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Abstract

This paper argues that the financing model of property-rights institutions is a central determinant of their distributional consequences. Following the Napoleonic reforms, Spain's Liberal governments created a modern, nationally integrated land registry, but financed access through user fees and tied registration to the collection of transfer taxes. This arrangement reduced the administrative cost of reform and gave the Treasury transaction revenue at a time when the cadastral basis of direct land taxation was increasingly obsolete. Yet it also created a regressive access regime: because notarial fees, registry charges, and taxes were largely fixed, the proportional cost of formalisation was highest for low-value and fragmented properties. Drawing on fee schedules, fiscal series, and provincial evidence, the paper reconstructs this cost structure, documents the growing fiscal weight of transaction taxation, and shows that the incidence of formalisation costs was greatest where registry participation was weakest. Because pricing produced the exclusion rather than incomplete coverage, extending such a registry need not narrow inequality and may reproduce it. Spain's experience shows that a legally universal property-rights institution could remain economically unequal in practice, and that the funding model should be treated as a first-order variable in explaining its historical performance.

1. Introduction

Why did a property-rights institution that was legally universal in design produce persistently unequal outcomes in practice? Much of the economic-history literature on institutional reform has asked whether secure, enforceable property

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rights were established, whether cadastral and registral infrastructures were built, and whether states had the administrative capacity to sustain them (North, 1990; Acemoglu et al., 2011; Deininger & Feder, 2009). A recent strand of comparative work has gone further, showing that introducing state-administered land records lowered transaction costs, strengthened fiscal capacity, and raised long-run growth across countries (D'Arcy et al., 2024). This article shifts attention to a related but less visible dimension of institutional design: not whether formal land records were adopted or what they yielded in the aggregate, but how access to them was financed and what distributional consequences it had. Where that literature establishes the aggregate returns to adopting formal land records, the present paper reconstructs the distribution of the costs of accessing them and shows that this distribution was governed by how the registry was financed. This reframing offers benefits beyond just the Spanish example. When access costs are inherently regressive, expanding a registry's geographic scope may not reduce inequality; instead, it may reproduce it at greater scale. This challenges the common assumption in land-titling literature that exclusion stems from a lack of coverage, which can be resolved through geographic expansion (Deininger & Feder, 2009). This paper highlights that exclusion arises from access pricing, not institutional absence. Thus, merely extending a registry does not bridge the gap and may even exacerbate it.

Our central claim is that a property-rights institution's funding model can matter as much as its legal architecture. Legal design determines which rights an institution recognises; financing determines who can effectively reach them. A registry may therefore be legally universal and nationally integrated yet remain economically unequal in practice if the cost of access shifts onto users and those costs fall regressively across the distribution of property values. This distinction helps to explain a pattern that has long puzzled historians of Spanish and European land markets: the coexistence of a modern legal framework with incomplete and socially uneven formalisation. Posed this way, the question sits where several literatures meet: it is at once a legal-historical question about how formal rights become accessible, a development-economics question about what formalisation delivers to those who reach it, and a fiscal-historical question about why an institution that serves some owners far better than others should endure. The financing model joins these questions, and this paper places it at the centre.

Nineteenth-century Europe offers a revealing setting for this argument. Liberal and Napoleonic reforms abolished feudal tenure, codified private ownership, and promoted public systems that made rights legible and enforceable (Blaufarb, 2016; Bloch, 1929; Crouzet, 2003; Grab, 2003; Woolf, 1991). This process produced two distinct instruments. Cadastres were designed chiefly to make land taxable and administratively visible, which Scott's (1998) calls 'legibility', through parcel-based survey (Clergeot, 2007; Kain & Baigent, 1992). Registries, by contrast, were designed to make ownership, mortgages, and real rights publicly verifiable, and so to lower the transaction costs of exchange and credit (Dale & McLaughlin, 1999). Yet countries financed these infrastructures very differently, and those differences shaped the social reach of reform.

The contrast between state-funded and fee-funded models is visible across the continent. France and Prussia connected property-rights reform to publicly financed cadastral or registral infrastructures that lowered the relative cost of access (Rosenthal, 1992; Kain & Baigent, 1992). Italy shows how an inherited cadastral endowment produced uneven formalisation after unification, with the north benefiting from Habsburg administrative legacies that the south lacked (Zangheri, 1980; Buccaro, 2008). England and Wales relied heavily on private conveyancing and resisted cheap compulsory registration, raising costs for smaller properties and limiting the reach of formal mortgage markets (Offer, 1981; Mayer and Pemberton, 2000). In these cases, a recurring tension is evident: systems funded through public administration were more effective at expanding coverage, while systems financed by users tended to concentrate formalisation where transaction values were high.

Spain is distinctive not because it faced this tension, but because it became embedded in the state's fiscal architecture. In 1845 the government introduced a fiscal cadastre, the *amillaramientos*, based on owners' declarations rather than systematic survey. This arrangement was structurally vulnerable to underreporting and manipulation by the local elites who controlled assessment (Pérez Picazo, 1993; Pro Ruiz, 1995). In 1861, Spain established a legally advanced, nationwide property registry. However, it was decentralised, privately operated, and financed not through public funds, but through user fees. These fees covered the costs and salaries of the registrars and notaries who managed the registry. The cadastre and the registry never formed a single system: they were separately administered, rested on different foundations, and were never reconciled with one another. Registration was tied to the collection of transfer taxes, since payment of the tax was a precondition for inscribing transfers and mortgages. Rather than moving towards public funding as cadastral valuations became obsolete and politically difficult to revise, Spain deepened its reliance on this self-financing registry linked to transaction taxation. We explain how that arrangement produced a regressive cost structure, why it proved durable, and how its incidence tracked the unequal geography of formalisation.

This argument brings together several literatures that have run in parallel so far. In Spanish historiography, Congost (2000) documents substantial continuities from the *Ancien Régime* beneath liberal rhetoric; Gómez Urdáñez (2002) identifies structural obstacles to full liberalisation between 1835 and 1855; and Congost and Orallo (2018) show that legal reform had far more ambiguous effects on land markets than reformers intended. These works illuminate the political and legal limits of reform but leave largely unexamined the institutional mechanism through which those limits were enforced. On the fiscal side, Pro Ruiz (1995) documents systematic underreporting of rural wealth, and Vallejo Pousada (2000, 2010) stresses the fiscal logic of cadastral policy; we reframe that dysfunction not as an unresolved administrative failure but as a condition that made the registry fiscally indispensable, with transaction taxation becoming a structural substitute for direct land taxation. Finally, where

Arruñada (2003) reads the progressive restriction of registry access as a product of notarial capture, we show that the fiscal and professional interests were mutually reinforcing: the Treasury's stake in transaction revenue and the notarial profession's stake in mandatory deeds converged on the same institutional outcome, and it was this alignment that made the system so resistant to reform. The paper engages in a legal-historical and law-and-economics discussion regarding how formal title systems regulate access. It examines the comparative economics of deeds-recording versus title-registration systems (Arruñada & Garoupa, 2005) and explores the histories of private conveyancing and professional resistance to affordable registration in England (Offer, 1981; Mayer & Pemberton, 2000). It also examines Spain, where similar regressive impacts arose from the fiscal structure of a civil-law registry rather than the common-law conveyancing practices seen in England. Read together, these strands recast Spain's incomplete formalisation not as a failure of administrative capacity or legal design, but as the outcome of a durable fiscal-political equilibrium.

The paper develops this argument through four connected claims. First, the 1861 registry embodied a fee-financed 'saving option' that externalised the cost of formalisation onto owners, notaries, and registrars rather than the public budget. Second, this cost structure was regressive in incidence, because notarial fees, registry charges, and transfer taxes contained substantial fixed and semi-fixed components, so that the proportional cost of formalisation was highest for low-value and fragmented properties. Third, transfer-tax revenue grew in fiscal importance as the direct land tax stagnated, accounting for more than a third of property-tax revenue by the 1920s and gave the Treasury a durable incentive to preserve the very system that generated unequal access. Fourth, the territorial incidence of this burden aligned with the observed geography of formalisation, which remained concentrated in high-value land-plot provinces and weak in fragmented, low-value land-plot regions.

We deliberately focus on the institutional origins, incidence, and fiscal durability of unequal formalisation rather than on estimating the behavioural elasticity of registration with respect to fees. Establishing that behavioural response would require variation in fees and taxes independent of land values and lies beyond the present paper; its contribution precedes that exercise. (not about supply side). The evidence assembled here reconstructs the cost structure, shows where the burden fell, explains why it persisted, and documents how its territorial incidence corresponded to the geography of registry participation. These foundations support a later causal analysis, using fee and tax reforms as instruments.

The analysis draws on three main sources: regulatory documents, including decrees, laws, and official publications from 1845 to 1935; fiscal statistics on transaction and direct tax revenue; and registry yearly handbooks on transaction amounts and land prices. Section 2 analyses the institutional framework. Section 3 traces the evolution of registration costs and fee structures. Section 4 demonstrates the registry's fiscal role. Section 5 examines the geography of registry participation and measures the incidence of formalisation costs across provinces. Section 6 concludes by drawing out the implications for the comparative history of property-rights institutions.

2. The Institutional Framework: Legal Universality and Fee-Financed Access

Spain's dual land information system consists of a fiscal cadastral system established in 1845 and an independent property registry launched in 1861. This system can be understood as a legally universal, fee-financed access regime. The two components serve distinct purposes and have never been aligned: the cadastre (the *amillaramientos*) was created from the owners' declarations to allocate taxation, while the registry (the *Registro de la Propiedad*) was built from the titles presented to it to establish ownership and enable credit. The differences between these two systems were significant since they differed in origin, method, funding, and the values each recorded.

While our primary focus is on the fee-financed property registry, it is essential to understand this system in relation to the fiscal cadastre with which it was never integrated. The 1861 property registry established a modern national framework for publicity, priority, and mortgage security. However, it did so without a state-financed cadastral foundation, nor did it incorporate the costs of access into the public budget. Consequently, this institution could operate effectively where transactions were substantial enough to cover the associated charges, but it imposed a higher proportional cost on small and fragmented properties, for which formal protection was often most necessary.

The Spanish cadastre was established to support the Spanish tax on real estate, which included land and buildings. This tax was known as the *contribución territorial*. It was organised as a quota tax *(impuesto de cupo*), where a total amount was determined and then distributed downward through various tiers. The government and the Cortes set the overall total and provincial quotas. The *Diputación Provincial* allocated each province's quota among its municipalities, and finally, at the municipal level, the assigned share was distributed among individual taxpayers based on the *amillaramiento* (Comín, 1996; Vallejo Pousada, 2001; Cuenda García, 2023).

The fiscal cadastre (*amillaramientos*) that governed this final step relied on property owners' declarations rather than comprehensive state surveys (Pérez Picazo, 1993; Pro Ruiz, 1995). Local authorities compiled the tax rolls from self-reported information, leaving the system open to underreporting and to manipulation by the local elites who controlled the assessment process. But treating this as a failing of individual owners understates the structural source of the system's rigidity: self-declaration operated within a top-down apportionment, not as a free-standing assessment. The incentive to understate was therefore aligned across every tier rather than confined to individual owners, since each jurisdiction sought to minimise its assigned quota relative to the others. Raising the base thus required active political decisions against coordinated resistance, rather than following automatically from rising real estate values (Comín, 2018; Cuenda García, 2023).

The cadastre was, notably, fully funded by the authorities, local and national. This contrasted with the fee-financed registry examined below. Critically, it was not designed to support real estate transactions and credit markets, and it was never coordinated with the registry. The two rested on different foundations: the cadastre on self-declared fiscal values and its own parcel identities, the registry on the legal acts presented to it. They were never reconciled into a single record of ownership and boundaries, and this disjunction between the fiscal and legal representations of land proved remarkably durable, remaining unresolved long after our period (García Cruz, 2018).

Prior to 1861, Spain's property documentation relied on notarial deeds supplemented by fragmented seigneurial, municipal, and ecclesiastical records organised by date rather than by property. The establishment of a mortgage documentation office (the *Contaduría de Hipotecas*) in 1768 attempted to centralise public documentation, but its scope was limited to mortgage liens, its procedures lacked standardisation, and it provided no guaranteed legal priority based on date of inscription. The core problem was simple: the system lacked the publicity necessary to underpin secure credit markets (Martínez Neira, 2008). This credit-market framing, however, captures only one margin of formalisation, and not the one that would prove fiscally decisive. For mortgages, registration was largely self-enforcing, since the creditor had a direct interest in recording the lien to secure priority. For sales, no comparable party existed: once the notarial deed was executed, buyer and seller held a valid title between themselves and had little reason to seek further inscription. However, it was these sales, rather than mortgages, that later became the basis for transfer taxation; this critical margin, not the credit-market aspect, is essential to the argument presented below. The disentailment programme of the 1830s to 1850s compounded the problem on precisely this margin. By privatising extensive areas of church and municipal land, it did not merely increase the volume of transactions; it multiplied outright sales that transferred full ownership, the very acts that a lien-oriented office like the *Contaduría* had recorded only incidentally, if at all. In doing so, it exposed the system's want of a property-based public record with new urgency (Martínez Pérez, 2021).

The 1861 Mortgage Law (*Ley Hipotecaria*, 1861) responded to these pressures by establishing a nationwide property registry supervised by professional registrars and organised around the *folio real*, a property-centric ledger in which each plot receives its own folio recording all transactions. This represented a fundamental informational rupture from the previous person-centric indexes, substantially reducing search costs for prospective acquirers. The 1869 revision (*Ley Hipotecaria*, 1869) reinforced publicity requirements and expanded the scope of mandatory registration of real rights, strengthening the link between registration and credit markets (López Manzanares, 2014).

Spain's land registry did not operate through a single professional group. The 1861 reform preserved a division of labour between registrars and notaries. Notaries retained exclusive authority to draft and authenticate the underlying property deeds; registrars conferred public notice and established legal priority through the formal act of inscription. Neither professional could perform the other's function. The result was a sequential two-gate system in which transaction costs were cumulative: parties had to pay notarial fees and taxes for deed preparation, registrar fees for inscription, and transaction taxes before obtaining the legal protections the 1861 Mortgage Law promised.

