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ANATOMY OF A PREMODERN STATE¹

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Abstract

We provide a blueprint for the construction of historical state capacity measures for premodern states, which has several advantages over the state of the art. First, we argue that nominal GDP is the best deflator for state revenues. Second, expenditure patterns have to be considered in order to assess changing state capacity. Third, we argue that local-level revenues matter when establishing state capacity, even if their overall contribution appears small. As an application, we tackle the controversial case of Portugal (1367–1844) and show that the country had a relatively high comparative fiscal capacity and its state capacity increased over time as military expenses rose, whereas redistribution favoring the elites and the royal household decreased. This means that state capacity was not an issue in Portugal’s dismal economic performance.

Keywords: state capacity, fiscal capacity, premodern economic growth, Portugal

JEL codes: H20, N43, O23.

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1. Introduction

State capacity is a proximate cause of why some societies have better economic performance than others (Besley and Persson 2011; Dincecco 2017). The insight that countries with states lacking resources fail to develop has been confirmed in a variety of historical studies.² Nevertheless, measuring state capacity for premodern economies is not trivial, especially when data limitations are severe. Our paper serves two main goals. First, it proposes new methodologies for comprehensively measuring historical state capacity, adding to the pathbreaking work by Karaman and Pamuk (2010, 2013). Second, it illustrates the gains of the proposed methodology by analyzing the case of Portugal.

Research on state capacity is typically based on shortcut methods in which the key variable is studied via a proxy: the volume of state revenues (or expenses). Leaving aside the issue of the deflators used for a moment, fiscal capacity does not necessarily translate into high state capacity. Although significant, the size of the budget is not a reliable proxy for state capacity since expenditure can instigate very different outcomes: states can use revenues to build further palaces or appoint new judges. Historically, rising fiscal capacity is often explained by increasing military involvement. European military confrontation of the late seventeenth and eighteenth centuries led states to increase their revenues (O'Brien 1988; Brewer 2002; Parker 1996). However, there is no good reason to believe that this translated into better access to public goods or state services if most of this increased receipt were diverted to pay for luxuries such as palaces. Expenditure patterns matter in measuring actual state capacity.

The measurement of state capacity typically concerns aggregate revenues. While this is an understandable choice, the structure of the revenue also matters. In fact, as Bonney (1999, p. 10) hints, states financed by resources raised primarily outside their territory had lower incentives for state building in the homeland. In such a setting, the argument goes, states whose finances relied on tribute or colonial revenues rather than on taxes are marginally less prone to create genuine state capacity.

Likewise, no historical analysis of state capacity can be made without close consideration of a typically neglected agent, which was a major provider of public goods:

² Key references include Epstein (2000), O'Brien (1988), Brewer (2002), Besley and Persson (2011), and Karaman and Pamuk (2010, 2013).

local governments. Being closer to the populations they purported to serve, local authorities, although not formally accountable, had to deal with tighter budget constraints and scrutiny. Despite the small size of their budgets, municipal governments were a major builder of state capacity in their role as providers of public goods. Given their higher level of accountability relative to the central state, municipal decisions in taxation and spending potentially enjoyed a higher degree of legitimacy.

These four issues—the non-coincidence of the measures of fiscal and state capacity, the pattern of the expenditure, the share of non-tax revenues, and the role of local governments—demand more ambitious methodologies for measuring and comparing historical state capacity. This paper addresses these issues by building more robust measures of state capacity, which have several advantages over the current state of the art. We concentrate on Portugal as a case study to illustrate the insights that can be gained from considering a set of state capacity measures that go beyond the conventional option of using only central government revenues per capita deflated by nominal wages, as in the pioneering work of Karaman and Pamuk (2013). Although absent from the existing international fiscal capacity comparisons (Karaman and Pamuk 2013), the case of Portugal illustrates some limitations of the currently existing methodologies. Our analysis of this case will also test the oft-repeated claim in the literature that Portugal was beset by low state capacity and, accordingly, condemned to a dismal economic performance (Justino 1986; Tilly 1992, Hespanha 1994, 2013; Yun-Casalilla 2018). The alleged reason for the low state capacity was that the Portuguese Crown was dependent on colonial revenues and consequently the leaders, like today's oil-exporting countries, lacked the incentive to tax (Tilly 1992, p. 21).³ Such statements, however, are still to be tested systematically using the full range of available sources over time.

In this paper we build a new historical database, including data on expenditure patterns and on the size and role of the municipal arguments, from the earliest aggregate data to the Napoleonic Wars. We also include data on the share of imperial revenues.

³ Tilly's claim rests on assumptions about the size of colonial revenues which do not correspond to the historical record. The empire in fact had a marginal weight in Portugal's economy during the sixteenth century (Costa et al., 2015), even though it was important for state revenues during part of that century. See Henriques (2008) and Costa et al. (2015) for evidence which contradicts Tilly's claims with respect to Portugal. The outcome predicted in Tilly's argument (i.e., that Portugal lacked representative institutions, except the "Lisbon municipality") is also factually incorrect (Henriques and Palma 2022). Portugal eventually faced a resource curse, but only in the eighteenth century when it was dependent on Brazilian gold rather than colonial revenues (Palma 2020; Kedrosky and Palma 2021).

With this data, we show that comparative fiscal capacity evidence does not support the interpretation that early modern Portugal (comparatively) lacked fiscal capacity. Likewise, we show that imperial revenues only mattered for state finances during some specific periods. Our analysis also indicates that the expenditure patterns evolved towards the provision of public goods and that local governments had a complementary role in building up overall state capacity. Since Portugal did not lack state capacity, the causes for its eventual development failure must lie elsewhere.

2. Measuring Leviathan

Weak states fail to create conditions for development.⁴ In eighteenth-century France, for example, local interests disguised as “liberties” meant that an inefficient tax system persisted and land could not be expropriated so that public goods could be constructed—unlike in England, where parliament had, and exerted, the power to expropriate (Rosenthal 1990; Bogart and Richardson 2011; Cox 2016).⁵ States needed sufficient revenues to provide public goods such as national defense and courts, which in turn contributed to internal stability and market development. Confirming the symbiotic relationship between state capacity and growth laid out by Epstein (2000), Bogart et al. (2010, p. 94) write that, “in Europe more power seems to have allowed central governments to promote economic change and market integration.”

State capacity in Western Europe showed a clear increase over the early modern period and, though it, this region markedly diverged from the rest of Eurasia, notably Poland, Russia, the Ottoman empire, and China (Brandt et al., 2014, pp. 70–1). In the mid-seventeenth century, Netherlands and England attained higher levels of fiscal capacity than the other Western European powers (except for tiny Venice).

Much of the literature considers that at the heart of Portuguese (supposed) absolutism stood an overreliance on colonial revenues going back to the sixteenth century; its wealth constituted a disincentive to develop a functional tax system (Tilly 1992, p.

⁴ See Schumpeter (1918, 1934), O’Brien (1988), Brewer (2002), Rosenthal (1990), and Epstein (2000) for foundational contributions to the state capacity literature, and Dincecco (2017), Besley and Persson (2011) and Johnson and Koyama (2014, 2017) for more recent contributions.

⁵ This “weak state” view of development failure has been also proposed for many other regions such as historical Spain (Grafe 2012), Poland (Malinowski 2019), the Ottoman Empire (Karaman and Pamuk 2010, 2013), and China (Brandt et al., 2014). For contrary evidence in the case of Spain, see Cermeño and Santiago-Caballero (2020) and Marichal (2007).

62; Yun-Casalilla 2019, p. 262). For example, Tilly (1992, pp. 124–5) writes that “Spain and Portugal escaped the civilization of government by drawing on colonial revenues for a major share of military expenditures ... Spain and Portugal anticipated ... the situations of many contemporary Third World states in which military men hold power.”⁶ Likewise, Yun-Casalilla (2019, pp. 36, 48, 261–2, 401), writing about Portugal until the early seventeenth century, claims that vast imperial revenues took away incentives for developing a tax state.

There is no dearth of analyses of early modern Portuguese finances (Godinho 1978; Hespanha 1994; Silva 2004; Carrara 2011; Oliveira 2013; Hespanha 2013). These analyses saw as the major shortcomings of the fiscal system the rigidity of the tax structure, which had to be compensated by a structural reliance on the empire and on revenues from the country’s intense maritime trade (Hespanha 1994, p. 142–3; Silva 2004, p. 246). In spite of few and contradictory international comparisons (Silva 2004, p. 240; Hespanha 2013), the influential historian A. M. Hespanha went on to claim that Portuguese fiscal capacity was one of the lowest in Europe (Hespanha 2013, p. 29).⁷ Following these authors, Cardoso and Lains (2010, p. 251) conclude that “[i]n the beginning of the nineteenth century Portugal ... [had] a relatively weak state.”

In this paper we expand the analysis of Portuguese state revenues to include a wider timespan from the earliest reliable quantitative data (Henriques 2009) to the period in which the liberal regime struggled to create a new fiscal system (Cardoso and Lains 2010). Like our predecessors, we cannot draw from complete series, but rather from a few benchmark years for which there is a comprehensive account of the revenues. The type of sources that we use for the numerator, concerning central government revenues, is illustrated in Figure 1. After a considerable effort in source collection and source criticism, it was possible to include a few additional data points from the early modern period, unknown by the authors mentioned. We also distinguished between imperial and non-imperial revenues and include this distinction in our analysis.⁸ Details on these sources can be found in Appendix A.

⁶ Tilly (1992, pp. 21, 62) likewise claims its outsized empire led to Portugal to become like today’s oil-exporting countries where, thanks to colonial revenues, leaders do not need to tax the public.

⁷ According to Hespanha (2013), the royal claims of being “absolute” monarchs were at odds with the instruments at the disposal of the monarchy.

⁸ See Appendix A1 for a detailed explanation of the criteria and methods used for this distinction.

Figure 1. The 1511 *estado da fazenda*. This document contained the assignment of the ordinary expenditure in the predicted revenues for a fiscal year. This is the earliest surviving original.



