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ARTICLE

Institutional investors in the Portuguese credit market (1550–1800): The case of the *Misericórdias*

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Abstract

This article questions the drivers behind the distribution of savings in different capital markets in Portugal between 1550 and 1800. A novel dataset of credit transactions, interest rates and debt service documents a shift in the lenders' investment behaviour. By 1712, one of the leading institutional creditors—the *Misericórdias*—had ceased to allocate funds to the sovereign debt market. Data reveal that this disinvestment was neither related to the poor performance of debt service nor to the lure of potentially higher returns on private credit. We argue that changes in the rationales for issuing debt justify the drop in the number of institutional investors in the public credit market, and this correlates with the heavy allocation of funds into private lending.

Keywords: private loans; sovereign debt; investment decisions; institutional investors; financial repression

JEL Classification: G11; G32; H63; N23

Resumen

Este artículo cuestiona los factores que impulsan la distribución del ahorro en los distintos mercados de capitales de Portugal entre 1550 y 1800. Un novedoso conjunto de datos sobre transacciones crediticias, tipos de interés y servicio de la deuda documenta un cambio en el comportamiento inversor de los prestamistas. En 1712, uno de los principales acreedores institucionales—las *Misericórdias*—había dejado de destinar fondos al mercado de deuda soberana. Los datos revelan que esta desinversión no estaba relacionada ni con el mal desempeño del servicio de la deuda ni con el atractivo de los rendimientos potencialmente más altos del crédito privado. Argumentamos que los cambios en las razones para emitir deuda justifican el abandono de los inversores institucionales en el mercado de crédito público, y se correlaciona con la fuerte asignación de fondos al crédito privado.

Palabras clave: crédito privado; crédito público; inversiones; prestamistas institucionales; represión financiera

1. Introduction

The allocation of capital and the functioning of financial markets are positively related. Incentives, selection and contract enforcement are at the heart of efficient resource allocation. In approaching the relationship between private and public finance, scholars have taken interest rates as a valuable tool to investigate the provision of funds, as resources tend to be invested in activities with high and safe returns. Therefore, the price of credit is positively related to the «credible commitment» of debtors and, accordingly, the safeguard of lenders' property rights (North and Weingast 1989; North 1990, p. 69; La Porta *et al.* 1998). This article seeks to uncover the drivers in the distribution of savings in different capital markets in Portugal between 1550 and 1800. It provides new empirical evidence on credit operations, interest rates for short- and long-term credit and debt servicing. Since there is little systematic information on the investments made by individuals, the article focuses on associational organisations, for which evidence of participation in early modern financial markets is far more abundant and easier to gauge.

Early modern investors' decision-making has caught the attention of historians and economic historians, who have sought to understand how investors, whether individuals or organisations, decided how, when and where to apply their funds. Associational organisations were critical players in early modern financial markets, and their credibility as economic agents has been widely recognised in the literature (McCants 1997; Gelderblom and Jonker 2009; Ammannati 2012; Grafe 2012; Milhaud 2018; Costa *et al.* 2018a). In a recent article, van Bavel (2022) notes that although associational organisations had not rooted out wealth inequalities in early modern societies, they often allowed their members to shield their property and awarded them political leverage against states. Among these organisations, religious and charitable institutions stood out not only for the social and political power they enjoyed within local communities but also for their role in financial markets. In the early modern period, organisations such as the Italian *Monte di Pietà* (Carboni 2013; Avallone and Salvemini 2018), Spanish convents (Toboso Sánchez 1987; Álvarez Nogal 2009; Milhaud 2018; Grafe 2022) and Ottoman *waqfs* (Karagedikli and Tunçer 2018) became indisputable economic agents who continuously managed large volumes of wealth, which they assembled through alms, donations and inheritances. Their engagement in financial markets, mainly in—but not limited to—moneylending, is beyond doubt, for they operated as leading credit suppliers to the private and public sectors.

Despite the flurry of studies on credit and debt relations, the literature has largely disregarded the driving forces behind the allocation of savings in different capital markets. Smith (2021) and Baguet (2016) focused on the investment choices made by individuals, stressing the importance of family, social and civic networks in the investment processes either in the East Indian Company or in Ghent's municipal debt. Except for Shammas (2020), Gelderblom and Jonker (2009, 2011) and De Vijlder and Limberger (2014), studies have failed to understand institutional investors' investment behaviour during the Old Regime. Examining the donors and trustees enrolled in the Charity Commission Report for England and Wales, Shammas (2020) observed a long-term shift from real estate investments into perpetual government annuities in the mid-18th century, mainly driven by legal changes. Gelderblom and Jonker's study (2009) also pointed out a shift in the investment choices of Amsterdam's public welfare institutions. By the mid-17th century, real estate had lost importance in terms of investment, and then onwards, institutional investors channelled their funds towards financial assets, either private loans or securities; the latter corresponded to the most valuable asset held by such charities, with bonds preferably bought in the secondary market.

This article follows and complements the studies that have drawn attention to the investors' side and looks at the mechanisms underlying the distribution of resources

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into different capital markets. To delve deeper into this question, the article thoroughly examines the credit activity of the two largest Portuguese charitable institutions over 250 years: the *Misericórdia* of Lisbon and the *Misericórdia* of Porto. Founded in the late 15th century to support the poor, the *Misericórdias* were the leading charitable institutions in Portugal (Sá 1997). These charities are worth examining for several reasons. First, in addition to their charitable activity, they were important economic agents. Their sound finances, on the one hand, and the social and political powers they enjoyed, on the other hand, turned them into relevant investors who moved relatively well in labour, land, capital and credit markets. As for credit markets, the role of these charities was far from insignificant. In the first half of the 18th century, loans granted by the *Misericórdia* of Lisbon accounted for 24 per cent of the total volume of loans signed in one of Lisbon's notary bureaux (Rodrigues 2019a). The relevance of the *Misericórdias* as public credit suppliers is also mirrored in the 1681 royal budget, for 16 per cent of the *juros* (interest) were paid to the *Misericórdias* (8.5 per cent to the *Misericórdia* of Lisbon, and 2.5 per cent to that of Porto).

Studies have confirmed that the *Misericórdias*, mainly the wealthiest among them, found in moneylending the preferential means to monetise the funds they acquired through testamentary legacies and alms (Abreu 1990; Sá 1997, 2018b; Amorim 2006; Ribeiro 2009). However, much of this literature has been limited to the loans made to individuals, underplaying—and sometimes even ignoring—the role these charities played in the market for government bonds. Moreover, most studies concerned with this topic tend to analyse the investment of charities in private loans and sovereign debt separately, failing to consider the institutional framework of these operations. To date, no research has examined both credit market segments in a dynamic relationship, nor the motivations and the extent of the lending practices of these organisations. This article pays special attention to the investment of the *Misericórdias* in private loans and sovereign debt, questioning the rationality behind the allocation of funds.

This article relies on a new dataset of credit transactions, interest rates and debt service. For both *Misericórdias*, account books, notarial records, deliberations of ruling boards and royal chancery books were thoroughly examined to find information about overall revenues and loans to the private and public sectors. This study covers the period from 1550 to 1800, corresponding to the first evidence of the participation of the *Misericórdias* in the public debt and 1800 to a change in the issuance of government debt and the advent of paper money a few years earlier (1796).

The main finding is that the investment behaviour of these institutional lenders had undergone a shift by the early 18th century when they stopped allocating funds into the market for public debt. We argue that the demise of government bonds (*padrões de juro*) in the *Misericórdias*' investments was not related to (1) poor debt servicing since monarchs honoured their financial obligations (save in the 1790s) nor to (2) interest rates because government bonds and private loans ran a 5 per cent interest until the early 18th century. We further claim that the disappearance of government bonds from these charities' investments depended on the Portuguese crown's uses for these instruments. By the 1720s, the monarchy preferred to issue debt to consolidate short-term debt rather than raise funds. In these circumstances, the *Misericórdias* started to channel their financial resources into the private credit market (particularly short-term loans).

This study contributes to several strands of the literature. First, it contributes to the literature on charities and their economic role. It shows that the *Misericórdias* were important players in the credit market and that their investments were guided by a certain economic rationality, highlighting that these organisations, despite their religious commitments, were not atavistic but rather made various risky decisions

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and investments. The second contribution relates to the literature on capital markets and offers new insights into both the supply and demand sides. It provides a completely new series on debt service and interest rates of private and public perpetuities.

The article proceeds as follows. Section 2 elaborates on the case studies. Section 3 describes the institutional framework of the Portuguese credit market and examines the credit structure of the *Misericórdias*, revealing a shift in their investment behaviour. Section 4 explores the determinants of capital allocation, focusing on interest rates and debt service. Section 5 considers the supply and demand of government bonds as a possible explanation for the disinvestment of the *Misericórdias* in the public credit market. Section 5 concludes.

2. The *Misericórdias* as a case study

The *Misericórdias* were lay charities founded in the late 15th century. The *Misericórdia* of Lisbon was the first to be established in August 1498, but many others sprang up across the kingdom and in the Portuguese overseas territories shortly afterwards. By the mid-16th century, there were 300 *Misericórdias* in Portugal and 378 by the beginning of the 18th century (Paiva 2013). These charities provided a wide range of charitable services, which comprised treating the sick and poor, caring for foundlings, visiting poor prisoners, ransoming captives, awarding dowries to poor young girls, delivering daily alms to the shamefaced poor and praying in thousands of yearly masses devoted to the deceased. Overall, these confraternities enjoyed the monopoly of charity and were deemed the most critical charitable institutions in Portugal and its overseas empire (Sá 1997). Their close connection with both the Portuguese monarchy, which acted as their immediate and main protector, and the local elites that formed their ruling boards turned the *Misericórdias* into unique organisations with major and indisputable economic, social and political powers.

This article takes the two most prominent Portuguese *Misericórdias* as case studies: the *Misericórdia* of Lisbon and that of Porto. Both cities had essential features in common, as they were critical seaports with active business communities during the early modern period. The main difference between them was that Lisbon was a capital city, where the court's presence and the high nobility had a substantial impact on the *Misericórdia* (Monteiro 2003). In contrast, Porto had a smaller population, and its elites included a mixture of lesser nobility and merchants. While Lisbon's seaport held the monopoly for the *Carreira da Índia*, Porto developed a close connection with Brazil, which would be responsible for its prosperity from the 17th century onwards. The comparison between these two *Misericórdias* is hampered because Lisbon's archives were lost during the 1755 earthquake; hence, reliable data for this confraternity are only available from the second half of the 18th century. In contrast, the historical archives of the *Misericórdia* of Porto are some of the best-preserved, offering an almost complete series of account books and several other sources, such as letters and the deliberations of the confraternity's ruling board since at least the mid-16th century.