Another preoccupation of the 1861 reformers was preventing the new registry from falling into the hands of the local elites (caciques) who had exploited the opacity of the old system. Several interlocking mechanisms were introduced. The registry was placed under the Ministry of Justice rather than the Treasury, redefining the registrar's role as a legal authority rather than a tax collector

(Pau Pedrón, 1994). The former officials of the *Contaduría de Hipotecas* were explicitly excluded from the Registrar positions (Pau Pedrón, 1994). National competitive examination systems were established in 1862 for notaries (*Ley del Notariado*, 1862) and in 1869 for registrars (*Ley Hipotecaria*, 1869), resulting in nationwide recruitment and significant advances in the legal education of registrars and notaries. A rotation system was established in 1876, requiring registrars to move every two to four years, deliberately preventing the formation of local power networks (Pau Pedrón, 1994).

The intended effect of the anti-capture design is less clear than anticipated. The rotation system and the absence of experienced officials hindered registrars from gaining the local knowledge needed to resolve contested titles (Pau Pedrón, 2005). In contrast, notaries, who faced less rotation, developed strong local ties, making them more vulnerable to influence from powerful landowners (Urrutia Badiola, 2021; Villacorta, 1983). As a result, while the design aimed to prevent elite capture of the registry, it inadvertently concentrated informal power within the professional group least disciplined by the system. This asymmetry had a concrete consequence for declared values: while registrars were rotated away before accumulating contextual knowledge, notaries remained in place long enough to become embedded in local land-market networks, giving them both the information and the relational leverage to shape how values were declared in deeds. This created an informational market mechanism similar to that identified by Hoffman et al. (2000) in France. Notarial embeddedness provided notaries with special access to local property values settled by the Cadastre, enhancing their role as preferred credit intermediaries. However, in the Spanish context, this advantage worked in two ways: it helped shape declared property values and reduced frictions in the credit market.

The design of the reform was significantly influenced by financial constraints, a model we refer to as the ‘saving option’. Property owners’ fees covered all costs of formalising property rights, unlike in France and Prussia, where the state covered most registration costs, except for mortgages where a small flat fee was charged (Kain & Baigent, 1992). The contrast with the cadastre was equally sharp: where the fiscal record was carried on the public budget, access to the legal record was pushed onto its users. These fees were primarily designed to cover notaries' and registrars' per-document costs and were therefore not proportional to transaction values. This choice had far-reaching consequences: it shaped the incentive structure of the professionals administering the registry, generated systematic geographic inequality in formalisation, and ultimately made the registry indispensable to the state for fiscal reasons its designers had not intended. Both dimensions of the 'saving option' underscore the ongoing challenges the Spanish state faced due to its limited financial capacity, stemming from a lack of administrative infrastructure and insufficient political will to support public institutions through general taxation (Comín, 2018; Cuenda García, 2023).

A further consequence of the 'saving option' was that it transformed notaries and registrars into residual claimants of their offices' productivity. After covering operating costs, the surplus belonged to the notary or registrar, creating strong incentives to process backlogs without public expenditure (Loscertales, 1970). This model created systematic distribution problems stemming from a classic principal-agent structure: the state aimed to maximise registration coverage across all territories, while notaries and registrars rationally focused on maximising their fee income to cover operating costs. Notaries and registrars flourished in areas with more numerous and higher-value transactions, while they faced difficulties in areas with fewer transactions and less expensive plots. The government attempted to address this disparity through an intertemporal compensation mechanism allowing registrars to advance their careers by moving from rural postings to more lucrative districts, but persistent vacancies in rural registries reveal that this incentive was insufficient (Pau Pedrón, 1994; Alonso Martínez, 1882). Notaries also established a provincial compensation system in which the wealthiest notaries subsidised the less affluent ones (*Reglamento general*, 1870).

The two-gate structure was not merely a result of institutional design, but the product of two interests that converged on the same outcome and came to depend on one another. On one side, according to Arruñada (2003), the notarial profession actively lobbied for its mandatory role in accessing registries in two stages. Initially, they restricted the legal protections available through alternative formalisation procedures, making it legally insecure to bypass the notarial system. Later, beyond the period covered in this study, they successfully convinced the authorities to completely eliminate those alternatives in the 1944 reform of the mortgage law (Rica y Arenal, 1945). Within our period of study, then, the alternatives still existed but afforded weaker security; had they instead offered stronger property-rights protection, the security gap between full notarial formalisation and the lower-security pathway would have narrowed, weakening the economic justification for the additional cost of mandatory notarization. On the other side, the Treasury had an independent stake in the same arrangement: because transaction taxes were levied on the values declared in notarial deeds, any reform allowing property transfers to be registered without a notary would have severed the fiscal link on which that revenue depended. The Treasury's interest in maintaining the notary's mandatory role was therefore not a matter of legal principle but a condition for its own revenue stream. These interests were not merely parallel but mutually reinforcing, each depending on the other's institutional position remaining intact. This mutual dependence explains why reform efforts aimed at specific elements of the cost structure consistently failed to reduce the overall burden (see section 3): a reform sufficient to destabilise one pillar would inherently threaten the other, so the system could only be dismantled as a whole or not at all.

The registrars themselves identified the consequences of this alignment with precision, and they did not agree on the remedy. All wanted to increase the number of registered transactions, but the solutions they proposed divided along a north-south line (Dirección General de los Registros, 1889–1890, 1903). Northern registrars, mostly posted in zones of lower registration penetration (see Figure 7), pressed for lower costs: their proposals included eliminating the notarial step, removing the transaction tax, and allowing direct state subsidies. Southern registrars, by contrast, asked for improvements in the quality of the recorded information and in the enforcement value of the registry. The division reveals where formalisation was thin: the binding constraint was price; where it was denser, quality.

External observers reached the same diagnosis of the cost structure from a different angle. Costa (1902) argued that the mandatory two-gate structure was economically irrational for small transactions, pointing to the persistence of simpler, cheaper possessory proceedings (*expedientes de información posesoria*) not as a workable alternative but as evidence of a design failure. As Martínez-Pérez (2021) demonstrates, what had been conceived as a temporary exception became a recognised alternative method of registration for decades, as many owners deliberately chose to document mere possession rather than full dominion to avoid prohibitive formalisation costs. This adaptation offered no genuine escape: possession proceedings legally precluded owners from conducting sales or mortgages through the Registry, reducing their access to formal credit markets and limiting the transferability of their assets (Ley Hipotecaria, 1869). The high costs documented in our analysis were therefore consistent with continued reliance on a legally inferior pathway that reproduced unequal access in a different form. The government's continued legislation of new pathways for unregistered properties as late as 1909 confirms that this was not an oversight of the original reform but a persistent structural feature of the system (Ley Hipotecaria, 1909).

The analysis does not assume that registry values perfectly measured market prices. Like all fiscal and legal sources, they were affected by incentives to under-declare. The relevant question for this paper, however, is narrower: whether declared registry values preserve meaningful provincial variation and whether they were the values through which the cost burden actually operated. Since notarial fees, registry charges, and transaction taxes were assessed on declared values, these declarations are not merely imperfect proxies for market prices; they are the institutional values on which owners' formalisation costs were calculated.

Three reasons make the registry series informative for this purpose. First, deed values arose from concrete bilateral transactions rather than from self-reported cadastral assessments controlled by local taxpayers. Second, notaries and registrars had income-based incentives that partially offset under-declaration, because lower declared values also reduced their fees. Third, comparisons with contemporary cadastral and fraud-corrected fiscal benchmarks indicate that registry-derived values recorded substantially higher wealth than cadastral declarations, suggesting that they preserved information lost in the *amillaramientos*. A fuller discussion of these measurement issues, including institutional incentives against under-declaration and comparisons with alternative fiscal benchmarks, belongs in Appendix 1; the main text uses registry values only for the more limited task of measuring the incidence of costs within the system that actually assessed those costs.

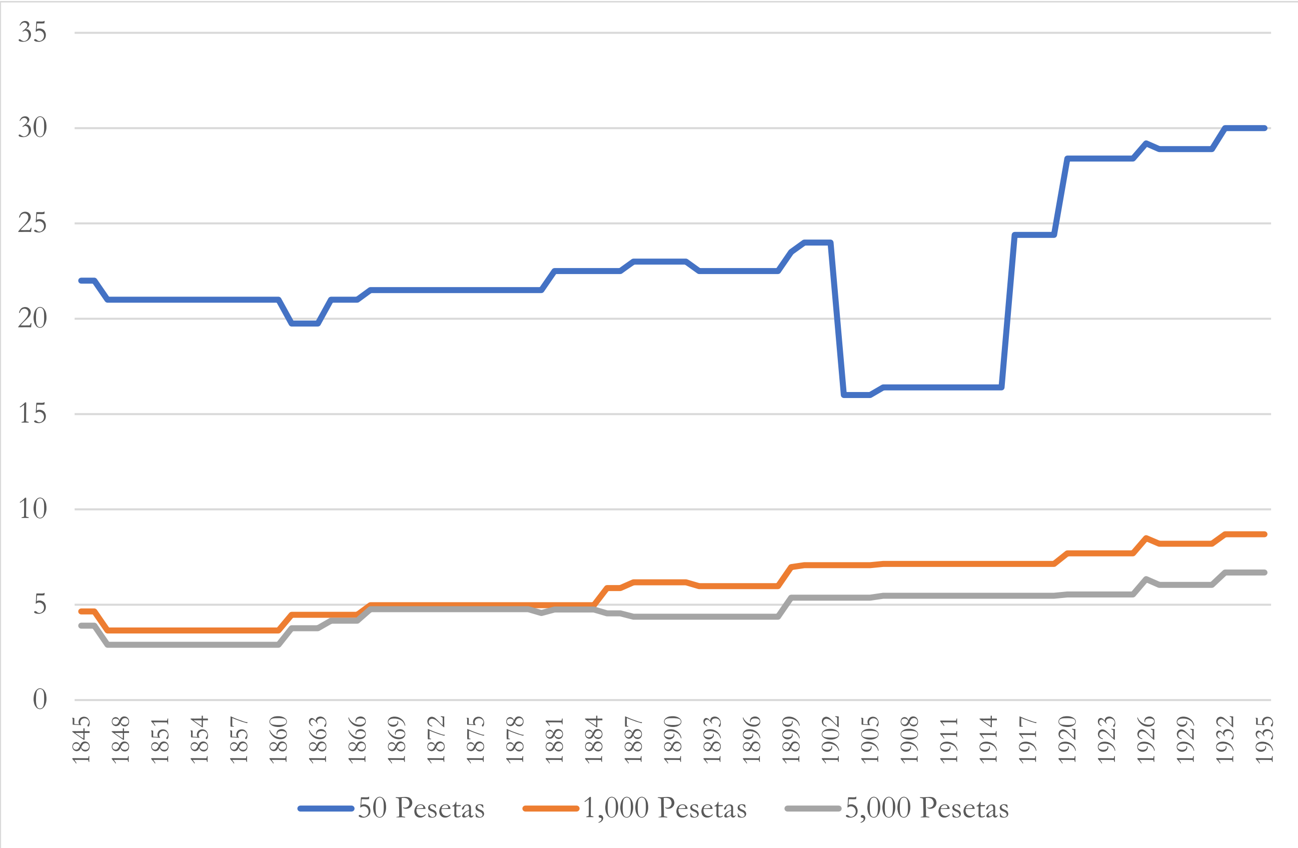
Despite the design tensions outlined above, the registry's fiscal entanglement ultimately underpinned its institutional resilience. The registry withstood political upheavals, civil wars, and budget crises that caused other institutions to collapse. Its survival can be attributed to its economic autonomy and fiscal usefulness: the financial objectives that legal reformers intended to limit ultimately underwrote the legal project long enough for it to mature, though at a considerable distributional cost. The next section therefore turns from institutional design to incidence: who bore the costs of this self-financing arrangement?

3. Registration costs and fee structures

The institutional design outlined in Section 2 had a direct and enduring impact on the affordability of formalisation. By making registrars and notaries residual claimants of their offices' productivity, the 'saving option' created strong incentives to structure fees to maximise per-document returns rather than coverage. The foreseeable outcome was a cost structure shaped more by the professional interests of its administrators than by the aim of universal formalisation: fees were mainly flat or only partially *ad valorem*, meaning that small transactions bore a disproportionate share of the cost from the beginning. This section traces how those costs changed from 1845 to the Second Republic (1935), analysing the combined burden of registrar fees, notarial charges, and transaction taxes across different property value ranges.

The original fee schedule was established during the 1845 Mon-Santillán fiscal reform. Although this schedule went through several revisions, its fundamental structure remained largely unchanged until 1903, when a comprehensive reform of notarial fees temporarily reduced the financial burden on small transactions (Organización del Notariado, 1903). However, this relief was partially reversed in 1916, and a further revision of the registrar tariff in 1920 (Real Decreto de 5 de julio de 1920) left the overall framework essentially unchanged thereafter. Throughout these changes, successive reforms have focused on specific cost components without addressing the overarching structure. This pattern stems from the fragmentation of administrative authority, as discussed below.

Figure 1. Taxes and fees as a percentage of the total value of land sold at 3 different prices, 1845 - 1935.