In Table 1, we compare Portuguese fiscal capacity with the now-familiar measure developed by Karaman and Pamuk (2013): day wages for unskilled workers.⁹ Deflated by the per capita wages, Portuguese fiscal capacity appears comparatively high. If we refer to the 1750–1799 period, when the Little Divergence was already well advanced and for which we can compare the whole panel, Portugal had robust comparative fiscal capacity. In the eighteenth century, imperial revenues allowed for a fiscal capacity inferior only to the Dutch Republic. Even without the empire, Portugal's fiscal capacity would have been on the level of Spain, France, and Austria and well above the Eastern empires. The Portuguese high state capacity was not, like Prussia's, the result of a steep rise in overall revenues, but instead a structural feature of the country since the fourteenth century.¹⁰

⁹ In the cases when taxes were collected via tax farming, we are counting the value of the contract, i.e., what was received by the Crown (i.e., we do not include the margin for the tax farmer). The income tax (*décima*) was not collected via tax farming. In Appendix A, we discuss the nature of the sources in detail, as well as our methodological choices, including the definition of which revenues count as imperial.

¹⁰ For the period from 1850, which we do not cover in this paper, see Esteves (2005).

Table 1. Per capita government revenue in day's wages for unskilled workers

	Dutch Republic	Portugal (with empire)	Prussia	Venice	England	France	Austria	Portugal (without empire)	Spain	Rus- sia	Ottoman empire	Poland- Lithuania	China
1500–49	-	9.4	-	10.4	1.5	2.6	-	4.4	3.0	-	-	0.8	-
1550–99	-	7.3	-	9.5	2.7	3.2	-	4.3	4.0	-	1.7	0.4	-
1600–49	12.0	8.4	-	7.5	2.6	3.0	-	5.5	7.2	-	1.4	0.5	-
1650–99	13.6	8.1	2.0	10.6	4.2	8.0	2.6	7.8	7.7	-	1.7	1.3	-
1700–49	24.1	13.6	6.6	12.7	8.9	6.7	6.3	10.2	4.6	4.4	2.6	0.6	2.3
1750–99	22.8	14.8	14.1	13.2	12.6	11.4	11.3	11.2	10.0	7.6	2.0	1.7	1.3
1800–49	-	13.0	-	-	13.5	14.3	10.2	12.7	8.6	6.2	5.0	-	1.2

Sources: For China, Brandt et al. (2014, p. 69); for pre-1500 England, revenues from Ormrod (n.d.), Hunt and O'Brien (n.d.), nominal wages from Clark (2005), and population from Broadberry et al. (2015). For all others except Portugal, Karaman and Pamuk (2010), with 1500–1799 data presented in 50-year rather than 10-year intervals, following Brandt et al. (2014). We have updated Russia, and also added 1800–49 values using data kindly provided by Kivanç Karaman. Portugal's fiscal revenues from the present paper (averages within periods). Portugal's population until 1527 from Henriques (2022) and 1527–1849 from Palma et al. (2020). The sources for revenues and methodological details are given in detail in Appendixes A and B.

Note: the columns are ranked according to the level of fiscal capacity in the 1750–1799 period.

Table 2 illustrates, however, some limitations of using the nominal wage to deflate revenues. England's fiscal capacity, in particular, appears lower than expected, especially after the second half of the seventeenth century, when parliamentary legitimacy allowed for increased volume and scope of taxation and economic growth and structural change occurred (Broadberry et al., 2015; Wallis et al. 2018; Humphries and Weisdorf, 2019; O'Brien 1988), as occurred in the Dutch Republic.¹¹ England's relatively high—and growing—wages excessively deflate revenues.¹² This suggests the need to consider alternative measures. The well-known “respectability basket” designed by Allen (2001) provides a useful alternative, given that the deflator is not affected by forces specific to each country's labor market. The comparison is done in Table 2.

¹¹ An alternative to a simple wage would be the wage of public servants such as clerks (*notários de administração, escrevães*). But we opted not to use these as an alternative because their income, in addition to a salary, included many benefits (*propinas*) which varied widely across the country and could exceed the salary by more than 40%.

¹² England's nominal wages were particularly high by international standards, especially from the second half of the seventeenth century (Allen 2001). Using a different methodology and focusing on annual wages, Humphries and Weisdorf (2019) find evidence of persistently growing English wage income from the mid-seventeenth century.

Table 2. Per capita government revenue in Allen respectability baskets

	Dutch Republic	England	Portugal (with empire)	France	Spain	Ottoman Empire	Poland-Lithuania
1500–49	-	2.8%	6.9%	3.4%	4.4%	-	0.9%
1550–99	-	4.2%	9.3%	3.2%	4.7%	1.8%	0.5%
1600–49	17.8%	3.3%	7.1%	2.9%	6.8%	1.4%	0.6%
1650–99	17.9%	5.7%	5.3%	6.4%	5.7%	2.0%	1.4%
1700–49	38.4%	16.9%	10.7%	5.8%	4.5%	2.5%	-
1750–99	40.3%	20.0%	10.2%	9.5%	8.3%	2.5%	-
1800–49	45.5%	26.0%	8.8%	12.4%	7.4%	-	-

Sources: for the numerator, Karaman and Pamuk (2013), except for Portugal (this study); for the denominator, Allen (2001), except for Portugal from Palma and Reis (2019).

The two tables agree that Portuguese fiscal capacity was well within Western European levels. The empire contributed to reinforce Portuguese finances but, even without it, fiscal capacity appears not to have been a factor in the country's dismal growth performance. Nevertheless, commodity baskets also have some shortcomings, as they are affected by relative prices that can lead to underestimating the fiscal capacity in the most advanced economies. Thus, in Table 3, we consider the nominal revenues deflated by nominal GDP. Although this is the standard measure for present-day analysis, data for historical periods is harder to come by, as most of the national accounts reconstructions aim at estimating GDP per capita rather than GDP. The data starts in 1500, given that GDP reconstruction for earlier periods is still lacking. Table 3 shows that England's fiscal capacity became superior to that of Portugal since the mid-seventeenth century, and the gap widened in the eighteenth century, a result that is more consistent with the qualitative historical evidence (e.g., Brewer 2002; O'Brien 2011).

Table 3. Central state revenues deflated by nominal GDP

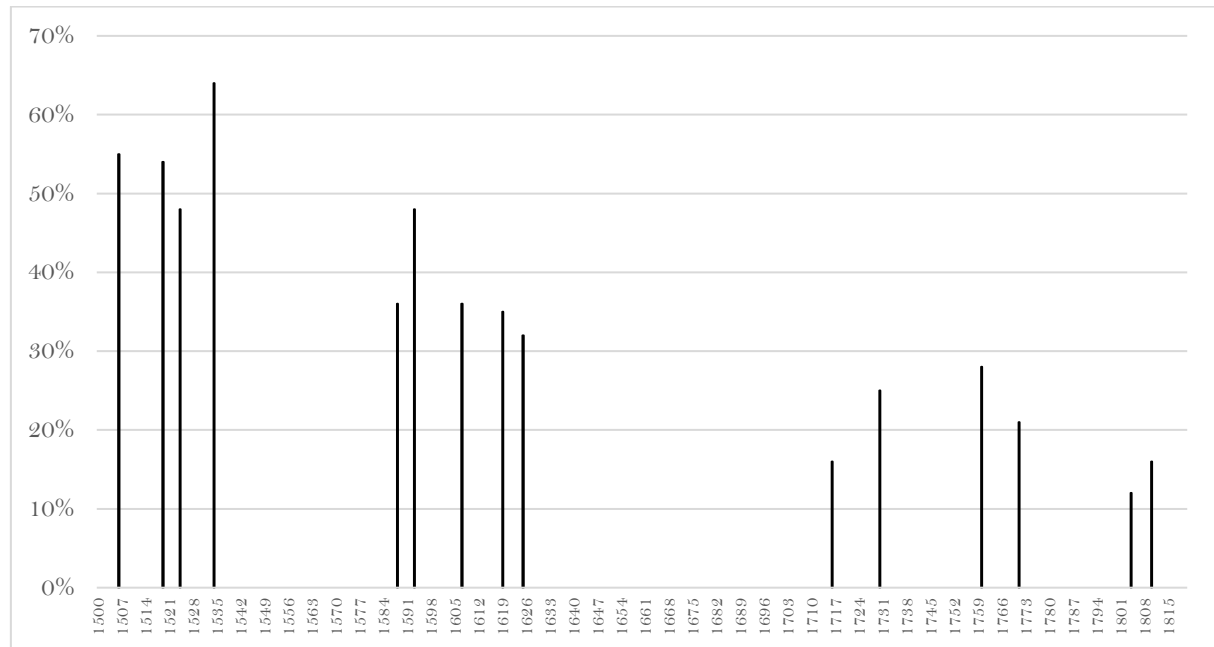
	Portugal		England
	Central revenue including empire / nominal GDP	Central revenue excluding empire / nominal GDP	Central revenue / nominal GDP
1500–49	2.0%	0.8%	2.6%
1550–99	1.3%	0.8%	1.7%
1600–49	1.7%	1.3%	1.5%
1650–99	2.2%	2.0%	2.8%
1700–49	5.2%	4.1%	5.7%
1750–99	4.7%	3.6%	6.6%
1800–24	5.1%	4.5%	11.1%

Sources and notes: Portugal: from the present paper. Column 3 uses the revenue level of 1665 from O’Brien (1988) and the revenue growth indexes from Hunt and O’Brien (1995), deflated by the nominal GDP from Broadberry et al. (2015). Portugal’s nominal GDP comes from the nominal GDP index in Palma and Reis (2019), applied to the baseline 1850 value from Reis (2002).

The assertion that Portugal had a relatively high fiscal capacity until at least the early nineteenth century is robust to the three measurements employed here. Likewise, the breakdown of imperial versus non-imperial revenues shows that the relatively high levels of fiscal capacity are not explained by the contribution of the empire. Imperial revenues were, nonetheless, important to keep up with England. Table 3 shows that without imperial revenues, Portuguese fiscal capacity would have been considerably lower than that of England. The provocative sobriquet that Francis I of France chose for Portugal’s King Manuel I (the *roi épicier*, i.e., the “spicer king”; Subrahmanyam 2012) was not entirely misguided as crown revenues of a colonial nature—especially the pepper trade—were a major contributor during the first half of the sixteenth century, as Figure 2 shows. This might have led historians to consider that the overseas possessions underpinned Portuguese government revenues. And yet, Portugal’s fiscal dependence

on its colonies lasted only a few decades in the sixteenth century plus some more in the eighteenth as it was not exceptional from a comparative perspective.¹³

Figure 2. Imperial revenues as a percentage of central revenues



Sources: Appendixes A and B.