In addition to their charitable programme, the *Misericórdias* also stood out for their sound finances. Table 1 shows the total revenues of the *Misericórdias* of Lisbon and Porto between 1606 and 1794. It is important to note that the data come from different sources, ultimately explaining the high volatility of the revenues. Data for Porto come from account books, while the data for Lisbon are from different sources due to the destruction of its historical archives in 1755: secondary (1639), printed (1606-11, 1693-1754) and archival sources (1766-94). The revenues of these confraternities included those from the gift-giving economy, such as alms and royal contributions,

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Table 1. Total revenues of the *Misericórdias* of Porto and Lisbon, 1606-1794 (*Réis* of 1700)

	Misericórdia of Porto	*Misericórdia* of Lisbon	Ratio
1606-07	64,570	687,696	10.7
1610-11	81,862	380,906	4.7
1638-39	111,210	682,293	6.1
1693-94	92,715	499,128	5.4
1703-04	85,910	394,450	4.6
1714-15	123,494	426,965	3.5
1723-24	170,898	486,390	2.8
1733-34	210,671	571,430	2.7
1743-44	183,714	593,224	3.2
1753-54	200,428	626,031	3.1
1766-67	219,594	817,795	3.7
1776-77	230,981	1,003,659	4.3
1783-84	306,770	1,058,229	3.4
1793-94	267,114	1,213,754	4.5

Sources: For the *Misericórdia* of Porto: *Arquivo Histórico da Santa Casa da Misericórdia do Porto* (hereafter AHSCMP), *Série E, Banco 1*, Books 12, 14, 24; *Banco* 2, Books 2, 5, 9, 12, 15, 19, 22, 28; *Banco* 3, Books 3, 11, 21. For the *Misericórdia* of Lisbon: for 1606-07 and 1610-11, Oliveira (1991, pp. 591-593); for 1639, Amorim (2017, p. 197); for 1703-94, *Biblioteca Nacional de Portugal* (hereafter BNP), *Relação de gastos que a Santa Casa da Misericórdia de Lisboa fez este ano…*; *Arquivo Histórico da Santa Casa da Misericórdia de Lisboa* (hereafter AHSCMLSB), *Gestão Financeira, Instrução da Casa, Balanço da receita e despesa da tesouraria geral da Santa Casa da Misericórdia…* (1781-1801), Books 1-3. Deflator: CPI, see Palma and Reis (2019).

and those from their market activities, such as interest on loans, sales and rents from land (Figure 1).[1]

In financial terms, no other *Misericórdia* could compare with that of Lisbon. In 1607, its revenue accounted for 2.6 per cent of the crown's revenue and 1.2 per cent in 1766. These numbers reveal its financial wealth and suggest that few competed with it.[2] Despite being the second-largest charity in the kingdom, the *Misericórdia* of Porto had an annual revenue of about three to six times less than that of its counterpart in Lisbon (Table 1).[3] Notwithstanding, its revenues were far from negligible, as they were similar to that of other major organisations, such as the Portuguese Inquisition in 1770 (Lopes 2021, p. 513). To date, not a single case of bankruptcy of these institutions is known, despite the difficult years that some of them had to deal with. Figure 1 shows the evolution of the finances of the *Misericórdia* of Porto and its solvency throughout the early modern period.

It is no wonder that institutions with such sound finances became important active economic agents engaging in different markets, such as the real estate, labour and financial markets. Figure 2 breaks down the sources of revenue of the *Misericórdia* of Porto between 1571 and 1800.

[1] This revenue could be used as soon as the charities received it, or it could be kept as an asset to be invested in the future.

[2] In 1607, the *Misericórdia* of Lisbon's revenue was 3,414,600 *réis* (Oliveira 1991, p. 591) and 80,843,040 *réis*, in 1766 (AHSCMLSB, *Gestão Financeira, Despesa e Receita*, Cofre (1766-1767), Book 1). For the 1766 crown's budget, see Tomaz (1988).

[3] On the income of some *Misericórdias*, see Rodrigues (2023).

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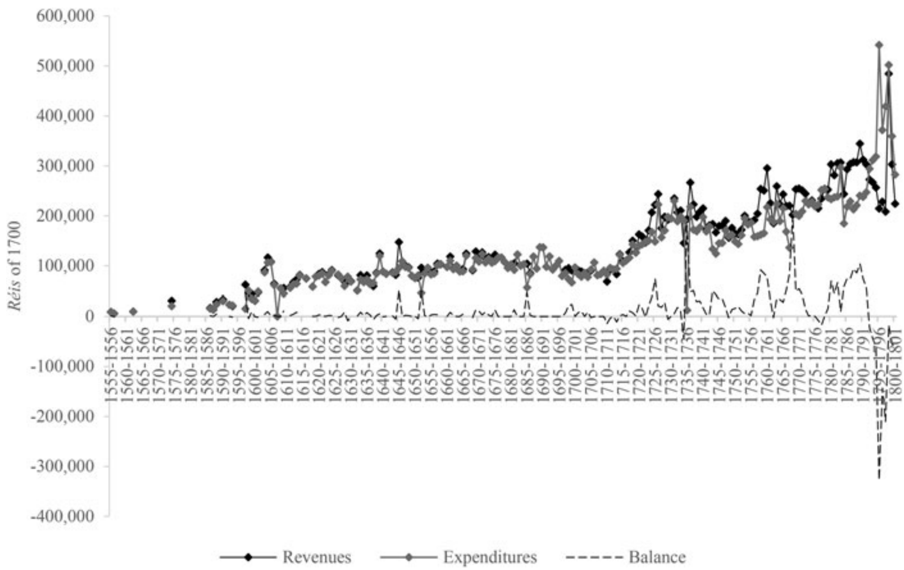

Figure 1. The *Misericórdia* of Porto's finances, 1555-1800.
Notes: The account books of 1557-61, 1563-64, 1576-85, 1589-90, 1594-96, 1602-03, 1607-08, 1625-26, 1631-32 are missing, and those of 1659-60, 1667-68, 1735-36 and 1771-72 are incomplete.
Sources: For 1571-1668, see Sá (2018b, pp. 200-207 and extra text III). For 1669-1800, AHSCMP, *Série E, Banco* 1, Books 36-41, *Banco* 2, Books 1-32; *Banco* 3, Books 1-28. Deflator as in Table 1.

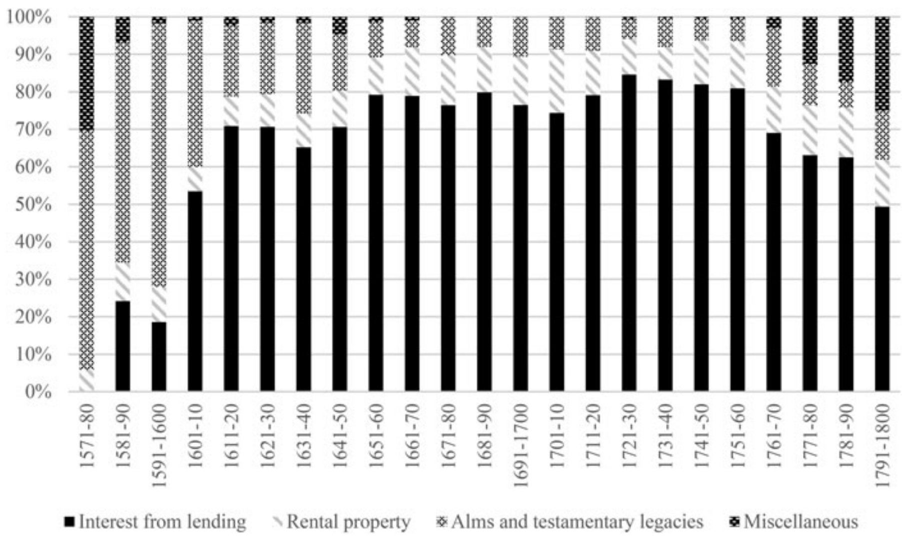

Figure 2. Sources of revenue of the *Misericórdia* of Porto, 1571-1800 (percentage).
Sources: As in Figure 1.

As with other European and colonial charitable institutions (Teeuwen 2014; Grafe 2022), early revenues for the *Misericórdias* came mainly from pious bequests. Despite receiving small alms and other voluntary endowments, in the case of Porto, overseas donations explain the predominance of this source of income from 1571 until the early

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17th century (Figure 2). In 1584, the confraternity received its first significant inheritance from Dom Lopo de Almeida (c.1525-84), chaplain of King Filipe I of Portugal (reign 1580-98) and founder of the largest hospital in the city (Basto 1964). This inheritance set the stage for the consolidation of the *Misericórdia*'s finances, asserting it as the city's primary charitable institution from then onwards. In addition to this inheritance, the late 16th century brought other exceptionally fruitful testamentary legacies, mainly from overseas benefactors (Sá 2018a, pp. 121-143; 2018b, pp. 184-195). The 'first golden age' of post-mortem donations lasted approximately until the 1620s, when this source of revenue accounted for, on average, more than half of the *Misericórdia*'s income, followed by a decline in their relative importance. From the 1750s onwards, testamentary legacies and donations were again accountable for the confraternity's prosperity. The revival of endowments was in line with other Portuguese *Misericórdias*, which started to receive substantial inheritances from Brazilian donors in the second half of the 18th century (Sá 1997, p. 83; 2018b, p. 166; Abreu 2002, pp. 247-258).

Rental property, in turn, played a relatively small part in the annual revenue, which, at its peak, represented 23 per cent (1705) of the total budget. On average, it corresponded to a slim 11 per cent of all income. Other *Misericórdias*, such as that of Lisbon, shared this figure, where revenues from real estate were also marginal, at least in the 18th century (Rodrigues 2019b). The statutory prohibition of the acquisition of real estate can explain how unimportant rental property was in the annual income of these confraternities.[4] According to the bylaws (*Compromisso*), whenever the *Misericórdias* received land or buildings through donations or wills, they had to sell them in a public auction to the highest bidder, who could not be a member of the current ruling board (Araújo and Paiva 2007, pp. 228, 246). This rule could only be broken in two situations: when the king explicitly authorised the confraternities to acquire and hold real estate and when the confraternities received entailed property, which, due to its nature, had to be used to finance the benefactors' determinations.

Had the *Misericórdias* incorporated real estate into their patrimony because of a judicial sentence (through rent arrears or non-performing credits), they would also have been forced to sell it within 1 year and 1 day. Monies from such sales were usually placed in the credit market, deemed a safe (low risk) and less expensive investment. The bylaws openly acknowledged that purchasing and managing real estate was a less attractive investment compared with the acquisition of financial assets (Araújo and Paiva 2007, p. 241). While the statutory prohibition of keeping and acquiring real estate left the *Misericórdias* with few options for investment, they enjoyed far more autonomy to engage in financial markets. Testators often spelt out in their last wills the procedures to monetise their inheritances, which often relied upon the acquisition of free-standing income and moneylending (although they seldom specified whether the loans were to private individuals or the public sector). Interest from loans assured a regular stream of income that the *Misericórdias* needed to meet their charitable purposes, mainly to fund chantries and other charitable practices.[5] It is important to note that the loans granted by these organisations were not works of charity, for they were not directed to the poor strata of society, as was the case with the Italian *Monte di Pietà* (Carboni 2013). The *Misericórdias* extended loans to debtors of different social backgrounds, from farmers

[4] In 1603, King Filipe II of Portugal (reign 1598-1621) reinforced the prohibition preventing the *Misericórdias* from acquiring real estate (Araújo and Paiva 2007, pp. 171-173).

[5] There are no studies on the expenditure structure of the *Misericórdias* of Porto and Lisbon, which makes it difficult to evaluate the percentage of funds used for charitable purposes compared with those invested in loans. However, about 25–36 per cent of the revenues of the *Misericórdia* of Porto were used for new loans in 1671-80 and 1681-90. The same happened in the late 18th century, with about 25 and 34 per cent going to newly granted loans in 1771-80 and 1781-90. Several studies of the *Misericórdias* (e.g. Setúbal and Guimarães) show that about 40 per cent of total expenditures were used for charitable activities (Abreu 1990, p. 55; Costa 1999, p. 148).

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and artisans to members of the high nobility, for various purposes, including consumption, rollover of debts or investment. As Grafe (2022, p. 8) pointed out for Spanish America, these organisations considered the investment of the accumulated capital as «a duty». Investment rationality ran through most of the ruling board's decisions, often deliberating on where to invest the assets, to whom to loan money and how profitable the investments could be.

Figure 2 shows that from the early 17th century onwards, revenues from lending activities never represented less than 40 per cent of the annual budget (except for 1760-63 and 1792-99). Figures in Porto did not diverge substantially from other *Misericórdias*, as they repeatedly displayed the same predominance of moneylending income in their annual budget (Costa 1999, pp. 106-128, 142-143; Amorim 2006; Rodrigues 2019b). Not only did these charities allow access to credit for a large segment of the population, whether in urban or rural settings, but they also became essential creditors of the Portuguese monarchy during the early modern period (Abreu 2003; Araújo 2009; Sá 2018a). Although the importance of the *Misericórdias* as creditors of the monarchy and of individuals is indisputable, questions about the reasons underlying their investment behaviour and the functioning of the credit market remain unanswered. The following section briefly examines the functioning of the credit market and analyses the *Misericórdias*' credit structure.

3. The credit market and the *Misericórdias*

In the early modern period, creditors, whether private or institutional, had a wide range of investment options and could apply their savings to short-, medium- or long-term loans. The well-functioning of the credit markets depends largely on the institutional framework that supports the agreements that imply intemporal decision-making. In the first part of this section, we briefly discuss the main institutional features of the early modern Portuguese credit market and the credit instruments available to borrowers and lenders. We then assess the credit structure of the *Misericórdias* from 1550 to 1800.