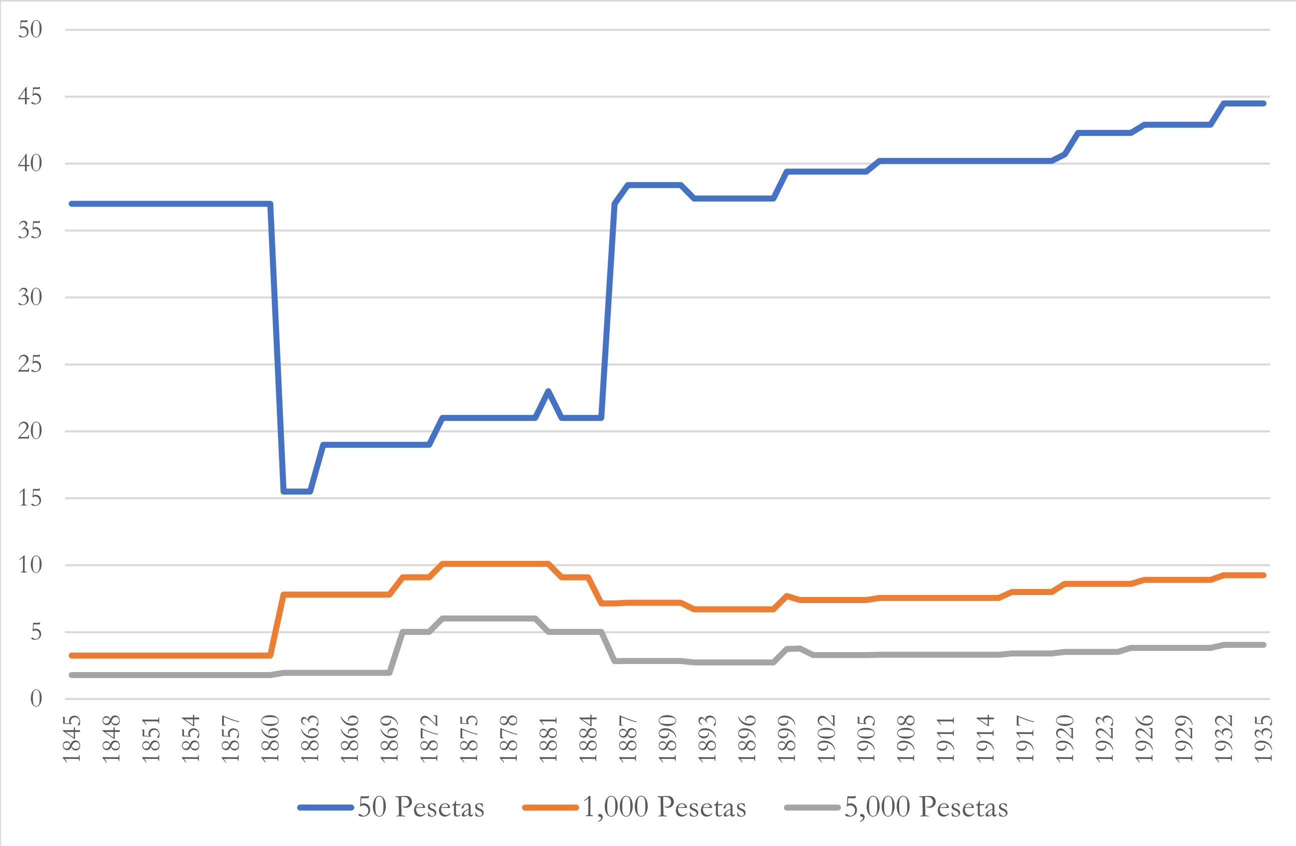
***Notes*:** see Appendix 2.

Figure 1 illustrates the combined burden of registration fees and transaction taxes as a percentage of land sale value across three price tiers: 50, 1,000, and 5,000 pesetas. The first tier represents not the cheapest plots actually sold, but the statutory value threshold the government set for determining fees and taxes for the smallest plots (Real Decreto, 1887). While transactions below this threshold are likely rare, they would have incurred an even greater proportional burden, suggesting that this tier underestimates the costs faced at the lowest end of the distribution. The second tier reflects the average price of Spanish land plots in 1861, as documented in registry handbooks. The third tier represents the average values recorded in the most expensive province, Cádiz, according to the same source.

Two main patterns emerge from the figure. The first is a consistent and significant inverse relationship between plot value and the proportional cost of formalisation, evident since the system began and widening over time. The second pattern shows a long-term upward trend in overall fee burdens across all three tiers, though the rate and severity of this increase varied significantly by transaction value.

For transactions valued at 50 pesetas, the combined burden initially exceeded 20 per cent of the transaction value, a threshold that likely deterred many smallholders even before any subsequent increases. Over the following decades, this burden gradually rose, reaching approximately 24 per cent by the early twentieth century. The comprehensive notarial fee reform of 1903 achieved a meaningful but temporary reduction, lowering the burden to around 15 per cent. However, this relief was short-lived, as the burden increased sharply in subsequent years. By 1935, it had climbed to approximately 30 per cent of the transaction value for the smallest tier, making formal registration very costly and plausibly unattractive for many smallholders. In contrast, the 1,000-peseta and 5,000-peseta tiers faced significantly lower proportional burdens throughout the period. However, both saw a notable long-term increase, driven mainly by rising tax components in the later decades.

Figure 2. Taxes and fees as a percentage of the total value of mortgages at three different prices, 1861 - 1935.



Notes**:** See Appendix 3.

Figure 2 illustrates a parallel analysis of mortgage transactions. The trends resemble those observed in land sales, but critical differences significantly affect rural credit markets. For the 50-peseta mortgage tier, the initial cost burden was approximately 35 per cent, already higher in proportional terms than the equivalent burden for land sales of the same value. The introduction of the 1861 Mortgage Law sharply reduced this to around 15 per cent, aligning with the reformers' stated goal of making credit markets accessible to small landowners. However, after 1885, the burden on the smallest mortgage tier rose steadily and sharply, eventually surpassing 40 per cent by 1920. At this level, formal mortgage credit became extremely expensive for many rural smallholders. In contrast, the maximum burden for the 1,000-peseta and 5,000-peseta tiers remained at 10 per cent and 6 per cent, respectively. This difference still gives the largest landowners a considerable advantage in accessing credit. The structural implications were significant: in regions characterised by fragmented landholding and low parcel values, formal mortgage markets were not just expensive but prohibitively so.

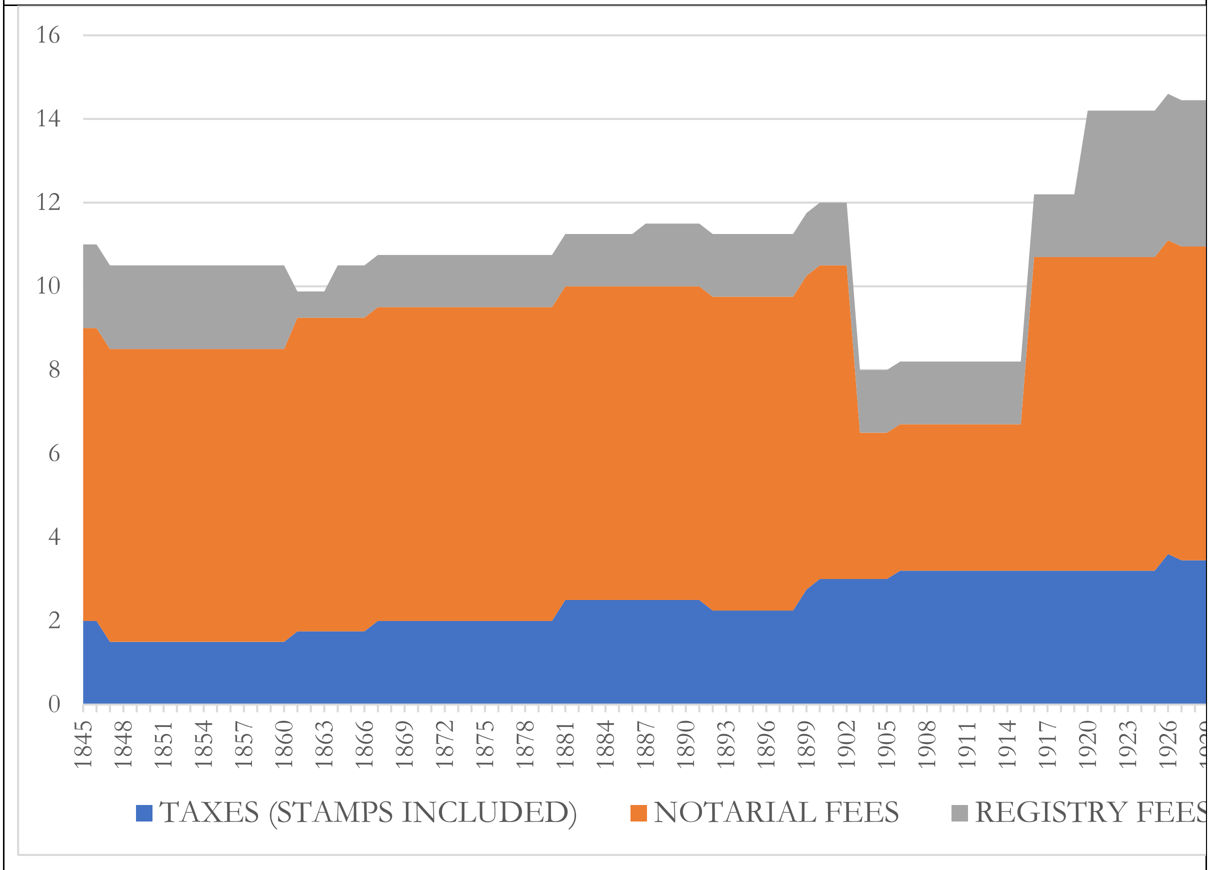
Figure 3 breaks down the overall burden shown in Figure 1 into its three main components: taxes (including stamp duty for notarial documents), notarial fees, and registry fees, displayed across three panels, one for each price tier. This breakdown is crucial for identifying the structural sources of regressivity and for explaining why multiple reform efforts consistently failed to reduce the overall burden.

Panel A (plots valued at 50 pesetas) illustrates the mechanism most clearly. Throughout the period, notarial fees accounted for the largest share of total sales costs, averaging over 60 per cent. This predominance stems from the flat-rate structure of notarial charges: because fees were set per document rather than proportional to transaction value, the nominal charge took up a much larger share of a small transaction. The most notable decrease in costs occurred between 1904 and 1915, coinciding with a sharp fall in notarial fees following the 1903 reform, driven by persistent pressure from rural advocates and legal reformers, especially Costa (1902), who emphasised the exclusion of smallholders from the formal system. However, outside this period, notarial fees stabilised at approximately 7.5 pesetas per transaction, even as tax and registry fees continued to rise. The partial reversal in 1916 demonstrated that professional interests reasserted themselves once political pressure had subsided.

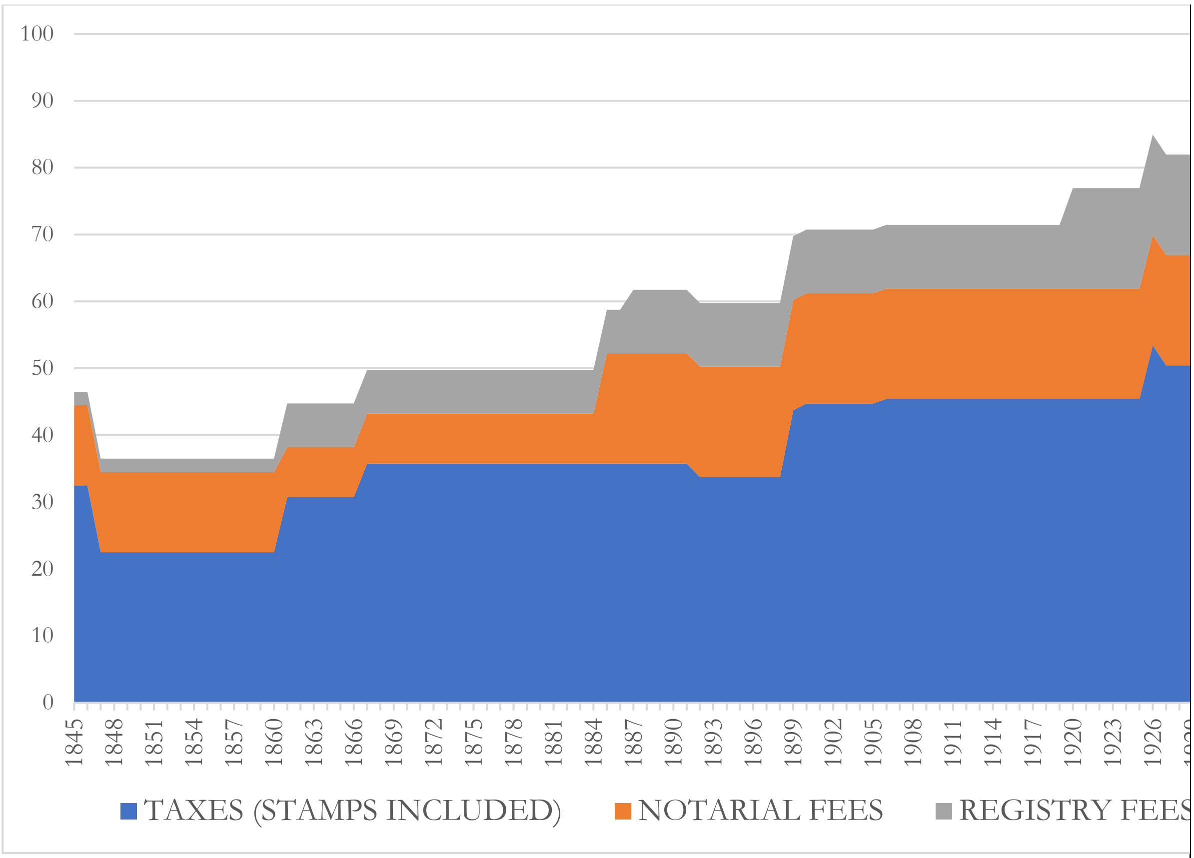
Panel B (plots valued at 1,000 pesetas) shows a distinct cost profile in which taxes, including stamp duty, account for the largest share of total transaction costs, averaging about 63 per cent. At this level, the *ad valorem* nature of the transaction tax becomes more evident: fixed minimum charges matter less, and changes in tax rates have a greater impact. All three components show a consistent long-term upward trend at this level, driven by the expanding tax component and reflecting the state's increased reliance on transmission revenue amid stagnating direct land taxation. Panel C, which includes plots valued at 5,000 pesetas, confirms that rising costs affected the entire system, but their proportional burden remained significantly lower at this tier. The highest-value tier benefited most directly from the *ad valorem* structure of the transaction tax, where fixed minimum thresholds had less distorting effect, and from the degressive structure of registrar fees, which fell as a proportion of transaction value as values rose. Consequently, large landowners faced mortgage costs of approximately 6 per cent of the transaction value, while land-sale costs were even lower.

Figure 3. The fees and taxes on plots sold at three different prices, from 1845 to 1935 (current prices).