Note: We are relying on the benchmark years for which there is available empire data. Due to source limitations, imperial revenues for 1681 do not include the Eastern trade, which was by then relatively small (Hanson 1981, p. 214). See Appendix A for details.

It is also worth noting that the weight of imperial revenues over total central revenues declined over time: from more than 50% in the first half of the sixteenth century, to only 15% by the early eighteenth century (see Figure 2). The share increased to around 25% in the middle decades of the eighteenth century, but then decreased again to 10–15% by the early nineteenth century. This evolution contradicts the claim that the imperial expansion arrested the development of the domestic fiscal system (Tilly 1992; Amaral 2012).¹⁴ Permanent, kingdom-wide, universal taxes like the *sisas* (from 1387 onwards) and the *décima* (from 1641 onwards) testify that the central government was able to create a tax state (Henriques 2014; Silva 2004), not to mention the

¹³ It should be noted that imperial revenues also contributed to increase state capacity in the other economies. For example, net transfers from the East Indies accounted for more than 50% of total Dutch government revenues around the mid-nineteenth century (De Zwart et al., 2021).

¹⁴ As noted by Amaral, Portuguese historiography typically insists that “[During] the Portuguese *Ancien Régime* ... [T]he largest share of the Crown’s income originated outside the economy of metropolitan Portugal” (Amaral 2012, p. 30; see also p. 36–38).

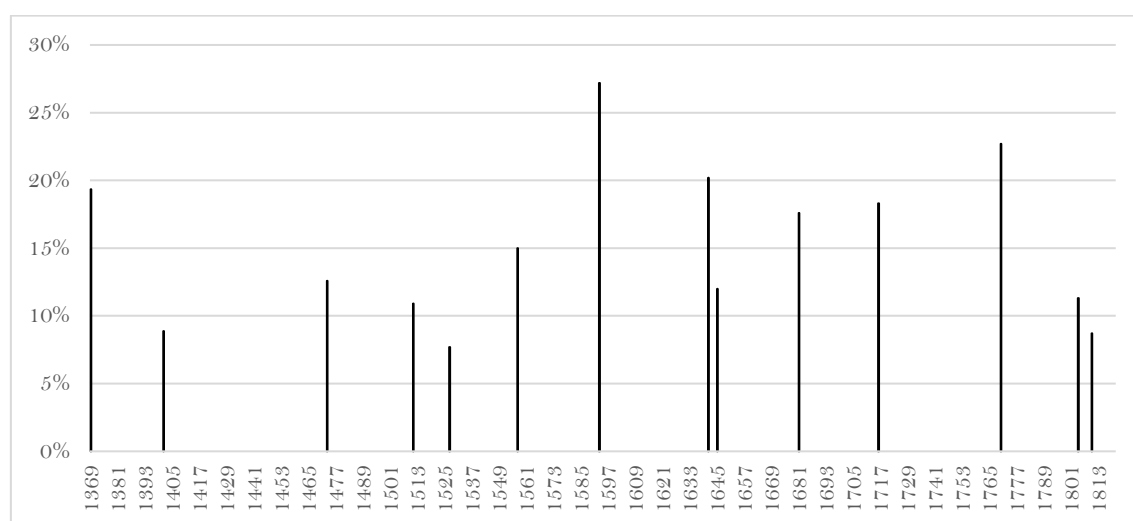
enlargement of the tax base under foreign rule (1580–1640). An immediate conclusion is that the relative importance of imperial revenues with respect to total central revenues was not closely related to the total size of overseas trade over time, which was only large relative to the size of Portugal's economy during the eighteenth century (Costa et al., 2015).

The fiscal capacity of Portugal hence did not entirely rest on colonial revenues and monopolies, unlike frequently claimed. Since the late fourteenth century, the Portuguese state obtained three-quarters of its revenue from domestic sales taxes (Henriques 2009). Even though this situation changed briefly during the sixteenth century, when colonial revenues crept in, and for a more prolonged period over some of the eighteenth century, a strong dependence on colonial revenues cannot be considered the default situation of Portugal over the entire period covered here.

In Figure 3, we additionally consider Portugal's custom revenues as a share of the kingdom's revenues in the long run (1367–1810). Customs potentially matter because, like the empire, their major volumes may be regarded as a strong disincentive to develop new taxes and effective institutions (Godinho 1978). Hespanha (1994, p. 142–3) claims that the Crown did not fiscally depend on domestic economic activity. The analysis of the weight of customs in the overall central revenues finds some difficulties, as customs are seldom aggregated with the overall receipt of a fiscal district (*almoxarifado*) or merged with different revenue streams. Nevertheless, here we use the revenues of Lisbon since the capital's customs towered above the rest. Customs other than Lisbon constituted a comparatively marginal revenue since the fourteenth century: in 1473 the yield of the Lisbon custom was twice that of all other customs of the realm, whereas in 1588 this ratio grew to five; finally, in 1716, the revenues of Lisbon's customs were 3.5 times those of all other national customs (Santarém 1844; Macedo 1982).¹⁵

¹⁵ Note that we do not include the revenues of overseas customs because such revenues were negotiated and spent locally and hence cannot properly count as central revenues. For the case of customs of Brazil, see Sampaio (2003).

Figure 3. Custom revenues as a share of the revenue of the kingdom, 1367–1810



Sources: Appendixes A and B.

Note: Custom revenues include customs proper (*alfândega*), which existed since the thirteenth century and tapped imported goods, and, from the 1590s onwards, an additional tax (*consulado*), which consisted of a surcharge on the value of the customs payment, paid. See the Appendix for details.

As Godinho (1978) and others realized, the customs of Lisbon were at times an important source of revenue for the monarchy. However, their importance varied considerably over time. When state finances were reliant on a new tax like the *sisá* (since 1387) and the *décima* (since 1641), the weight of their contribution decreased. As such, the ample liquidity awarded by the country's burgeoning trade did not deter the emergence of new taxes. Overall, the evidence analyzed in this section shows that Portuguese state capacity was not a factor in the dismal performance of the Portuguese economy since the late eighteenth century (Palma and Reis 2019).

3. Expenditure

“We all ought to pay taxes because the king undertakes the defense of the homeland and protect us from enemies and thieves, maintains peace and justice among men, builds and repairs fortresses,” thus wrote the chaplain of King Manuel I in a 1496 treatise (Rebelo 1951). While this was an ideal portrait rather than an exact reading of the expenditure side of the budget, it reflects the widely held assumption that taxes served common purposes rather than the personal expenses of the monarch. Answering municipal criticism about the burden of taxes in the 1498 *Cortes*, the provocative Manuel I

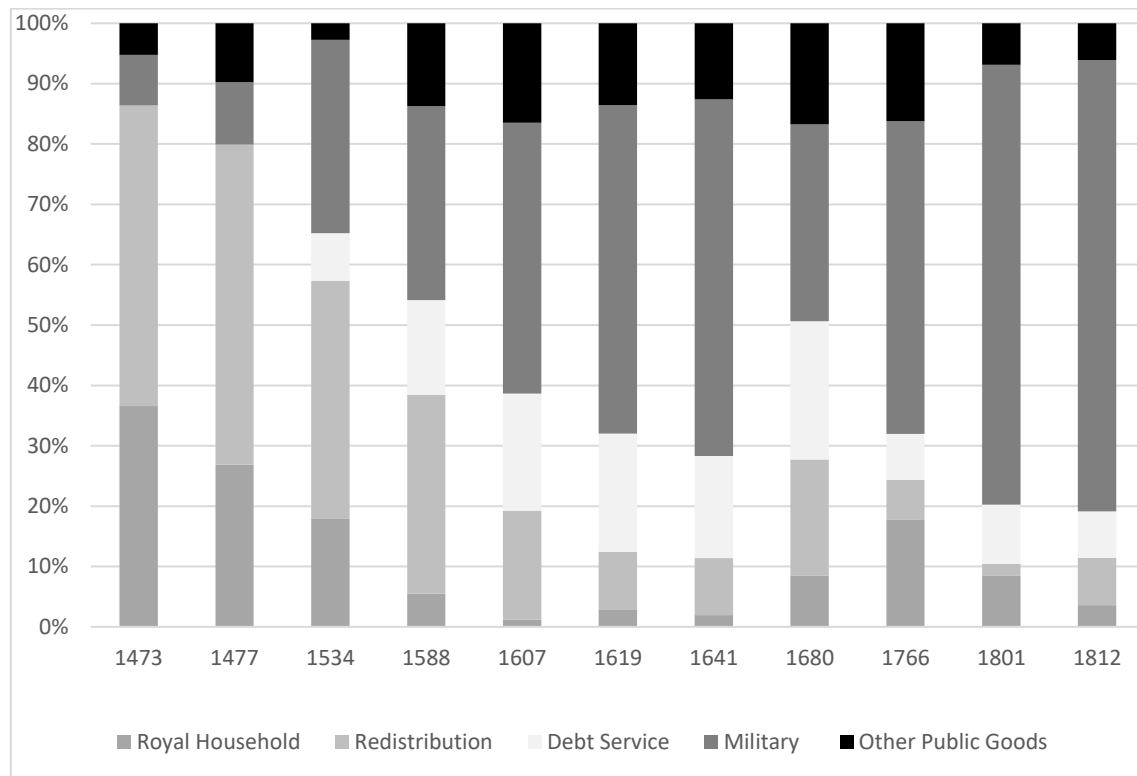
replied that “if the crown let them go, you would beg me to be reinstate them” (Henriques 2009, p. 264).

In addition to measuring government revenues, it also makes sense to analyze expenditures. Rulers that spend revenues building palaces or engaging in negative-sum dynastic wars are not using tax funds to provide for public goods and the promotion of economic growth. With their revenues, rulers could fund public goods—such as roads—or their own conspicuous consumption, such as palaces. In other words, fiscal capacity measures concern inputs, not outputs or their efficiency. Hence, a comparative analysis of the concentration of resources available to the state does not directly translate into the provision of public goods as commonly understood.

In this section we break down the structure of central public expenditures (Figure 4). In this analysis, it is paramount to obtain comparable categories of expenditure that can be estimated with the accounting system found in the available sources. We follow a functional analysis, using categories that can be aggregated by adding the respective agencies. This allowed us to disaggregate the expenditure into meaningful categories. Two categories of expenses, royal household and redistribution, broadly (but not totally) indicate whether revenues are diverted to a narrow group of interests (including the very monarch) or to the public as a whole. In turn, redistributive payments consisted of subsidies to the estates of royal family members and of great nobles, annuities, household pensions, and the scholarships and dowries. Redistribution payments rested on two payments: *assentamentos*, given to the large households of great nobles including royal family members; and *tenças*, which also rewarded war services. The remaining categories were scholarships and dowries, but these were only important in the fifteenth century.