3.1 The credit market in early modern Portugal

Moneylending was widespread in early modern Europe, and Portugal was no exception (Rocha 1996; Muldrew 1998). The well-functioning of credit markets depends on the institutional framework that allows the reduction of transaction costs, arising mainly—but not only—from information asymmetries, such as adverse selection (*ex ante*), moral hazard (*ex post*) and agency problems (North 1990). Early modern notaries played a crucial role in match-making parties to a contract and thus mitigated information asymmetries and reduced transaction costs (Hoffman *et al.* 2019). Although credit agreements could be made informally, lenders and borrowers preferred to make them formally before a notary, knowing that their rights would be legally protected and the contract would be swiftly enforced before the law. Formal institutions—such as the law courts—also played a role in the functioning of credit markets, for they enforced contracts and, thus, protected creditors' property rights. The institutional framework is, then, crucial for the allocation of resources, the design of efficient contracts and their enforcement and, ultimately, for the correct functioning of the market (North 1990).

Borrowers and lenders had several credit instruments at their disposal depending on their needs, all of which were recognised before Portuguese law and signed before notaries: long-term instruments, such as annuities/perpetuities (either private or public), or short–medium instruments, such as obligations, bills of exchange or simple notes. Annuities were the most widely used financial instruments throughout medieval and early modern Europe. Little is known about the extent to which they were used in Portugal, but their structure was quite similar to French and Flemish *rentes* (Munro

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2003). Known as *censos*, private perpetuities corresponded to contracts in which the seller/debtor 'sold' a fraction of the future revenues of a given property. In return for a capital sum given to the seller/debtor, the buyer/creditor held the right to an annual payment (*censo*) in kind or cash. These contracts seldom declared the interest rate, although it can be assessed through the 'annual pension' paid by the seller/debtor to the buyer/creditor and the principal advanced by the latter. The contracts could include a buy-back clause (*pacto de retro*), giving the borrower the right to dissolve the agreement, and the *censo* could be 'sold' perpetually or in lifetimes (Costa 1961). Unlike short-term private loans (obligations), the *censo* was typically associated with the rural world, mainly with agrarian credit (Costa 1961; Munro 2003). Due to their perpetual nature, in Iberia, these instruments were much used by religious institutions to acquire revenues to meet the cost of perpetual religious services (Ena Sanjuán 2021) or to ensure grain supply in times of inflation (Rodrigues 2013). Evidence from Portugal shows that, as early as the 13th century, *censos* had comparatively low interest rates and creditors' property rights were relatively well protected by formal institutions (Henriques 2020).

In addition to private perpetuities, lenders could channel their liquidity to other long-term credit operations, such as the acquisition of sovereign debt (*padrões de juro*). In the early 16th century, the Portuguese crown started to issue debt to raise funds to meet its needs. Like the Castilian *juros al quitar* (Toboso Sánchez 1987; Álvarez Nogal 2009) or the Flemish and Dutch *losrent* (Tracy 1985), the Portuguese *padrões de juro* consisted of perpetual and redeemable credit titles issued by the crown against fiscal revenues (Gomes 1883). The payment of the annual interest (*juros*) relied on fiscal revenue streams (*almoxarifados* or *alfândegas*), making these investments a safe option. The contract came about when the creditor delivered a capital sum to the debtor—the king—in Lisbon after the public announcement of the sale of annuities through edicts (Gomes 1883). In exchange, the creditor held the right to receive an annual amount corresponding to the loan's interest (*juro*). Despite their perpetual nature, these contracts could be amortised or redeemed at the debtor's discretion (Costa and Miranda 2023). Like *censos*, *padrões de juro* included a buy-back clause, whereby the debtor could dissolve the contract by paying back the creditor's capital at any time. Issuing debt was not exclusive to monarchs, as noble households and municipal councils could also resort to this expedient to meet their financial needs. Municipal and noble long-term debt shared the same features as government debt; differences relied upon the revenue streams that backed the annual interest payment and the interest rate could vary from the sovereign debt instruments.

Whether first issuances, dealings in the secondary market or debt management situations, *padrões de juro* were repeatedly recorded in the royal chancery books. The participation of institutional investors in Portuguese sovereign debt was not insignificant. Table 2 shows the type of investors of the monarchy, based on a list of all *juros* paid by the crown in 1694.

Private individuals and institutional investors played a similar role in sovereign debt in the late 17th century, either in the number of titles or *juros* paid.[6] Although the *Misericórdias* ranked second among the organisations that acquired public bonds, their predominance in the credit market should not be underestimated, as there were far fewer *Misericórdias* than convents and monasteries.[7]

[6] In the early 19th century, a report indicates that charitable institutions owned almost half of the *padrões de juro* still active, 30 per cent of which were in the hands of the *Misericórdias* (Costa 1992, p. 47).

[7] On the participation of other *Misericórdias* in the public credit market in the late 17th century, see Rodrigues (2023). In 1694, the *Misericórdia* of Lisbon held 231 titles, followed by the *Misericórdia* of Porto, Viana do Castelo (17), Évora and Alenquer (8 each), Braga (7), Coimbra and Setúbal (6 each) and many others.

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Table 2. Type of creditors of the Portuguese crown, 1694

	Nr of bonds	*Juro* (*réis*)	% Nr of bonds	% *Juro*
Organisations	2,120	101,772,264	48	42
Other	90	7,821,155		
Colleges	39	2,214,360		
Hospitals	38	2,415,955		
Brotherhoods	174	6,082,998		
Misericórdias	381	33,879,658		
Convents/Monasteries	1,398	49,358,138		
Private individuals	2,319	139,618,990	52	58
Total	4,439	241,391,254	100	100

Source: BNP [*Juro das alfândegas e almoxarifados do reino*], PBA. 125.

Bondholders acquired these titles directly (through the primary or secondary markets) or indirectly (through inheritances or the settlement of private debts). The purchase of government bonds in the secondary market had several advantages. First, individuals/organisations could buy a fraction rather than the whole bond. Then, they could purchase older bonds, meaning they were paid before bondholders who held titles issued more recently. Furthermore, the selling price could be negotiated between the parties, as long as the bond was not sold «at less than half of the fair price» (Ordenações Filipinas [1985] 1603, Book 4, Title 13). Although bonds were generally sold at par, there is evidence that buyers occasionally paid extra (referred to as *pitanças*) to guarantee the business.[8]

For short- or medium-term investments, creditors could rely on obligations, generally used for consumption needs and rollover of debts (Costa *et al.* 2018b). Unlike in France, obligations in Portugal often stated the date of repayment and the interest rate (Hoffman *et al.* 2019). These loans were usually made against a wide range of assets, such as real estate, pawns and rights over revenues (debts, rents, salaries). Contracts often determined 1 year of duration but allowed for an extension if the parties agreed. Once the maturity had expired, the creditor was legally entitled to ask for the repayment of the principal and the due interest. In 18th-century Lisbon, evidence from notarial records and probate inventories demonstrates that all social strata participated in the private credit market, either as borrowers or lenders (Rocha 1996; Costa *et al.* 2018a). The former were mainly nobles, and the latter were businessmen and professionals, but individuals from all occupations engaged in the market. It often happened that loans were not repaid in whole or in part, and creditors could seek redress through formal or informal institutions. Debt restructuring was one of the ways to avoid default, but creditors also had other formal mechanisms at their disposal. Portuguese law protected creditors' property rights, and law courts often enforced contracts expeditiously (Rodrigues 2019c), although idiosyncratic characteristics of the parties could affect the enforcement mechanisms (Reis 2011).

3.2 The Misericórdias *in the credit market*

The *Misericórdias* found the preferential means to monetise the funds they acquired through testamentary legacies and alms in the credit market. They engaged in the

[8] AHSCMP, *Série D*, *Banco 8*, Book 5, f. 9v [1640].

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Table 3. Size of the *Misericórdia* of Porto's investment in the credit market (in *Réis*), 1550-1800

	Loans to the crown	Nr of loans to the crown	Loans to private individuals	Nr of loans to private individuals	Total of loans	% Loans to the crown
16th century	8,550,000	6	–	–	8,550,000	100
17th century	88,794,726	17	51,858,237	119	140,652,963	63
18th century	41,554,700	3	727,315,930	541	768,870,630	5
Total	138,899,426	26	779,174,167	660	918,073,593	

Sources: For loans to the crown, ANTT, *Chancelarias régias*; for private loans, AHSCMP, *Série H, Banco 8*, Books 1-31.

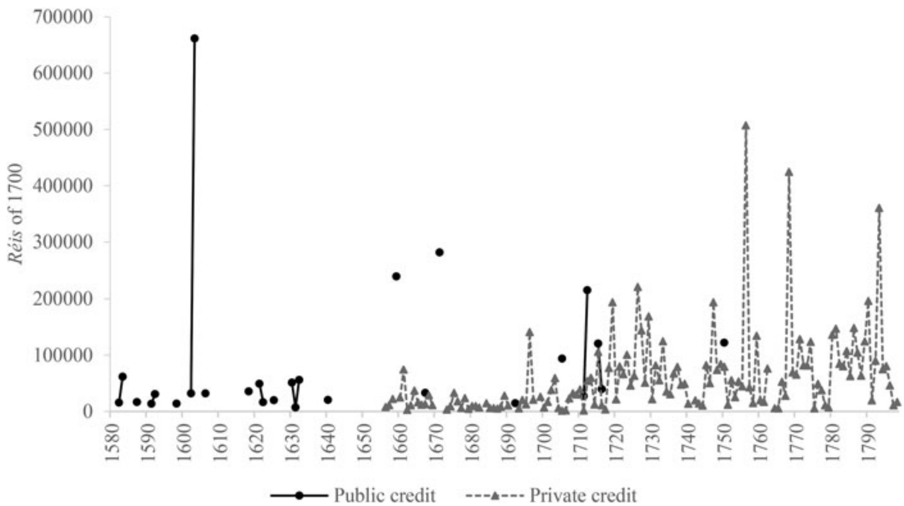

Figure 3. Yearly investments of the *Misericórdia* of Porto in the credit market, 1580-1800.
Note: Absolute number of transactions in public credit (29: 26 purchased from the Portuguese crown, two from the *Casa de Bragança* and one from the city council) and private credit (660).
Source: As in Table 3. Deflator as in Table 1.

private credit market via long-term (interchangeably *censos* or *pensões*) and short- and medium-term contracts (*obrigações*), and also in the market for government bonds, through the acquisition of *padrões de juro*. Table 3 provides the *Misericórdia* of Porto's investments in the credit market from the late 16th century to the end of the 18th century.[9]

Between 1550 and 1800, the *Misericórdia* of Porto invested approximately 918 million *réis* in the credit market, 85 per cent in private lending and 15 per cent in public debt. Table 3 shows a significant change in the *Misericórdia*'s investment pattern. While in the 16th and 17th centuries, it mainly invested in public credit, in the 18th century, it operated in reverse, channelling 95 per cent of its investments to private lending. This shift is more telling when considering the annual distribution of investments (Figure 3).

Figure 3 shows that the *Misericórdia* of Porto ceased to invest in government bonds in the early 18th century. The last *juro* purchased from the crown dates from 1712. From this point onwards, the *Misericórdia* invested only three times in the public sector: in 1715 and 1716, it acquired two debt titles issued by the *Casa de Bragança* (duchy household), and in 1750 it acquired a municipal bond. After 1712, the confraternity began to allocate its savings heavily to the private credit market. Such a significant shift in the investment pattern was not exclusive to the *Misericórdia* of Porto, as that of Lisbon shows similar trends (Figure 4).

Except for the late 18th century, the chronology of investments made by these two confraternities is similar (Figure 4). Like the *Misericórdia* of Porto, that of Lisbon stopped investing in government bonds in 1712. After that date, it only participated in the public credit market between 1784 and 1791, after the crown's regulation of its credit activity (Lopes 2008; Rodrigues 2019b). Figure 4 also shows that from the 1730s onwards, the *Misericórdia* of Lisbon strengthened its participation in private lending. The peak in

[9] Inherited private loans and government bonds were not considered because they did not reflect the *Misericórdia*'s investment decisions. For the stock of debt owned by the *Misericórdia* of Porto, see online Appendix. For the stock of debt of the Portuguese Crown, see Costa and Miranda (2023).

