations. It provided for a group of assignors — two appointed by the city council and one by the pontifical court — and a group of appraisers — two appointed by the city, two others as well as a president appointed by the pontifical court. The first group was responsible for assigning accommodation to each member of the pope’s court, depending on his condition, and setting a monthly rent, the payment of which was then to be controlled by the rent appraisers (Payan, 2022, p. 33–34).

The Hundred Years’ War (1337–1453). In 1418, when the North of France was occupied by British troops and the Duke of Burgundy took Paris, Dauphin Charles — the future king of France Charles VII — was forced to move his Court to Bourges and the *Parlement* to Poitiers (Minois, 2010, p. 408). Some professors and students of the *Université de Paris* followed this move. Foreseeing that the inflow of wealthy officers and academicians could lead to a surge in the housing rents, already in 1418, Charles VII ordained that the rents be kept at a reasonable level (*assez raisonnable pris*, Guérin 1896, p. 420). Initially, the owners of houses of Poitiers followed the order. However, around 1422–1423, local landlords started to increase rents. Moreover, the landlords wanted to be paid with golden *ecus* or *moutons*, unwilling to accept the currency of Charles VII. Therefore, on March 6, 1425,⁴ Charles VII ordered the seneschal of Poitou to ensure that the landlords in Poitiers did not raise rents abusively by setting “reasonable rents,” implying the rents prevailing at the eve of transfer of the *Parlement*

⁴*Mandement au sénéchal de Poitou de veiller à ce que les loyers des maisons habitées par les officiers du Parlement à Poitiers ne soient point enchéris de manière excessive par leurs propriétaires*, X^{1a} 8604, fol. 71 v^o.

to Poitiers ([Guérin, 1896](#), p. 419–422). In addition, the ordinance prohibited landlords from evicting the royal counselors and officers. Thus, the regulation covered only one city and a narrow group of tenants.

The Ligue (1592). The next rent control episode in France took place in the 1590s, during religious wars between Catholics (*Ligue catholique*) and Protestants. French King Henri IV, who at that time represented the Protestants (Huguenots), had to flee Paris in May 1588 due to a Catholic revolt. The Catholic Ligue seized the city. Subsequently, between 1589 and 1594, the king had to undertake two attempts to conquer Paris. During the sieges, Paris was cut from supplies of food. This caused price rises in the capital and an overall economic crisis. Thus, Paris tenants were hit from two sides: by a positive price shock and by a negative income shock. Therefore, on December 20, 1591, the French Court granted the merchants and bourgeois of Paris a temporary moratorium on rent payments ([Grasilier, 1916a](#), p. 168). Then, on January 8, 1592, the *Parlement* of Paris decreed a rent reduction whose size depended on the time of concluding the rental contract. In particular, in the case of leases made prior to April 15, 1589, tenants would not have to pay more than one-fourth of the rent stipulated in the lease; for leases made between April 15, 1589 and August 31, 1590, the amount was reduced by one-half; while for leases made after the siege was lifted, two-thirds ([Grasilier, 1916a](#), p. 168–169).

The Plague (1619). The outbreak of the plague in 1619, with its high mortality, led to a flight of the nobility from Paris to places where they believed they would be safe from contagion. This implied a large negative income shock that hit many craftsmen in the capital because the demand for their goods and services dropped substantially. The French Court wanted to support the tenants suffering from the epidemic and economic crisis. However, it supposed that a general reduction of rents could cause abuse to the prejudice of landlords. Therefore, the Lieutenant Civil was commissioned to grant reductions and moratoria in individual cases ([Grasilier, 1916a](#), p. 171–173).

The Fronde (1652). Between 1648 and 1653, France was shattered by a series of civil wars. During that period, King Louis XIV faced a united opposition of the nobility and the *parlements* (courts of appeal). In August 1648, Cardinal Mazarin arrested the leaders of the *parlement* of Paris, and the city insurrected against the King. In January 1649, Paris was put under a siege by the Prince de Condé, who, at that time, was loyal to the King. As

usual, this led to rising inflation and interruptions in economic activities, partly due to the obligation of craftsmen to participate in the city's defense. On April 10, 1649, upon a petition of the merchants of Paris, the Court exempted them from paying half of the quarter's rent due on Easter; four days later, on April 14, the whole rent was exempted (Grasilier, 1916b, p. 280–281). On May 19, 1649, Parliament passed a new decree relieving certain merchants not covered by the prior decrees. Again in April, 1652, a decree was issued that relieved many tenants from the Easter quarter's rent along with the rent for the succeeding quarter (Grasilier, 1916b, p. 280–281). In September 1652, certain categories of merchants were exempted from paying one-fourth, while other categories were freed from paying one-third of the quarter's rent due on Easter, Saint John (June 22), and Saint Remigius (October 1) (Grasilier, 1916c, p. 47–48). Additional, similar, legal acts followed exempting the merchants of Paris from paying rent (Grasilier, 1916c, p. 49–50).

Rent regulations during the Fronde were not just confined to Paris. For example, in Bordeaux, under the pressure of population, housing rents were reduced by one-third (Dinges, 1988, p. 193).

Franco-Prussian war and the Paris Commune (1870–1871). At the end of the Second Empire and at the time of the Commune, due to rapid industrialization, housing conditions of low-income Parisian households were deplorable. Like in many European industrial centers, the workers' dwellings were, as a rule, small and unhealthy. The situation was aggravated by the works of Baron Haussmann, which dramatically transformed the center of Paris by demolishing many houses and tracing new broad streets. As a result, many worker households were forced to move to peripheral districts, while rents increased more rapidly than wages (Gaillard, 1997, p. 117). The war and the encirclement of Paris by the Prussians worsened the situation. Most workers found themselves unemployed. Moreover, some of them participated in the defense of the city, which prevented them from working and earning money. In September 1870, the Government of National Defense introduced a moratorium on rent payments, which was twice prolonged. However, on March 13, 1871, the conservative National Assembly (*Assemblée nationale*), sitting in Bordeaux, which succeeded the Government of National Defense, ended the moratorium. This, together with other measures by the National Assembly, resulted in an outcry and revolt in Paris, where the Commune was proclaimed (Gaillard, 1997, p. 118). The

Paris Commune almost immediately adopted rent control and housing rationing measures.⁵ Thus, on March 29, 1871, rent payments were postponed for six months, whereas on April 25, 1871, all vacant premises were requisitioned and put at the disposal of the inhabitants of the districts that suffered from bombardments.

In a parallel way, the official government of France also adopted some rent control measures in those regions that had revolted. Thus, the law of rents of April 21, 1871, specifically covered the city of Paris and cantons of the Département de la Seine.⁶ It created special commissions (*jurys spéciaux*) to settle conflicts between tenants and landlords as well as to set rent reductions. The tenants of residential premises were allowed to postpone rent payments and even to obtain rent reductions, if they were completely or partly prevented from using the premises. Moreover, the owners of housing, whose annual rent did not exceed 600 francs, could be provided compensation, its amount being equal to one-third of what, as a result of the moratorium, the tenants had not paid in the period between October 1870 and April 1871. However, this indemnity was only allowed in favor of those owners who had remitted to their respective tenants the entire debt formed as a result of the moratorium and had also allowed the tenants to remain in possession of the dwelling leased until July 1871.

3.5. Italy

In Italy, during the Middle Ages, restrictive rental housing market regulations were mainly employed by the Popes. Such regulations were used on the following three occasions. First, there was protection for tenants in Rome, typically during festivities that attracted many pilgrims and drove rental prices up. Second, there was protection of Jews living in special isolated quarters in very crowded conditions. Third, rent control was used in Sardinia Kingdom in the mid-1750s.

Rome. The first rental market regulations in medieval Rome were introduced in 1410 and reiterated in 1510 and 1513.⁷ These established protection from eviction (Vaquero Piñeiro, 1995). In 1549, the Pope Paul III adopted a decree that prohibited rent increases during the

⁵*Décret de la Commune du 29 mars 1871* and *Décret sur la réquisition des logements vacants du 25 avril 1871*, correspondingly.

⁶*Loi sur les loyers du 21 avril 1871*; <https://argonnaute.parisnante.fr/ark:/14707/a011552401455SoIMpW/e9ee82f0e8>.

⁷*Decretum Camerae Apostolicae in fauorem inquilinorum* of the 21st of June 1513.

coming Holy Year or tenant evictions in case the landlords required the housing for their own use (Kleinlerer, 1944; Prato, 1918; Vuoli, 1914a).⁸

Jewish ghettos. In addition, Jews living in ghettos throughout Italy enjoyed special protection. Starting from the 15th century, Jews were prohibited from owning real estate and they were mostly confined to live in ghettos as tenants paying rent to the Christian landlords (Boccatto, 2007, p. 99).⁹ In ghettos, the so-called *jus gazzagà* (or *ius cazacà* from Latin word *ius* that stands for “law” and Hebrew word *khazaka* that stands for “holding, property”) governed the relationships between the Christian landlords and their Jewish tenants. It can be defined as “locazione ereditaria” (hereditary tenancy), “inquilinato perenne” (perpetual tenancy), or “quasi proprietà” (quasi-property). The rent previously applied to real estate, now granted for residential use to Jews, was increased by one-third, with no further surcharges, and this was to guarantee against abuse and speculation to the detriment of the new tenants who could remain in the dwellings as long as they regularly paid the rent (Boccatto, 2007, p. 100). The first such regulations including rent control and protection from eviction were implemented in Ghetto Novo of Venice in 1516. Next, in Rome’s Ghetto, this protection was introduced in 1562 by the bull *Dudum a felicis recordationis* of the Pope Pius IV (Gasperoni, 2018, p. 567). In 1586, by the papal bull *Christiana pietas* of the Pope Sixtus V allowed Jews to live in other cities of the state and prescribed that “in the cities, castles and lands, where again they Jews will come to dwell, houses, dwellings and places comfortable and suitable for ritual” be assigned to them and “that the rents in the principle be honest according to the usual, nor ever again be increased or altered” (Laras, 1968, p. 36). In June 1604, it was confirmed by a breve of the Pope Clement VIII (Brechenmacher, 2005, p. 41). In particular, it provided that “Should you pay of said houses the rent which you have established..., you may not be driven out by the Christian owners of them, nor may the latter increase the rents, and only in the event that they make notable and obvious improvement may they perceive so much more” (Laras, 1968,

⁸Decree of April 29, 1549 *In favorem inquilinorum et subinquilinatorum* (In favor of tenants and subtenants). The full title of the decree is *Decretum Camerae Apostolicae 29 Aprilis M. D. XLIX in favorem D.D. Domorum Inquilinorum et subinquilinatorum factum, de non augendo pensione respectu Anni Sancti, ac de non expeliendo Inquilinos et subinquilinos durante locatione de forma obligationis fiendae per Dominos volentes domos pro suo usu habere, et de subinquilino non gaudente Privilegio Inquilini finita locatione sui Auctoris* (Guid. Asc. Sfor. S. Eustachii Diac. Card. De S. Flora S. R. E. Camerarius).