Non-military public goods encompass administration, the judicial system, and public works and clearly translate state capacity. Military expenditure is separated as well, given that it might be used to build up archetypal public goods (the defense of the realm) or to engage in negative-sum wars. At last, debt service is included because it limited the fiscal space for increasing state capacity.

Figure 4. Central expenditure breakdown, 1473–1812



Sources: See Appendix B.

Note: Redistribution includes some payments which are implicitly military compensation payments (e.g., *tenças*).

Combined with the data on revenues, Figure 4 allows for distinguishing two regimes. The earlier regime is first apparent in the 1473 budget (though it likely started earlier) and lasted for about one century. It covers much of the sixteenth century, when imperial revenues became important (despite the small size of intercontinental trade in relation to the overall economy at the time; Costa et al. 2015). In this regime, Portuguese expenditure was dominated by redistribution and by the costs of the royal household. Until the second half of the seventeenth century, these two categories reflected the redistributive means whereby the Crown attributed resources to maintain and reward a highly militarized elite (*economia da mercê*).¹⁶ These two categories constituted about 50% of central expenses.¹⁷ While redistributive expenses allowed for the building of a very lucrative empire, they ate away at fiscal space. Military expenditure was not a

¹⁶ While part of a mechanism that ensured internal stability, this also reflected the regressive nature of the fiscal system. For the regressive nature of premodern fiscal states, see, for example, Kwass (1999) or Alfani and Tullio (2019).

¹⁷ By comparison, subsidies and pensions constituted 20% the total expenditure in the 1620s Austria, Prussia, Denmark, and France (Korner 1995, p. 411).

dominant share of expenditure until the early modern military revolution.¹⁸ Domestic military weakness proved fatal for Portuguese hopes of retaining independence in 1580.

The loss of independence in that year led to the emergence of a very different expenditure pattern. During the period of the Iberian Union (1580–1640), when Portugal was ruled by Spanish kings, there was no royal court in Portugal. Hence, court expenses were dramatically reduced, whereas the linkage between the vassals' military service and the rewards given by kings weakened considerably. The “royal household” and “redistribution” categories resurfaced in the second half of the seventeenth century but would not regain their former weight. The share of expenses occupied by redistribution and royal household was diverted to direct military expenditure (like in Prussia, Austria, France, and England), but with modest debt service, unlike the latter (Costa and Miranda, forthcoming). This observation is consistent with the high level of fiscal revenue which we observe.

Overall, we note that fiscal capacity—in the sense of ability to collect revenues—increasingly translated more readily into effective state capacity from the late sixteenth century onwards. The displacement of courtly and redistributive payments by making room for military and war-related debt repayments was also seen in the finances of other absolutist states such as Austria and Prussia during the eighteenth century (Korner n.d.; Dickson 1987, pp. 385–6).

4. The local level

Central state revenue and expenditure is only a part of the state's fiscal capacity. Local administrators also collected taxes and delivered public goods, and they worked independently of the central state. Since the twelfth century in Portugal, this role was played by some eight hundred municipalities, which administered nearly all the territory of the country.¹⁹ These guaranteed public order and social cohesion. The building and maintenance of infrastructures were largely left to these authorities and to their resources. Likewise, the regulation of local markets, licenses, weights and measures, trial

¹⁸ In the early modern period, military expenditure became dominant, as it did elsewhere in Western Europe (e.g., Hoffman 2015).

¹⁹ The country was home to 762 municipalities in 1527 and to 816 in 1826 (Monteiro 1996, pp. 35–36). The size was very unequal.

of minor offences, and public ceremonies and festivities were supported by the municipal budget. Transfers from the central government to the municipalities were minimal and were typically assigned to strategic, national goals. The collaboration of the central state was occasionally required in a few specific instances in which very large structures, like aqueducts or fortifications, had to be built. Overall, municipalities financed public goods following a “too small to fail” logic: expenses were monitored with local information, and there was a close alignment between the interests of the decision-makers and the beneficiaries of expenditure.

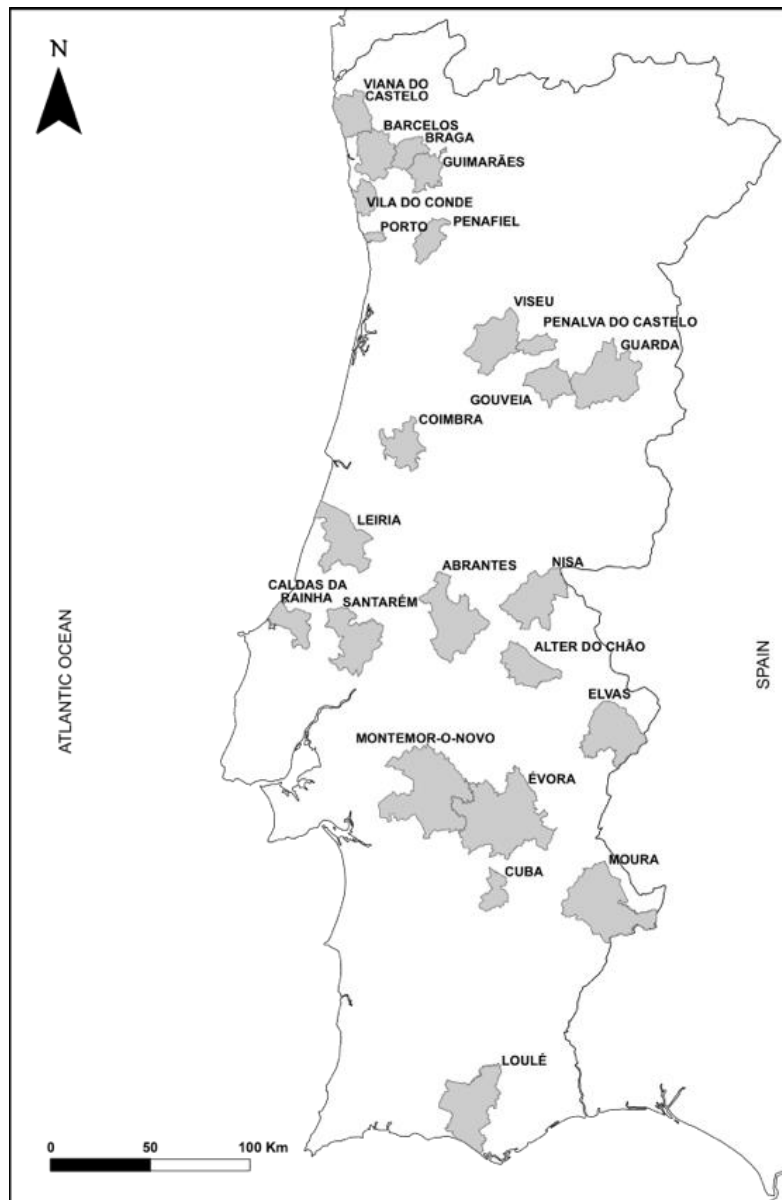
In this largely “devolved” system, the role of the municipalities was complementary to the central state. Despite their administrative and judicial importance, mainstream historiography downplays the fiscal capacity of the municipalities, with the arguments that they did not mobilize significant resources and/or their expenditure was focused on personnel (e.g., Oliveira 1996, p. 131; Monteiro 1996, p. 135). This view is built on political discourse rather than on quantitative evidence. By aggregating a representative sample of municipalities over a long period, we show here that this judgment severely understates the role of the local level. While municipal budgets were small when considered individually, aggregate municipal revenues enhanced central fiscal capacity by about an additional 10% over the period. More importantly, municipalities ensured about one-third of all expenditure in public goods over the period.

Local revenues

Lacking the power to tax income or wealth, local governments tapped the areas of the economy that were left out by the central state. These marginal sources of revenue varied across the municipalities; nearly all collected a great variety of fines and charged fees for conducting inspections and awarding licenses. Municipal governments collected tolls and taxed certain professional activities and the consumption of some products. The larger municipalities were endowed with agrarian land and houses, whence they collected rents. Out of the total revenues, one-third (not very imaginatively known as “*terças*”) was pooled at the regional level and managed by a centrally appointed guardian to sustain the building and repair of fortresses or naval defenses. These were not understood as transfers to the central state revenues, because the funds of the *terças* had to be spent on defensive works or, with royal license, on repairs of almshouses and hospitals. There were however exemptions, as some municipalities were relieved of its payment

during times of war and there is at least one important municipality (Coimbra) which was exempted from it (Barbosa et al. 2022). The values of the surviving tax-farming contracts for the whole kingdom in the period 1621–1688 (Oliveira 2013, p. 325) represent about one-quarter of the total municipal revenues estimated. There were also transfers from state taxation to the municipalities, but these were more modest.²⁰

Figure 5. The 24 municipalities sampled



Sources: Appendix C.

Note: 1913 borders shown.

²⁰ In the most important municipalities, these were typically assigned to a specific end decided by the central state (typically, the maintenance of fortresses or seaports with strategic value). In the late eighteenth century, municipalities also received the leftovers of one of the kingdom-wide taxes, the *sisá* (Monteiro 1996, p. 132–3).

To estimate the overall contribution of local revenues to Portuguese fiscal capacity, we aggregate disperse local revenue information and measure it with respect to those of the central state. We gathered monographs, published sources, and manuscript sources for 24 municipalities (see Appendix C) spread throughout the country (see Figure 5). The results of this effort can be seen in Table 4.

We find that the level of local revenues relative to central revenues was relatively stable. Except for two periods of intense military effort at home—the Restoration Wars of 1640–1668 and the Napoleonic Wars of 1792–1815—which led to the diversion of resources to the central treasury and the erosion of the tax base (Barbosa 2017), local revenues corresponded to around 10% of central revenues. The contribution of the local level to overall Portuguese fiscal capacity was small, as expected, but not irrelevant. The key issue, however, is how these funds were spent.