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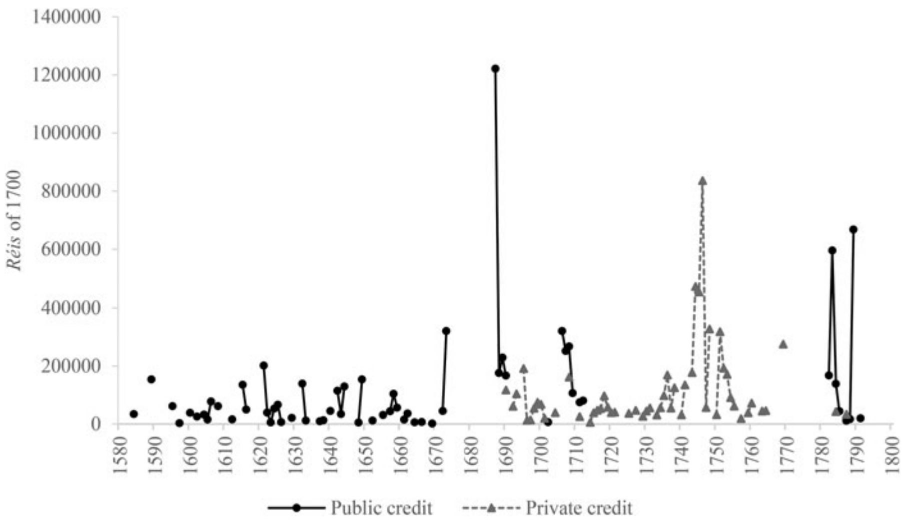

Figure 4. Yearly investments of the *Misericórdia* of Lisbon in the credit market, 1580-1800.
Note: The private loans series displayed in the figure above is underestimated, as the archives of the *Misericórdia* of Lisbon were lost in the 1755 earthquake. The series includes loan amounts that were reconstructed from other sources, mainly lawsuits, private correspondence and deliberations of the ruling boards. Absolute number of transactions in public credit (130) and in private credit (106).
Sources: For government bonds, ANTT, *Chancelarias régias* and Rodrigues (2019b); for private loans, Rodrigues (2019a). Deflator as in Table 1.

loans to individuals in the 1740s was due to the exceptional liquidity that the *Misericórdia* enjoyed at the time (Monteiro 2003). In 1743, King João V (reign 1707-50) not only ordered that all government bonds that carried an interest rate above 5 per cent be reduced, but also that they be transferred to the Patriarchal See. This operation lasted until the late 18th century, and it is estimated that approximately 5,000 million *réis* were redeemed (Azevedo 1988, pp. 374-375). At the time, the *Misericórdia* of Lisbon still held government bonds at 6.25 per cent. Our estimates indicate that the confraternity lost at least forty-eight bonds to the Patriarchal See, of which forty were redeemed in the 1740s. This operation allowed the *Misericórdia* to cash in approximately 85 million *réis*, which it channelled directly to private lending.

The *Misericórdia* of Lisbon stopped granting loans to individuals in 1775 due to a chronic situation of non-performing loans. Creditors and debtors formed the same group of individuals; both were members of the high court nobility, who also had a seat on the *Misericórdia*'s ruling boards (Serrão 1998; Monteiro 2003). Debtors often had difficulty in paying the annual interest, and the *Misericórdia* failed to set up an effective charging system, enabling the accumulation of an extraordinary volume of due interest and capital, with severe repercussions for the organisation's financial health. Even resorting to law courts or private order institutions did not solve loan non-compliance issues (Rodrigues 2019a, 2019c). In this context, the crown started to meddle in the confraternity's credit activity (Lopes 2008). Although a collection of decrees was issued to regulate the volume of credit and the collaterals that backed up the contracts, these texts proved unsuccessful and in 1775 the ban on participation in the private credit market was enacted.

Figures 3 and 4 raise several questions: why did significant creditors such as the *Misericórdias* cease to lend to the monarch at the same time? What explains this turning point and, particularly, the timing of their growing interest in the private credit market to the detriment of the public sector? In what follows, we consider the determinants of fund

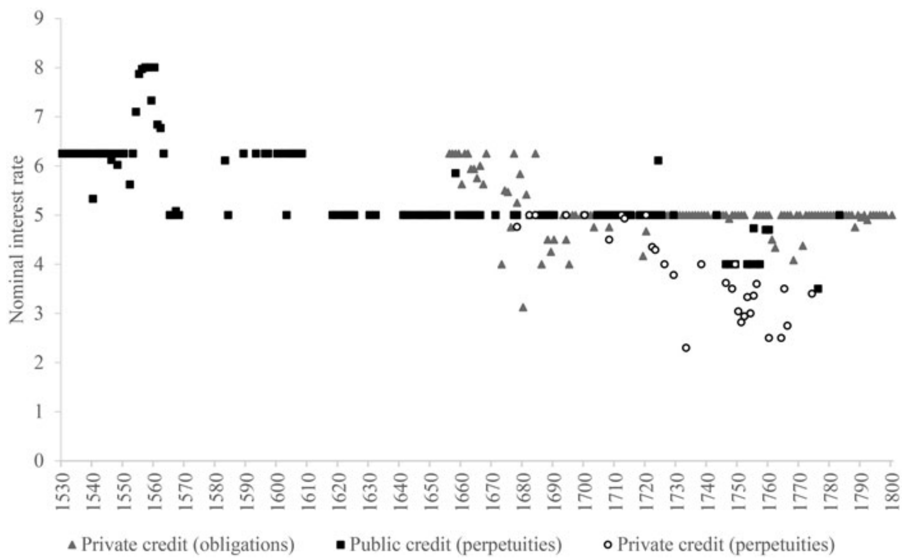

Figure 5. Nominal interest rates for private loans and government bonds, 1530-1800.
Note: Private perpetuities depicted in the figure above refer to *censos* paid only in cash.
Sources: For public perpetuities, see the database in the research project *Sovereign Debt and Private Credit in Portugal (1668-1797)* (PTDC/HAR-HIS/28809/2017) (www.debt.pt); for private perpetuities and obligations, see Table 3.

allocation and put forward two hypotheses. First, private interest rates may have been more attractive than the interest paid on public loans; institutional investors therefore channelled their resources to a more profitable business. Second, potential problems in servicing public debt might have pushed institutional creditors to allocate their funds to private lending.

4. Determinants of fund allocation towards private loans and sovereign debt

4.1 Interest rates

Interest rates are deemed a valuable tool to assess the quality of financial markets (North 1990). One can hypothesise that private interest rates might have been more attractive to the *Misericórdias*, diverting investments from the public sector. To test this hypothesis, we collected the nominal interest rates stated in both short- and long-term public and private lending contracts signed by the *Misericórdia* of Porto.

Figure 5 charts nominal interest rates for short- and long-term private and public loans from the early 16th century to the end of the 18th century. The data corroborate what was already known about the declining trend in interest rates for private and public credit before 1800 (Clark 2005; Grafe 2012, p. 15; Costa *et al.* 2018b; Sussman 2022).[10] Portuguese government bonds were sold at 8 per cent in the mid-16th century, 6.25-5 until the mid-18th century, and 4 per cent in 1770 (Costa *et al.* 2021). The same steadily declining trend held for obligations (Costa *et al.* 2018b), and it was only in 1757 that a 5 per cent cap was fixed for all private credit contracts.[11] Until then, rates for private loans ranged between 6.25 and 0 per cent.

[10] On the interest rates of Portuguese *censos* before 1500, see Henriques (2020).
[11] The effects of regulating the price of credit in Portugal were studied by Costa *et al.* (2018a).

Unlike that for Castile, evidence for Portugal's private perpetuities (*censos*) is scarce. In 1614, a royal decree fixed at 5 per cent (*20,000 réis o milhar*) the rate for *censos* paid in cash or goods and 10 and 8.3 per cent for life annuities, whether over one or two lives (*Collecção* 1747, pp. 115-116).[12] However, the royal decree was waived in 1643. It was only in 1698 that the monarch decided that all *censos* should not be sold with an interest rate higher than 5 per cent. The document noted that:

> «Wealthy men with little money buy *censos* and *juros* over the estates of the neediest and thus bring them excessive debts. They can pocket the principal in a few years and continue to receive the interest, and often acquire property through foreclosures, leaving the seller in a miserable state» (Silva 1854, pp. 410-411).

Figure 5 shows that the *Misericórdias* did not stop investing in government bonds due to the higher profitability of the private sector, as private and public credit displayed similar interest rates, approximately 5 per cent, by the mid-1710s. From 1580 to 1800, the *Misericórdia* of Porto acquired twenty-six *padrões the juro* from the Royal Treasury: nineteen were at a 5 per cent interest rate, six at 6.25 per cent and one at 4 per cent. For those purchased at 6.25 per cent, the interest was lowered to 5 per cent in 1624 as part of an operation of interest reduction started by King Filipe II in 1614. In such operations, creditors had three options: (1) accept the interest rate reduction, (2) keep the same interest rate by topping up the principal, or (3) refuse the reduction and be repaid. In 1624, the *Misericórdia* chose the former and, at the beginning of the 18th century, all *juros* held by the *Misericórdia* of Porto ran at 5 per cent, except for a *padrão de juro* purchased in 1711 that was at 4 per cent. When lending to individuals, the confraternity usually granted short-term loans at 6.25 per cent. However, the interest rate was seemingly fixed at 5 per cent in the 1690s and persisted until the end of the 18th century.[13] Lower interest rates (3 per cent) were usually charged to specific borrowers, such as religious institutions. Regardless of the debtor, contracts could stipulate a fine in case the borrower defaulted on the payment of the annual interest, being bound to a new rate of «6.25 per cent until the liquidation of the loan, rather than the 5 per cent rate».[14] Although it is unclear whether the *Misericórdia* implemented the contracts' wording, such clauses reveal its leeway in charging a *default risk premium*.

Only the interest rate on private perpetuities paid in cash started to decline around 1708 (4.5 per cent), reaching 2.5 per cent in the 1760s.[15] Notwithstanding, the *Misericórdias* and other organisations did not seem interested in this type of contract, which, in contrast, was the preferred credit instrument in Castile and Aragon (Milhaud 2019). The *Misericórdia* of Porto only began to invest in *censos* sporadically in the late 17th century, an activity that had ceased by the late 1760s. In 1770, the ruling board of the *Misericórdia* acknowledged that:

> «All [*censos*] are purchased at the rate of 3 or 3.5 per cent, which was derived from persuasion and importunate pleas by the parties and the piety of the councillors of this ruling board, without a thorough examination of the resulting damage to this *Misericórdia*.»[16]

[12] By the mid-16th century, *censos consignativos* paid in goods (wheat) were sold at 6-12 per cent (Rodrigues 2013, pp. 744, 746, 749-750) and 20 and 26.6 per cent in late 1582 and 1597 (Oliveira 2016, vol. 2, p. 714).

[13] Other *Misericórdias* show a similar pattern (Araújo 2000, p. 487).

[14] AHSCMP, *Série H*, *Banco 8*, Book 10, ff. 42-44 [1727].

[15] Similar trends are observable in Spain. See Grafe and Irigoin (2013) and Milhaud (2018).

[16] AHSCMP, *Série D*, *Banco 8*, Book 7, f. 311 [1770].

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Whereby, councillors determined:

> «not to allow the purchase of rents, pensions or *censos* charged on houses or lands already owned by this *Misericórdia* to avoid the severe damage that can result from the loss of part or the whole of the said pension as it often happens when, due to fires only the floor of the buildings remains, and to rebuild them it is necessary to use a large part of the rent, sometimes spending many years getting someone willing to invest in it.»[17]

As the *Misericórdia* was not interested in private perpetuities, it allocated its funds to obligations and sovereign debt. However, both contracts ran a similar interest rate in the mid-1710s when government bonds disappeared from the *Misericórdias*' investments, which suggests that the participation of these confraternities in the sovereign debt market was not related to the price of credit.