⁹The first ghetto was constituted in 1516 in Venice, followed in 1555 in Rome, and then in 1571 in Florence.

p. 36). In 1764, the bull of the Pope Paul II specified that the rent under the *cazacà* contracts was to be 30% higher than the common rents (Laras, 1968, p. 45). This regulation prohibited the landlords both from evicting their tenants and from raising rents. As a result, the rents remained frozen until 1870, when the ghetto was dissolved. However, in case of sublettings, the rents for subtenants could often be increased (Gasperoni, 2018, p. 582–583).

Similar regulations appear to exist in other Italian cities with ghettos. For instance, in 1627, in Ferrara, Cardinal Cennini issued a decree that prohibited rent increases for the inhabitants of the Jewish ghetto (Pesaro, 1880, p. 39).

The obligation to pay rent was assigned to the community as a whole and covered the total housing stock of the ghetto. Thus, Pope Alexander VII issued a bull on November 15, 1658, obliging the Roman Jewish community to pay the rents of unoccupied dwellings (Calafat and Gasperoni, 2019, p. 132). This became a problem when some of the dwellings became vacant because the same amount of rental cost had to be distributed over a smaller group of people. Therefore, apart from rent freezes, rent decreases were also sometimes implemented. In April 1698, after a pest epidemic that had led to large human and economic losses in Rome, Innocent XII issued an ordinance (*chirografo*) to reduce the rents paid by Jews in the Ghetto by 12% (Milano, 1931, p. 548–549).

One of the important problems related to this apparent protection of the Jews from rent increases was that it resulted in a decreasing real rent income of their landlords. Therefore, the landlords had no incentive and no financial possibility to renovate their houses in ghettos. The buildings dilapidated, which in the worst cases led to their crumbling and human deaths (Roth, 1946, p. 358).

Kingdom of Naples. In 1741, popular tumults related to the inflation caused the government to react. On January 2, 1742, a decree froze residential and commercial rents for the duration of one year. This was subsequently prolonged annually until the end of the 18th century.¹⁰ The rent freeze was accompanied by the protection from evicting the tenants, eviction being only possible if the landlord needed the premises for his own use or the tenant “abused” of the premises (De Simone, 1976, p. 94).

¹⁰(De Simone, 1976, p. 93–94) and De Sariis (1796).

Kingdom of Sardinia. Other Italian states also had their own rental housing market regulations. In Sardinia Kingdom, rent control was introduced in the mid-18th century ([Vuoli, 1914b](#)). In 1749, 1750, and 1762 a series of legal acts were issued that established fair rents in Turin.¹¹

The 1750 edict, also regulated rents for sublettings, determining that it should not exceed the rents paid by the principal tenants. This provision can sometimes be very important and its absence can lead to serious distortions.¹² In addition, the 1762 edict permitted rent increases accounting for a “just value increase” over time and substantial renovations. Moreover, it also introduced eviction protection by requiring the landlords to name a just reason for not prolonging the rental relationship at the end of the contract term. The edict recognized four just reasons: 1) non-payment of rent; 2) damage due to negligence; 3) dishonest lifestyle; and 4) conflicts with neighbors.

Duchy of Modena. In 1815, Duchy of Modena also implemented rent control.¹³ The fair rent was set at 6% of the value of the rented property. This turned out to be an important novelty — similar designs were used in the 20th century in many countries, especially those with Romance languages.¹⁴ Additionally, rent reductions to the allowed level were provided for in case the actual rent exceeded the fair one.

3.6. Malta

Università. In November 1461, Malta’s local self-government (at that time known as *Università*) issued two proclamations requiring the owners of houses located in the town of Mdina to reclaim them and to reconstruct them, if the houses were dilapidated, because otherwise the houses would be leased by the authorities to other people, especially those coming to the town

¹¹*Regie Patenti del 10 luglio 1749 colle quali S. M. commette al Vicario di Torino di conoscere e provvedere circa le differenze per eccessivo aumento di fitto tra li padroni di case poste in detta Città ed i loro affittavoli, e di procedere ove d’uopo alla tassa de’ luoghi appigionati, Editto del 2 novembre 1750 di S. M. portante alcune provvidenze circa gli affidamenti delle case della Metropoli di Torino, e sobborghi, e sulla relativa giurisdizione del Vicario, and Editto del 24 aprile 1762 di S. M. portante diverse Provvidenze intorno agli affittamenti, e sublocazione delle case di Torino, con autorità al Vicario di conoscere inappellabilmente in tutte le cause relative, e di punire i contravventori.*

¹²See [Mark \(2013\)](#) on the case of Israel, where tenants abused of this gap in legislation by setting exorbitant rents for their subtenants, while paying a tiny frozen rent to the landlords.

¹³*Legge della vendita, e successiva locazione al venditore col patto della ricupera* with unknown date.

¹⁴For example, a similar way of fair rent setting was used in Argentina in 1959, Bolivia in 1939, Chile in 1925, Dominican Republic in 1945, and Luxembourg in 1920, among others.

from outside (Wettinger, 1993, p. 203). Proclamations containing similar housing rationing measures made in September 1473 (Wettinger, 1993, p. 515). Mdina was the capital of Malta until 1571 and served as headquarters for the *Università* and religious authorities. In September and October 1480, the *Università* prohibited increases of rent for houses and shops in Mdina (Wettinger, 1993, p. 762, 772). The motive behind “these proclamations was the defense of the City itself from possible assault by enemy invaders, a defense which could only be possible if the City had enough citizens to man the Bastions” (Mifsud-Bonnici, 2003, p. 253). This is in contrast to the typical application of housing rationing and rent control measures whose purpose is to make the housing affordable in the situation where the demand for housing substantially exceeds the supply of it.¹⁵ In the case of Mdina, the authorities wanted to attract new inhabitants to the town using such measures.

The Order of the Knights of Saint John. The arrival of the Knights of St. John implied a deterioration of the housing situation. The demand for housing increased dramatically. In addition, the Knights were outsiders, which inevitably meant tensions with the local population, especially related to housing. The Knights were lodged in special reserved districts, known as *colacchio*. In late October or early November 1531, a Rent Tribunal (*Officio delle Case*) was established with the purpose of setting the fair rent of houses, shops, and stores (Borg Cardona, 1951).¹⁶ All premises were subject to rent control, except for those that were newly built. Thus, this appears to be the first example of such an exemption in the world history of rent control. The Tribunal was also empowered to take housing rationing measures, such as compulsory sale of houses that were left unoccupied. The Tribunal and rent control legislation remained in power, although with certain modifications,¹⁷ until the end of the reign of the Knights of St. John in 1798, when it was abolished by Napoleon’s military.¹⁸ After assuming control, the British re-established laws concerning rent control, calling the office in charge the *Officio delle*

¹⁵As a superficial frequency analysis of the legal acts published in Wettinger (1993) and encompassing the period between 1434 and 1499 shows, one of the most important topics discussed by the Maltese authorities in the 1450s and 1460s was the reconstruction of town walls that were threatening to collapse.

¹⁶The following discussion of the Malta’s rent control laws is based almost exclusively on the excellent account of Borg Cardona (1951), who examines the minutiae and provides the original texts.

¹⁷The acts confirming and modifying the 1531 *Ordinationes Domorum* were issued in during the following centuries: for example *Sacra Capitula Generalia. Homedes. 1548. Tertia Melite* of May 26, 1548, *Sopra le Case* of May 24, 1555, and *Ordinantiioni Sopra le Case* of October 24, 1562.

¹⁸*Instruction de Regnaud de St. Jean D’Angely on the 25 Messador, An VI* of July 13, 1798.

Case e delle Cause Delegate,¹⁹ only to be laid to rest by Governor Sir Thomas Maitland in 1814 (Mifsud-Bonnici, 2003, p. 254).²⁰

3.7. Portugal

One of the few instances of rent control related to a large supply shock is the case of the Portuguese capital. In Lisbon, the Great Lisbon Earthquake happened on the Day of All Saints, November 1, 1755.²¹ As if it was not enough, big fires and a tsunami followed. It took a huge human death toll, with estimates ranging between 10,000 and 100,000 alone in Lisbon (Pereira, 2009, p. 468). Both population and housing stock in the city of Lisbon declined by around 40% (Pereira, 2009, p. 470). As a result, a huge housing shortage followed, leading to price increases. The government reacted by issuing a decree on December 3, 1755, that froze rents for dwellings, shops, and warehouses:²² rental prices for houses that survived could not exceed the value they would have had without the earthquake, i.e., prices paid before the earthquake (Araújo et al., 2007, p. 220). The law, as is typical in the early legal acts, did not contain provisions on its period of validity. It is also unknown if and when it was revoked. Therefore, it is impossible to say when it lost its power.

3.8. Spain

In Spain, the emergence of rent control was related to the creation of the University of Salamanca in 1254, as described below in the section on medieval universities.

The next attempt to introduce both rent and wage control was undertaken by Peter IV of Aragon and was related to the 1348 pest epidemics in Spain. In his ordinance of the 15th August of 1349, Peter IV commissioned a special committee composed of the representatives of the central government and of the cities to fix rents (Verlinden, 1938, p. 113). The only city known to experiment with these regulations is Valencia. After some trial, though, it gave up on it. Thus, this attempt to introduce rent control in Spain failed.

¹⁹*Bando of Captain Ball* of September 13, 1800.