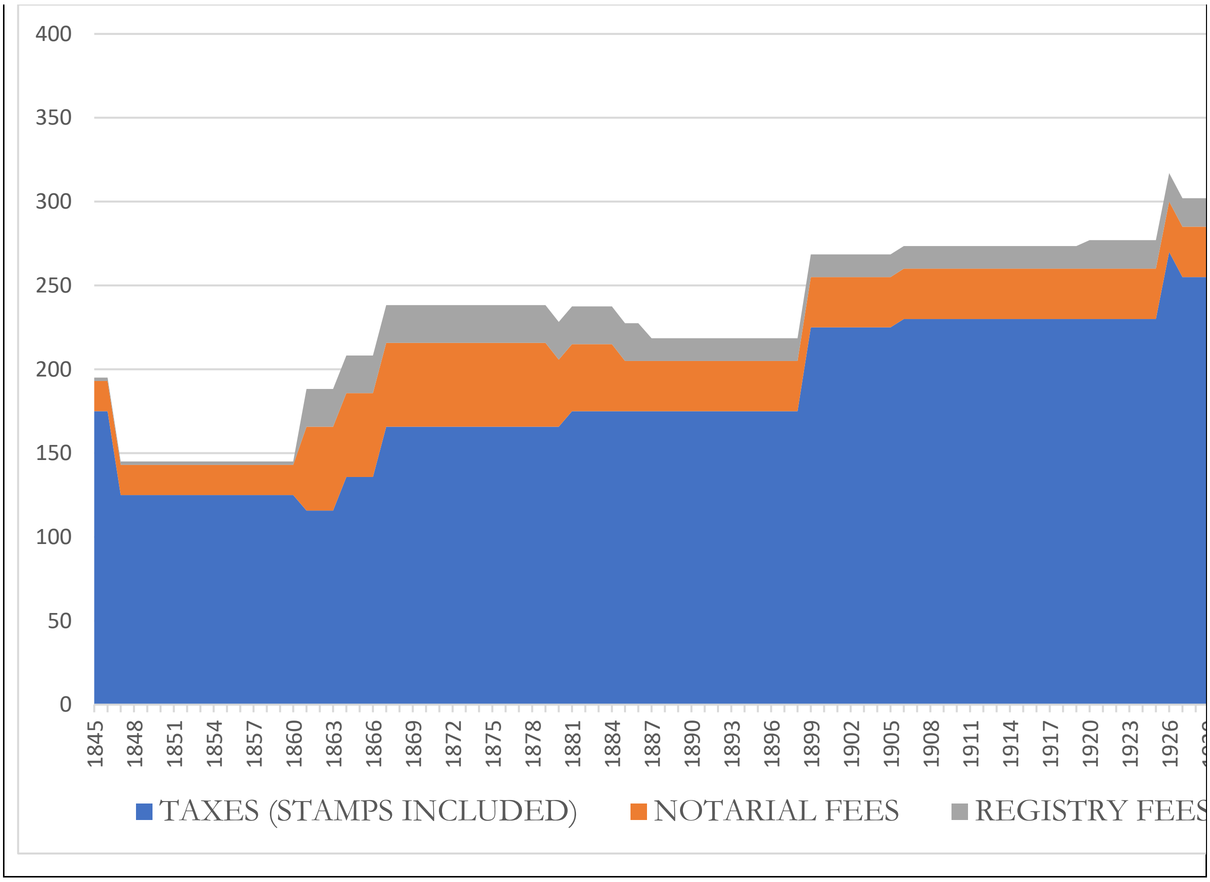
A) Plot of 50 Pesetas



B) Plot of 1,000 Pesetas



C) Plot of 5,000 Pesetas



***Notes*:** See Figure 1.

Three key analytical conclusions follow from this breakdown. First, rising costs were widespread, but the distribution of this increase was highly unequal, with the smallest transactions feeling the most severe effects. The primary driver of costs across all panels was the tax component, which grew consistently and proved most resistant to reform. Second, three cost components followed entirely different reform logics and were overseen by separate administrative authorities: registry fees by the Ministry of Justice, notarial fees by the Notarial Colleges in negotiation with the Ministry of Justice, and transaction taxes by the Treasury. This fragmentation meant that no single reform initiative could effectively address the overall cost burden; improvements in one area were often negated by stability or deterioration in the others. Third, this institutional fragmentation created path dependency that outlasted individual reform efforts. Any meaningful reform designed to significantly alleviate the burden associated with small transactions would have required simultaneous collaboration among three distinct administrative domains, each characterised by conflicting incentive structures. Unfortunately, this requisite condition was not met during the specified period.

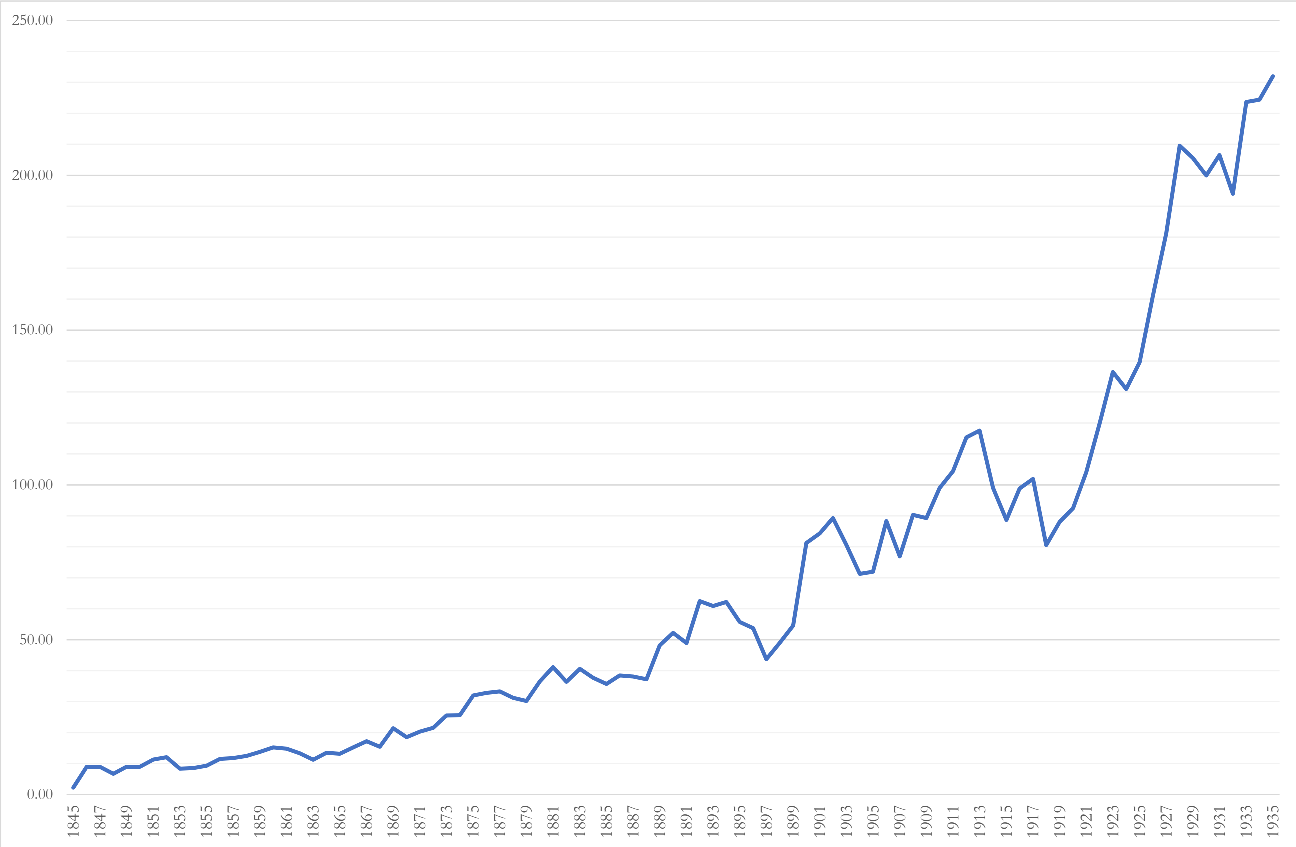
4. The fiscal role of the land registry

The institutional design described in Section 2 created an inherent tension between fiscal and legal objectives from the outset. While reformers aimed to prioritise legal functions over tax collection, the registry's economic sustainability depended on its capacity to generate revenue. The central mechanism driving that dependency was not deliberate policy but structural divergence: as the direct land tax became increasingly inelastic in response to rising land values and agricultural productivity, transaction-based taxation grew to fill the gap, making the state progressively more reliant on the very instrument that made access to the market more expensive for small landowners. This section examines that dynamic directly, using three figures that together document the registry's growing significance as a source of state income from 1845 to 1935.

The evidence presented here serves as a macro-level counterpart to the cost analysis in Section 3. While that section established that the transaction tax was the least reformable component of formalisation costs and the primary driver of their regressive character, this section explains why: the Treasury had a structural incentive to protect and expand this revenue stream precisely because direct land taxation had become incapable of capturing rising land values. The central finding is that transaction tax revenue grew significantly, both in absolute terms and relative to other property taxes, confirming that the registry functioned as an increasingly vital fiscal instrument that the state had strong incentives to preserve even at the expense of the distributional consequences documented elsewhere.

The structural divergence between the two fiscal mechanisms is the key to understanding this outcome.-The direct land tax, based on the amillaramientos valuations, proved largely inelastic to improvements in land productivity and rising land prices because these assessments relied on systematically understated self-reported declarations that provincial elites actively resisted updating. As a result, direct property tax revenues grew slowly in nominal terms and stagnated or declined in real terms (Pro Ruiz, 1995; Vallejo Pousada, 2001; Cuenda García, 2023). Crucially, this inelasticity was not solely due to the absence of a survey-based cadastre. Even where administrative cadastral measurements were completed after 1906, agrarian tax pressure continued to decline because the *territorial contribución* remained a flat tax based on a frozen assessment base that was never subsequently adjusted. Consequently, rising land values and increasing agricultural output resulted in lower, rather than higher, effective tax burdens, leaving the state structurally unable to capture agrarian growth (Cuenda García, 2023). Transaction taxes, by contrast, were imposed on the declared value at the time of each property transfer, allowing the state to capture successive cycles of rising land prices as they occurred. This created a systematic and self-reinforcing divergence between the two revenue streams that no reform cycle successfully addressed.

Figure 4. The evolution of transmission tax income, 1845 to 1935 (in million 1935 pesetas).



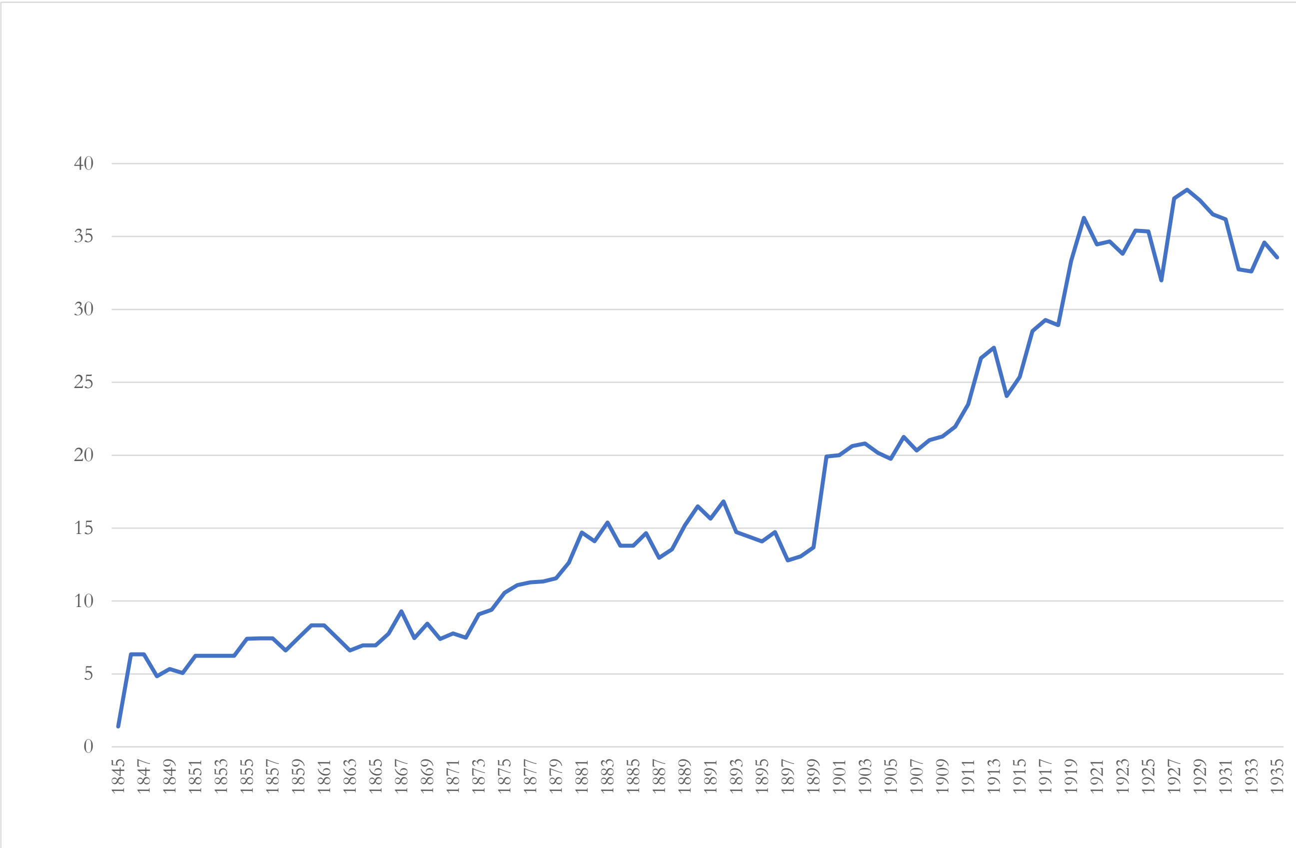
Notes: The fiscal data source is Comín & Díaz Fuentes (2005), pp. 915-16. The series is deflated with the GDP deflator from Prados de la Escosura (2017).

Figure 4 illustrates the evolution of transmission tax income in real terms from 1845 to 1935.[1] The long-run trajectory is the central finding: transmission tax revenue grew dynamically precisely because it was levied on transactions rather than on assessed land values, enabling it to capture rising land productivity and price appreciation in ways the direct land tax structurally could not. The short-run fluctuations visible in the series (the political instability of 1866–1870, the sharp contraction following the loss of Cuba and the Philippines in 1898, and the Great Depression after 1930) do not alter this structural upward trend. In the pre-registration period before 1861, revenue was minimal, increasing only gradually as the *Contaduría de Hipotecas* system yielded modest returns from

[1] In this section, transaction taxes are not separated between urban buildings and rural land, as the source did not provide this disaggregation. To maintain congruence, the *contribución de inmuebles, cultivos y ganadería* is used as the measure of direct property tax, which includes both direct taxes on urban buildings and rural land.

mortgage documentation. After 1861, growth accelerated noticeably from the late 1870s onward, reaching approximately 50 million pesetas in real terms by the mid-1880s. The most striking feature is the sharp and sustained acceleration beginning around 1915 and continuing through the mid-1920s, during which real transmission tax income roughly doubled, driven by rising land values during the First World War and the economic expansion of the Primo de Rivera years.