4.2 Debt service

Another possible explanation for the turning point in the *Misericórdia*'s investment behaviour is debt service. Property rights are critical in explaining capital allocation, as investors tend to abandon specific forms of investment whenever their rights are not guaranteed (North and Weingast 1989). Therefore, investments in the public and private sectors are deemed reliable if the debtor conveniently pays the annual interest. Otherwise, creditors will likely channel their funds to other investments.

In Portugal, government bonds were considered low-risk investments, mainly because fiscal revenues backed the payment of interest. These contracts were silent about the likelihood and consequences of the king's defaulting on his financial obligations. Occasionally, monarchs assigned a secondary fiscal stream to back the payment of the yearly interest should the primary stream dry up. In any case, creditors had no right to claim the repayment of the principal in case of default, which was up to the debtor. In 1659, the crown halted the payment of one *juro* consigned in the Porto Customs House to the *Misericórdia* of Porto. The confraternity's ruling board decided to judicially write to the Treasury Council demanding the payment of the arrears on the grounds that its charitable activities had been compromised since the suspension of the payment. It seems that the Treasury Council was extending the case and the *Misericórdia* was quick to address the king directly, reporting on the situation after hearing its councillors about the legitimacy of the claim. The councillors stated that:

> «According to the law of preference and the special mortgage and any other consignation, Your Majesty has no privilege for considering himself as any other private person with respect to the said obligation [the payment of the *juro*].»[18]

Although the arrears were only paid in 1683, this telling example demonstrates that whenever needed, creditors, at least institutional ones, could—and did—pressure the monarch to fulfil his financial obligations.[19] Despite the apparent impunity of the debtor, there was a general perception among creditors that sovereign debt was the safest of

[17] AHSCMP, *Série D*, *Banco 8*, Book 7, f. 311 [1770].

[18] AHSCMP, *Série E*, *Banco 6*, Book 20, ff. 47-61 [1661].

[19] In 1683, Prince Regent Pedro ordered the payment of 599,529 *réis* in arrears from 1659 to 1665 to the *Misericórdia* of Porto. *Arquivo Histórico Municipal do Porto* (hereafter AHMP), *Livro Próprias*, *Cofre*, A-PUB/3476, ff. 297-297v.

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investments. Another telling example corroborates this idea. In 1687, the *Misericórdia* of Porto intended to redeem a bond it had purchased from the Duchy of Braganza (which by then was poorly paid), and with the proceeds of this operation, it intended to buy a sovereign bond consigned in the Tobacco Customs House, one of the most desirable fiscal streams. The members of the ruling board acknowledged that «in a few years, the *Misericórdia* will want to do it [redeem the Braganza's bond] at a time when there will be no government bonds [consigned in the Tobacco Customs House] in which to invest as there is now».[20]

In contrast, loans advanced to individuals were considered less secure because debtors often missed the payments of annual interest, and it was very expensive to execute each one of them (Rodrigues 2019c). The enforcement of these contracts was complex, lengthy and, therefore, costly. The *Misericórdia*'s ruling boards recognised that «despite having granted the loans with the necessary collateral, some debtors and their guarantors went bankrupt».[21] Creditors understood that the wording of the contracts did not protect them entirely because the execution of collaterals was far more painful than stated in the agreements. Additionally, there was the perception that should cases go to court, judicial rulings were uncertain, which aggravated the risk of lending to the private sector even more.[22] Missed annual interest payments, default on credit and debtors' bankruptcies were common scenarios in the *Misericórdias*' lending activities (Lopes 2008). For some *Misericórdias*, such as that of Lisbon, the non-compliance of private credit contracts took significant proportions, hovering around 70 per cent of all loans (Rodrigues 2019a, 2019c). The high proportion of default on debts in the case of Lisbon had to do with the inbreeding nature of the loans, which were addressed mainly to the members of the high nobility, who were, at the same time, members of the confraternity and had a seat on its governing bodies. The case of Porto, however, seems to have been quite different, as only 6.7 per cent of the loans were in litigation or went bankrupt (Amorim and Costa 2018, p. 181).

Despite evidence on this general perception of the risk of lending, there is little empirical evidence about the regularity of the payment of annual *juros* and its impact on creditors' investments. One might wonder whether the instability of interest payments by the crown led the *Misericórdia* of Porto to try to overcome the situation by investing in the private segment of the credit market. If this assumption is confirmed, it demonstrates the ability of the confraternity to circumvent complex financial problems. To explore this hypothesis, Figure 6 presents for the first time the payment of *juros* to the *Misericórdia* of Porto between 1580 and 1800. The series is the most complete regarding Portuguese debt servicing ever assembled and novel in its chronological breadth.

Figure 6 shows that, despite the yearly instability of the series, interest from government bonds was correctly paid. The volatility of payments seems to have been more significant from the beginning of the 18th century onwards, although the period of the Iberian Union (1580-1640) also displayed yearly fluctuations, emphasising the erosion of the credibility of *padrões de juro* (Costa and Miranda 2023, p. 10). The 1630s were significant in this regard and a royal document stated that:

> «It is worth of great consideration the discredit in which are the *juros* because, by not paying them fully, it is difficult to find someone willing to purchase them; and this is to Your Majesty's great detriment, having the *juros* been the means with which Your Majesty and the past kings had answered to precise needs» [1634-05-10] (Silva 1854, pp. 43-46).

[20] AHSCMP, *Série D*, *Banco 6*, Book 2, f. 2 [1687].

[21] AHSCMP, *Série D*, *Banco 8,* Book 6, f. 55 [1677].

[22] On the uncertainty regarding the Portuguese judicial system, see Reis (2011).

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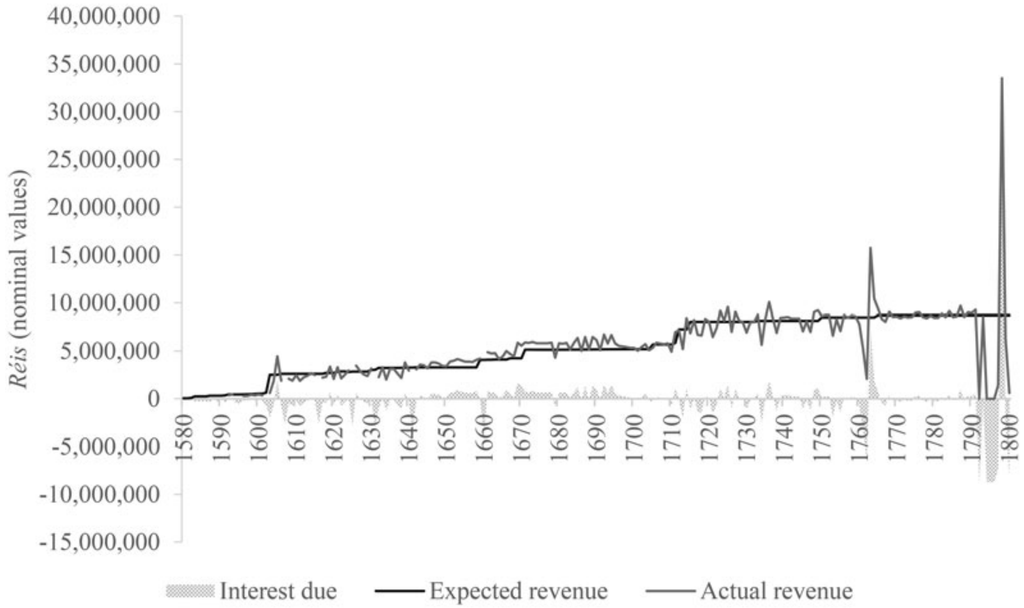

Figure 6. Debt service, 1580-1800.
Sources, note and references: As in Figure 1.

Additionally, between 1659 and 1665, not all *juros* were paid; mainly those consigned to the Porto Customs House, because their income had by then dried up due to «the lack of trade and fleets from Brazil that all go now to the city of Lisbon and due to the half dues it pays to the English nation for the capitulation of peace».[23] The irregularity of debt service from 1720 onwards was mainly caused by one *juro* consigned in salt from Setúbal. Shortly after its acquisition in 1711, the *Misericórdia* concluded that it was a ruinous investment because the annual interest was poorly paid, with frequent delays in part or total.[24] The 1790s were undoubtedly difficult years for the Portuguese monarchy and Figure 6 highlights the dire straits the crown was in on this matter. The non-payment of *juros* in the 1790s was not exclusive to the *Misericórdia* of Porto; other charities, such as Viana do Castelo (Ribeiro 2009, p. 397), Guimarães (Costa 1999, p. 121) and Lisbon faced the same trend. In 1792 and 1794-96, payments halted completely, and in the following years (except for 1798-99), the crown paid very little.[25] The reason for which payments stopped lies in the participation of Portugal, along with Spain, in the Roussillon Campaign (1793-95) against France, which required all available funds to finance the army (Costa 1992).

Contrary to what has been argued in the literature (North and Weingast 1989; Reinhart and Rogoff 2009), Portuguese monarchs, although absolutists, did not default on their financial commitments during the early modern period.[26] While delays in the payment of interest were common, and partial suspensions did occur, especially during the Iberian Union, there is no evidence that the Portuguese monarchs did not honour their financial obligations. Moreover, Figure 6 does not show any sharp suspension in the debt service that could justify the disinvestment of the *Misericórdias* in government bonds. In fact, defaults occurred long after the *Misericórdias* had stopped investing in sovereign debt in the mid-1710s. Hence, the investment behaviour of these confraternities was related neither to interest rates nor to the poor performance of the Portuguese crown in servicing public debt. The following section assesses the supply and demand of government bonds and their potential effects on the investments of the *Misericórdias*.

5. The supply and demand of government bonds and their effects

In this section, we look at the supply and demand of government bonds as a possible explanation for the demise of the *Misericórdias*' investments in sovereign debt by the mid-1710s. Towards the end of the 18th century, the *Misericórdia* of Porto owned thirty-three government bonds, corresponding to an annual revenue of approximately 7.3 million *réis* (Table 4). These figures are tiny when compared with those relating to the *Misericórdia* of Lisbon, which in the same period held 358 bonds, yielding c. 51.2 million *réis* per year (Rodrigues 2019b).[27] These two *Misericórdias* also differed in the way they made their acquisitions, in that most government bonds held by the Lisbon *Misericórdia* were the result of inheritances.

Table 4 demonstrates that the *Misericórdia* of Porto acquired most of its government bonds (26 = 79 per cent) in the market with the money from testators, as this was a standard way to increase its revenues. The first bonds owned by the confraternity were purchased on the secondary market. Between 1582 and 1600, six *padrões* were acquired,

[23] AHSCMP, *Série E*, *Banco 6*, Book 20, ff. 47-61 [1661].

[24] AHSCMP, *Série D*, *Banco 6*, Book 2, f. 42v; *Banco 8*, Book 6A, f. 79.

[25] A royal provision dated 29 October 1797 ordered the payment of due *juros* from 1793 to 1796. AHSCMP, *Série D*, *Banco 6*, Book 4, f. 96v [1797].

[26] Henriques and Palma (2023) argue that while Iberian political institutions worsened during the early modern period, those of England improved.

[27] The number of bonds increased sharply in 1775 due to the royal donation of all assets belonging to Jesuit confraternities after the Jesuits had been expelled by the marquis of Pombal in 1759 (Lopes 2008).

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Table 4. Forms of acquisition of government bonds by the *Misericórdia* of Porto, 1574-1800

	Nr of bonds	Sum of annual interest (million *réis*)	% Annual interest
Purchase	26	7,167	98
Inheritances	7	172	2
Total	33	7,339	100

Sources: ANTT, Chancelarias régias.

yielding 455,000 *réis*. After this date, the *Misericórdia* only obtained three *juros* in the secondary market, one in 1602 and two in 1692.