²⁰*Proclamation No. XV* of the 25th May, 1814.

²¹Earthquake shocks could be felt more than 300 km distant in Seville, where some houses collapsed (González-Serna, 2022).

²²*Lei, para que se não levantem os alugueres das casas que ficaram salvas do Terramoto do dia primeiro do mês; Colecção da Legislação*, I, 402, <https://legislacaoregia.parlamento.pt/Pesquisa>.

Another event led to the introduction of rent control that persisted for a much longer time and covered much wider groups of population. It was the transfer of the capital from Valladolid via Toledo to Madrid, which took place in 1561 ([Madrid Cruz, 2008](#); [Argelich Comelles, 2017](#)). The change in status of the formerly rather small town of Madrid led to dizzying population growth. Between 1561 and 1597, the population of Madrid jumped from 20,000 to about 90,000 persons ([López García, 1998](#), p. 77). As usual, this strained the very limited housing supply and caused dramatic housing price increases ([Madrid Cruz, 2008](#), p. 56). The first in a long series of consequent regulations was the Resolution of the Royal Council of 1564.²³ Altogether, 14 special legal acts were adopted concerning restrictions on rental prices ([Alonso and Nieto, 1956](#), p. 37).²⁴ These regulations remained in place for almost three centuries (on average, one legal act every 20 years) and were only removed in 1842.²⁵ The Spanish system was based on the assessment and setting of rents by a commission comprised of state and municipal officials representing the Court and the city of Madrid, respectively. At the very beginning, assessments were to be conducted every year. In 1610, the assessment period was extended to every four years. In 1792, it was further increased to 10 years. Thus, the possibilities to raise rents had become increasingly restrictive over time.²⁶

The 1620 act represents an exception from this sequence of laws and is a kind of historical curiosity, for it freezes rents not for dwellings but for balconies on the houses located around a central square of Madrid — Plaza Mayor — where many important events, including public executions, that attracted many people were carried out. During such events, the rents for balconies skyrocketed and the authorities intervened to restrict them.

In January 1601, the King Philipp III decided to move his capital from Madrid back to

²³*Resolución de Consejo Real de 27 de octubre de 1564.*

²⁴*Resolución de Consejo Real de 25 de febrero de 1569; Resolución de Consejo Real de 15 de junio de 1576 sobre tasa de alquileres; Real Cédula de 19 de septiembre de 1601 sobre tasa de alquileres; Privilegio de 8 de mayo de 1610; Auto de 30 de junio de 1620; Real Cédula de 1680 (Pragmática); Decreto de 22 de septiembre de 1756; Provisión de 20 de diciembre de 1771; Real Orden de 26 de agosto de 1784 Real Orden de 8 de febrero de 1790; Auto estableciendo las reglas sobre los arrendamientos de las casas; Real Orden de 9 de noviembre de 1797; and Real Orden de 3 de junio de 1805.*

²⁵*Ley sancionada sobre inquilinato de casas y otros predios de 9 de abril de 1842.*

²⁶In a sense, it is reminiscent of the German *Mietspiegel* system, according to which the local reference rents (*ortsübliche Miete*) are estimated. They serve as a basis for limitation of rent levels. While initially, in 1982, the reference rent was to be estimated based on the contracts of the last three years, subsequently it had been extended several times to attain, in 2019, a period of six years. During a phase of rising rents, this implies that the reference rents are updated more slowly and, thus, are stickier.

Valladolid. The city experienced the hasty arrival of a huge number of courtiers, officials, foreign legates, and people eager to prosper in some way or another in the courtly world, all of them urgently looking for a place to live, with the consequent problems derived from such an exaggerated demand (Pérez Gil, 2004, p. 85). Within a few months, the population of Valladolid increased from around 40.000 to 60.000 persons (Pérez Gil, 2016). This triggered housing shortage and rapid increase of consumer prices, including rents. In September 1601, *Cédula Real de Felipe III sobre la tasación de viviendas de alquiler en la ciudad de Valladolid*²⁷ imposed a well-tested tool of freezing housing rents (Pérez Gil, 2004, p. 85).

3.9. Medieval universities

Creation of a university in the Middle Age was not only a matter of prestige for the local ruler and annoyance for the local inhabitants, but it also implied a large population inflow toward the city that hosted the university. Given that many students were coming from different places and countries, this usually created demand pressure on the housing market. The immediate consequence was, as always, a surge in housing rents. The reaction of authorities was often to fix rents and prohibit rent increases. In fact, this measure (known as *taxatio domorum* or *taxatione hospitiorum scholarium*) was adopted in quite a few European cities, especially in Southern Europe, soon after creation of their universities (Bender, 1988, p. 27). As a rule, the initiative to found universities came from the popes, emperors, kings, other princes, or municipalities (Chiarantoni, 2004).

Typically, a kind of arbitration council was created consisting of several appraisers — representative of both city inhabitants (*burghers*) and scholars— whose task was to set fair rents for scholars' housing (Kibre, 1954, p. 558).

In many cases, this early form of rent control protected only the principal tenant, who dealt directly with the landlord and, as a rule, was a wealthy person, but not his subtenants to whom, in turn, he sublet the premises (Courtenay, 1999, p. 84). In this era, only the well-to-do could afford to commit to extended leases for multi-room accommodations. The regulation fixed the rent for which this person could obtain the lodgings, but the rent for which he sublet the rooms to persons with modest income was not subject to any restrictions.

²⁷AHMV, Libro de actas, n^o 23, fol. 193, n^o 24, fol. 185, y n^o 25, ff. 60 y 65v; RB, II/2137, doc. 142.

Overall, I found mentions of 27 universities that implemented rent control between 13th and 18th centuries which makes them by far the largest category of rent control episodes; see Table 2. Below, I will discuss some of the most prominent examples.

Probably the first students to enjoy rent control were those studying at the Oxford University. As early as 1214, a legatine ordinance mentioned rent control as an already established practice (Kibre, 1954, p. 558). It contained the following three provisions concerning fixation of rents:

1. For the 10 years following Michaelmas (September 29 or November 8, depending on calendar, that marked the beginning of winter semester) 1214 the rent of halls let to scholars and already rated before the recess by agreement between the scholars and townsmen, was to be reduced by 50%.
2. For the period between 1223 and 1233, the rent of these halls was to be the same as it was before the recess.
3. The rent of halls built or altered since the recess, and not yet assessed by a commission of four masters and four townsmen, was to be assessed by it, and these halls let at the agreed rent for both decades (Pollard, 1974, p. 64).²⁸

Thus, rent control seems to stay for at least several decades in Oxford.

In Paris, the first regulation resembling rent control in favor of students was an ordinance issued in August 1215 by Cardinal Robert of Courson that enabled masters and students of the university to negotiate contracts fixing rents (Jourdain, 1877, p. 142). It started a long sequence of regulations. Thus, the letter of the Pope Gregory IX of 14th of April 1231 confirmed the right of the university to assess and fix the rents to be paid for housing and its right to interdict dwellings where the landlords did not obey the university regulations (Kibre, 1954, p. 559). The housing rents were to be fixed for the period of one year by two university masters and two

²⁸“Uniuerſitati ueſtre notum facimus quod cum Burgenſes Oxon’ pro ſuſpendio clericorum quod commiserant mandatis eccleſie per omnia iurarent, nos uolentes agere miſericorditer cum eiſdem ſtatuiſmus quod a feſto ſancti Michaelis anno ab incarnatione domini MCCXIII uſque in decem annos ſequentes ſcolaribus Oxon’ ſtudentibus condonetur medietas mercedis hoſpitiſum omnium locandorum clericis in eadem uilla. . . Finitis uero predictis decem annis, aliis decem annis proximo ſequentibus locabuntur hoſpitia ſub mercede olim... taxata...” Cited by Zutshi (2012), p. 1049.

sworn burghers ([Jourdain, 1877](#), p. 142). The next regulation was the charter of the University of Paris of February 1244 that prohibited the students from driving out previous tenants by offering the landlord higher payment and limiting the rent to certain maximum amount. If a landlord refused to let his lodgings for a fixed rent, then his premises were boycotted for five years as a penalty ([Jourdain, 1877](#), p. 143). On June 18, 1277, a new regulation was issued that basically confirmed the previous one. The fair rents set between 1281 and 1288 varied between 6 and 20 livres, with 6 livres being the most widespread rental price ([Jourdain, 1877](#), p. 150). It appears that after 1277, no new rent control regulations were issued. One possible reason could be the expansion of the supply of dwellings provided by charity organizations to poor students ([Jourdain, 1877](#), p. 152).

In 1224, Emperor Frederick II of Hohenstaufen founded the University of Naples and granted it a charter ([Frederick II, 1998](#)). It specified different rules of functioning of this university. In particular, it contained rent control provisions: *“The best houses will be given to them, and their rent will be at most two ounces of gold. All the houses will be rented for a sum up to that amount, based on an estimate by two citizens and two students”* ([Frederick II, 1998](#)). Thus, the maximum (most probably annual) rent was about 56 g of gold.

In Bologna, whose university was founded around 1158, despite the desire of Pope Clement III to protect the students from rent increases expressed in 1189, it took many decades before rent control was adopted. This had to do with an attempt to prevent the exodus of students frightened by the civil war that shook Bologna at that time. A commission made up of two students and two burghers had to establish fair rents. These rents were to remain forever ([Pini, 1988](#), p. 79–80).

Likewise, in 1231, rent control was granted to the Cambridge University by a decree of Henry III that fixed the annual rent of the premises rented by scholars as their accommodation (known as hostels) and classrooms ([Brooke and Leader, 1988](#), p. 25). The rent was, as usual, set by a commission consisting of two masters (proctors) and two townsmen. The existence of rent control was confirmed in 1366 by a letters patent ([Brooke and Leader, 1988](#), p. 46).

The first Spanish university —the University of Salamanca— was founded in the late 12th century. In 1254, the King Alfonso X of Castile issued a Royal Charter (*Real Cédula* on the 8th May of 1254) establishing rules regulating the life of the university, including control of

housing rents (Ackerlind, 1981, p. 99).²⁹ Among other things, the charter fixed the maximum rent to be paid by students and professors for their accommodation at 17 maravedis.³⁰ Thus, the maximum rent could be about 58 g of gold which was very similar to the rent set in Naples. It is not clear, however, neither for which period this rent was set (quarter or year) nor how long this control was in place.