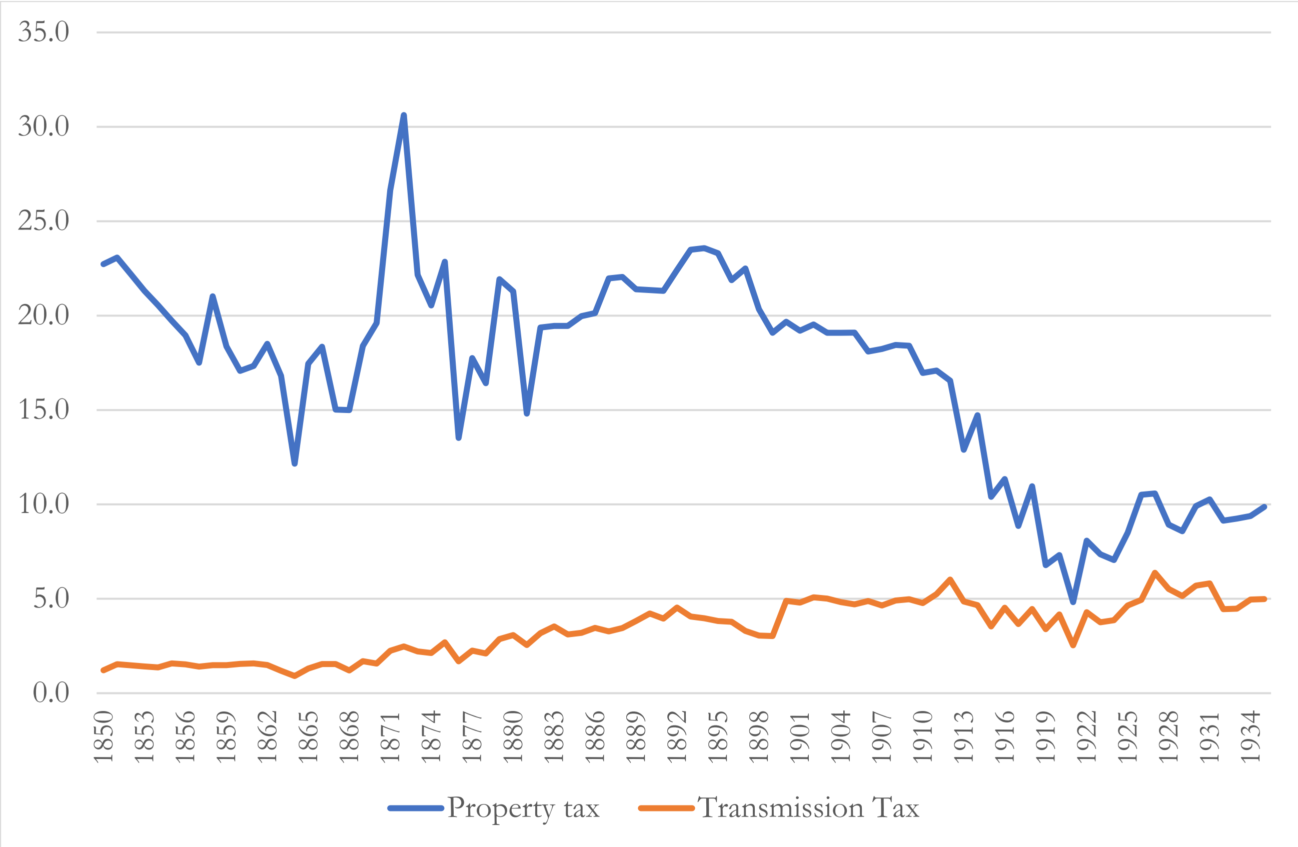
Figure 5. The participation (%) of transmission taxes in overall property taxes, 1845 to 1935.



***Notes*:** see Figure 4.

Figure 5 contextualises this growth by showing the transmission tax's share of total property tax revenue, making visible the long-run shift from stock-based to flow-based property taxation. In the mid-1840s, transmission taxes accounted for only approximately 5 per cent of total property tax revenue. The upward trend became pronounced from the late 1870s onward, reaching approximately 15 per cent by the mid-1880s. The most significant rise occurred in the 1920s, when the share peaked at nearly 40 per cent, meaning that transaction-based taxation accounted for more than one-third of all property tax revenue.

Figure 6. The contribution of transmission and property taxes (%) to the Spanish budget, 1850-1934



Notes**:** see Figure 4.

Figure 6 places both revenue streams within the overall Spanish budget from 1850 to 1934. Property tax accounted for about 20 to 22 per cent of total budget revenue at the start of the period, declining to about 10 per cent by the early twentieth century and reaching a low of 5 per cent in 1921. This figure also demonstrates that this shift was not the product of deliberate fiscal strategy but of structural divergence: the direct property tax stagnated while the transaction tax expanded, and the cumulative effect was a fundamental reorientation of the Spanish state's relationship to property taxation.

The Villaverde fiscal reform of 1899–1900 marks the pivotal moment when this trajectory became entrenched. Raimundo Fernández Villaverde, appointed Finance Minister in the aftermath of the 1898 disaster, initiated a comprehensive fiscal consolidation that combined expenditure cuts with revenue restructuring, consolidated public debt, and restructured direct taxation itself, most notably by creating the *contribución sobre las utilidades de la riqueza mobiliaria*, a new direct tax on income from labour, capital, and corporate profits (Comín, 1996; Cuenda García, 2023). Importantly, instead of reforming the direct land tax, which had already reached the limits of its effectiveness as a fiscal tool, the Villaverde reform bypassed it entirely. The reform should not be characterised merely as a transition from direct to indirect taxation, as it introduced a significant new direct tax. Instead, it retained the inelastic *territorial contribución*. Specifically, in property taxation, it allowed indirect, transaction-based taxes to gain prominence over the stagnant direct property tax (Pro Ruiz, 1999; Vallejo Pousada, 2001). This decision failed to address the underlying issues of the stagnant property levy. As an unintended consequence, the reform deepened the registry's fiscal significance. By reducing the relative importance of the direct property tax without overhauling transaction-based taxation, it effectively elevated the transmission tax within the broader fiscal architecture, making the state's dependence on this revenue stream increasingly difficult to reverse.

The asymmetry between the two types of taxes was not only fiscal but also political, helping explain the arrangement's durability. A direct tax on property is a visible and contestable levy, presenting an obvious annual bill that Spanish landowners resisted through local channels, such as assessment juntas and caciques, which kept the cadastre unchanged (Pro Ruiz, 1995; Cuenda García, 2023). In contrast, a transaction tax is applied only at the moment of a transfer chosen by the owner, collected through notaries and registrars as part of a process the owner already initiates. This type of tax does not create a comparable annual bill around which opposition could organise. The same landowners who successfully opposed direct taxation had little incentive or means to resist a charge included in voluntary transactions. The Villaverde reform illustrates this contrast within a single event: its direct tax component, the new *contribución sobre las utilidades*, faced open resistance, as evidenced by the 1899 tax strike in Barcelona. However, the simultaneous increase of the real rights transfer rate to four per cent occurred without similar opposition (Comín, 1996).

We do not interpret this as evidence that the Treasury deliberately engineered a substitution; rather, the data and secondary literature indicate an observed configuration: an inelastic direct property tax, a rising transmission tax, and significantly asymmetric political resistance. We interpret this configuration as a substitution where the state increasingly relied on transfer taxes to access rising land wealth instead of assessed land value. This system proved sustainable because transaction taxes were less affected by the resistance that blocked direct taxation. Viewed in this light, the registry's regressivity and its fiscal durability are not two separate findings but one: the system extracted revenue where opposition was weakest, particularly among the smallest and most fragmented landowners engaged in transactions.

The decades after the Villaverde reform saw continued efforts at fiscal modernisation, including restructuring the land tax and attempts to introduce income-based taxation. However, these efforts faced persistent challenges due to the same political and economic factors that had previously hindered cadastral reform. Provincial elites opposed more transparent and comprehensive assessments, and the Spanish state lacked the administrative capacity necessary for systematic valuation (Vallejo Pousada, 2008; Comín, 1996; Cuenda García, 2023). As a result, the increasing importance of the transmission tax stemmed less from intentional design than from the state's ongoing inability to update its direct tax instruments. Figures 4, 5, and 6 together demonstrate that by the early twentieth century, the registry had become a crucial component of Spanish public finance. Its fiscal success and distributional failure were not unrelated; rather, they were two sides of the same institutional design.

5. The Territorial Incidence of Fee-Financed Formalisation

The preceding sections have shown that Spain's land registry combined a modern legal architecture with a regressive financing model.[2] This section asks whether the incidence of the cost burden was territorially patterned in ways consistent with the geography of formalisation. Using provincial-level data on land registered sales, the paper constructs an index of formalisation intensity that compares each province's share of registered sales with its share of the national plot stock. The index captures participation in the formal land market relative to the underlying structure of land fragmentation.

The index of formalisation intensity is constructed as:

(1) $\textit{Intensity of formalisation}_{it} = \textit{Relative Sales}_{it} \ / \ \textit{Relative plots}_{i,1962}$

Where:

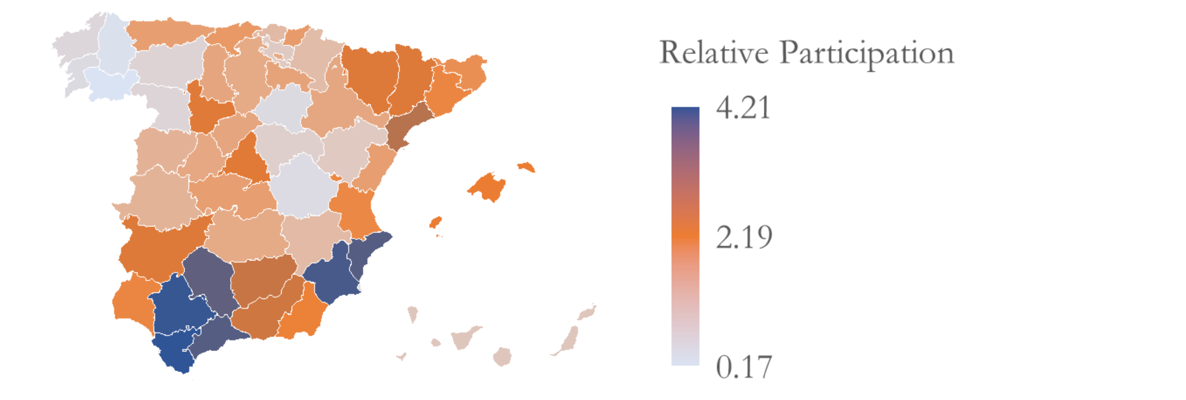
(2) $\textit{Relative Sales}_{it} = \textit{Sales}_{it} \ / \ \textit{National Sales}_{it}$

(3) $\textit{Relative plots}_{i,1962} = \textit{Number of plots}_{i,1962} \ / \ \textit{National plots}_{i,1962}$

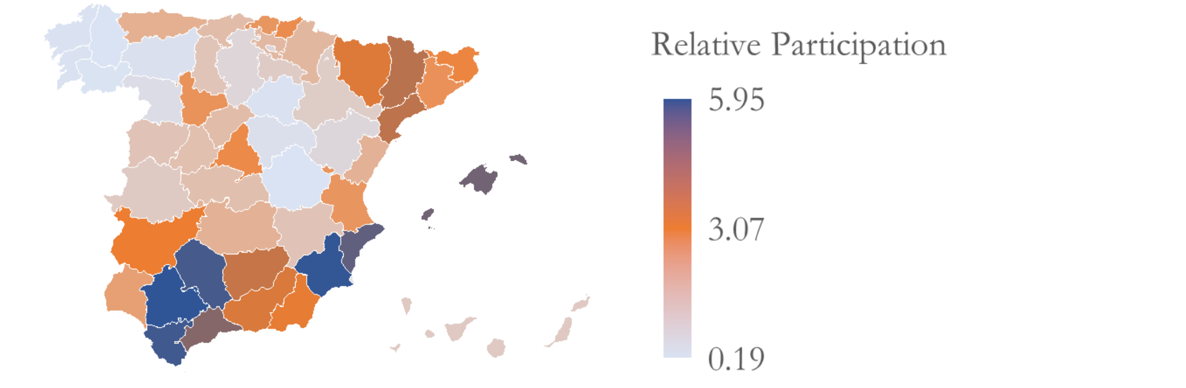
[2] The cost analysis concerns rural property. Because registration costs are largely fixed while urban property commands higher average values, the proportional burden, and therefore the regressive mechanism documented here, falls least on urban transactions; confining the incidence analysis to the rural sector thus isolates the segment in which that burden is most acute, rather than overstating it. As noted above, the transfer-tax revenue series cannot be disaggregated by urban and rural origin, so we advance no separate quantitative claim about urban registration.

Figure 7. Intensity of land markets formalisation, 1850-1934 (Spain average = 1)

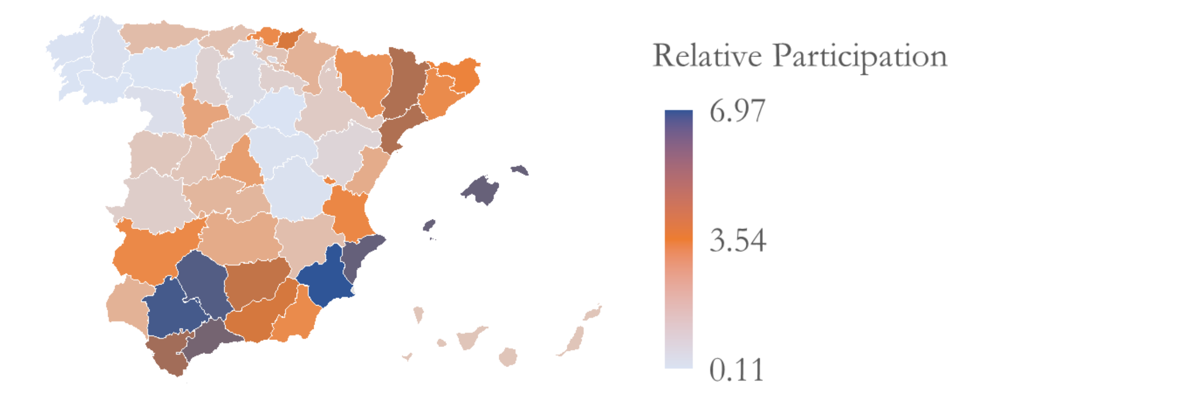
a) 1864-1878



b) 1894-1913



c) 1914-1934



***Notes*:** See text and Appendix 1.

Values above 1 indicate above-average participation in the formal land market relative to a province's share of the national plot stock; values below 1 indicate below-average participation. The number of transactions is obtained directly from the Registry Yearbook (Dirección General de los Registros y del Notariado, several years). The 1962 national agricultural census (Junta Nacional y

Provincial de Censo Agrario, 1962) serves as the baseline for the plot distribution because it provides the first year with reliable, comprehensive parcel-level data available at the provincial scale. The provincial distribution of plots is unlikely to have shifted materially before 1962: land consolidation began only with the 1952 Concentración Parcelaria law and, before the census, reached only a limited set of municipalities and plots, concentrated in a cluster of northern Castilian provinces, Valladolid, Palencia, Burgos, Zamora, Salamanca, Soria, and Guadalajara (Crecente et al., 2002; Miranda et al., 2006). Because consolidation lowers the recorded parcel count, any residual effect in these provinces would overstate their measured intensity and hence understate the north–south divide the maps display; we assess the plot denominator more fully in Appendix 1. Multi-decade sub-period averages reduce the influence of fee-reform episodes and local economic shocks, allowing the underlying structural determinants to emerge more clearly.