Table 4. Local revenues as a percentage of central revenues

	Central-level nominal revenues excluding empire (<i>contos</i>)	Estimated local- level net nominal revenues (<i>contos</i>)	Local-level revenues (as % of central revenues)
1412–49	23	3.2	13.6
1450–99	53	3.8	7.2
1500–49	188	23.9	12.2
1550–99	395	42.6	10.8
1600–49	976	83.3	8.5
1650–99	1,542	57.5	3.7
1700–49	3,990	273.9	6.9
1750–99	3,957	276.3	7.0
1800–44	7,773	280.1	3.6

Sources: Appendix C.

Notes: Municipal weights are extrapolated from the observable 1527 municipal populations (minus Lisbon) before 1527, and interpolated towards 1913 revenues (minus Lisbon; Portugal, 2014) after 1527 (Dias 1996); local-level revenues are shown of the *terça* (i.e., transfers from local- to regional-level revenues); *terças* were estimated conservatively at 25% of the total estimated revenue.

Local expenditure

Although some historians did endeavor to study municipal expenses, their analyses typically used their own classification schemes and are typically limited to patches of time, making it difficult to systematize and aggregate the results of their research. Also, the low organizational complexity of the municipalities does not allow for a functional analysis. The results of this research from a few of the municipalities across the country (see Figure 5 for their geographical locations) and for a major city like Porto can be seen in Tables 5 and 6, respectively.

Table 5. Expenditure in a sample of municipalities, 1499–1790 (%)

	Montemor, 1499	Coimbra, 1590–1660 (mean)	Santarém, 1762	Gouveia, 1790
Justice, military, and administration	38	52	63	75
Public works	41	19	6	7
Religious and civic celebrations (redistribution)	19	9	5	18
Debt service	0	6	0	0
Charity and others	2	14	27	0

Sources: Appendix C.

Even if the data is incomplete, the expenditure pattern at the local level was very different from the central state in at least one decisive aspect: the absence of redistributive expenditure and of expenses by the royal household. More than half the money was typically spent in military, justice, and administration expenses during the entire early modern period. While the expenditure on religious and civic celebrations might appear detrimental to common welfare, this is to ignore the literature that shows such event built up cohesion and stability (Harris 2017). Collective celebrations (civic and religious), which were paid for locally, contributed to social cohesion: they helped make

political institutions consensual.²¹ Also, like charity expenses they were not primarily directed to the elites. The share of public works is very different in all cases, ranging from 41% to 6%.

The large share spent on officers' salaries, social assistance, and popular or religious celebrations shows that local government was a central piece in state cohesion—leading to social order without much central interference—and fiscal capacity. The administrative and judicial costs paid at the local level helped support the central state. Expenditure on officers' salaries allowed for the regular functioning of local institutions, and thus, political stability. Porto, whose municipal accounts range from the fifteenth to the later eighteenth century, provides a less disperse picture of this evolution (Table 6).

Table 6. Local expenditure in Porto, 1450–1776 (%)

	1450–97	1590–1660	1701–46	1757–76
Justice, military, and administration	49	70	61	51
Public works	7	paid by central revenues	3	7
Religious and civic celebrations	18	10	3	3
Debt service	8	n.a.	2	1
Charity and others	18	20	31	38

Sources: See appendix C.

Notes: Values correspond to means for each period. Administration includes costs of collecting central taxes. Charity and others includes non-specified amounts freely disposed by the king; communications with the central government and expenses with embassies; and miscellaneous expenditures, including consumables. We added 5 residual percentage points so that the total adds to 100 (source: Costa 2015 gives 15% for the categories which we summarize as “Charity and others”).

While the data for Porto confirm the broad picture contained in Table 5, it should be observed that Porto was a large city and its commercial, naval, and administrative

²¹ These could include festivities with food and entertainment provided, including a stage for theatre, dancers, comedies. Municipalities also financed judges, attorneys, clerks, burials, and medical support.

importance justified transfers from the central state and for a higher role of military expenditure. The municipality of Coimbra provides the best documented case over a long period of time (Barbosa et al., 2022) and was more representative of the situation of municipalities across the country, as it lacked Porto's strategic value and size. Moreover, the Coimbra sources allow us to isolate the critical expenditure variable: non-defense public goods. Table 7 shows per capita expenses in public goods in the familiar unit of unskilled day wages and as percentage of total expenditure.

Table 7. Estimated total expenditure in public goods, 1473–1810 (%)

	Share of non-defense public goods in the local budget (Coimbra)	Per capita local expenditure in non-defense public goods divided in day's wages for unskilled workers (excluding the <i>terça</i>)	Per capita central expenditure in non-defense public goods divided in day's wages for unskilled workers	Per capita total expenditure in non-defense public goods divided in day's wages for unskilled workers	Percentage of local budget non-defense public goods as a percentage of the total
1473	44%	0.19	0.24	0.4	45%
1477	30%	0.07	0.25	0.3	23%
1534	75%	0.81	0.19	1.0	81%
1588	34%	0.30	0.84	1.1	26%
1607	25%	0.22	1.28	1.5	15%
1619	31%	0.29	1.13	1.4	21%
1645	33%	0.23	0.77	1.0	23%
1681	14%	0.03	0.78	0.8	4%
1766	28%	0.45	2.78	3.2	14%
1810	22%	0.15	1.33	1.5	10%

Sources: Appendices A and C

Notes: We define public goods as justice, administration, and public works. This data is based mainly on Coimbra, for which we have uniform and good quality data from the mid-sixteenth century onwards (Barbosa et al., 2022). For the benchmark years 1473 and 1477, for which data for Coimbra is not available, we used Porto accounts instead. The years in the first column correspond to years with a central budget.

According to Table 7, throughout the period, local-level expenses contributed to one-third of the provision of public goods countrywide. The high share of local budgets committed to non-defense public goods compensated the small size of the municipal contribution to overall expenditure. Nevertheless, the role of municipalities as providers of public goods diminished as the central budget started to dwarf its local counterparts and, simultaneously, municipal expenses became less focused on public goods (see Tables 7). This finding shows the surprising importance of local-level expenditures in assessing state capacity in these historical periods.

Tighter accountability and proximity meant that local authorities enjoyed the legitimacy and the capacity to foster social cohesion. In this setting, the central government devolution of such local-level expenses and its focus on public goods that had non-rival and non-excludable characteristics at the national level (e.g., national defense) represents a marginally more efficient arrangement than the alternatives.

5. Conclusion

The case study of Portugal shows the advantages to be gained from exploring a wider range of sources to measure state capacity. The central importance of state capacity to explain economic development requires economic historians to overcome the limitations of historical data and develop empirical methodologies for measuring state capacity. These measures must be comparable over long periods of time. In this paper we explored new methods, and we illustrated these using Portugal as a case study.

Overall, our new fiscal capacity measures paint a similar picture with respect to Portugal's fiscal capacity: the country had average Western European fiscal capacity levels. Also, Portugal was able to assign a significant share of its expenditures to public goods other than defense. With regards to the weight of the empire for fiscal revenues, Portugal went through three main regimes over the early modern period. In the sixteenth century, high imperial revenues mattered for the overall fiscal position of the Crown, despite the low overall importance of intercontinental trade relative to the size of the economy (Costa et al., 2015). During this initial stage, there was a high level of associated redistribution as well. But by 1600, royal household and redistribution lost their importance, and their fiscal space was occupied by military expenditure. Then over

the eighteenth century, overseas revenues regained some of their prior importance, even though they never again became dominant as a share of central revenues.

Portugal's fiscal capacity rose over time, although it fell short of the European leader. More importantly, when central government provision of non-military public goods is added to the local level, we see an increase in state capacity. Hence, and by contrast to most of the prior literature (e.g., Tilly 1992, Justino 1986, Hespanha 1994, 2013), we argue that low fiscal capacity was not the key factor in the country's dismal economic performance. Portugal did not lack fiscal capacity (however measured). But cohesion, political stability, and average levels of fiscal capacity were not sufficient to cause long-run economic growth in Portugal, as the country's macroeconomic performance was nevertheless poor from the second half of the eighteenth century. This implies that other factors must explain its comparative development failure from the eighteenth century onward (Palma and Reis 2019; Henriques and Palma 2022).

References

Note: all primary sources are cited in Appendices A–C.

Allen, R. C. (2001). The great divergence in European wages and prices from the Middle Ages to the First World War. *Explorations in Economic History*, 38(4), 411–447.

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

Amaral, L. (2012). Institutions, property, and economic growth: back to the passage from the “Ancien Régime” to liberalism in Portugal. *Análise social*, 28–55.

Barbosa, José Luis dos Santos (2017). As receitas e despesas da Câmara de Penafiel: a importância das rendas nas finanças municipais (1782–1820)—*História. Revista da FLUP*. IV Série. Vol. 7, no 2.

Barbosa, J. L., V. F. Moutinho and P.M. Silva (2022). Examining the relationships between revenues and their components and expenditures and their components using

Markov-Switching regressions. Evidence from the municipality of Coimbra (1557–1836). forthcoming at the *Accounting History Review*.

Besley, T., and Persson, T. (2011). *Pillars of prosperity*. Princeton University Press.

Bogart, D., Drelichman, M., Gelderblom, O., and Rosenthal, J. (2010). State and private institutions. In: *The Cambridge Economic History of Modern Europe*, Volume I: 1700–1870. Cambridge University Press, 2010.

Bogart, D., & Richardson, G. (2011). Property rights and parliament in industrializing Britain. *The Journal of Law and Economics*, 54(2), 241–274.

Bonney, R. (Ed.). (1999). *The rise of the fiscal state in Europe c. 1200–1815*. Clarendon Press.

Brandt, L., Ma, D., & Rawski, T. G. (2014). From divergence to convergence: reevaluating the history behind China's economic boom. *Journal of Economic Literature*, 52(1), 45–123.

Brewer, J. (2002). *The sinews of power: war, money and the English state 1688–1783*. Routledge.

Broadberry, S., Campbell, B. M., Klein, A., Overton, M., & Van Leeuwen, B. (2015). *British economic growth, 1270–1870*. Cambridge University Press.

Cermeño, A. L., and C. Santiago-Caballero (2020). All roads lead to market integration: lessons from a spatial analysis of the wheat market in 18th century Spain. *Instituto Figuerola Working Papers in Economic History*.

Costa, L. F., Palma, N., and Reis, J. (2015). The great escape? The contribution of the empire to Portugal's economic growth, 1500–1800. *European Review of Economic History*, 19(1), 1–22.

Costa, L. F. and Miranda, S. (2022). Reputational recovery under political instability: Public debt, Portugal, 1641–1683. Forthcoming at the *Economic History Review*.