On October 26, 1289, the University of Montpellier was officially created by Pope Nicholas IV's bull *Quia sapientia*, which also provided for the fixation of housing rents for scholars (Dumas, 2015, p. 115). The latter comprised as much as 10% of the city's population and, thus, could exercise a substantial impact on the housing market (Dumas, 2015, p. 127).

In 1290, the King Denis of Portugal decided to establish a university in Lisbon. This university was granted the same privileges as the University of Salamanca. A housing commission comprising two students and two city citizens was created to oversee the setting of rents. In addition, protection from eviction was introduced: no student could be evicted, unless the landlord needed the premises for himself or his children or wanted to sell them (Ackerlind, 1981, p. 103). The housing issue was so acute in Lisbon that, in 1308, the university was transferred to Coimbra until 1338, beginning a series of transfers of the university back and forth between Lisbon and Coimbra (Ackerlind, 1981, p. 104). In Coimbra, similar protection of students renting housing existed: the rents were fixed and students were protected from eviction (Peset, 1982, p. 894).

In 1306, a bull of Pope Clement V, who founded the University of Orleans, provided for the privilege of rent control. However, it is not clear whether this regulation was really applied, since posterior legal acts do not mention it (Lusignan, 1999, p. 137).

In 1349, the King of Aragon Peter IV founded the University of Perpignan and granted it the privilege of rent control. As usual, an arbitration commission was organized. In addition, to the typical functions of such an institution, it also had to inspect the houses and detect the

²⁹“Mando e tengo por bien que los escolares del Estudio de Salamanca non aloguen las casas que los otros escolares tovieren alogadas por poco nin por mucho nin anden sobre ellas por ge las sobremontar de aquello aloguero por que las tovieren alogadas. E otrosí mando que los conservadores del Estudio que estimen las casas por derecho aloguero así aquellas que son de los ciudadanos como aquellas que son de los canónigos. E que la mayor estimación sea fasta dies e siete maravedís e non más.” See *Carta magna* of Alfonso X, which organizes the University of Salamanca; <https://www.uv.es/marzalp/troncal/page25/page7/page7.html>.

³⁰1 maravedi was equivalent to 3.411 g of gold (Manso et al., 2018, p. 490).

vacant ones ([Barcala, 1985](#), p. 119).

Another Aragonese university to control housing rents was the University of Huesca founded in 1354. This regulation was reiterated for more than 100 years: 1473–1516, 1562, and 1598 ([Cuevas Subías, 2008](#), p. 149).

In Pavia, despite a relatively small student population,³¹ both rent control and protection from eviction were introduced. Since 1387, a series of regulations was issued. As usual, an arbitration commission was established, comprising two scholars chosen by the rector of the university and one or two representatives of the local government. In 1396, the Duke of Milan prohibited eviction of students from rental lodgings until the end of the contract. Even the personal need of the landlord was not considered as a justified motive for eviction ([Crotti, 2007](#), p. 483).

In Heidelberg, rent control for its university was introduced in 1386 ([Classen and Wolgast, 1983](#), p. 1–15). In the late 14th century, the population of Heidelberg was about 3000–4000 persons, while the number of students fluctuated around 220, that is, about 5–7%. This contributed to the shortage of housing. In Heidelberg, already before the foundation, the prince elector of Palatinate Ruprecht I issued a decree that provided for setting of fair rents for students by an arbitration commission comprised of the representatives of both the university and city. However, no evidence of the activities of this commission could be found. This probably means that rent control was not really implemented in Heidelberg at that time ([Classen and Wolgast, 1983](#), p. 8).

In 1419, the statute of the University of Rostock prescribed that none of members of the university might rent any house, unless they have first received the permission from the university ([Kivinen and Poikus, 2006](#), p. 194). For this purpose, at least two members of the university council had to be assigned to him, who had to assess the value and location of the house as well as the distance to the lecture halls and the neighborhood, so that such houses are not located next to or opposite a brothel, not even in the immediate neighborhood. The council members had to assess the price of the house and the individual circumstances ([Michael, 2013](#),

³¹Given that the number of students around 1380 was 600–700 ([Crotti, 2007](#), p. 483), while the population of the city in the 14th century accounted for about 25,000 persons ([Piccinni, 2018](#)), the share of students was 2.4–2.8%.

p. 110).

One of the latest universities to obtain rent control privilege was the University of Cervera, which was founded in 1717, after the War of the Spanish Succession, and existed until 1835. The arbitration commission was comprised of appraisers who had to meet several strict criteria. They could neither be natives of Cervera, nor have houses in the city, nor have resided in them in the last ten years prior to their election ([Rubio y Borrás, 1916](#), p. 220–221).

As seen, regulations adopted in different universities were quite similar. They always provided for a commission consisting of the representatives of the university and those of the local inhabitants who had to determine fair rents for housing in the private rental sector. It is not always clear if and how long such regulations were in force. It was also often prohibited for scholars to overbid the sitting tenants by offering the landlord higher rents. In some cases, the protection of students from eviction was put in place.

The motivation for introducing rent control could be different. On the surface, it was dictated by the benevolent desire to protect poor students from high and rising housing costs. However, it was also used as means to attract students to the university. A times universities lost students to other cities due to wars or competition between universities, like in the case of Bologna in 1274. Sometimes, rent control was intended as punishment for city burghers as in case of Oxford in 1214.

3.10. Church councils

The church councils also represent instances of a sudden increase in the population that could continue for several years or even decades. The imminent result was a surge in all consumer prices, including housing rents. At least on two occasions, during the Council of Constance (1414–1418) and the Council of Basel (1431–1449), the authorities introduced a kind of rent control.

During the Council of Constance, the authorities took measures to prevent an explosion in prices for bread, fish, meat, hay, wood, and housing rents ([Richental, 2011](#), p. 20).

During the Council of Basel, Sigismund of Luxembourg, the then King of Romans and later the Holy Roman Emperor, decreed that the town of Basel had to provide the delegates of the Council with dwellings, food, and other necessary goods at reasonable prices. These restrictions were imposed for the whole duration of the Council plus four months after its end ([Widmer,](#)

1992, p. 19). The decisions on price setting were to be made by an arbitration council composed of two representatives of the town and two representatives of the Council. However, the town council was against a general control of rents (Widmer, 1992, p. 69).

The church council that initially started in 1431 as the Council of Basel, moved in 1438 to Ferrara and in 1439 to Florence. In both these cities, similar provisions were made in order to protect the delegates from rent increases (Kolditz, 2013). In Ferrara’s case, the provisions provided for the formation of a commission of equal numbers of curial and municipal/margravian representatives, which was to be responsible for assessing the accommodation, i.e., setting its rent: thus, it was an authoritative negotiation procedure in which interests were to be balanced. The rents set in this way should then take precedence over all private agreements to the contrary (Hofmann, 1950, p. 18). Nevertheless, the regulations also contained a passage on the validity of freely agreed rents (Hofmann, 1950, p. 19). In the Florentine provisions, many of those for Ferrara are taken up again, but the passage on the priority of the negotiated rents is not, while the formation of a commission to assess the rents is included.

3.11. Prostitutes

There is also some evidence that rent control was applied with respect to the premises occupied by the prostitutes. Some researchers trace the origin of this protection back to King Henry II of England. In 1162, he supposedly issued the ordinances that among other things fixed the rent paid by the prostitutes to the brothel (or stew) owners: “Fourteen pence are to be paid every week for the room of each woman” (Karras, 1989, p. 428). Given that one penny at that time was made of silver and weighed 1.4 grams,³² the monthly rent amounted to 6 grams of silver.

Starting in 16th century, similar regulations were implemented in Spain. The Spanish government — first at the local and later at the national level — was trying to control prostitution instead of prohibiting it and risking that it would take illegal and ugly forms related to more violence and the spread of sexually transmitted infections. Among other prescriptions concerning the cloths to be worn by the prostitutes and medical checks, the government fixed the rents. Perhaps, the earliest legal act on this topic was *Carta de censo* issued in Lorca in 1522

³²Numista: 1 Penny — Henry II Tealby coinage; class D.

(Molina Molina, 2000, p. 47–48) that fixed rents paid by prostitutes at half a *real* a day. But the most influential were *Ordenanzas de la mancebía de Sevilla de 1553* (Molina Molina, 1998, p. 128). These ordinances froze the rent paid by the prostitutes for both housing, furniture, and appliances (such as bed sheets, pillows, etc.) at one *real* a day.³³ In 1506–1566, one Spanish real was a silver coin of 3.6 grams.³⁴ Thus, a monthly rent would be 108 grams of silver and 18 times more expensive than that paid in England four centuries before that.

In 1570, Spanish King Philip II decided to extend Sevillian regulations to whole kingdom. Other Spanish cities quickly followed. Thus, in 1571, rents for premises used by prostitutes were frozen also in Cordoba (Serenio Paredes, 2021, p. 202).

Similar measure seems to be implemented in Italy. For instance, around 1360, in Venice, rents for prostitutes were fixed at six *lire di piccoli* (Coletti, 2017, p. 84).³⁵

Rent control protecting the prostitutes was applied to the premises where they both lived and worked. So, these premises were not exclusively but predominantly of the residential use and, thus, fall under the type of housing on which I focus in this study.

4. Empirical analysis: Which factors drove the introduction of rent control?

The history of rent control is inherently interesting. However, a typical reader of the peer reviewed journal is interested in answering more quantitative questions: In particular, what were the effects of rent control? Unfortunately, for the remote past, consistent data on housing rents, residential construction, and quality are lacking. Moreover, it is often unknown when rent control was active. In most cases, we know when it was introduced, but not when it was phased out. Nevertheless, enough evidence on the effects of more recent rent control episodes is available (Kholodilin, 2024).