Figure 7 illustrates formalisation intensity across Spanish provinces for the three sub-periods, standardised so that 1 represents the national average. The maps reveal a consistent, widening geographic divide that remained largely stable throughout the study period, persisting across multiple reform cycles and broader macroeconomic fluctuations.

During the earliest sub-period (1864–1878), formalisation was already highly uneven. The provinces with the highest participation were primarily in Andalusia and along the Mediterranean coast, where large-scale commercial agriculture and active land markets generated substantial transaction volumes. Sevilla and Córdoba, along with their neighbouring provinces, consistently emerged as high-intensity regions, reflecting the interaction of three structural features identified in Section 3: high land values, relatively consolidated ownership under the latifundio system, and consequently a lower proportional burden of fixed and semi-fixed registration costs.

In contrast, the northern Castile and Galicia showed consistently low formalisation intensity from the outset. In these regions, extreme plot fragmentation and low individual parcel values meant that the cumulative burden of notarial fees, registrar charges, and transaction taxes consumed a prohibitive share of any transaction's value, precisely as the cost data in Section 3 would predict.[3] The second sub-period (1894–1913) shows these contrasts deepening rather than converging. The 1887 fee reform did not redistribute formalisation activity toward the peripheral north. The maximum relative participation score rises from 4.21 to 5.95, indicating that leading provinces pulled further ahead while lagging provinces stagnated. This divergence occurred despite the post-1898 aggregate contraction and recovery, suggesting that structural drivers were more powerful than cyclical shocks. The third sub-period (1914–1934) confirms the pattern's long-run stability, with the maximum intensity score rising further to 6.97. The provinces that had been dominant since the 1860s continued to lead, while the fragmented regions of the north and northwest remained peripheral.

Taken together, the three maps document a self-reinforcing dynamic. High-value, low-fragmentation provinces accumulated registration experience and developed deeper formal sales markets. Low-value, high-fragmentation provinces remained at the margin of the formal system, making it harder for owners to use land as collateral within that system and plausibly limiting their access to some of the gains that secure property rights could have enabled. This geographic concentration of registry activity mirrored a broader pattern of fiscal inequality: the peripheral agrarian regions excluded from formal land markets were simultaneously the least effectively reached by the state's taxing capacity

[3] The *foro* provinces in north-west Spain (Galicia, Asturias and Leon) account for a small share of national formalisation, so this tenure does not heavily affect the aggregate. It nonetheless warrants attention, since low formalisation might be an artefact of tenure rather than cost. Under the *foro*, ownership was divided between the *dominio directo* of the landowner and the heritable *dominio útil* of the *forista*. This division made either interest costly to inscribe and transmit and weak as collateral, since the split domain sat awkwardly within a registry organised around unified title. As a result, the market in these interests remained thin (Villares, 1982). In any case, formalisation in these provinces did not increase significantly after these legal hurdles were removed in 1926 with the Real decreto-Ley (1926), as shown by comparing Figures 7b and 7c. The regional pattern reflects the value-selectivity of a fixed-cost registry, not tenure peculiarities.

(Cuenda García, 2023), suggesting that the registry's distributional outcomes were embedded in a systemic geography of fiscal extraction from which the same regions were excluded on multiple dimensions.

The maps establish that formalisation was geographically concentrated; the next question is whether the cost burden fell most heavily on the same kinds of provinces that participated least in the formal system. The purpose of the following exercise is therefore not to estimate a causal elasticity of formalisation with respect to fees, but to measure the incidence of the burden generated by the fee structure. For each province, the effective burden of formalisation is calculated as the taxes and registration costs payable on the mean transaction expressed as a share of the mean declared plot price. Under a proportional system, this relationship would be flat; under a system dominated by fixed and semi-fixed charges, it should fall as plot values rise.

Table 1. The regressivity of the formalisation burden across provinces.

	Coefficient
Log mean plot price	−0.268***
	(0.010)
Constant	−0.755***
	(0.069)
Observations	49
R^2	0.94

***Notes*:** OLS across 49 provinces, using average values over the period shown in Figure 7. The dependent variable is the log effective burden on the average plot (taxes and registration fees on the mean transaction divided by the mean declared plot price); the regressor is the log mean plot price. The calculation and sources for transaction taxes are described in the Appendix 2. The mean log price is computed from data available at Dirección General de los Registros y del Notariado (several years). Standard errors in parentheses. *** p < 0.01.

The relationship is strongly negative and exceptionally tight. The estimated elasticity is −0.27, so the effective burden falls by roughly 2.7 per cent for every 10 per cent increase in plot value, and the price of the average plot alone accounts for 94 per cent of the cross-province variation in that burden. Because the burden measure is derived from the statutory fee schedules applied to prevailing plot values, this relationship characterises the cost structure rather than providing an independent test of it. This result should be read as evidence of incidence rather than behavioural response. It shows that the regressive cost structure identified in Section 3 was not only theoretical: it was embedded in the transaction record and was heaviest in low-value, fragmented provinces. That incidence maps onto the geography of Figure 7, where the same types of provinces remained weakly represented in the formal land market. The evidence therefore establishes the territorial incidence of the burden and its alignment with unequal formalisation.[4]

6. Conclusion

This paper has argued that the financing model of property-rights institutions is a central determinant of their distributional consequences. Spain's land registry between 1845 and 1935 was legally modern and nationally integrated, but user fees and transfer taxes financed access. The result was not institutional absence but unequal effective access: a formally universal registry that imposed the heaviest proportional burdens on low-value and fragmented properties. The argument rests on three connected propositions, whose implications reach well beyond Spanish historiography.

The first proposition is that legal universality does not imply effective universality. The 1861 registry created enforceable and publicly verifiable rights, yet the two-gate system of notarial deed and registry inscription required owners to pay a bundle of notarial fees, registry charges, stamps, and transfer taxes. Because many of these charges were fixed or semi-fixed, the cost of access was

[4] This same entanglement explains why the cost mechanism cannot be read directly from a simple correlation between the burden and the volume of formal activity. Because the effective burden is, by construction, highest exactly where plot values are lowest, and because low-value provinces could nonetheless record substantial transaction counts, a bivariate cross-province regression of transaction activity on the effective burden yields a coefficient statistically indistinguishable from zero. The regressive burden and the level of activity are jointly governed by the price of land, which drives both; the raw association therefore understates the role of cost rather than contradicting it. Isolating the causal effect of the burden on formalisation, as distinct from documenting its regressive incidence, requires variation in the fee and tax schedule that is independent of plot values. The statutory reforms of 1887, 1903, 1916, and 1920 provide candidate sources of such variation, though identifying that effect lies beyond the present analysis. For the present paper, the province-level evidence establishes the incidence of the burden, its regressive nature, and its geographic alignment with the observed pattern of formalisation, rather than a causal elasticity.

regressive in incidence, reaching very high proportions for small sales and mortgages while remaining modest for larger transactions. This is where the analysis bears most directly on Spanish historiography. Scholarship has established the political and legal limits of liberal reform (Congost, 2000; Gómez Urdáñez, 2002); the fee-financed 'saving option' identifies the precise institutional channel through which those limits were enforced in practice, determining which owners could reach formal protection and which could not in ways that political analysis alone cannot explain.

The second proposition is that fiscal dependence can make unequal access durable. Spain's direct land tax rested on cadastral valuations that became increasingly inelastic as provincial elites resisted reassessment and the state lacked the administrative capacity to update the fiscal base. Transaction taxes, by contrast, captured declared values at the moment of transfer, and grew until they accounted for a substantial share of property taxation by the 1920s. The Villaverde fiscal reform of 1899–1900 reinforced rather than resolved this asymmetry, consolidating the transmission tax without addressing the cadastre's inelasticity. The much-documented failure of the *amillaramientos* accordingly requires reinterpretation: where prior scholarship has treated systematic underreporting as an unresolved administrative problem (Pro Ruiz, 1995; Vallejo Pousada, 2000, 2010), it is better understood as a sustaining condition, since by preventing the direct land tax from capturing rising values it rendered the transaction-based registry fiscally indispensable. The system's fiscal success and its distributional failure were two sides of the same institutional arrangement. This is not peculiar to Spain: wherever a state funds a property-rights institution by taxing the transactions it registers, the Treasury's interest in revenue and the excluded owner's interest in access point in opposite directions, and the resulting equilibrium tends to preserve regressive access rather than to widen it.

The third proposition is that the distributional effects of property-rights institutions depend on the political economy of access. Arruñada (2003) shows that the notarial profession worked to restrict the legal protections available through alternative formalisation procedures, keeping any route that bypassed the notarial deed legally insecure; to this the present analysis adds an independent fiscal dimension. Because transaction taxes were levied on values declared in notarial deeds, any reform permitting transfers to bypass that channel would have severed the revenue stream on which the Treasury had come to depend. The two interests were not competing but mutually reinforcing, and their convergence explains why successive reforms modified particular fee schedules without dismantling the underlying structure: the system could be reformed in parts, but not as a whole.

The provincial evidence displays the territorial consequences of this arrangement. The cost of formalisation fell sharply as average plot values rose. As a result, the fee-based system placed the most burden on the low-value and fragmented regions of northern Spain. These regions also had limited representation in the formal land market compared to their share of the national plot stock. This incidence speaks directly to the land-formalisation literature in development economics. The dominant recommendation, that extending registry coverage lowers transaction costs and supports credit and agricultural productivity (Deininger & Feder, 2001, 2009), and the comparative finding that the introduction of cadastres raised long-run growth (D'Arcy et al., 2024), both rest on the premise that exclusion reflects administrative incompleteness. Spain had a nationally integrated registry from 1861; its geographic divide came not from incomplete coverage but from a cost structure that was regressive by design and consistently maintained. Extending the reach of such a system need not narrow inequality: where the underlying access costs remain regressive, it may reproduce inequality at greater scale.

The broader lesson is not confined to Spain, and two European comparisons sharpen it. Italy offers the closest structural parallel: in the north the Habsburg Theresian cadastre provided a geometric, state-funded foundation for secure title and accessible mortgage credit from the mid-eighteenth century (Zangheri, 1980; Buccaro, 2008), whereas the south entered unification without comparable infrastructure, producing a formalisation divide much like Spain's, though one driven by cadastral inheritance rather than by fee design. England offers the closest parallel in mechanism. It too never built a fiscal cadastre, organising the transfer of land privately through deeds-based conveyancing (Mayer & Pemberton, 2000); proposals for a cheap, state-backed register of title were repeatedly diluted or defeated, with the solicitors' profession the principal source of resistance, since conveyancing furnished a substantial and recurring share of its income (Offer, 1977, 1981; Anderson, 1992). Since those costs were mostly fixed for each transaction, they had a greater impact on smaller transfers. This created a regressive pattern similar to what has been documented in Spain, even in a common-law system. That the same capture of privately financed transfer costs recurs in a jurisdiction with no comparable notaries suggests that it is structural rather than a Spanish peculiarity.

These findings directly engage with discussions on Napoleonic institutional reform (Rosenthal 1992, Acemoglu et al. 2011, and d'Arcy et al. 2024). This literature argues that the introduction of the Napoleonic legal framework, which included the abolition of feudal tenure, the codification of private property, and the establishment of publicly registered and enforceable rights, produced enduring long-term benefits in all regions where it was implemented or adopted. Spain does not contradict the importance of that framework; it adopted these principles in 1861, and its registry was, in juridical design, recognisably Napoleonic in spirit. The case reveals that adopting a legal model is insufficient to determine its distributional consequences, which turned on a second-order choice the framework left open: how access would be financed. Spain's decision to externalise the cost of access to users, rather than fund the registry through general taxation as France and Prussia did, transformed a formally universalist institution into one whose costs fell most heavily on the smallholders it was meant to protect. The same legal architecture, differently funded, produced different distributional outcomes across Europe.

The paper has deliberately focused on the supply side of formalisation: the architecture of the registry, the distribution of access costs, and the fiscal incentives that sustained that distribution. A logical next step would be to turn to the demand side and ask how owners altered their behaviour in response to these costs, and how unequal registration shaped credit, investment, and productivity. The statutory fee reforms of 1887, 1903, 1916, and 1920 offer a promising basis for such an investigation. That analysis, however, is not needed to establish the paper's core contribution.

That contribution is to show that property-rights institutions must be analysed not only by asking whether they exist, whether they are legally secure, or whether they are administratively complete, but also by asking how access to them is financed. Where access is funded regressively, and where the state derives fiscal benefit from that arrangement, formal rights may remain legally universal yet economically unequal in practice. Spain's registry survived because it was adaptive and fiscally useful, but that survival came at the price of institutional equity.

References

Acemoglu, D., Cantoni, D., Johnson, S., & Robinson, J. A. (2011). The consequences of radical reform: The French Revolution. *American Economic Review*, 101(7), 3286–3307.

Alonso Martínez, M. (1882). *Proyecto de ley para reformar los aranceles de los Registradores de la Propiedad*. Imprenta Nacional.

Anderson, J. S. (1992). Lawyers and the making of English land law 1832–1940. Clarendon Press.

Arruñada, B. (2003). Vías de acceso al Registro de la Propiedad: La experiencia española. *Revista crítica de derecho inmobiliario*, 79(680), 3271-3289.