Cox, G. W. (2016). *Marketing sovereign promises: Monopoly brokerage and the growth of the English state*. Cambridge University Press.

De Zwart, P., D. Gallardo-Albarrán and A. Rijpma (2021). The Demographic Effects of Colonialism: Forced Labor and Mortality in Java, 1834–1879. *The Journal of Economic History*.

Dincecco, M. (2017). *State capacity and economic development: Present and past*. Cambridge University Press.

Epstein, S. R. (2000). *Freedom and growth: the rise of states and markets in Europe, 1300–1750*. Routledge.

Esteves, R. P. (2005). Finanças Públicas, in P. Lains and A. Ferreira da Silva (eds.). In: *História Económica de Portugal, 1700–2000*, vol. 2. Lisboa: Imprensa de Ciências Sociais.

Hanson, Carl A. (1981). *Economy and society in baroque Portugal, 1668–1703*. University of Minnesota Press.

Harris, Tim (2017). *The Politics of the Excluded, c. 1500–1850*. London: Palgrave.

Henriques, A., (2009). *State finance, war and redistribution in Portugal, 1249–1527*. Doctoral dissertation, University of York.

Henriques, A. and N. Palma (2022). Comparative European Institutions and the Little Divergence, 1385–1800. *Journal of Economic Growth*, forthcoming.

Hespanha, A. M. (1994). *As vésperas do Leviathan. Instituições e poder político : Portugal - Séc. XVII*. Coimbra: Almedina.

Hoffman, P. T. (2015). *Why did Europe conquer the world?. In Why Did Europe Conquer the World?* Princeton University Press.

Humphries, J., & Weisdorf, J. (2019). Unreal wages? Real income and economic growth in England, 1260–1850. *The Economic Journal*, 129(623), 2867–2887.

Johnson, N. D., and Koyama, M. (2014). Tax farming and the origins of state capacity in England and France. *Explorations in Economic History*, 51, 1–20.

Johnson, N. D., & Koyama, M. (2017). States and economic growth: Capacity and constraints. *Explorations in Economic History*, 64, 1–20.

Justino, D. (1986). *A formação do espaço económico nacional: Portugal, 1810–1913*. Lisboa: Vega.

Karaman, K. K., and Pamuk, Ş. (2010). Ottoman state finances in European perspective, 1500–1914. *The Journal of Economic History*, 70(3), 593–629.

Karaman, K. K., and Pamuk, Ş. (2013). Different paths to the modern state in Europe: the interaction between warfare, economic structure, and political regime. *American Political Science Review*, 107(3), 603–626.

Kedrosky, D., and Palma, N. (2021). The Cross of Gold: Brazilian treasure and the decline of Portugal. *Discussion paper, Competitive Advantage in the Global Economy (CAGE)*.

Korner, M. (1995). Expenditure. In: Bonney, R. (ed.), *Economic Systems and State Finance: The origins of the modern state in Europe 13th to 18th centuries*. Oxford, pp. 393–422.

Kwass, M. (1999). A Welfare State for the Privileged? Direct Taxation and the Changing Face of Absolutism from Louis XIV to the French Revolution. In: *Crises, Revolutions and Self-Sustained Growth: Essays in European Fiscal History, 1130–1830*. Shaun Tyas, pp. 344–76.

Marichal, Carlos (2007). *Bankruptcy of empire: Mexican silver and the wars between Spain, Britain and France, 1760–1810*. Cambridge University Press.

Malinowski, M. (2019). Economic consequences of state failure—legal capacity, regulatory activity, and market integration in Poland, 1505–1772. *The Journal of Economic History*, 79(3), 862–896.

Oliveira, António (2013). *Capítulos da História de Portugal*, vol. I, Viseu: Palimage.

Palma, N. (2020). American precious metals and their consequences for early modern Europe. In: Battilossi S., Cassis Y., Yago K. (eds.), *Handbook of the History of Money and Currency*. Singapore: Springer

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

Palma, N., J. Reis and M. Zhang (2020). Reconstruction of regional and national population using intermittent census-type data: the case of Portugal, 1527–1864 *Historical Methods* 53 (1): 11–27.

Parker, G. (1996). *The military revolution: Military innovation and the rise of the West, 1500–1800*. Cambridge University Press.

Reis, J. (2002). How poor was the European periphery before 1850? In: *The Mediterranean Response to Globalization Before 1950* (eds. Sevket Pamuk and Jeffrey G. Williamson). Routledge.

Rodrigues, L. (2019). Os padrões de juro da misericórdia de Lisboa, 1767–1797. *Ler História*, (74): 137–160.

Rosenthal, J. L. (1990). The fruits of revolution: Property rights, litigation, and French agriculture, 1700–1860. *The Journal of Economic History*, 50(2), 438–440.

Sampaio, A. C. J. de (2003). Na encruzilhada do Império: hierarquias sociais e conjunturas econômicas no Rio de Janeiro (c. 1650–c. 1750) (Vol. 17). Arquivo Nacional.

Schumpeter, Joseph A. (1918). *Die Krise des Steuerstaats*. Leuschner & Lubensky

Schumpeter, Joseph A. (1934). *Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest, and the Business Cycle*. Cambridge, MA: Harvard University Press.

Silva, A. F. (2004). Finanças Públicas. In: *Histórica Económica de Portugal* (eds. P. Lains and A. F. Silva). Lisboa: ICS.

Subrahmanyam, S. (2012). *The Portuguese empire in Asia, 1500–1700: a political and economic history*. John Wiley & Sons.

Tilly, Charles (1992). *Coercion, Capital and European States, AD 990–1992*. Blackwell.

Wallis, P., Colson, J., and Chilosì, D. (2018). Structural change and economic growth in the British economy before the Industrial Revolution, 1500–1800. *Journal of Economic History*, 78(3), 862–903.

Yun-Casalilla, B. (2019). *Iberian world empires and the globalization of Europe 1415–1668*. Springer Nature.

APPENDIX – FOR ONLINE PUBLICATION ONLY

APPENDIX A—DISAGGREGATED DATA, SOURCE CRITICISM, AND METHODOLOGICAL NOTES

Note: the sources cited Appendix A are listed in Appendix B

A1—Definition of imperial revenues

We define imperial revenues as revenues coming to the central treasury of mainland Portugal from the sale or direct administration of imperial trading monopolies in overseas locations beyond Europe. These include contracts and revenues from Guinea (Guiné), Mina, Angola, and São Tomé associated with gold, spices, and the slave trade, the gold transferred to mainland Portugal (see A2 below) as well as brazilwood (pau brasil) and the revenues of the *Casa da Índia* related to the pepper monopoly. We did not consider as imperial revenues any taxes paid in Brazil or in the *Estado da Índia* (as these were spent locally rather than transferred to mainland Portugal) such as the *dízimos do padroado* in Brazil. Importantly, our criterion leaves out of the monopoly on the tobacco trade, which corresponded to between 14% and 21% of the imperial revenues (Salvado 2014). Under our criterion, the tobacco monopoly cannot be considered as an imperial revenue because most of the value added came from industrial transformation of tobacco leaves in Portugal and its sales in the country. The raw leaves imported from Brazil only constituted a marginal share of the total value. Furthermore, the monopoly was independent of the source market—for example, there was no obligation to buy the leaves from Brazil, and tobacco from Virginia was also used when necessary.

A2—Notes on eighteenth-century Brazilian gold remittances

Crown revenues concerning taxing of gold production in Brazil were generally called *quinto do ouro*, even though that in fact corresponds to four different fiscal systems which developed after gold was discovered in the late seventeenth century until more than a century later.

From 1697 to 1713, one-fifth of the value of mining output was charged to miners, even though enforcement was relatively limited during this initial period. Revenues were collected both in the mines themselves via guards (*guardas-mores*) and in the local mints.

From December 7, 1713, until September 30, 1724, a second fiscal regime was in place, whereby a fixed taxation value was paid per slave and commercial establishment (*capitação*). To minimize tax fraud, a minimum revenue of 30 *arrobas* was to be collected; any calculation falling behind that value had to be covered anyway.

From October 1724 to July 1735, the taxation system based on one-fifth of revenues returned, but this time it was paid exclusively in the mint houses (*Casas da Fundição*). To ensure compliance, minting was compulsory—it was forbidden to transport gold dust.

From 1735 to 1751, a system similar to that of 1713–1724 returned (*capitação*).

On December 3, 1750, the fifth paid in the Mint Houses returned, and a minimum of 100 *arrobas* had to be paid. This system then continued for the remainder of the century.

As our summary shows, the tax system usually called *quintos do ouro* in fact comprised a variation of different taxation methods which changed over time. Furthermore, it is important to notice that only the net amount of taxation, after local Crown costs were paid, was in fact transported back to mainland Portugal. Hence, the so-called *quintos*, or fifths of gold registered, did not always correspond to a 20% tax on production. The same applied to the 1% transportation fee (*manifestos*). See also Matos (1979, p. 220).