The next interesting question is why rent control was introduced? No all situations, when

³³“Item, ordenamos y mandamos que los tales padres no puedan llevar ni lleven por alquiler de botica y cama, y silla, y candil, y estera, almohada y otras qualesquier cosas que les suelen dar y alquilar para executar su mal oficio más que a razón de un real por cada un día, conque la cama sea de dos colchones y tenga su sábana y manta y almohada, so la pena arriba dicha, aplicada en la forma de suso declarada” (Moreno Mengíbar and Vázquez García, 1998). The term *padre* (father) refers here to the landlord, not necessarily owner of the brothel, who let premises to the prostitutes.

³⁴Numisma: $\frac{1}{4}$ Real — Ferdinandus V and Elisabet I.

³⁵The original acts are in Archivio di Stato di Venezia, Collegio, Notatorio, 1460-1467, f. 9v-10v ; Archivio di Stato di Venezia, Signori di Notte, Capitolare, f. 73-75.

the economic situation of households deteriorates, automatically caused the government to freeze rents. Therefore, it would be useful to determine which factors contributed to making this decision. There are some studies (for example, [Kochanowski 1980](#); [Mann and Veseth 1983](#); [Epple 1998](#)) that address this question. Most focus on the USA and on the relatively recent past starting from the 1970s. Fortunately, despite serious data limitations, it is possible to carry out similar analysis for a more remote past. Thanks to advances in economic history research large data sets covering all types of socioeconomic, political, and natural conditions over very long run are available. One should not overestimate the precision of such data, but they can still be useful for econometric analysis as a rough approximation. Another caveat is that one cannot be sure that the list of rent control episodes presented in this study is complete. We can only hope that it encompasses the most prominent ones that deserved being reported upon in the literature. Finding new information about ignored episodes could change the estimation results. However, the lack of knowledge should not stop us from embarking on the investigation of the causes of rent control introduction.

I collected data approximating a number of potential determinants that are described in [Table 3](#).

Table 3: Data on the long-term evolution of the potential determinants of rent control

| Variable | Period | Frequency | Space | Source |
|--------------------------------------------------------|-----------|-----------|-------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| Earthquakes — strong earthquakes with magnitude over 6 | 1000–1899 | irregular | Europe | Rovida et al. (2020) |
| Famines — severe food shortages | 700–1800 | irregular | Central Europe (Austria, Germany, Switzerland), France, Great Britain, Ireland, Italy, Low Countries, Nordic, Russia/Ukraine, Spain | Ljungqvist et al. (2024) |

| | | | | |
|---------------------------------------------------------------------------------------------------------------------|-----------|--------------------|----------------------------------------------------------------|-------------------------------------------|
| Jews — presence of Jewish communities | 1100–1800 | annual | 936 European settlements | Anderson et al. (2017) |
| Interest rates and inflation rates | 1311–2022 | annual | France, Germany, Italy, Japan, Netherlands, Spain, UK, and USA | Rogoff et al. (2024) |
| Population — urban population, 1000 inhabitants | 700–2000 | every 50–100 years | 2262 settlements in Europe | Buringh (2021) |
| Temperature — temperature anomaly, 11 year moving average temperature difference vs. reference period 1761–1970, °C | 1000–2000 | annual | Central Europe | Glaser and Riemann (2009) |
| University — year of foundation of university | 1088–1782 | irregular | 191 cities in 24 European countries | Frijhoff (1996) |
| Wars | 900–2000 | irregular | Europe | Brecke (1998) |

The corresponding time series vary in terms of their time and country coverage. The earliest observation is 700, while the latest one is 2000. I chose the period between 1200 and 1800 as a period where all time series overlap. Some variables are available at the annual frequency, others (like population) are only available at the 50 to 100 years intervals, while data on some punctual events (wars and foundations of universities) are available at an irregular frequency. I interpolated the population data using an **R**-package *stinpack* based on [Stineman \(1980\)](#). Using the interpolated population, I also computed its growth rates. Some variables have observations at city level: for example, the presence of Jews or of a university. Temperature is available only for Central Europe. However, I assume that, despite differences in levels, the dynamics should be more or less common across European continent. For earthquakes, the coordinates of their epicenters are available. I computed the distance from each earthquake to

each city in the sample and then assigned the earthquake to the closest city, provided that the distance between them does not exceed 150 km. Overall, I have a sample of 2258 cities over 600 years.

Figure 2 shows rent control events (black dots) at the background of various political and natural events, such as wars, epidemics, famines, and earthquakes. It covers the period between 1200 and 1800. Each panel represents a single country. Only major countries with most rent control episodes are shown.

Figure 2: Effects of housing policies on property prices



The horizontal axis represent time dimension. Each panel corresponds to a separate country.

The period covered in Figure 2 was very eventful. In some countries (e.g., France, Germany, and Spain), wars were virtually continuous without significant breaks. Of course, not all the cities were affected by them in the same way. But occurrence of a war should have had

repercussions even in the most remote areas through the breakdown of economic ties and overall deterioration of the socioeconomic and political situation. Large epidemics were less frequent than those but perhaps not less devastating. The Black Death pandemic 1346–1353 as well as the pandemics from 1485 to 1551 of a sweating sickness with its multiple outbreaks affected the whole continent. The famines occurred at relatively short intervals. Finally, strong earthquakes were especially frequent in Italy but virtually non-existent in Germany or Poland.

The dependent variable in my analysis is binary — it represents the year of introduction of rent control in a given city:

$$RC_{it} = \begin{cases} 1, & \text{if rent control was introduced in year } t \text{ in city } i \\ 0, & \text{otherwise} \end{cases}$$

Therefore, one of the more appropriate models for such context is the logit model. Given that I have panel data with a large cross-section ($N = 2258$), I use the pooled logit model:

$$Pr(RC_{it} = 1|X_{it}) = \frac{1}{1 + e^{-(\alpha + \beta'X_{it})}} \quad (1)$$

where X_{it} is the vector of explanatory variables for city i in year t , α is the constant term, and β is the vector of parameters to be estimated.

Table 4 reports estimation results of the logit model.

Neither of the natural events has statistical significance. Likewise, wars and inflation appear to not affect the likelihood of the introduction of rent control. One of the possible explanations of the absence of the effect of war is a possible change in the tenure structure. For instance, the Thirty Years' War led to substantial reduction of the tenant share in several German towns (Wenderoth, 2022, p. 36). By contrast, the foundation of university and the presence of a Jewish community in the city increased the probability of rent control there. The larger cities were also more likely to have rent control. The Southern Europe dummy —which stands for the city being located in the modern Italy, Portugal, and Spain— is also positive and statistically significant.

Another way to investigate the factors behind the introduction of rent control is survival analysis. In this context, one can analyze the duration time until rent control is implemented.

Table 4: Estimation results of pooled logit model, 1200–1800

| | <i>Dependent variable: Introduction of rent control</i> | | | |
|-------------------|---------------------------------------------------------|------------------|-----------------------------|------------------|
| | (1) | (2) | (3) | (4) |
| Constant | −11.74*** (0.34) | −12.22*** (0.39) | −11.45*** (0.35) | −11.53*** (0.52) |
| Earthquake | −9.52 (590.01) | −9.46 (585.66) | −9.84 (639.56) | −7.02 (519.44) |
| Epidemic | 0.50 (1.03) | 0.47 (1.03) | 0.45 (1.03) | 0.45 (1.03) |
| Famine | 0.23 (0.45) | 0.17 (0.45) | 0.22 (0.45) | 0.17 (0.56) |
| Temperature | −0.41 (0.50) | −0.60 (0.50) | −0.42 (0.50) | −0.69 (0.77) |
| War | 0.29 (0.30) | 0.12 (0.30) | 0.24 (0.30) | 0.38 (0.45) |
| University | 6.38*** (0.36) | 6.50*** (0.36) | 6.33*** (0.36) | 5.31*** (0.76) |
| Jews | 2.52*** (0.33) | 2.52*** (0.33) | 2.34*** (0.33) | 2.26*** (0.43) |
| Population | 7.20*** (0.79) | 7.86*** (0.83) | 7.10*** (0.80) | 7.14*** (0.90) |
| Population growth | | | −6.40 (24.72) | |
| Southern Europe | | 1.13*** (0.31) | | |
| Inflation | | | | −0.02 (0.02) |
| Observations | 1,354,800 | 1,354,800 | 1,051,245 | 611,931 |
| Log Likelihood | −424.41 | −417.62 | −419.72 | −246.15 |
| Akaike Inf. Crit. | 866.82 | 855.24 | 859.45 | 512.30 |
| <i>Note:</i> | | | *p<0.1; **p<0.05; ***p<0.01 | |

Here, the origin of survival time is defined as the beginning of the sample, i.e., 1200. The cities that never experienced rent control in my sample (1200–1800) are treated as right censored: rent control might have been introduced after the end of sample or no information is available about possible rent control episodes within sample.

The central notion of the survival analysis is the hazard function, $h(t)$. This function measures the likelihood of introduction of rent control in a city within a very short period of time, given that no rent control was implemented in the city before year t . The hazard function is defined as

$$h(t) = \frac{\text{Number of cities with rent control in the interval beginning in } t}{\text{Number of cities with no rent control until } t \times \text{Length of interval}} \quad (2)$$

To investigate the factors behind implementation of rent control, I use the Cox proportional hazards model (Cox, 1972). This is one of the most popular techniques of survival analysis that allows estimating the effect of the explanatory variables on the hazard function. The hazard function is modelled as:

$$h(t) = h_0(t)e^{\beta'X_i} \quad (3)$$

where $h_0(t)$ is the baseline hazard that reflects the hazard of occurrence of the event when all explanatory variables are equal to zero. The form of this $h_0(t)$ is not specified, so it is estimated non-parametrically.

The basic assumption behind the Cox proportional hazards model is that the hazard ratio, that is, the ratio of two hazard functions of two groups (e.g., cities with universities and cities without universities), $\frac{h_A(t)}{h_B(t)}$ is constant.

Figure 3 shows hazard ratios of the explanatory variables. The dashed line shows the hazard ratios equal to 1, i.e., situations when the hazards of occurrence of rent control are equal for both groups being compared.