Investments in the market for government bonds did not always derive from the *Misericórdia*'s ruling boards, nor did they follow the donors' testamentary clauses. Lenders also engaged in the market following the monarchs' suggestion. Of the twenty-six public bonds purchased by the *Misericórdia*, eleven (42 per cent) were obtained after the king had proposed their acquisition. This is even more meaningful if we consider the scale of the investment: 79 per cent (5.8 million *réis*) of the revenues from government bonds derived from these «suggested» loans.

The crown started to propose the acquisition of bonds to the *Misericórdia* in the late 16th century as a means to transfer inheritances from *Estado da Índia* because the former needed money on location either to face war expenses or buy pepper to be shipped by the *Carreira da Índia* fleet (Figure 7). In 1598 and 1600, King Filipe II took 94,000 *cruzados* from the *Misericórdia* of Goa and Cochin to buy pepper. In 1603, the king recognised that the royal treasury «was unable to pay in cash», so a bond was delivered to the *Misericórdia* to pay the debt (a principal of 36 million *réis*).[28] In these cases, a bond was issued as a

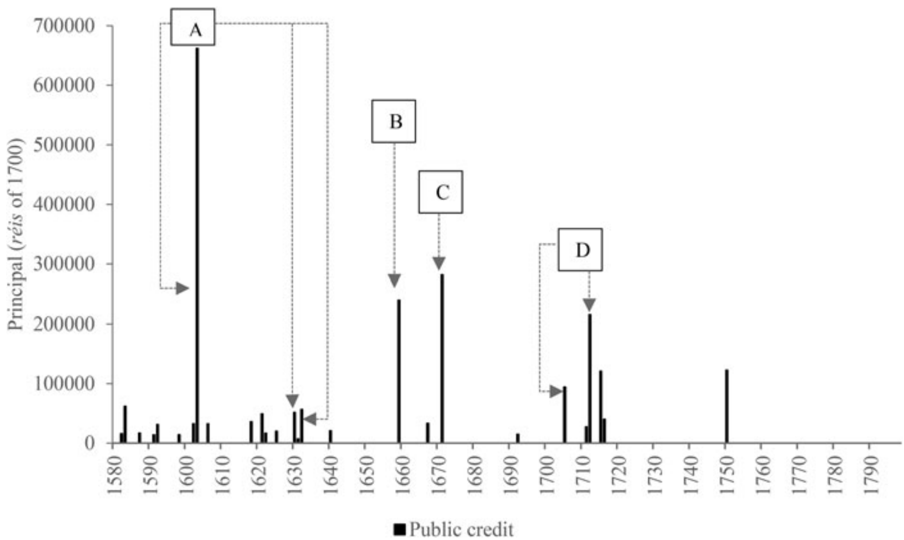

Figure 7. *Padrões de Juro* acquired by the *Misericórdia* of Porto, 1580-1800. (A) War expenses in *Estado da Índia*; (B) Restoration War; (C) embassy to Rome; (D) War of Spanish Succession.
Sources: As in Table 3. Deflator as in Table 1.

[28] ANTT, *Chancelaria de Filipe II*, *Doações*, Book 22, ff. 36-37v.

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means of payment, but not without the consent of the confraternity, which first deliberated on it and assessed the benefits of the king's proposal.[29]

During the Restoration War against Habsburg Spain and up to 1670, the crown's financial concerns moved back to Europe. In 1658, Queen Regent Luísa de Gusmão (1656-62), mother of future King Afonso VI (reign 1656-83), sent a letter to the *Misericórdia*, stating the «need for money and people» to halt the Castilian onslaught in the province of *Entre Douro e Minho*. The following year, the *Misericórdia* purchased two government bonds, an investment of 16 million *réis* (Araújo 2009). This operation represented a significant venture, all the more so because it corresponded to approximately twice the confraternity's annual budget (around 6.5 million *réis*). The financial contribution of the *Misericórdia* of Porto did not end with the ceasefire of the War of Restoration in 1668. Recognising Portugal's sovereignty and independence required sending an embassy to Rome. On this occasion, the confraternity delivered 16.4 million *réis* to the Royal Treasury after an intense exchange of messages with King Afonso VI. In a letter written in 1670, the king asked for the funds the *Misericórdia* had on deposit. He additionally suggested the confraternity to call in the principal of all loans it had advanced to individuals, an operation already conducted in 1659 (Araújo 2009). In other words, the *Misericórdia* summoned its private debtors to repay their debts.[30] The proceeds were gathered and loaned to the crown to help finance the embassy to Rome. This operation transferred 11.5 million *réis* from the private credit market to the market for sovereign debt.

At the beginning of the 18th century, the confraternity purchased its last two government bonds in 1705 and 1712, respectively. On both occasions, it financed the War of Spanish Succession that was being waged (1701-14). In 1712, the *Misericórdia* delivered the outstanding sum of 28 million *réis*, more than half of its annual income. The ruling board authorised the loan because:

> «there is no one [individual] who wants to take loans with the necessary securities, and those [loans] already advanced to private debtors experience delayed payments that it should be more convenient to invest all the money possible (…) in the acquisition of government bonds».[31]

After 1712, the *Misericórdia* did not purchase *padrões de juro* from the monarchy, as would happen with the *Misericórdia* of Lisbon in the 1780s (Figure 4). It remains, however, to be explained why monarchs stopped drawing on the coffers of the *Misericórdias* and other organisations, such as the Portuguese Inquisition (Lopes 2021, p. 304) from the early 18th century onwards. First, the crown's recourse to organisations it protected, promoted and founded should not be surprising. It is worth noting, however, that these organisations could—and did—refuse some of the crown's requests (Lopes 2021, p. 288), on the grounds that they had no savings or—most importantly—that their foundational objectives would be compromised if they agreed to the loans. Nevertheless, if they had the means, they often decided to invest as part of their long and personal relationship with the monarchy, not invalidating the existence of a secondary market for these bonds. Although it lacks confirmation, one can hypothesise that colonial revenues, mainly those from tobacco and Brazilian gold, positively affected royal finances. Consequently, monarchs might not have needed to resort, at least to the same extent, to surpluses from these institutional investors.

[29] AHSCMP, *Série D*, *Banco 8*, Book 3, f. 176.

[30] AHSCMP, *Série D*, *Banco 8*, Book 5, f. 529 [1670].

[31] AHSCMP, *Série D*, *Banco 8*, Book 6, f. 302v.

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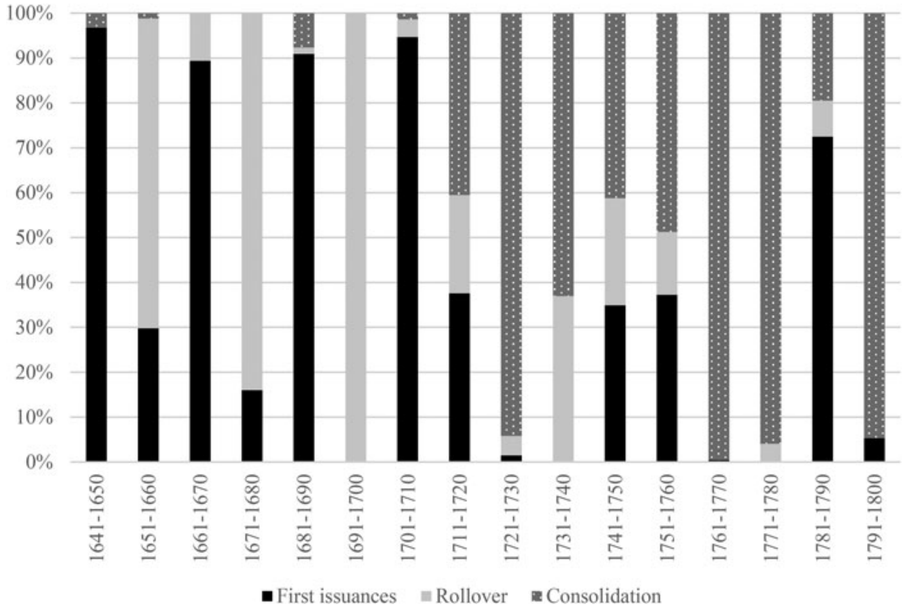

Figure 8. Sovereign debt structure, 1641-1800.
Sources: see Figure 5.

New data on the sovereign debt reveal that the Portuguese monarchy issued government bonds to raise funds to surrender the right to revenues until the early 18th century (Figure 8). However, from the 1720s onwards, debt was issued to meet other needs, mainly to consolidate short-term debt. It appears that the mid-1710s marked a new beginning for royal finances. On the one hand, the end of the Portuguese participation in the War of the Spanish Succession and the neutral position of the monarchs regarding other European conflicts must have alleviated royal expenditure and, consequently, the need to raise money through the issuance of public debt. On the other hand, Brazilian gold, discovered at the end of the 17th century, allowed an extraordinary revenue inflow. These two trends surely influenced the rationales for issuing debt and hence directly affected the social profile of bondholders.

The shift in the uses the Portuguese crown made of sovereign debt impacted how and who participated in the market for this financial instrument. The new bondholders were either *assentistas*, their relatives or individuals who somehow acquired debenture notes. As so, unless institutional creditors purchased debenture notes from *assentistas*, their participation in sovereign debt was limited to the secondary market, which, according to the currently available evidence did not appear to be very buoyant. Therefore, the demise of government bonds in the *Misericórdia*'s investment portfolio was not related to the lack of interest in this financial instrument but rather to the waning issuance of these titles for fundraising. Figure 8 also shows that, despite this shift in the use of government bonds, the crown issued debt in the 1740s and 1750s, but no *Misericórdia* participated in these fundraising campaigns. It seems that these charities had already begun to invest heavily in private loans (Figures 3 and 4), with no savings to channel into public debt. Moreover, the bonds issued in the 1740s and '50s only benefited from the participation of twenty-seven institutional creditors (especially monasteries) since most of the new bondholders were private individuals close to the private circle of the king, mainly the high nobility and judges.

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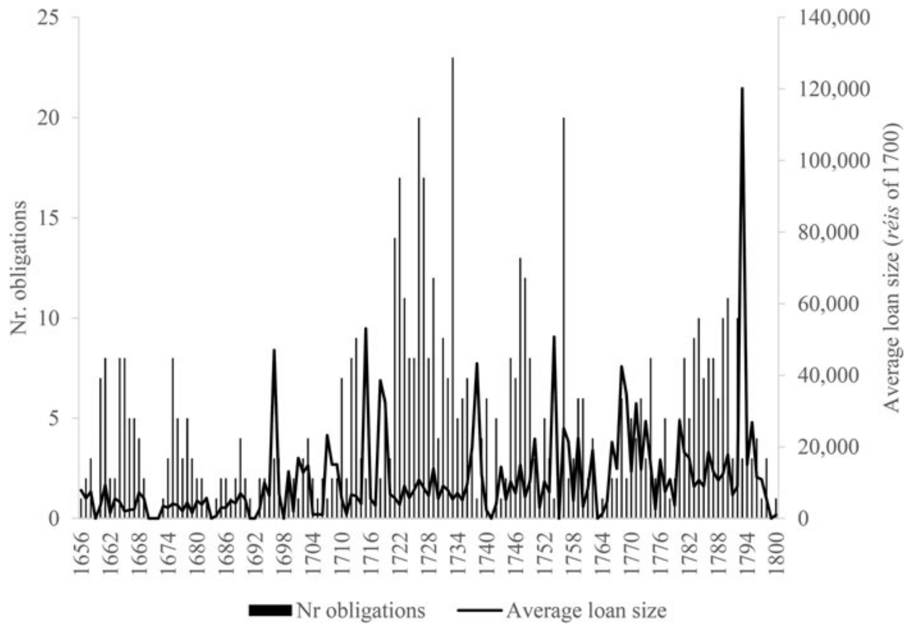

Figure 9. Annual distribution of the loans granted by the *Misericórdia* of Porto to private individuals, 1656-1800. *Sources*: see Table 3.