Arruñada, B., & Garoupa, N. (2005). The choice of titling system in land. Journal of Law and Economics, 48(2), 709–727.

Blaufarb, R. (2016). *The great demarcation: The French Revolution and the invention of modern property*. Oxford University Press.

Bloch, M. (1929). Les plans parcellaires. *Annales d'histoire économique et sociales*, 1(1), 60-70.

Buccaro, A. (2008). Les cadastres italiens avant et après l'Unité. In *De l'estime au cadastre en Europe. Les systèmes cadastraux aux XIX° et XX° siècles* (pp. 99-114). Comité pour l'Histoire Economique et Financière de la France.

Carmona, J., & Rosés, J. R. (2012). Land markets and agrarian backwardness (Spain, 1904–1934). *European Review of Economic History*, *16*(1), 74-96.

Clergeot, P. (2007). *Cent millions de parcelles en France: 1807, un cadastre pour l'Empire*. Publi-Topex.

Comín, F. (1996). *Historia de la Hacienda pública, II: España (1808–1995).* Crítica.

Comín, F. (2018). La corrupción permanente: el fraude fiscal en España. *Hispania nova. Primera Revista de Historia Contemporánea on-line en castellano*. Segunda Época, 481-521.

Comín, F., & Díaz Fuentes, D. (2005). Sector público administrativo y estado del bienestar. *Estadísticas Históricas de España: Siglos XIX y XX*, 2.ª ed., Fundación BBVA, 873-964.

Congost Colomer, R. (2000). Sagrada propiedad imperfecta: Otra visión de la revolución liberal española. *Historia Agraria: Revista de Agricultura e Historia Rural*, *20*, 61–93.

Congost Colomer, R., & Orallo, R. G. (2018). ¿Qué liberaron las medidas liberales? La circulación de la tierra en la España del siglo XIX. *Historia Agraria*, *74*, 7–38.

Costa, J. (1902), *Derecho consuetudinario y Economía popular de España.* Barcelona, Henrich y Ca.

Crecente, R., Alvarez, C., & Fra, U. (2002). Economic, social and environmental impact of land consolidation in Galicia. *Land Use Policy*, *19*(2), 135–147.

Crouzet, F. (2003). The Historiography of French Economic Growth in the Nineteenth Century. *Economic History Review*, 56 (2), 215–42.

Cuenda García, M. (2023). *The political economy of taxation in Spain, 1901–1936* [Doctoral dissertation, London School of Economics and Political Science].

Dale, P. F., & McLaughlin, J. D. (1999). *Land administration*. Oxford University Press.

D'Arcy, M., Nistotskaya, M., & Olsson, O. (2024). Cadasters and economic growth: A long-run cross-country panel. *Journal of Political Economy*, *132*(11), 3785–3826.

Deininger, K., & Feder, G. (2009). Land policy and land administration for economic development and poverty reduction. *World Bank Research Observer*, *24*(2), 233–266.

Deininger, K., & Feder, G. (2001). Land institutions and land markets. In B. Gardner & G. Rausser (Eds.), *Handbook of agricultural economics* (Vol. 1, pp. 288–331). Elsevier.

García Cruz, J. I. (2018). La dualidad registro-catastro en España y su problemática coordinación tras la reforma legal de 2015. *Boletín de la Asociación de Geógrafos Españoles*, *79*, 1–30.

Gómez Urdáñez, G. G. (2002). Doctrinas y realidades: Frenos a la liberalización de la propiedad en España, 1835–1855. *Historia Agraria: Revista de Agricultura e Historia Rural*, *27*, 133–164.

Grab, A. (2003). *Napoleon and the transformation of Europe*. Palgrave Macmillan.

Hoffman, P. T., Postel-Vinay, G., & Rosenthal, J. L. (2000). *Priceless markets: the political economy of credit in Paris, 1660-1870*. University of Chicago Press.

Kain, R. J. P., & Baigent, E. (1992). *The cadastral map in the service of the state: A history of property mapping*. University of Chicago Press.

López Manzanares, M. R. (2014). El Registro de la Propiedad en España en el siglo XIX. *Anuario de Historia del Derecho Español*, *84*, 337–402.

Loscertales, F. (1970). La evolución del sistema hipotecario español. *Revista Crítica de Derecho Inmobiliario*, *46*, 891–956.

Malefakis, E. E. (1970). Agrarian reform and peasant revolution in Spain: Origins of the Civil War. Yale University Press.

Martínez Neira, M. (2008). *La regulación registral inmobiliaria en España (1861–1944)*. Universidad Carlos III de Madrid.

Martínez Pérez, F. (2021). *Posesión, dominio y registro: Constitución de la propiedad contemporánea en España (1861–1944)*. Dykinson.

Mayer, C., & Pemberton, A. (2000). *A short history of land registration in England and Wales*. HM Land Registry.

Miranda, D., Crecente, R., & Alvarez, M. F. (2006). Land consolidation in inland rural Galicia, N.W. Spain, since 1950: An example of the formulation and use of questions, criteria and indicators for evaluation of rural development policies. *Land Use Policy*, *23*(4), 511–520.

North, D. C. (1990). *Institutions, institutional change and economic performance*. Cambridge University Press.

Offer, A. (1977). The origins of the Law of Property Act 1925. Modern Law Review, 40(5), 505–522.

Offer, A. (1981). *Property and Politics 1870-1914: landownership, law, ideology and urban development in England*. Cambridge University Press.

Pau Pedrón, A. (1994). *El Registro de la Propiedad en la historia del derecho español*. Colegio de Registradores de la Propiedad y Mercantiles de España.

Pau Pedrón, A. (2005). La conflictividad en torno a la implantación del Registro de la Propiedad. *Revista Crítica de Derecho Inmobiliario*, *81*, 2867–2912.

Pérez Picazo, M. T. (1993). Sobre los amillaramientos murcianos en el siglo XIX. *Áreas: Revista Internacional de Ciencias Sociales*, *15*, 115–128.
Prados De la Escosura, L. (2017). *Spanish Economic Growth, 1850–2015*. Springer Nature.
Pro Ruiz, J. P. (1995). Ocultación de la riqueza rústica en España (1870–1936). *Revista de Historia Económica – Journal of Iberian and Latin American Economic History*, 13(1), 89–114.
Pro Ruiz, J. (1999). Una reevaluación de la reforma de Fernández Villaverde (1899–1900) desde la contribución territorial. *Hacienda Pública Española / Review of Public Economics*, monografía *Villaverde en Hacienda, cien años después*.
Riaza Mateo, N. (1919). *Los retractos: Errores dominantes en la materia*. Editorial Reus.
Rica y Arenal, R. de la. (1945). La Reforma Hipotecaria: su contenido y alcance. *Revista Crítica de Derecho Inmobiliario*, 202, 178-190.
Rosenthal, J. L. (1992). *The fruits of revolution: Property rights, litigation, and French agriculture, 1700–1860*. Cambridge University Press.
Scott, J. C. (1998). *Seeing like a state: How certain schemes to improve the human condition have failed*. Yale University Press.
Urrutia Badiola, A. M. (2021). De los escribanos forales a los notarios públicos: El Siglo XIX en el País Vasco. *Egiunea: Revista del Colegio Notarial del País Vasco= Euskal Herriko Notario Elkargoaren aldizkaria*, (10), 23-34.
Vallejo Pousada, R. (2000). Los amillaramientos como fuente estadística: Una visión crítica desde la contribución territorial. *Historia Agraria: Revista de Agricultura e Historia Rural*, *20*, 95–122.
Vallejo Pousada, R. (2001). *Reforma tributaria y fiscalidad sobre la agricultura en la España liberal, 1845–1900*. Prensas Universitarias de Zaragoza.
Vallejo Pousada, R. (2008). La fiscalidad sobre la agricultura en la España contemporánea. *Relaciones: Estudios de Historia y Sociedad*, *29*(115), 85–126.
Vallejo Pousada, R. (2010). La estadística territorial española desde 1845 a 1900. *CT Catastro*, *68*, 81–115.
Villacorta, F. (1983). *Profesionales y burócratas: Estado y poder corporativo en la España del siglo XX, 1890–1923*. Siglo XXI.
Woolf, S. (1991). *Napoleon's integration of Europe*. Routledge.
Zangheri, R. (1980). *Catasti e storia della proprietà terriera.*. Einaudi.

Official Publications

Dirección General de los Registros y del Notariado *(several years). Anuario de la Dirección General de los Registros y del Notariado. Ministerio de Gracia y Justicia.*
Ley Hipotecaria de 8 de febrero de 1861. (1861). Gaceta de Madrid.
Ley del Notariado de 28 de mayo de 1862. (1862). Gaceta de Madrid.
Ley Hipotecaria reformada de 21 de diciembre de 1869. (1869). Gaceta de Madrid.
Reglamento general para la ejecución de la Ley Hipotecaria reformada. (1870). Gaceta de Madrid.
Real decreto de 22 de diciembre de 1887 aprobando el nuevo arancel de los Registradores de la Propiedad. (1887). Gaceta de Madrid.

Dirección General de los Registros Civil y de la Propiedad y del Notariado. (1889–1890). *Memorias y estados formados por los Registradores de la Propiedad en cumplimiento de lo prevenido en el Real Decreto de 31 de agosto de 188*6.

Imprenta del Ministerio de Gracia y Justicia. Dirección General de los Registros Civil y de la Propiedad y del Notariado. (1903). *Resumen de las memorias e informes presentados por los Registradores de la Propiedad y del Notariado correspondientes al ejercicio de 1902.* Imprenta del Ministerio de Gracia y Justicia.

Real decreto modificando la organización del Notariado (1903). Gaceta de Madrid.

Ley Hipotecaria: nueva edición oficial de 21 de abril de 1909. (1909). Gaceta de Madrid.

Real decreto de 5 de junio de 1916, por el que se reforma parcialmente el arancel notarial (1916). Gaceta de Madrid.

Real decreto de 5 de julio de 1920 aprobando el nuevo arancel de los Registradores de la Propiedad. (1920). Gaceta de Madrid.

Real decreto-ley declarando redimibles todos los foros, subforos foros frucmentarios, rentas en saco, sisas, derechuras, cédulas de planturía y cualesquiera otros gravámenes de análoga naturaleza jurídica sobre bienes inmuebles en las provincias de Galicia, Asturias y León (1926), Gaceta de Madrid.

Junta Nacional y Provincial de Censo Agrario. (1962). *Censo de 1962.* Instituto Nacional de Estadística.

Appendices

Appendix 1. The reliability of registry-declared land values

This appendix expands on the measurement discussion in the main text. The paper measures the incidence of registration costs using values declared in registry deeds, and Table 1 relates the effective burden on the average plot to the declared mean plot price. Because the paper also argues that self-reported valuations were systematically understated, it is necessary to establish what declared registry values can and cannot support. We make three claims. First, registry deed values, while imperfect in level, capture variation and shocks in the land market far better than the cadastre, which was structurally inelastic. Second, registry-derived wealth exceeds even the valuations the government itself produced when it set out to uncover fiscal fraud, revealing value the fiscal apparatus could not reach. Third, and independently of these, the regressivity result of Table 1 does not require declared prices to be accurate in level; it requires only that their cross-province ranking be informative, a far weaker condition than the evidence below supports.

1.1 Incentives governing declared values

The 'saving option' shaped the reliability of the values declared within the system it created. Notaries and registrars had a stake in declared values because their fees were based on a percentage of transaction amounts, so that under-declaration lowered their income. This incentive was imperfect: the registrar's fee schedule was degressive, weakening his incentive to defend high values on large transactions. More importantly, the transacting parties had strong incentives to under-report, since a lower declared price reduced both transaction taxes and professional fees, exerting consistent downward pressure on declared values. Corrective mechanisms operated only at the level of the individual transaction and were insufficient to counteract structural under-reporting.

The comparison that matters, however, is not between declared registry values and some unobserved true price, but between registry values and the alternative source on which the fiscal system relied: the cadastre. Here the contrast is stark. Local elites retained substantial control over cadastral assessment: total provincial values were fixed and did not adjust regularly due to political pressures, local juntas composed of the largest taxpayers produced the declarations themselves, caciques manipulated the process, and neither provincial nor central authorities commanded the resources to verify the figures (Pro Ruiz, 1995; Comín, 2018; Cuenda García, 2023). Registry deed values, by contrast, arose from concrete bilateral transactions, which mitigated the political manipulation that systematically distorted self-reported cadastral assessments.

1.2 A legal check on under-declaration: the retracto legal de colindantes

A second legal mechanism reinforced the accuracy of deed prices precisely in the regions central to this paper's argument. The *retracto legal de colindantes*, codified in the Spanish Civil Code and rooted in Castilian custom (Real Decreto, 1889, arts. 1521–1525), created a direct private incentive against under-declaration. It allowed the owner of an adjacent rural parcel to substitute himself for the buyer in the sale of a rural plot not exceeding one hectare, at the price stated in the notarial deed, within a nine-day period from registry inscription (Riaza Mateo, 1919). In the northern provinces of the Crown of Castile, where the great majority of transactions involved plots below the one-hectare threshold (Malefakis, 1970), this made under-declaration self-defeating for buyers: a fraudulently low declared price exposed the buyer to losing the parcel to a neighbour exercising the *retracto* at that same understated figure. The mechanism thus aligned private incentives with accurate reporting exactly where fragmented landholding, and hence the regressive burden, was most prevalent.

1.3 Variation, shocks, and the fraud-corrected benchmark
The decisive property of registry values is not their accuracy in level but their responsiveness. The cadastre was structurally inelastic: resting on estimated total provincial values and self-reported *amillaramientos* declarations that local elites had every incentive to keep frozen, it adjusted slowly and understated rising values for decades. Registry deed values, arising from dated bilateral transactions, moved with the market. Econometric evidence on provincial values of plots sold, inherited, and mortgaged is consistent with this: declared values moved together across provinces, tracking a shared underlying dynamic in the land market (Carmona & Rosés, 2012). Whatever their absolute bias, registry values captured shocks and variation that the cadastre could not, and it is variation, not level, on which this paper relies.