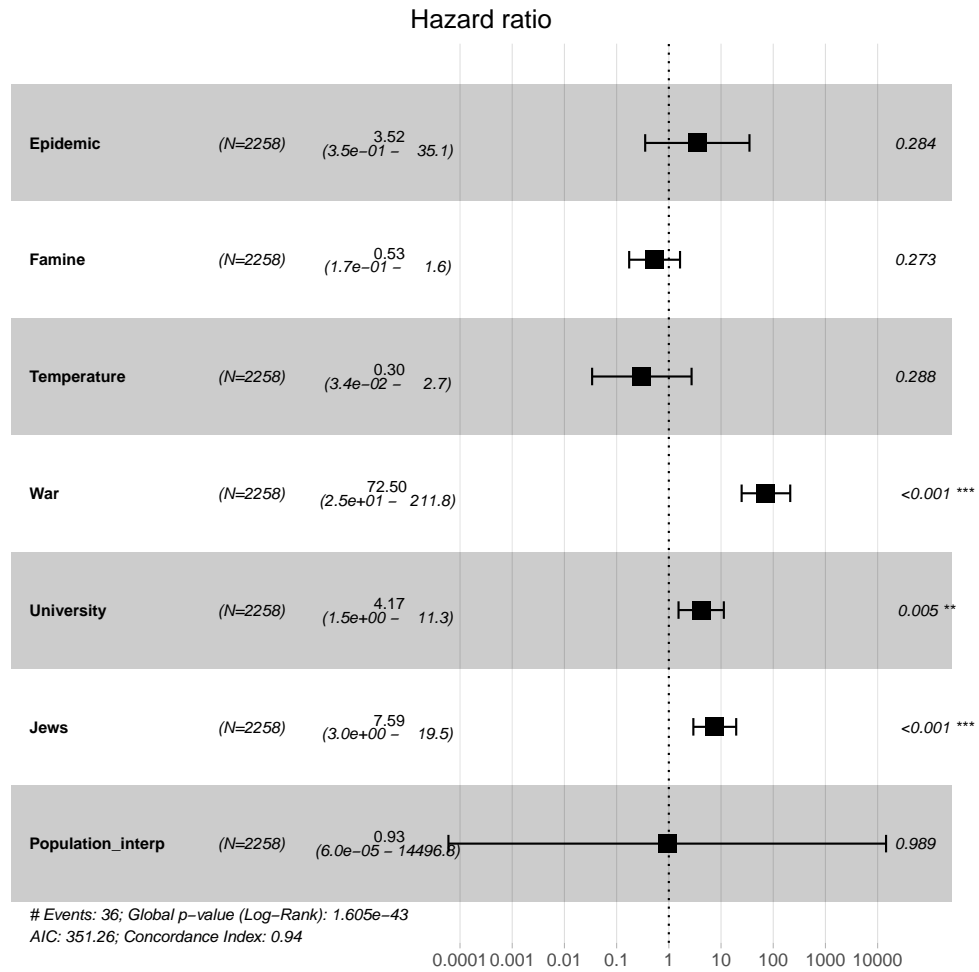
Three variables appear to significantly increase the likelihood of introduction of rent control: wars, universities, and Jewish communities. Population size turns out to be statistically insignificant.

5. Conclusion

As the historical evidence examined here shows, the introduction of rent control is typically a result of a large positive demand shock. Examples of such shocks include irregular events (like church councils), seasonal population movements (like religious festivals), or large population inflow to the urban areas (like creation of new capital cities or foundation of universities). The negative supply shock also played a role, but much less frequently. For example, the earthquake with consequent tsunami and fires in Lisbon that almost completely destroyed its housing stock. A case apart are the Jewish ghettos in Italy, where a constant supply of housing confronted a steadily growing population.

In all these cases, the widening gap between supply and demand led to strong housing rent increases. These forced governments to take measures to protect tenants from rent increases and sometimes from eviction. Often, these measures focused on specific locations and were of an *ad hoc* or seasonal nature. For example, they were active during festivals, when demand increased dramatically due to the inflow of pilgrims. However, in Italy, Malta, and Spain, they became permanent and were kept for several centuries.

Figure 3: Cox proportional hazards model



Ticks of boxplots correspond to the confidence intervals of parameter estimates.

Apart from a rather isolated case in China, all other cases discussed here are concentrated in Europe, especially in countries with Romance languages or under the strong influence of such languages. Further examples of rent control are found in Western and Central Europe, where they are mainly related to the foundation of universities and two catholic church councils. The apparent lack of rent control in Northern and Eastern Europe can at least be explained by low urbanization. However, the possibility should not be discarded that further cases of rent control are simply omitted due to lack of knowledge.

All in all, unlike rent control regulations adopted from the 20th century onwards, these earlier instances of rent control were typically confined to specific cities or even specific neighborhoods and targeted specific population groups (scholars, clerical delegates, and Jews). As the results of the logit and Cox proportional hazards models estimated for all 2258 cities over the 1200–1800 period show, wars, foundation of universities, presence of Jewish communities, and population size were the most important factors behind the implementation of rent control.

References

- Ackerlind, S. R. (1981). Alfonso X of Castile and Diniz of Portugal: Patrons of Medieval Universities. In *From Linguistics to Literature*, pp. 95. John Benjamins.
- Alonso, P. A. and G. P. Nieto (1956). La vigente ley de arrendamientos y nuestro derecho histórico. *Anuario de derecho civil* 9(1), 33–84.
- Anderson, R. W., N. D. Johnson, and M. Koyama (2017). Jewish persecutions and weather shocks: 1100–1800. *Economic Journal* 127(602), 924–958.
- Araújo, A. C., J. Cardoso, N. G. Moteiro, W. Rossa, and J. Serrão (2007). O terramoto de 1755: Impactos históricos. Lisboa: Livros Horizonte.
- Argelich Comelles, C. (2017). La evolución histórica del arrendamiento forzoso de vivienda: de la imposición a la expropiación. *e-Legal History Review* 25, 1–47.
- Barbot, M. (2008). Per una storia economica della proprietà dissociata. Efficacia e scomparsa di un “altro modo di possedere” (Milano, XVI–XVII secolo). *Materiali per una storia della cultura giuridica* 38(1), 33–62.

- Barbot, M. (2013). La résidence comme appartenance: Les catégories spatiales et juridiques de l'inclusion sociale dans les villes italiennes sous l'Ancien régime. *Histoire urbaine* 1, 29–47.
- Barcala, A. (1985). Las universidades españolas durante la edad media. Consejo Superior de Investigaciones Científicas (España).
- Bender, T. (1988). *The university and the city: From medieval origins to the present*. Oxford University Press, USA.
- Benfante, F. (2003). Le proprietà urbane dell'ospedale di Santa Maria Nuova (Firenze, XVI–XVIII secolo). *Quaderni storici* 38(2), 325–344.
- Bí, Y. (2013). Sòngdài fángwū zūlín yè yánjiū (Research on rental housing in Song Dynasty). Master's thesis, Héběi dàxué (He Bei University).
- Blackmar, B. (1979). Re-walking the “walking city”: Housing and property relations in New York City, 1780–1840. *Radical History Review* 21, 131–148.
- Boccatto, C. (2007). Locazione di immobili ad ebrei nel Ghetto di Venezia: disciplina ed esempi di documenti notarili del secolo XVII. *Rassegna mensile di Israel* LXXIII(1), 99–110.
- Borg Cardona, S. R. (1951). The Officio delle Case and the housing laws of the earlier Grand Masters 1531–1569. *The Law Journal* 3(1), 39–69.
- Brander, S. (1984). *Wohnungspolitik als Sozialpolitik. Theoretische Konzepte und praktische Ansätze in Deutschland bis zum Ersten Weltkrieg*. Berlin: Duncker & Humblot.
- Brechenmacher, T. (2005). *Der Vatikan und die Juden: Geschichte einer unheiligen Beziehung vom 16. Jahrhundert bis zur Gegenwart*. CH Beck.
- Brecke, P. (1998). Finding harbingers of violent conflict: Using pattern recognition to anticipate conflicts. *Conflict Management and Peace Science* 16(1), 31–56.
- Brooke, C. N. L. and D. R. Leader (1988). *A history of the University of Cambridge: volume 1, the university to 1546*. Cambridge University Press.

- Buringh, E. (2021). The population of European cities from 700 to 2000: Social and economic history. *Research Data Journal for the Humanities and Social Sciences* 6(1), 1–18.
- Calabi, D. (1997). Les quartiers juifs en Italie entre 15e et 17e siècle. Quelques hypothèses de travail. *Annales. Histoire, Sciences Sociales* 52(4), 777–797.
- Calafat, G. and M. Gasperoni (2019). Une économie de ghetto? Activités et acteurs économiques juifs dans l’Italie du XVIIe siècle. *Dix-septième siècle* 1(282), 117–148.
- Casimir, King of Poland (1364). First royal foundation charter of the University of Kraków. Najstarsze przywileje Uniwersytetu Krakowskiego. https://www.academia.edu/23915822/First_Royal_Foundation_Charter_of_the_University_of_Krak%C3%B3w_1364.
- Chiarantoni, C. (2004). Lineamenti evolutivo tipologici della residenza universitaria. Atti del Convegno.
- Classen, P. and E. Wolgast (1983). *Kleine Geschichte der Universität Heidelberg*. Berlin: Springer-Verlag.
- Coletti, F. (2017). Le Castelletto ou l’échec d’un modèle : la politique urbaine de la prostitution à Venise entre Moyen Âge et Renaissance. *Il Campiello* 2, 78–94.
- Courtenay, W. J. (1999). *Parisian scholars in the early fourteenth century: a social portrait*, Volume 41. Cambridge University Press.
- Cox, D. R. (1972). Regression models and life-tables. *Journal of the Royal Statistical Society: Series B (Methodological)* 34(2), 187–202.
- Crotti, R. (2007). Statuti e legislazione statutaria a Pavia fra Tre e Quattrocento. In A. Romano (Ed.), *Atti del Convegno internazionale di studi Messina – Milazzo, 13–18 aprile 2004*, pp. 473–506. Bologna: Clueb.
- Cruz, J. (1990). Propiedad urbana y sociedad en Madrid, 1749–1774. *Revista de Historia Economica* 8(2), 239–269.