After the 1710s, the *Misericórdias* preferred to allocate their financial resources to short–medium (obligations) to the detriment of long-term private credit (*censos*). Lower interest rates charged in private perpetuities may explain this preference, as *censos* ran a 4.5–2.5 interest rate, while obligations were at 5 per cent (Figure 5). Moreover, one cannot rule out the hypothesis that the *Misericórdia* chose to keep its prerogative to claim the principal at its discretion after the maturity period elapsed. Between 1656 and 1800, the *Misericórdia* of Porto signed 660 obligations, amounting to 779 million *réis*.[32]

Figure 9 shows that except for the 1660s, when the *Misericórdia* signed fifty-one loans, the number of contracts was not significant until the early 18th century (119 contracts = 18 per cent). The charity would strengthen its participation in private lending during the first half of the century, signing 58 per cent (315) of all its obligations from 1700 to 1800. Portuguese scholarship has stressed the inbreeding nature of the private loans of the *Misericórdias*, where creditor and debtor were members of the confraternity and the impact of the high levels of social capital in the enforcement of these contracts.

The *Misericórdia* of Porto lent money at interest to all social strata (Table 5). Although almost a quarter of all debtors were craftsmen, followed by nobles and businessmen, the largest amounts were unsurprisingly lent to the latter two and to institutions that benefited from lower interest rates (3 per cent). The contracts' wording stated the maturity as 1 year, and prorated the length if the parties agreed, but the analysis of the redemption dates shows that these loans quickly became long-term agreements. As in other parts of Europe, loans were longer than the initial duration specified in the original contract, extensions being a response to increased uncertainty (Hoffman *et al.* 2019, p. 219). Maturities are known for 43 per cent of the 660 contracts, 33 per cent of which were

[32] By 1649, the confraternity had already invested 6.3 million *réis* in the private credit market, spread over 37 debtors. AHSCMP, *Série E*, *Banco 1*, Book 28.

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Table 5. Social profile of the debtors of the *Misericórdia* of Porto, 1656-1800

	Nr. obligations	% Nr. obligations	Loan size (*réis*)	% Loan size	Average loan size (*réis*)	% Average of loan size
Craftsmen	118	24.2	59,020,310	9.6	500,172	4.1
Nobility	80	16.4	205,136,016	33.2	2,564,200	20.8
Businessmen	65	13.3	112,889,233	18.3	1,736,757	14.1
Liberal professions	62	12.7	43,274,350	7.0	697,973	5.7
Women	52	10.7	62,958,000	10.2	1,210,731	9.8
Institutions	51	10.5	96,660,000	15.7	1,895,294	15.4
Military personnel	30	6.2	24,205,000	3.9	806,833	6.5
Administration personnel	14	2.9	8,080,000	1.3	577,143	4.7
Farmers	7	1.4	1,830,000	0.3	261,429	2.1
Servants	4	0.8	540,000	0.1	135,000	1.1
Transport personnel	3	0.6	1,050,000	0.2	350,000	2.8
Foreigners	1	0.2	1,600,000	0.3	1,600,000	13.0
Total	487	100.0	617,242,909	100.0	12,335,533	100.0

Note: 173 (26 per cent; 21 per cent of the total volume of credit) out of 660 contracts do not mention the occupation or the social status of the debtor.
Source: as in Table 3.

paid back within 5 years of the contract being signed, 23 per cent between 6 and 10 years and 45 per cent were reimbursed after 10 years (10 obligations lasted half a century and one was paid back 107 years after the contract had been signed). It is important to highlight two main features of these investments. First, the *juros* collected annually aimed to fulfil the *Misericórdia*'s charitable programme; however, as soon as the debtor repaid the principal, the brotherhood immediately lent the sum received again to a new debtor thus guaranteeing the circulation of the money (*andar a giro*) and the permanent fulfilment of its pious obligations. The second characteristic is that debtors occasionally asked the *Misericórdia* to reschedule the loan, to which the *Misericórdia* agreed, but not without asking for a reinforcement of the collateral. In other words, these investments were closely monitored by the confraternity and were sometimes redesigned if the parties agreed.

Although actual breaches of contract occurred, as happened in the case of the *Misericórdia* of Lisbon, it seems plausible that the *Misericórdia* would prefer to invest its funds in private contracts where it had the final word to call in the principal once the maturity date had been reached. Furthermore, obligations that turned into longer contracts remained an interesting investment if the borrower paid the annual interest in a fair and timely fashion (Grafe 2022). In the case of the *Misericórdia* of Porto, private loans seem to have fared quite well, as only a tiny fraction were in litigation (Amorim and Costa 2018). The social profile of the borrowers may partially justify this figure because, unlike Lisbon, the wealth of this charity did not seem to have been captured by the elite nor insiders.

6. Conclusions

Knowing the allocation of funds in different markets is critical for understanding how early modern markets operated. This study focused on the investments of the leading charitable institutions in Portugal—the *Misericórdias* of Lisbon and Porto—which were also major credit suppliers; it aimed to uncover the mechanisms underlying the distribution of savings of these institutional lenders in different segments of the credit market between 1550 and 1800. We began by exploring the credit instruments used in Portugal and framing the case study, offering an account of the *Misericórdias*' investment behaviour. Data show that in the early 18th century, a shift in these investors' preferences occurred. Whereas in the 16th and 17th centuries, the *Misericórdias* of Porto and Lisbon participated strongly in the market for government bonds, their investment behaviour changed in the 18th century. The *Misericórdias* suddenly stopped lending to the king in the 1710s and started channelling their financial resources to the private credit market.

Evidence shows that neither interest rates nor debt service justified this shift towards private lending. At the beginning of the 18th century, private and public interest rates were similar (approximately 5 per cent). Contrary to what the literature has indicated, Portuguese monarchs did not default on their financial obligations. A new series on debt service shows that interest from government bonds was fairly paid during the period under analysis. Except in the 1790s, when the king suspended payments due to the war, interest from government bonds was paid on schedule on most occasions.

The article also explored the debtors' side, looking at the supply and demand of government bonds. Investments in sovereign debt were of interest to the *Misericórdias* and considered a safe investment. Data suggest that changes in the purposes for which the debt was issued ultimately determined the disinvestment of these charities in the public credit market. While more research is needed to uncover the motivation for this shift, the neutral position of Portugal in the European conflicts and the new inflow of colonial revenues, particularly those from Brazilian gold and tobacco, must have positively impacted the royal finances. Within this context, monarchs might not have needed to resort to these institutional investors' surpluses, at least not to the same extent. Additionally, as the crown did not need funds to wage warfare or for other expenses, government debt was issued mainly to consolidate short-term debt. In these circumstances, institutional lenders such as the *Misericórdias* of Lisbon and Porto started to channel their financial resources into the private credit market. These charities preferred short–medium loans rather than private perpetuities not only because the price of credit was much more attractive, but also because obligations quickly became relatively long contracts that could be managed closely, suiting the *Misericórdias*' needs to finance their perpetual charitable obligations.

Sources and official publications

Arquivo Nacional da Torre do Tombo (ANTT)

Chancery books of:
- King João III, books 31, 36, 40, 53, 67, 71;
- King Sebastião and King Henrique, books 1, 3, 5, 7, 9, 11-14, 16-22, 26-27, 29-36, 38-39, 41, 43-46;
- King Filipe I, books 1-14, 16, 20-30;
- King Filipe II, books 1-5, 7-8, 11, 13-15, 19, 20-22, 24-25, 27-28, 30, 32-33, 37-38, 40-41, 44-45;
- King Filipe III, books 2, 4-10, 12-14, 19-21, 24, 27, 33-35;
- King João IV, books 1-9, 11, 14, 25;
- King Afonso VI, books 1-11, 13, 15-18, 38, 42, 47, 50, 52-53;
- King Pedro II, books 1-5, 7-11, 14-15, 20, 35;
- King João V, books 1-15, 17-21, 24-27, 35;
- King José I, books 8, 15, 17-23, 38-40, 58-60, 72-73;
- Queen Maria I, books 5, 8-10, 12, 15, 25, 31.

Arquivo Histórico da Santa Casa da Misericórdia de Lisboa (AHSCMLSB)

Gestão Financeira,
- Instrução da Casa, Balanço da receita e despesa da tesouraria geral da Santa Casa da Misericórdia … (1781-1801), Books 1-3.
- Despesa e Receita, Cofre (1766-1767), Book 1.

Arquivo Histórico da Santa Casa da Misericórdia do Porto (AHSCMP)

Série D, Banco 6, Books 2, 4; Banco 8, Books 1-8;
Série E, Banco 1, Books 1-41; Banco 2, Books 1-32; Banco 3, Books 1-28; Banco 6, Book 20;
Série H, Banco 8, Books 1-31.

Arquivo Histórico Municipal do Porto (AHMP)

Livro Próprias, Cofre, A-PUB/3476

Biblioteca Nacional de Portugal (BNP)

[Juro das alfândegas e almoxarifados do reino], PBA. 125.
Relação de gastos que a Santa Casa da Misericórdia de Lisboa fez este ano… (1693-…). Lisbon: Na Officina de Miguel Manescal.

Online Sources

Sovereign debt and private credit in Portugal (1668-1797) (PTDC/HARHIS/28809/2017) available at: www.debt.pt

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References

Abreu L. (1990) *A Santa Casa da Misericórdia de Setúbal de 1500 a 1755: Aspectos de sociabilidade e poder*. Setúbal: Santa Casa da Misericórdia.

Abreu L. (2002) As Misericórdias de D. Filipe I a D. João V, in José Pedro Paiva (coord.), *Portugaliae Monumenta Misericordiarum*. Lisbon: União das Misericórdias Portuguesas, Vol. 1, pp. 47-77.

Abreu L. (2003) Misericórdias: patrimonialização e controle régio (séculos XVI e XVII). *Ler História* 44, 5–24.

Álvarez Nogal C. (2009) *Oferta y demanda de deuda pública en Castilla: juros de alcabalas (1540-1740)*. s/l: Banco de España, Unidad de Publicaciones.

Ammannati F. (ed.) (2012) *Religion and Religious Institutions in the European Economy, 1000-1800*. Firenze: Firenze University Press.

Amorim I. (2006) Património e crédito: Misericórdias e Carmelitas de Aveiro (séculos XVII e XVIII). *Análise Social* 41(180), 693–729.

Amorim I. (2017) Economia terrena e economia da salvação: o financiamento das Misericórdias (1498-1834). In José Pedro Paiva (ed.), *Portugaliae Monumenta Misericordiarum*. Lisbon: União das Misericórdias Portuguesas, Vol. 10, 163–218.

Amorim I. and Costa P. (2018) Património e economia da salvação, in Maria Marta Lobo de Araújo and Helena Osswald (coord), *Sob o manto da misericórdia: Contributos para a História da Santa Casa da Misericórdia do Porto*. Porto: Almedina, Vol. II, 124–232.

Araújo M. M. L. de (2000) Dar aos pobres e emprestar a Deus: as Misericórdias de Vila Viçosa e Ponte de Lima (séculos XVI-XVIII). Barcelos: Santa Casa da Misericórdia de Vila Viçosa e de Ponte de Lima.

Araújo M. M. L. de (2009) As Misericórdias e a Guerra da Restauração: a contribuição financeira da Santa Casa do Porto, in Paula Sofia Costa Fernandes (coord.) *Actas das II Jornadas de Estudo sobre as Misericórdias*. Penafiel: Câmara Municipal de Penafiel, 287–300.

Araújo M. M. L. de and Paiva J. P. (eds) (2007) *Portugaliae Monumenta Misericordiarum*. Lisbon: União das Misericórdias Portuguesas, Vol. 6.

Avallone P. and Salvemini R. (2018) Between Charity and Credit: The Evolution of the Neapolitan Banking System (Sixteenth–Seventeenth Century). In Lilia Costabile and Larry Neal (eds), *Financial Innovation and Resilience*. Cham: Springer International Publishing, 71–93. https://doi.org/10.1007/978-3-319-90248-7_4

Azevedo J. L. (1988) *Épocas de Portugal Económico*, 4th edn. Lisbon: Clássica editora.

Basto A. M. (1964) *História da Santa Casa da Misericórdia do Porto*. Porto: Santa Casa da Misericórdia, Vol. 2.