Table A1. Nominal revenues (*contos de reis*)

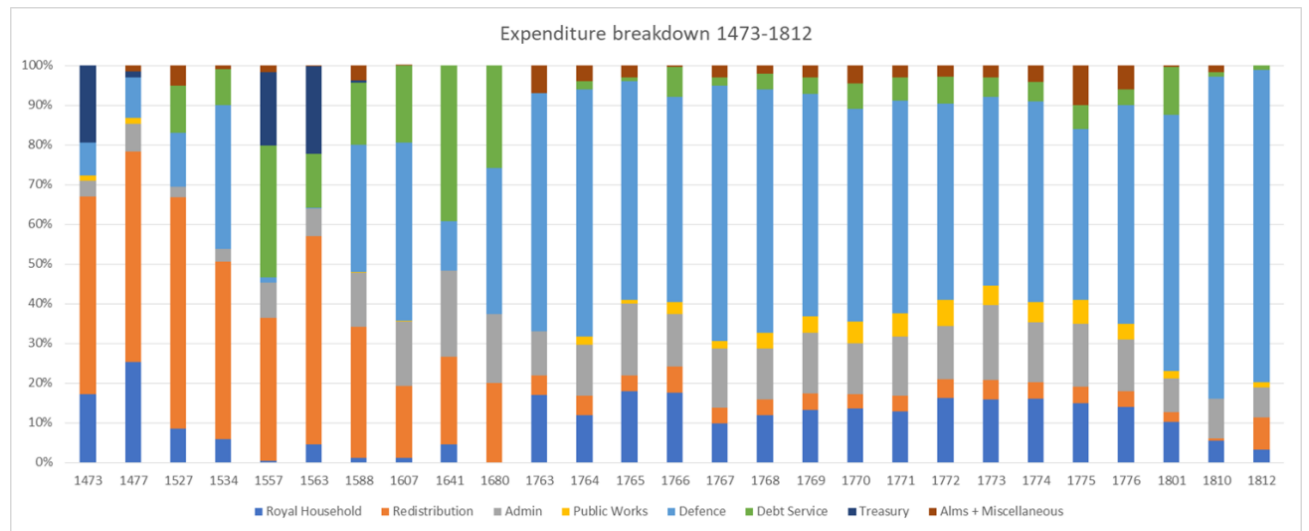
year	revenue	sources
1367	1.9	Henriques (2009, p. 98)
1401	23.3	Henriques (2009, p.160)
1473	48.3	Henriques (2009, p.166)
1506	67.5	Godinho (1978)
1511	98.0	Torre do Tombo, Núcleo Antigo, 532
1519	160.7	Godinho (1978)
1524	155.6	Pinto (2013, pp. 53–59)
1526	155.9	Pereira (2003, pp. 154–156)
1527	155.5	Pereira (2003, pp. 205–210)

1534	153.7	Sanceau (1973, pp. 37–39)
1543	190.2	Pinto (2013, pp. 161–64)
1557	303.5	Rego (1960, vol. 1, pp. 891–95)
1563	209.4	Pinto (2013, pp. 169–72)
1588	462.9	Godinho (1978)
1593	560.1	Luz (1949)
1607	911.4	Falcão (1859)
1619	783.7	Oliveira (1620)
1625	708.7	Hespanha (1994, p. 154)
1632	1,129.2	Carrara (2011, p. 47)
1645	1,266.1	Dias (1985); Biblioteca da Ajuda, Manuscripts, 51-VI-19, folia 359–364; and D. Manuel II Library, Manuscripts, ADQ, 094, folia 26–28.
1656	1,466.7	Prestage (1920, p. 9)
1681	1,702.2	Dias (1985)
1716	4,342	Santarém (1850) plus the average of the 1681 and 1730 income tax (<i>décima</i>) from Dias (1985) and Carrara (2011, p. 53)
1730	6,356	Humbert (1730, pp. 166–68) and Carrara (2011, p. 55)
1762–1777	5,222.9 (*)	Thomaz (1988)
1804	11,045	Macedo (1982, p. 209)
1810	7,515.6	Costa (2008, p. 17)
1812	8,121	Cardoso and Lains (2010)
1817	10,436	Cardoso and Lains (2010)
1821	6,820	Cardoso and Lains (2010)
1827	6,660	Cardoso and Lains (2010)
1828	11,030	Cardoso and Lains (2010)
1834–44	7,625.6 (*)	Cardoso and Lains (2010)

Notes: One *conto de réis* corresponds to one million (10^9) *réis* (or *reais*). Our “with empire” revenues category for the period of 1450–1499 corresponds to a single budget for 1473 which does not include empire revenues as it does not exist. We hence considered gold from Mina in 1487 and tax farming of slave trade—together, these correspond to

24,082,240 réis (Vogt 1979, appendix 1 and Elbl 1997, pp. 6–7). The 1511 central revenues correspond to a lower bound, as some pages of the original manuscript (see Figure 1) were lost. We did not use the incomplete 1635 and 1660 budgets reported in Hespanha (1994, pp. 114–5, 158), with the revenue of the *décima* missing from the latter. Until 1607, budgets do not account for the *terça* (see text). We interpret this as meaning that until then, the *terça* was spent at the subnational level. (*) For these periods, nominal averages are shown above for convenience, but annual deflated numbers have been used to construct the results in the main text using annual unaveraged values.

Figure A1. Detailed central expenditure breakdown, 1473—1812



Sources: See Appendix B.

Table A2. The Lisbon Customs and the Revenue of the Kingdom, 1367–1557

Years	Lisbon Customs	Central revenues (without Empire)	Customs as % of total central revenues
1367	160,000 <i>libras</i>	960,000 <i>libras</i>	16.6%
1401	6,000,000 <i>libras</i>	81,640,000 <i>libras</i>	7.3%
1473	4,700 <i>contos</i>	52,500 <i>contos</i>	8.9%
1511	10,723 <i>contos</i>	98,360 <i>contos</i>	10.9%

1527	12,120 <i>contos</i>	156,940 <i>contos</i>	7.7%
1557	50,500 <i>contos</i>	336,320 <i>contos</i>	15%
1593	133,804 <i>contos</i>	491,800 <i>contos</i>	27.2%
1641	152,246 <i>contos</i>	752,039 <i>contos</i>	20.2%
1645	152,246 <i>contos</i>	1,269,000 <i>contos</i>	12.0%
1681	269,857 <i>contos</i>	1,533,000 <i>contos</i>	17.6%
1716	700 <i>contos</i>	3,828,000 <i>contos</i>	18.3%
1770	1,175 <i>contos</i>	5,174,000 <i>contos</i>	22.7%
1804	1,252 <i>contos</i>	11,045,000 <i>contos</i>	11.3%
1810	548.9 <i>contos</i>	6,316,000 <i>contos</i>	8.7%

Sources: For 1367–1557, Henriques (2008, p. 178); 1593 from Luz (1949, p. 42); 1625 from Hespanha (1994); 1641 and 1681 from Dias (1985); 1716 from Macedo (1982, pp. 209); 1770 corresponds to the average of the period 1762–77 from Thomaz (1988); 1804 from Macedo (1982, pp. 209). 1810 from Costa (2008).

Notes: We do not observe the Lisbon customs revenues for 1645, and assume they are the same as those of 1641. For 1762–77 and 1804, the sources do not break down the Lisbon customs revenue from the fees paid by the ships anchoring in Lisbon (*consulado*). For these years, we assume that customs revenue was 70% of the total for these years, based on the closest observable split (1730), which gives the customs surcharge tax (*Consulado*) as being worth 240 *contos* over the regular customs tax of 600 *contos* (Humbert 1730; Carrara 2011). This makes sense given that *consulado* represented 3% *ad valorem* of the unloaded cargo, whereas tariff rates were around one-tenth (Hespanha 1994, p. 120).

Table A3. *Local level revenues in a sample of cities as a percentage of central state revenues, using alternative weights*

	Preferred weight (interpolation between 1527 population and 1913 municipal revenue)	Weighted by 1527 Population	Weighted by 1913 Revenues
1400–49	13.6%	13.6%	42.4%
1450–99	7.2%	7.2%	11.2%
1500–49	12.2%	12.0%	20.8%
1550–99	10.8%	10.9%	15.9%
1600–49	8.5%	8.4%	11.4%
1650–99	3.7%	4.3%	5.1%
1700–49	6.9%	7.4%	7.4%
1750–99	7.0%	6.8%	6.8%
1800–19	3.6%	3.4%	3.5%

Sources and notes: As in Table 5 of the main text, but with fixed municipal weights at the 1527 level.

APPENDIX B: SOURCES FOR CENTRAL REVENUES AND EXPENDITURE

The accompanying data file for this paper details for which numbers each of the following sources were used.

Archival Sources

Biblioteca da Ajuda, Manuscripts, 51-VI-19, folia 359–364

D. Manuel II Library, Manuscripts, ADQ, 094, folia 26–28.

Torre do Tombo, Núcleo Antigo, n. 532 and n. 590

Biblioteca Nacional, Lisboa, Codice 637, folia 17v.-25v.

Printed Primary Sources

Dias, J. Alves (1985). Um documento financeiro do século XVII. *Nova História*, vol. VII, nº3/4

Dias, J. Alves (1996). *Gentes e espaços : em torno da população portuguesa na primeira metade do século XVI*. Lisboa: FCG/INCT.

Falcão, Figueiredo (1859). *Livro em que se Contem toda a Fazenda e Real Património dos Reinos de Portugal, India e Ilhas Adjacentes*. Lisboa: Imprensa Nacional

Francisco Mendes da Luz (ed) (1949). *Relação de todas as rendas da coroa deste reino de Portugal que nele se arrecadao de que porcedem, modo e lugares em que se pagão*, Coimbra, Biblioteca da Universidade.

Rego, António da Silva (1960). *As Gavetas da Torre do Tombo*. Lisboa: Centro de Estudos Históricos Ultramarinos. Vol. I, pp. 891–895.

Oliveira, Frei Nicolau (1620). *Tratado das Grandezas de Lisboa*. Lisboa: Jorge Rodriguez.

Pinto, Pedro (2013a). Estimativa das receitas e despesas anuais do reino e India, *Fragmenta Histórica, Historia, paleografia e diplomática* (1), 153–159.

Pinto, Pedro (2013b). Folha da receita e despesa do reino para 1543. *Fragmenta Histórica, Historia, Paleografia e Diplomática* (1), 161–164.

Portugal (1914) *Resumo dos orçamentos das camaras municipais para o ano civil de 1913*. Lisboa, Imprensa Nacional.

Rebelo, D. L. (1951). *Do governo da república pelo rei*. Instituto para a Alta Cultura, Centro de Estudos de Psicologia e de História da Filosofia.

Sanceau, E. (ed.) (1973). *Colecção São Lourenço I. Documentação Ultramarina Portuguesa*. Volume VI, Lisboa

Santarém, Visconde de (1844). *Quadro Elementar das relações políticas e diplomáticas de Portugal*, vol. 2, Paris.

Santarém, Visconde de (1850). *Quadro Elementar das relações políticas e diplomáticas de Portugal*, Paris, v. 5

Secondary Sources

Cardoso, José Luis and Lains, Pedro (2010). *Paying for the Liberal State: the rise of Public Finance in Nineteenth century Europe*. Cambridge University Press.

Carrara, A. (2011). Receitas Imperiais Portuguesas, Estrutura e Conjunturas, séculos XVI/XVIII. *Working Paper, Universidade Federal de Juiz de Fora*.

Clark, G. (2005). The condition of the working class in England, 1209–2004. *Journal of Political Economy*, 113(6), 1307–1340.

Costa, Fernando Dores (2008). Army size, military recruitment and financing in Portugal during the period of the Peninsula War 1808–1811. *E-journal of Portuguese History* 6:2.