- Cuevas Subías, P. (2008). Las humanidades en Huesca en tiempos de Lastanosa. In *Mecenazgo y Humanidades en tiempos de Lastanosa: Homenaje a Domingo Ynduráin*, pp. 135–160. Instituto de Estudios Altoaragoneses.
- de la Higuera, F. S. (2017). La vivienda en el Burgos del Setecientos. Inflación en los alquileres, escasez en los bolsillos. In *La(s) casa(s) en la Edad Moderna*, pp. 429–470. Instituto “Fernando El Católico”.
- De Sariis, A. (1796). *Codice delle leggi del regno di Napoli. Libro XI*. Napoli: Presso Vincenzo Orsini.
- De Simone, E. (1976). Case e botteghe a Napoli nei secoli XVII e XVIII. *Revue Internationale d’Histoire de la Banque* 12, 77–140.
- Denecke, D. (1980). Sozialtopographie und sozialräumliche Gliederung der spätmittelalterlichen Stadt. Problemstellungen, Methoden und Betrachtungsweisen der historischen Wirtschafts- und Sozialgeographie. In J. Fleckenstein and K. Stackmann (Eds.), *Über Bürger, Stadt und städtische Literatur im Spätmittelalter*, pp. 161–201. Göttingen.
- Denifle, H. (2014). *Chartularium Universitatis Parisiensis*. Cambridge University Press.
- Dinges, M. (1988). *Stadtarmut in Bordeaux 1525–1675: Alltag, Politik, Mentalitäten*. Bonn: Röhrscheid. https://perspectivia.net/servlets/MCRFileNodeServlet/ploneimport_derivate_00011152/dinges_stadtarmut.pdf.
- Dio, C. (1917). *Roman history. Book XLVIII*. Loeb Classical Library edition.
- Dirlmeier, U. (1978). *Untersuchungen zu Einkommensverhältnissen und Lebenshaltungskosten in oberdeutschen Städten des Spätmittelalters: (Mitte 14. bis Anfang 16. Jh.)*. Heidelberg: Carl Winter Universitätsverlag.
- Dumas, G. (2015). L’enseignement au Moyen Âge. In G. Cholvy (Ed.), *Histoire de Montpellier*, pp. 109–129. Éditions Privat.
- Epple, D. (1998). Rent control with reputation: theory and evidence. *Regional Science and Urban Economics* 28(6), 679–710.

- Fogelson, R. M. (2013). *The Great Rent Wars: New York, 1917–1929*. Yale University Press.
- Frederick II (1998). Medieval sourcebook: Frederick ii: Lictere generales; establishing the University of Naples, 1224. <https://sourcebooks.fordham.edu/source/1224fred2-lictgen.asp>.
- Frier, B. W. (1977). The rental market in early imperial Rome. *The Journal of Roman Studies* 67, 27–37.
- Frijhoff, W. (1996). Patterns. In H. De Ridder-Symoens (Ed.), *A history of the university in Europe*, Volume II, pp. 43–113. Cambridge: Cambridge University Press. [https://prussia.online/Data/Book/a-/a-history-of-the-university-in-europe-2/A%20History%20of%20the%20University%20in%20Europe.%20Vol.%202%20\(1996\),%20OCR.pdf](https://prussia.online/Data/Book/a-/a-history-of-the-university-in-europe-2/A%20History%20of%20the%20University%20in%20Europe.%20Vol.%202%20(1996),%20OCR.pdf).
- Fuentes Lázaro, J. (1974). Toledo, crisis y propiedad urbana en la segunda mitad del xviii. In *Anales toledanos*, 10, pp. 195–221. Diputación Provincial de Toledo.
- Gaillard, J. (1997). *Paris, la ville (1852–1870)*. Paris: L’Harmattan.
- Gasperoni, M. (2018). Les ghettos juifs d’Italie à travers le jus chazakah: Un espace contraint mais négocié. *Annales. Histoire, Sciences Sociales* 73(3), 559–590.
- Glaser, R. and D. Riemann (2009). A thousand-year record of temperature variations for Germany and Central Europe based on documentary data. *Journal of Quaternary Science* 24(5), 437–449.
- González-Serna, V. D. R. (2022). Impacto del terremoto de 1755 en los protocolos notariales de la ciudad de Sevilla. *Chronica Nova. Revista de Historia Moderna de la Universidad de Granada* 48, 367–390.
- Grasilier, L. (1916a). La question des loyers aux temps de la Ligue et de la Fronde I. *La Nouvelle Revue XXII*, 161–174.
- Grasilier, L. (1916b). La question des loyers aux temps de la Ligue et de la Fronde II. *La Nouvelle Revue XXII*, 279–287.

- Grasilier, L. (1916c). La question des loyers aux temps de la Ligue et de la Fronde III. *La Nouvelle Revue XXIII*, 45–54.
- Greying, J. (1904). Wohnungs- und Besitzverhältnisse der einzelnen Bevölkerungsklassen im Kölner Kirchspiel St. Kolumba vom 13. bis 16. Jahrhundert. *Annalen des Historischen Vereins für den Niederrhein* 78, 1–79.
- Guérin, P. (1896). *Recueil des documents concernant le Poitou contenus dans les registres de la chancellerie de France*, Volume XXVI. Poitiers: Typographie Oudin et Cie.
- Gāo, C. (1989). *The Records of Origin on Things and Affairs (Shiwù jì yuán)*, Vol. 1 Rents (fàng fáng qián). Zhonghua Shuju.
- Hofmann, G. (1950). *Acta Camerae Apostolicae et civitatum Venetiarum, Ferrariae, Florentiae, Januae de Concilio Florentino*. Rome: Pontificium Institution Orientalium Studiorum.
- Hui, X. (2013). *Housing, Urban Renewal and Socio-Spatial Integration: A Study on Rehabilitating the Former Socialistic Public Housing Areas in Beijing*. A+BE: Architecture and the Built Environment.
- Iustinianus (2007). *Imperator Iustinianus Codex*. EuloTech. http://www.intratext.com/IXT/LAT0867/_P69.HTM#P4.
- Jastrow, I. (1886). *Die Volkszahl deutscher Städte zu Ende des Mittelalters und zu Beginn der Neuzeit: ein Überblick über Stand und Mittel der Forschung*. Berlin: R. Gaertners Verlagsbuchhandlung.
- Jourdain, C. (1877). La taxe des logements dans l'université de Paris. *Mémoires de la Société de l'histoire de Paris et de l'Ile-de-France* IV, 140–154. <https://gallica.bnf.fr/ark:/12148/bpt6k6296410s/f144.item>.
- Kaplan, M. (2010). *Byzance*. Paris: Les Belles Lettres.
- Karras, R. M. (1989). The regulation of brothels in later medieval England. *Signs: Journal of Women in Culture and Society* 14(2), 399–433.

- Kholodilin, K. A. (2020). Long-term, multicountry perspective on rental market regulations. *Housing Policy Debate* 30(6), 994–1015.
- Kholodilin, K. A. (2024). Rent control effects through the lens of empirical research: An almost complete review of the literature. *Journal of Housing Economics* 63, **–**.
- Kibre, P. (1954). Scholarly privileges: their Roman origins and medieval expression. *American Historical Review* 59(3), 543–567.
- Kivinen, O. and P. Poikus (2006). Privileges of Universitas Magistrorum et Sclarium and their justification in charters of foundation from the 13th to the 21st centuries. *Higher Education* 52, 185–213.
- Kleinlerer, E. D. (1944). The Popes and rent control. *America* LXXII(69), 281–283.
- Kochanowski, P. (1980). The rent control choice: Some empirical findings. *Policy Analysis* ***, 171–186.
- Kolditz, S. (2013). *Johannes VIII. Palaiologos und das Konzil von Ferrara-Florenz (1438/39): das byzantinische Kaisertum im Dialog mit dem Westen*. Stuttgart: Hiersemann.
- Laras, G. (1968). Intorno al «ius cazacà» nella storia del ghetto di Ancona. *Quaderni storici delle Marche* 3(7), 27–55.
- Levi, E. (1977). Lo “Jus Kazagà” in Piemonte: (Alcune interessanti sentenze nel periodo della occupazione francese degli stati sabaudi: 1796–1814). *La Rassegna Mensile di Israel* 43(3/4), 152–162.
- Ljungqvist, F. C., A. Seim, and D. Collet (2024). Famines in medieval and early modern Europe — connecting climate and society. *Wiley Interdisciplinary Reviews: Climate Change* 15(1), e859.
- López García, J. M. (1998). *El impacto de la Corte en Castilla. Madrid y su territorio en la época moderna*. Madrid, Eurocit — Siglo XXI, 1998.
- Lusignan, S. (1999). “Vérité garde le roy”: la construction d’une identité universitaire en France (XIIIe–XVe siècle), Volume 55. Publications de la Sorbonne.

- Lyon-Caen, N. (2014). Combien vaut Paris? La monarchie, les loyers et les boues de la capitale à l'époque moderne. *Annuaire-Bulletin de la Société de l'histoire de France* 552, 179–199.
- Lyon-Caen, N. (2015). L'immobilier parisien au xviii^e siècle. *Histoire urbaine* 2, 55–70.
- Madrid Cruz, M. D. (2008). Rentas urbanas, tasación y otras cuitas en el Madrid del Antiguo Régimen. *Ámbitos* 20, 55–66.
- Maniatis, G. (2003). Price formation in the Byzantine economy tenth to fifteenth centuries. *Byzantion* 73(2), 401–444.
- Mann, B. D. and M. Veseth (1983). Moderate rent controls: a microeconomic and public choice analysis. *Real Estate Economics* 11(3), 333–343.
- Manso, G. O. et al. (2018). Cien años de moneda en Castilla (1172–1268). El siglo del maravedí de oro. *Espacio Tiempo y Forma. Serie III, Historia Medieval* 31, 483–519.
- Mark, M. (2013). Just ring twice: Law and society under the rent control regime in Israel, 1948–1954. *Journal of Israeli History* 32(1), 29–50.
- Maschke, E. (1967). Die Unterschichten der mittelalterlichen Städte Deutschlands. In E. Maschke and J. Sydow (Eds.), *Gesellschaftlichen Unterschichten in den südwestdeutschen Städten*, Volume 44. Stuttgart: Kommission für geschichtliche Landeskunde.
- Massicotte, D. (1999). Le marché immobilier locatif à Montréal, 1731-1831. Méthodologie d'une enquête à partir des baux notariés. *Histoire et Mesure* 14(3/4), 299–330.
- Michael, S.-H. (2013). *Recht und Verfassung der Universität Rostock im Spiegel wesentlicher Rechtsquellen: 1419–1563: Teil 2: Quellen*. Norderstedt: Books on Demand. https://rosdok.uni-rostock.de/file/rosdok_document_0000017216/rosdok_derivate_0000096588/Michael_Recht2_2013.pdf.
- Miethke, J. (2012). Universitätsgründung in Leipzig. Europäische Gelehrtenkultur, landesfürstliche Politik und kirchliche Krise. In M. Petzoldt (Ed.), *Europas religiöse Kultur(en): zur Rolle christlicher Theologie im weltanschaulichen Pluralismus*, pp. 13–38.