Baguet J. Y. P. (2016) Social Change and Markets for Urban Credit: Political Elites as Investors in Urban Annuities in Sixteenth-Century Ghent. *Financial History Review* 23(3), 347–367. https://doi.org/10.1017/S0968565016000184

Carboni M. (2013) Converting Goods into Cash: An Ethical Approach to Pawnbroking in Early Modern Bologna. *Renaissance and Reformation* 35(3), 63–83. https://doi.org/10.33137/rr.v35i3.19523

Clark G. (2005) *The Interest Rate in the Very Long Run: Institutions, Preferences and Modern Growth*. London: Center for Economic Policy Research.

Collecção das leys extravagentes. Nova addição ao livro IV. (1747).

Costa M. J. B. A. (1961) *Raízes do censo consignativo: para a história do crédito medieval português*. Coimbra: Atlântida.

Costa F. D. (1992) Crise financeira, dívida pública e capitalistas (1796-1807). Lisboa: Universidade de Lisboa, Masters dissertation.

Costa L. F. and Miranda S. M. (2023) Reputational Recovery under Political Instability: Public Debt in Portugal, 1641-83. *The Economic History Review* 76(3), 871–891. https://doi.org/10.1111/ehr.13217

Costa L. F., Rocha M. M. and Brito P. B. (2018a) Os impactos do terramoto de 1755 no mercado de crédito de Lisboa. *Ler História* 72, 77–102.

Costa L. F., Rocha M. M. and Brito P. B. (2018b) The Alchemy of Gold: Interest Rates, Money Stock, and Credit in Eighteenth-Century Lisbon: Alchemy of Gold. *The Economic History Review* 71(4), 1147–1172. https://doi.org/10.1111/ehr.12610

Costa L. F., Miranda S. M. and Nogues-Marco P. (2021) Early Modern Financial Development in the Iberian Peninsula. *Geneva: Paul Bairoch Institute of Economic History, Working Paper 1/2021*. https://archive-ouverte.unige.ch/unige:147492

Costa A. F. S. (1999) A Santa Casa da Misericórdia de Guimarães (1650-1800): caridade e assistência no meio vimaranense dos séculos XVII e XVIII. Guimarães: Santa Casa da Misericórdia.

De Vijlder N. and Limberger M. (2014) Public or Private Interests? The Investment Behaviour of Public Officials in Antwerp During the Early Modern Period. *Financial History Review* 21(3), 301–326. https://doi.org/10.1017/S0968565014000237

Ena Sanjuán I. (2021) The Imperceptible Financial (r)Evolution of the Censo. *Investigaciones de Historia Económica* 18(1), 38–49. https://doi.org/10.33231/j.ihe.2021.06.001

Gelderblom O. and Jonker J. (2009) With a View to Hold: The Emergence of Institutional Investors on the Amsterdam Securities Market During the Seventeenth and Eighteenth Centuries. In J. Atack and L. Neal (eds), *The Origins and Development of Financial Markets and Institutions: From the Seventeenth Century to the Present*. Cambridge: Cambridge University Press, 71–98.

Gelderblom O. and Jonker J. (2011) Public Finance and Economic Growth: The Case of Holland in the Seventeenth Century. *The Journal of Economic History* 71(1), 1–39. https://doi.org/10.1017/S0022050711000015

Grafe R. (2012) *Distant Tyranny: Markets, Power, and Backwardness in Spain, 1650-1800*. Princeton; New Jersey: Princeton University Press.

Grafe R. (2022) La lección de las monjas: El sector crediticio colonial, la historia de género y una revolución historiográfica inacabada. *Working Paper European University Institute*, n.o 2.

Grafe R. and Irigoin A. (2013) Bounded Leviathan: Fiscal Constraints and Financial Development in the Early Modern Hispanic World. In D'Maris Coffman, Adrian Leonard, and Larry Neal (eds), *Questioning Credible Commitment: Perspectives on the Rise of Financial Capitalism*. Cambridge: Cambridge University Press, 199–227.

Gomes J. C. (1883) *Collecção de Leis da Dívida Publica Portugueza*. Lisbon: Imprensa Nacional.

Henriques A. (2020) Capital in a Frontier Economy: Portugal, 1230-1500. *Revista de Historia Económica/Journal of Iberian and Latin American Economic History* 38(1), 11–44. https://doi.org/10.1017/S0212610919000326

Henriques A. and Palma N. (2023) Comparative European Institutions and the Little Divergence, 1385-1800. *Journal of Economic Growth* 28, 259–294. https://doi.org/10.1007/s10887-022-09213-5

Hoffman P. T., Postel-Vinay G. and Rosenthal J.-L. (2019) *Dark Matter Credit: The Development of Peer-to-Peer Lending and Banking in France*. Princeton, New Jersey: Princeton University Press.

Karagedikli G. and Tunçer A. C. (2018) Microcredit in the Ottoman Empire: A Review of Cash Waqfs in Transition to Modern Banking. In Marcella Lorenzini, Cinzia Lorandini, and D'Maris Coffman (eds), *Financing in Europe. Evolution, Coexistence and Complementarity of Lending Practices from the Middle Ages to Modern Times*. Cham: Springer International Publishing, 239–268. https://doi.org/10.1007/978-3-319-58493-5_10

La Porta R., Lopes-De-Silanes F., Shleifer A. and Vishny R. W. (1998) Law and Finance. *Journal of Political Economy* 106(6), 1113–1155.

Lopes M. A. (2008) A intervenção da Coroa nas instituições de proteção social de 1750 a 1820. *Revista de História das Ideias* 29, 131–176.

Lopes B. (2021) Os pilares financeiros da Inquisição portuguesa (1640-1773). Évora: Universidade de Évora, PhD dissertation.

McCants A. (1997) *Civic Charity in a Golden Age: Orphan Care in Early Modern Amsterdam*. Urbana; Chicago: University of Illinois Press.

Milhaud C. (2018) Financial Repression as a Tool for Debt Management: Evidence from the Late-Eighteenth Century Spain. *HAL Id: Hal-01767927*.

Milhaud C. (2019) Interregional Flows of Capital and Information in Spain: A Case Study of the Theresian Carmelite Order. *Revista de Historia Economica—Journal of Iberian and Latin American Economic History* 37(1), 81–110. https://doi.org/10.1017/S0212610920000099

Monteiro N. G. (2003) *O crepúsculo dos grandes: a casa e o património da aristocracia em Portugal (1750-1832)*, 2nd edn. Lisbon: Imprensa Nacional-Casa da Moeda.

Muldrew C. (1998) *The Economy of Obligation: The Culture of Credit and Social Relations in Early Modern England*. New York: St. Martin's Press.

Munro J. H. (2003) The Medieval Origins of the Financial Revolution: Usury, Rentes and Negotiability. *The International History Review* 25(3), 505–562.

North D. C. (1990) *Institutions, Institutional Change and Economic Performance*. Cambridge: Cambridge University Press.

North D. C. and Weingast B. R. (1989) Constitutions and Commitment: The Evolution of Institutions Governing Public Choice in Seventeenth-Century England. *The Journal of Economic History* 49(4), 803–832.

Oliveira N. de (1991) *Livro das grandezas de Lisboa*. Lisbon: Vega.

Oliveira A. (2016) *A vida económica e social de Coimbra de 1537 a 1640. 3 vols*. Coimbra: Palimage.

Ordenações Filipinas. ([1985] 1603) Lisbon: Fundação Calouste Gulbenkian.

Paiva J. P. (ed.) (2013) *Portugaliae Monumenta Misericordiarum*. Lisbon: União das Misericórdias Portuguesas, Vol. 10.

Palma N. and Reis J. (2019) From Convergence to Divergence: Portuguese Economic Growth, 1527-1850. *The Journal of Economic History* 79(2), 477–506. https://doi.org/10.1017/S0022050719000056

Reinhart C. M. and Rogoff K. S. (2009) *This Time Is Different: Eight Centuries of Financial Folly*. Princeton, NJ: Princeton Univ. Press.

Reis J. (2011) The Portuguese Judicial System in the Nineteenth Century. Rules, Risks, and Judges. In Debin Ma and Jan Luiten van Zanden (eds), *Law and Long-Term Economic Change. A Eurasian Perspective*. Stanford: Stanford University Press, 277–299.

Ribeiro A. M. S. (2009) As práticas de caridade na Misericórdia de Viana da Foz do Lima (séculos XVI-XVIII). Braga: Universidade do Minho, PhD Thesis.

Rocha M. M. (1996) Crédito privado num contexto urbano: Lisboa, 1770-1830. Florence: European University Institute, PhD dissertation.

Rodrigues L. (2013) Os hospitais portugueses no Renascimento (1480-1580): o caso de Nossa Senhora do Pópulo das Caldas da Rainha. Braga: Universidade do Minho, PhD Thesis.

Rodrigues L. (2019a) O incumprimento do crédito no século XVIII: o caso da Misericórdia de Lisboa. In Bruno Lopes and Roger Jesus (eds), *Finanças, economia e instituições no Portugal moderno: séculos XVI-XVIII*. Coimbra: Imprensa da Universidade de Coimbra, 229–260. https://doi.org/10.14195/978-989-26-1638-4

Rodrigues L. (2019b) Os padrões de juro da Misericórdia de Lisboa, 1767-1797. *Ler História* 74, 137–160. https://doi.org/10.4000/lerhistoria.4730

Rodrigues L. (2019c) Debt Litigation and the Performance of Law Courts in Eighteenth-Century Portugal. *The Journal of Interdisciplinary History* 50(2), 237–264. https://doi.org/10.1162/jinh_a_01411

Rodrigues L. (2023) Financing Early Modern Misericórdias in Portugal and its Overseas Territories (1500-1800). In Isabel dos Guimarães Sá and Lisbeth Rodrigues (eds), *The Confraternities of Misericórdias and the Portuguese Diasporas in the Early Modern Period*. Leiden: Brill, 62–92. https://doi.org/10.1163/9789004547681_005

Sá I. G. dos (1997) *Quando o rico se faz pobre: Misericórdias, caridade e poder no império português, 1500-1800*. Lisbon: CNCDP.

Sá I. G. dos (2018a) *O regresso dos mortos: os doadores da Misericórdia do Porto e a expansão oceânica (séculos XVI-XVII)*. Lisbon: ICS, Imprensa de Ciências Sociais.

Sá I. G. dos (2018b) Património e economia da salvação. In Isabel dos Guimarães Sá and Inês Amorim (eds), *Sob o manto da misericórdia: contributos para a História da Santa Casa da Misericórdia do Porto*. Porto: Almedina, vol. 1, 155–214.

Serrão J. V. (1998) *A Misericórdia de Lisboa: quinhentos anos de história*. Lisbon: Livros Horizonte.

Shammas C. (2020) Tracking the Growth of Government Securities Investing in Early Modern England and Wales. *Financial History Review* 27(1), 95–114. https://doi.org/10.1017/S096856501900026X

Silva J. J. A (1854) *Collecção Chronologica da Legislação Portugueza*. Lisbon: Imprensa de J. J. A. Silva. Bibliography.

Smith E. (2021) The Social Networks of Investment in Early Modern England. *The Historical Journal* 64(4), 912–939. https://doi.org/10.1017/S0018246X2000045X

Sussman N. (2022) Financial Developments in London in the Seventeenth Century: The Financial Revolution Revisited. *The Journal of Economic History* 82(2), 480–515. https://doi.org/10.1017/S0022050722000134

Teeuwen N. M. (2014) Generating Generosity. Financing Poor Relief Through Charitable Collections in Dutch Towns, c. 1600-1800. Utrecht: Utrecht University, PhD dissertation.

Toboso Sánchez P. (1987) *La deuda publica castellana durante el antiguo regimen (juros) y su liquidation en el siglo XIX*. Madrid: Inst. de Estudios Fiscales.

Tomaz F. (1988) As finanças do Estado Pombalino, 1762-1776, in *Estudos e Ensaios em homenagem a Vitorino Magalhães Godinho*. Lisbon: Sá da Costa, 355–388.

Tracy J. D. (1985) *A Financial Revolution in the Habsburg Netherlands: Renten and Renteniers in the County of Holland, 1515-1565*. Berkeley, Los Angeles, London: University of California Press.

van Bavel B. (2022) Wealth Inequality in Pre-Industrial Europe: What Role Did Associational Organizations Have?. *The Economic History Review* 75(3), 643–666. https://doi.org/10.1111/ehr.13137

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