Costa, Patrícia (2018). As finanças municipais em Portugal no século XVIII: autonomia vs centralismo. *Ler História*, 73: 123–144.

Dickson, P. G. M. (1987). *Finance and government under Maria Theresia*, 1740–1780. Oxford: Oxford University Press, pp. 385–86. Available at <https://www.esfdb.org/table.aspx?resourceid=11206>

Elbl, Ivana (1997). The volume of the early Atlantic slave trade, 1450–1521. *Journal of African History* 31–75.

Grafe, R. (2012). *Distant tyranny: markets, power, and backwardness in Spain, 1650–1800*. Princeton University Press.

Godinho, V. Magalhães (1978). Finanças públicas e estrutura do Estado. In: *Ensaio II*, Lisboa, Sá da Costa.

Henriques, A., 2008. *State finance, war and redistribution in Portugal, 1249–1527*. Doctoral dissertation, University of York.

Henriques, A. (2014). The rise of a tax state: Portugal, 1371–1401. *E-journal of Portuguese History*, 12(1).

Henriques (2022). Reconstructing long-term population with discontinuous counts: Portugal, 1370–1530. *Unpublished manuscript*.

Hespanha, A. M. (2013). As finanças portuguesas nos séculos XVII e XVIII. *Cadernos do Programa de Pós-Graduação em Direito–PPGDir./UFRGS*, 8(2).

Humbert, Pierre (1730). *Description de ville de Lisbonne. Revenue de la couronne de Portugal*

Hunt, P. and P. O'Brien (n.d.). English state taxes and other revenues, 1485–1509. Available at <https://www.esfdb.org/table.aspx?resourceid=11225>, accessed Nov. 2021.

Korner, Martin (n.d.). Total expenditure of the Prussian state, 1688–1806. European State Finance Database. Available at <https://www.esfdb.org/table.aspx?resourceid=11768>

Macedo, Jorge Borges de (1982). *Problemas de história da indústria no século XVIII*. 2nd edition, Lisboa, Querco.

Matos, Raimundo José da Cunha (1979). *Corografia Histórica da Província de Minas Gerais* [1837], vol. 2. Belo Horizonte: Imprensa Oficial. Second edition.

Monteiro, N. G., (1996) *Os Poderes Locais no Antigo Regime*. In *História dos Municípios e do Poder Local* (pp. 19–175). Lisbon, Círculo de Leitores.

Pereira, João Cordeiro (2003). *Portugal na Era de Quinhentos*. Cascais, Patrimónia.

Prestage, Edgar (1920). Três Consultas do Conselho da Fazenda de 1656 a 1657, *Revista de História*, 34 (pp. 5–26).

O'Brien, P. K. (1988). The political economy of British taxation, 1660–1815. *Economic History Review*, 1–32.

Ormrod, W. M. (n.d.). The relative income from direct and indirect taxation in England, 1295–1454. Available at <https://www.esfdb.org/table.aspx?resourceid=11762>

Salvado, J. P. (2014). O Estanco do Tabaco em Portugal: contrato-geral e consórcios mercantis (1702–1755), in Santiago de Luxán (ed.), *Política y Hacienda del Tabaco en los Imperios Ibéricos (siglos XVII–XIX)*. Madrid, Centro de Estudios Políticos y Constitucionales, pp. 133–153.

Thomaz, Fernando (1988). As finanças do estado Pombalino 1762–1776. In: *Estudos e ensaios em homenagem a Vitorino Magalhães Godinho*. Lisboa: Sá da Costa.

Vogt, J. (1979). *Portuguese Rule of the Gold Coast, 1469–1682*. Athens: University of Georgia Press.

APPENDIX C: SOURCES FOR MUNICIPAL REVENUES AND EXPENSES

Archival Sources

Loulé

Arquivo Municipal de Loulé, Receita e Despesa, Livros 9, 18, 21, 27, 33, 34, 35, 37, 40.

Elvas

Arquivo Municipal de Elvas, Receita e Despesa, Livros 1071 and 1075.

Moura

Livro de receita e despesa dos bens do concelho.

Vila do Conde

Arquivo Municipal de Vila do Conde, Vereações, Livros 827, 828, 829, 830, 831, 832, 833, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 853.

Printed Primary Sources

Coimbra

Câmara Municipal de Coimbra, *Orçamento Ordinário da Receita e Despesa da Câmara Municipal. 1855/56-1976*, Coimbra, Câmara Municipal, 1976.

Porto

Dias, João José Alves, ed.. (2016). *Cortes Portuguesas. Reinado de D. Afonso V. Cortes de 1439*. Lisboa. CEH.

Secondary Sources

Abrantes

Silva, Joaquim Candeias (2016). *Abrantes: a vila e seu termo no tempo dos Filipes (1580–1640)*. Abrantes: Câmara Municipal.

Alter do Chão

Ribeiro, Teresa Casquilho (1998). *O Município de Alter do Chão nos Finais do Séc. XVIII*. Viseu, Palimage.

Barcelos

Capela, José Viriato (1995). *O Minho e Os Seus Municípios: Estudos Económico-Administrativos Sobre o Município Português Nos Horizontes Da Reforma Liberal*. Braga: Universidade do Minho.

Capela, J. V. (1989). *A câmara, a nobreza e o povo do concelho de Barcelos*, Barcelos, *Barcelos Revista*.

Braga

Capela, José Viriato (1995). *O Minho e Os Seus Municípios: Estudos Económico-Administrativos Sobre o Município Português Nos Horizontes Da Reforma Liberal*. Braga: Universidade do Minho.

Caldas da Rainha

Rodrigues, Luís Nuno (1992). Um século de finanças municipais: Caldas da Rainha (1720-1820). *Penélope: revista de história e ciências sociais*, 7: 49-70.

Cuba

Fonseca, Teresa (2000). *Absolutismo e municipalismo: Évora, 1750-1820*. PhD, FCSH, Universidade Nova de Lisboa.

Coimbra

Barbosa, José Luís dos Santos (2019). *As Finanças da Câmara Municipal de Coimbra (1601-1660)*, Coimbra, Palimage.

Barbosa, José Luís (2020). As finanças da Câmara Municipal de Coimbra nos finais do Antigo Regime (1762-1820): as receitas. *Revista Portuguesa de História*, 51: 107-149.

Brito, A. da Rocha (1943). As finanças quinhentistas do município coimbrão, *Arquivo Coimbrão*, VII: 178-273.

Gouveia

Mota, Eduardo (1990). *A Administração Municipal de Gouveia em Finais de Setecentos*. Gouveia, Gaudela.

Guarda

Gomes, Rita Costa (1987). *A Guarda Medieval: Posição, Morfologia e Sociedade*. Lisboa, Livraria Sá da Costa.

Guimarães

Braga, Alberto Vieira (1953). *A Administração Seiscentista do Município Vimaranense*, Guimarães, Câmara Municipal.

Capela, José Viriato (1995). *O Minho e Os Seus Municípios: Estudos Económico-Administrativos Sobre o Município Português Nos Horizontes Da Reforma Liberal*. Braga: Universidade do Minho.

Elvas

Sequeira, J. and Ferreira, S. (2019). Gerir uma vila alentejana no século XV: as finanças municipais de Elvas em 1432–1433. *Fragmenta Historica*, 7.

Évora

Fonseca, Teresa (2000). *Absolutismo e municipalismo: Évora, 1750–1820*. PhD thesis, FCSH, Universidade Nova de Lisboa.

Leiria

Marques, A. H. de Oliveira (1990). *Atlas de cidades medievais portuguesas (séculos XII–XV)*. Lisboa, CEH.

Loulé

Botão, Maria de Fátima (2009). *A construção de uma identidade urbana no Algarve medieval: o caso de Loulé*. Lisboa, Caleidoscópio.

Montemor-o-Novo

Andrade, A. A. Banha de (1979). “Conspecto sócio-económico de uma vila alentejana da Renascença”, *Anais. Academia Portuguesa da História*, vol. 25 (II):159–274.

Fonseca, Jorge (1998). *Montemor-o-Novo no século XV*. Montemor, Câmara Municipal.

Fonseca, Teresa (1995). *Relações de poder no antigo regime a administração municipal em Montemor-o-Novo 1777–1816*. Câmara Municipal de Montemor-o-Novo.

Nisa

Coelho, Maria Virgínia (1993). *Autonomias e despotismo: a Câmara e a Vila de Santarém no reinado de D. José*, Santarém, Câmara Municipal.

Penafiel

Barbosa, José Luis dos Santos (2017). As receitas e despesas da Câmara de Penafiel: a importância das rendas nas finanças municipais (1782–1820)—*História. Revista da FLUP*. IV Série. Vol. 7, no 2.

Penalva do Castelo

Monteiro, Paulo (2001). *Território, Elites e Governança. Penalva do Castelo em finais do Antigo Regime*, Mestrado thesis, FLUL, Universidade de Lisboa.

Porto

Costa, Patrícia (2018). As finanças municipais em Portugal no século XVIII: autonomia vs centralismo. *Ler História*, 73: 123–144.

Gonçalves, Iria (1987). *As Finanças Municipais do Porto na segunda metade do século XV*. Porto, Câmara Municipal.

Machado, Maria de Fátima (2005). *O central e o local. A vereação do Porto de D. Manuel a D. João III*. Porto: Afrontamento.

Silva, Francisco Ribeiro da (1988). *O Porto e o seu termo 1580–1640: Os homens as instituições e o poder*. Porto, Câmara Municipal.

Santarém

Beirante, Maria Ângela (1981). *Santarém quinhentista*, Lisboa, Livraria Portugal.

Coelho, Maria Virgínia (1993). *Autonomias e despotismo: a Câmara e a Vila de Santarém no reinado de D. José*, Santarém, Câmara Municipal.

Rodrigues, Martinho Vicente (2001). *Santarém no Tempo dos Filipes (1580–1640)*. Santarém, Câmara Municipal.

Viana do Castelo

Capela, José Viriato (1995). As Contas da Câmara de Viana (1740–1770). Limites da sua autonomia financeira. *Estudos Regionais*, 15, pp. 69–96.

Moreira, Manuel António Fernandes (1984). *O porto de Viana do Castelo na época dos descobrimentos*. Edição da Câmara Municipal de Viana do Castelo.

Viseu

Soares, Sérgio Cunha (1984). “Aspectos da Política Municipal Pombalina: a Câmara Viseu no reinado de D. José”, *Revista Portuguesa de História*, XXI: 21–117.