- Leipzig. https://archiv.ub.uni-heidelberg.de/volltextserver/13797/1/Miethke_Universitaetsgruendung_in_Leipzig_2012.pdf.
- Mifsud-Bonnici, U. (2003). Housing rights in Malta. In S. Leckie (Ed.), *National perspectives on housing rights*, Volume 78, pp. 253–258. Martinus Nijhoff Publishers.
- Milano, A. (1931). Ricerche sulle condizioni economiche degli Ebrei a Roma durante la clausura nel Ghetto (1555–1848). *La Rassegna Mensile di Israel* 5(10/11), 545–566.
- Minois, G. (2010). *La guerre de Cent Ans*. Perrin.
- Molina Molina, Á. L. (1998). *Mujeres públicas, mujeres secretas: la prostitución y su mundo, siglos XIII–XVII*. Murcia: Editorial KR.
- Molina Molina, Á. L. (2000). La mancebía lorquina en la primera mitad del siglo XVI. *Murgetana* 103, 43–55.
- Moreno Mengíbar, A. J. and F. Vázquez García (1998). *Poder y prostitución en Sevilla (siglos XIV–XX)*. *La Edad Moderna. Tomo I*. Sevilla: Universidad de Sevilla.
- Payan, P. (2022). *À l’assaut du Palais: Avignon et son passé pontifical*. Éditions Universitaires d’Avignon. <https://books.openedition.org/eua/5866>.
- Pereira, A. S. (2009). The opportunity of a disaster: the economic impact of the 1755 Lisbon earthquake. *Journal of Economic History* 69(2), 466–499.
- Pérez Gil, J. (2004). El palacio de los Condes de Fuensaldaña en Valladolid, cuarto de los alcaides Duques de Lerma. *De arte: revista de historia del arte* 3, 85–104.
- Pérez Gil, J. (2016). *Los reales sitios vallisoletanos*. Valladolid: Ediciones Universidad de Valladolid, Instituto Universitario de Urbanística.
- Pesaro, A. (1880). *Memorie storiche sulla comunità israelitica ferrarese*. Forni.
- Peset, M. (1982). Interrelaciones entre las universidades españolas y portuguesa en los primeros siglos de su historia. *Bol. Fac. Direito U. Coimbra* 58, 875.
- Piccinni, G. (2018). *I mille anni del Medioevo*. Milano: Pearson.

- Pini, A. I. (1988). ‘Discere turba volens.’ Studenti e vita studentesca a Bologna dalle origini dello Studio alla metà del Trecento. In G. P. Brizzi and A. I. Pini (Eds.), *Studenti e università degli studenti a Bologna dal XII al XIX secolo. Studi e memorie per la storia dell’università di Bologna*, pp. 47–136. Bologna: Istituto per la storia dell’università.
- Pollard, G. (1974). The legatine award to Oxford in 1214 and Robert Grosseteste. *Oxoniensia* 39, 62–71.
- Prato, G. (1918). Le fonti storiche della legislazione economica di guerra : il calmier delle pigioni. *La riforma sociale* 29(5–6), 3–31. <https://www.grandeguerra.unito.it/items/show/217>.
- Richental, U. (2011). *Chronik des Konstanzer Konzils 1414–1418*. Jan Thorbecke Verlag.
- Richet, D. (1968). Croissance et blocage en France du XVe au XVIIIe siècle. *Annales. Histoire, Sciences Sociales* 23(4), 759–787.
- Rogoff, K. S., B. Rossi, and P. Schmelzing (2024). Long-run trends in long-maturity real rates 1311–2022. *American Economic Review* ***, **–**.
- Rosillo-López, C. (2022). Rent control measures in the 40s BCE: Housing costs, public intervention and inequality in the Roman world. In M. Koedijk and N. Morley (Eds.), *Capital in Classical Antiquity*, pp. 175–204. Palgrave Macmillan, Cham.
- Roth, C. (1946). *The history of the Jews of Italy*. Philadelphia: The Jewish Publication Society of America. <https://archive.org/details/in.ernet.dli.2015.88362/page/n383/mode/2up>.
- Rovida, A. N., P. Albini, M. Locati, and A. Antonucci (2020). Insights into preinstrumental earthquake data and catalogs in Europe. *Seismological Research Letters* 91(5), 2546–2553.
- Rubio y Borrás, M. (1916). *Historia de la Real y Pontificia Universidad de Cervera: obra patrocinada por la Universidad de Cervera*, Volume 2. Librería Verdaguer.
- Rutledge, E. (1995). Landlords and tenants: housing and the rented property market in early fourteenth-century Norwich. *Urban History* 22(1), 7–24.

- Salinger, S. V. and C. Wetherell (1985). Wealth and renting in prerevolutionary Philadelphia. *Journal of American History* 71(4), 826–840.
- Sereno Paredes, M. Á. (2021). La prostitución en la Córdoba moderna: Balance historiográfico y nuevas aportaciones. *Anahgramas VIII*, 186–228.
- Stineman, R. W. (1980). A consistently well-behaved method of interpolation. *Creative Computing* 6, 54–57.
- Suetonius Tranquillus, G. (1913). *The Lives of the Twelve Caesars*. Cambridge, MA: Harvard University Press, Loeb Classical Library. <https://www.gutenberg.org/files/6400/6400-h/6400-h.htm>.
- Syuzuymov, M. Y. (1966). Predprinimatel'stvo v vizantiyskom gorode. *Antichnaya drevnost' i srednie veka* 4, 2–30. <https://elar.urfu.ru/bitstream/10995/2630/1/adsv-04-01.pdf>.
- Troadec, C. (2022). Investir la ville. Stratégies immobilières et mobilités résidentielles de la noblesse citadine romaine au XVe siècle. *Reti Medievali-Rivista* 23(1), 199–220.
- Ubl, K. (2005). Anspruch und Wirklichkeit: Die Anfänge der Universität Wien im 14. Jahrhundert. *Mitteilungen des Instituts für Österreichische Geschichtsforschung* 113, 63–89. <https://www.mgh-bibliothek.de/dokumente/a/a133311.pdf>.
- Van Tussenbroek, G. (2019). The great rebuilding of Amsterdam (1521–1578). *Urban History* 46(3), 419–442.
- Vanneste, D. (1986). Le logement et la différenciation sociale et résidentielle dans la ville pré-industrielle en Europe occidentale (XVIe-XVIIIe siècles). *Espace Populations Sociétés* 4(1), 125–136.
- Vaquero Piñeiro, M. (1995). Coyuntura urbana y gestión inmobiliaria en Roma a mediados del siglo XVI. *Publications de l'École Française de Rome* 206(1), 227–251.
- Verlinden, C. (1938). La grande peste de 1348 en Espagne. Contribution à l'étude de ses conséquences économiques et sociales. *Revue belge de philologie et d'histoire* 17(1), 103–146.

- Vignerón, S. (1996). Valeurs locatives et propriétaires cambrésiens au milieu du XVIII^e siècle. *Revue du Nord* 78(314), 87–104.
- Vignerón, S. (2004). L’immobilier dans les petites villes au XVIII^e siècle. étude des mécanismes du marché de la pierre dans la France du Nord. *Histoire, économie et société* 23(1), 121–140.
- Voigt, P. (1901). *Grundrente und Wohnungsfrage in Berlin und den Vororten*. Jena: G. Fischer.
- Vuoli, R. (1914a). Il problema delle abitazioni nel diritto pubblico moderno. *Rivista Internazionale di Scienze Sociali e Discipline Ausiliarie* 65(258), 190–209.
- Vuoli, R. (1914b). Il problema delle abitazioni nel diritto pubblico moderno (continuazione). *Rivista Internazionale di Scienze Sociali e Discipline Ausiliarie* 65(259), 344–352.
- Wenderoth, T. (2022). Die Entwicklung des Mietwohnens in Franken vor 1800. In J. Krieger (Ed.), *Wohnen ohne Eigentum*, pp. 17–64. Baden-Baden: Ergon-Verlag.
- Wettinger, G. (1993). *Acta Iuratorum et Consilii Civitatis Insulae Maltae*. Palermo: Associazione di Studi Malta-Sicilia, Centro di Studi Filologici e Linguistici Siciliani.
- Widmer, B. (1992). Geleitbriefe und ihre Anwendung in Basel zur Zeit des hier tagenden Generalkonzils von 1431–1449. *Basler Zeitschrift für Geschichte und Altertumskunde* 92, 9–99.
- Willis, J. W. (1947). Fair rents systems. *George Washington Law Review* 16, 104.
- Willis, J. W. (1950). Short history of rent control laws. *Cornell Law Quarterly* 36(1), 54–94.
- Xú, S. (2014). Foods and goods (shí huò). In L. Liú, Z. Diāo, D. Shū, and B. Yǐn (Eds.), *Draft of the Collected Statutes of the Song Dynasty (Sòng huì yào jí gǎo)*. Shanghai: Guji Chubanshe.
- Zhang, T. (2010). *Fehlgründungen von Universitäten im Spätmittelalter — Motive und Bedingungen für die Entstehung der mittelalterlichen Universität*. Ph. D. thesis, Ruprecht-Karls-Universität Heidelberg. <https://core.ac.uk/download/pdf/32581842.pdf>.
- Zutshi, P. (2012). The dispersal of scholars from Oxford and the beginnings of a university at Cambridge: A study of the sources. *The English Historical Review* 127(528), 1041–1062.