The clearest demonstration comes from benchmarking registry values against the fiscal administration's own figures. Multiplying the average plot value for each province from registry transactions over 1865–1869 by the number of plots in that province and dividing by 20 (the legally mandated conversion factor of the *contribución territorial*, whereby 5 per cent of capital value constituted taxable annual income), yields a provincial wealth figure expressed in the administration's own terms. Set against declared cadastral values for 1878 (Instituto Geográfico y Estadístico, 1888), registry-derived wealth is on average 2.17 times larger. Set against the revised values the government itself computed expressly to uncover fiscal fraud (Real Decreto, 1879), it is still 1.19 times larger. The comparison is necessarily indirect, since the registry counts plots while the cadastre counts individuals, and the province-level ratios naturally vary for several reasons, including that indirectness; the object of interest is their central tendency, not the province-by-province scatter.

The second ratio is the striking one. Even after the state had actively investigated and corrected for under-reporting, its own fraud-adjusted valuations remained roughly a fifth below what ordinary registry transactions revealed. The registry was thus recording value that the fiscal apparatus could not reach even when it was trying to. This is a strong statement about relative reliability, and it holds regardless of how the underlying plots were distributed: it compares central tendencies, not distributions, and thus is unaffected by any variation the province-level ratios exhibit.

1.4 Interpretation: selection at the extensive margin, and the robustness of Table 1

One reading of the gap between registry and fiscal valuations bears directly on the paper's central argument. Part of it plausibly reflects selection: if the regressive cost structure priced the cheapest plots out of formal exchange altogether, then the plots that reached the registry were, on average, more valuable than the underlying universe of plots, and registry-derived wealth would exceed any valuation built on the full stock. In this reading, the ratios are not merely a curiosity of measurement but an extensive-margin echo of the very mechanism the paper documents: the system did not simply tax cheap transactions heavily; it removed the cheapest ones from the formal market. We put this forward as an interpretation consistent with the evidence rather than a demonstration, since registry plots may be a non-random, higher-value subsample for other reasons, such as the concentration of commercial agriculture in high-value regions.

This selection reading must be distinguished carefully from the proportionality argument that protects the Table 1 estimate, because the two operate on different margins. The selection effect is extensive: it concerns which plots enter the formal market at all, and it falls, by construction, on the cheapest plots in the low-value provinces. The condition Table 1 requires is intensive: among the transactions that were recorded, the effective burden must track the cross-province ranking of declared prices, and this is threatened only by under-reporting that is both strongly differential across provinces and systematically correlated with the fixed-fee share of the burden. Exclusion of the cheapest plots at the extensive margin does not produce such a within-sample correlation; it truncates the sample rather than tilting the price–burden gradient among those who remain. The two claims are therefore complementary rather than contradictory: broadly proportional under-reporting on the intensive margin leaves the regressivity gradient intact, while extensive-margin selection, if anything, means the true regressive exclusion was more severe than the recorded transactions alone reveal.

Taken together, the appendix supports a measured conclusion. Registry values are imperfect in level, superior to the cadastre in capturing variation and shocks, and high enough to exceed even the government's fraud-corrected estimates. Their distortions appear broadly proportional across the recorded sample, preserving the cross-province ranking on which the incidence result depends, while the residual gap relative to fiscal benchmarks is consistent with the regressive system having excluded the cheapest plots from formal exchange. The registry thus functioned as an imperfect but internally coherent instrument, capturing the geography and dynamics of the land market even where it understated its absolute scale; the incidence result of Table 1 rests on that coherence, not on the accuracy of any single declared price.

1.5 The plot-count denominator

A parallel concern applies to the denominator of the formalisation index, which normalises each province's share of registered sales by its share of the national plot stock recorded in the 1962 agricultural census. As with declared prices, what the index requires is not that the absolute number of plots be stable between the study period and 1962 but that the cross-province ranking of plot shares be so: because the measure is a ratio of shares, any change in parcel counts that is roughly proportional across provinces leaves it untouched. The administrative character of the parcel unit works in the measure's favour here. A *parcela* is an administrative unit that does not subdivide or merge when ownership changes hands; a buyer who assembles several adjacent plots acquires them without creating a new unit, so the count is insensitive to precisely the transactions that drive the numerator. This decoupling also clarifies why the stability of the plot count is a separate question from the stability of the ownership distribution documented in the historiography: the two objects can and do diverge, and it is the former, not the latter, on which the denominator depends.

The one force that alters the administrative count is state-directed consolidation, and its timing is favourable. The *concentración parcelaria* began only with the law of 20 December 1952, entirely after the study period, and its execution was initially slow, accelerating sharply only after the 1962 census; by that date it had reached a limited set of municipalities concentrated in the northern Castilian cereal provinces (Valladolid, Palencia, Burgos, Zamora, Salamanca, Soria, and Guadalajara). Because the programme was designed to reduce the number of parcels held by each owner while leaving the ownership distribution untouched, it is the textbook case of the parcel count moving independently of ownership. At the provincial scale relevant to the index, a handful of consolidated municipalities is a small fraction of the province's plot stock, so the effect on provincial shares is minor. What residual effect there is runs in the conservative direction: by lowering the recorded parcel count in these provinces, consolidation understates their share of the national stock, inflates their measured formalisation intensity, and therefore understates the north–south divide the maps display. As with the declared-value distortions discussed above, the measurement error thus deepens rather than softens the paper's central finding.

References not included in the main reference list

Carmona, J., & Rosés, J. R. (2012). Land markets and agrarian backwardness (Spain, 1904–1934). *European Review of Economic History, 16*(1), 74–96.

Instituto Geográfico y Estadístico. (1888). Reseña geográfica y estadística de España. Imprenta de la Dirección General del Instituto Geográfico y Estadístico.

Malefakis, E. E. (1970). *Agrarian reform and peasant revolution in Spain: Origins of the Civil War*. Yale University Press.

Real decreto de 10 de diciembre de 1878, publicando el Reglamento sobre rectificación de amillaramientos (1879).Gaceta de Madrid.

Real Decreto de 24 de julio de 1889 por el que se publica el Código Civil (1889), Gaceta de Madrid.

Riaza Mateo, N. (1919). *Los retractos: Errores dominantes en la materia.* Editorial Reus.

Appendix 2. Sale Transactions Costs: Sources and Methodology

2.1. Overview

This appendix documents the construction of the transaction cost index for sales of immovable property (*escritura de compraventa*), 1845–1935. The index measures the total fees a purchaser incurred to complete a sale through the formal system and covers the four compulsory cost components of that process: the transaction tax (*Impuesto de Derechos Reales*), the documentary stamp duty (*Timbre del Estado*), notarial fees (*Arancel Notarial*), and registry inscription fees (*Arancel de Registradores de la Propiedad*).

These four components were levied under separate legislative regimes, revised on independent schedules, and calculated on different principles: two are flat *ad valorem* charges, while two are step functions in which the fee depends on the value bracket into which the transaction falls. Reconstructing the total burden therefore requires each component to be traced separately through its own sequence of reforms and then recombined at the level of the individual transaction. Sections 2.3 to 2.6 set out each component in turn; Section 2.7 describes the aggregation.

The fee base is the declared value of the plot sold (*valor declarado*), in current pesetas, taken from the annual statistical handbooks of the Colegio de Registradores. For a sale the declared value is in principle the consideration itself, so the fee base is the transaction value directly rather than a proxy for it. The countervailing concern is under declaration, discussed in Section 2.8. The resulting index is the source for Figures 1 and 3 in the main text.

2.2. Primary Sources

Fee schedules were reconstructed from primary legislation published in the *Gaceta de Madrid*. Table 2.1 lists every reform year covered and the corresponding source for each component. Where a component is unchanged in a given year the cell is left blank, and the index carries the preceding schedule forward until the next reform.

Table 2.1. Fee schedule reform years and primary legislative sources

Year in force	**Tax (Derechos Reales)**	**Stamp (Timbre)**	**Notarial (Arancel)**	**Registry (Arancel)**
1845	RD 23 May 1845 (3%)	RC 12 May 1824 (proxy)	—	Contaduría de Hipotecas
1847	RD 11 Jun 1847 (2%)	—	—	—
1851	—	RD 8 Aug 1851	—	—
1861	—	—	1870 proxy	Arancel 1861 (LH)
1862	—	RD 12 Sep 1861	—	—
1863	—	—	—	RD 22 May 1863
1864	Ley Presup. 1864–65 (2.5%)	—	—	—
1867	Ley Presup. 1867–68 (3%)	—	—	—
1870	—	—	Arancel Notarial 1870	Arancel 1870
1880	—	—	Arancel Notarial 1880	—
1882	Ley 31 Dec 1881 (3%)	Ley Timbre 31 Dec 1881	—	—
1885	—	Ley Timbre 30 Jan 1885	Arancel Notarial 1885	—
1887	—	Ley Timbre 16 Mar 1887	—	RD 22 Dec 1887
1892	Tarifa Gral. 1892 (3%)	Ley Timbre 15 Sep 1892	—	—
1899	Tarifa 18 Jun 1899 (4%)	—	—	—
1900	Tarifa 2 Apr 1900 (4%)	Ley Timbre 1900	—	—
1903	Tarifa 17 Jun 1903 (4%)	—	Ley mod. LH Art.18	—
1906	—	Ley Timbre 1906	—	—
1916	—	—	RD 5 Jun 1916	—
1920	—	Ley Timbre 1920	—	RD 5 Jul 1920
1926	RD-Ley 27 Apr 1926 (4.8%)	Ley Timbre 1926	—	—
1932	Ley 11 Mar 1932 (5%)	Ley Timbre 1932	—	—

Note: '—' indicates no reform in that component in that year. Tax rates shown in parentheses are the compraventa rates. The 1850 notarial proxy uses the 1870 arancel, the earliest recoverable notarial schedule; the 1824 Real Cédula serves as the stamp proxy for 1845–1850.

2.3. Transaction Tax (Derechos Reales)
Sales of immovables (*compraventas*) were the most heavily taxed category of onerous transfer throughout the period, and the rate rose substantially across it: from two per cent in the middle decades of the nineteenth century to five per cent by the 1930s. The tax was revised more frequently than any other component of the index, with thirteen distinct rate periods between 1845 and 1935, and it is the largest single charge on transactions above the flat-rate notarial brackets.

The rates applied are: 1845–1846, 3 per cent (*Real Decreto* 23 May 1845, base 4ª); 1847–1863, 2 per cent, following the reduction under Minister Salamanca (*Real Decreto* 11 June 1847, Art. 1, effective 1 July 1847); 1864–1866, 2.5 per cent (*Ley de Presupuestos* 1864–65, Art. 8, Letra D, base 2ª); 1867–1881, 3 per cent (*Ley de Presupuestos* 1867–68, tariff entry *Compras-ventas*), confirmed as the standing base by the 1871 *Apéndice* (Letra C, base 3ª); 1882–1898, 3 per cent (*Ley* 31 December 1881, Art. 2, and the 1892 *Tarifa General*, entry 15); 1899–1925, 4 per cent (tariff of 18 June 1899, entry 16, carried forward in the tariffs of 2 April 1900 and 17 June 1903); 1926–1931, 4.8 per cent, reflecting a twenty per cent *recargo* on the four per cent base (*Real Decreto-Ley* 27 April 1926, confirmed in the *texto refundido* of 28 February 1927); and 1932–1935, 5 per cent (*Ley* 11 March 1932, entry 15).

Three points deserve note. First, the rate is flat *ad valorem* throughout: unlike the notarial and registry tariffs, the tax schedule contains no value brackets and therefore no reduction for small transactions. Second, the 1926 increase operates as a surcharge on the existing base rather than a new tariff, and is applied here as an effective 4.8 per cent. Third, the rates used are those for straightforward onerous transfer of immovables between unrelated parties; the tariffs distinguish further categories (transfers between relatives, exchanges, *adjudicaciones en pago*), which are outside the scope of the index.

2.4. Stamp Duty (Timbre del Estado)
Stamp duty was charged on the *primera copia* (the first authenticated copy) of the deed, which is the copy presented to the registry. The levy attaches to the document rather than to the transaction it records, and the rate is not purely proportional: each reform established a **step function** in which a fixed charge applied to the first page according to the declared value bracket, with a flat per-page charge for subsequent pages. The index computes the stamp cost for a standard three-page deed: the bracket-dependent first-page charge plus the contemporaneous rate for two further pages.

The schedules run: the 1824 *Real Cédula* as proxy for 1845–1850; the *Real Decreto* of 8 August 1851; the *Real Decreto* of 12 September 1861, which replaced the *sello* system with a nine-class proportional scale from 1 January 1862; the *Leyes del Timbre* of 31 December 1881, 30 January 1885 and 16 March 1887, which revised bracket boundaries and per-page charges while preserving the structure; the *Ley del Timbre* of 15 September 1892, which raised the bottom bracket threshold to 500 pesetas and so materially reduced the stamp burden on small plots; and the successive increases of 1900, 1906, 1920, 1926 and 1932.

2.5. Notarial Fees (Arancel Notarial)

Notarial fees are the largest single component of the total burden across most of the value distribution, and by a wide margin for the smallest plots. For a sale, the applicable tariff is the general proportional scale (Número 6 in the 1870 and 1880 aranceles, and Número 2 in those of 1885 and 1916), with the price stated in the deed serving as the regulator, that is, the value on which the fee is computed.

Each arancel combines a flat-rate scale for lower and mid-range values with a proportional scale above a threshold. Copy fees (*derechos de copia*) and the marginal note (*nota marginal*) are included throughout: in the 1870 and 1880 schedules they are added to the matrix fee as a separate line (3.00 pesetas for three pages plus 0.50 for the note), and from 1885 they are consolidated into the flat brackets. The 1916 reform raised the per-page copy rate to 1.50 pesetas, giving a 5.00-peseta addition.

The 1903 *Ley modificando la Ley Hipotecaria* (Art. 18) introduced reduced rates for deeds of alienation or encumbrance of fincas valued at 500 pesetas or less. The law is explicit that where a finca exceeds that value, the standing aranceles govern, so the 1885 schedule remains in force for all higher values until the 1916 reform. The index implements this conditional structure directly rather than treating 1903 as a general reform.

For 1850–1869 no earlier notarial arancel in the modern regulated form is recoverable from the *Gaceta de Madrid*, and the 1870 rates are applied as a proxy from 1850. This probably overstates notarial costs for the pre-1870 escribano system, which was less standardised and may have been cheaper for small transactions.

Table 2.2. Notarial fee schedule for sale deeds (general scale), selected reform years

Arancel year	Value ≤ (PTA)	Fee (PTA)	Fee type	Basis	Source
1850 (proxy)	150	3% × value	Proportional	Núm.4 + copy	Arancel 1870, proxy
1850 (proxy)	250	6% × value	Proportional	Núm.4 + copy	Arancel 1870, proxy
1850 (proxy)	2,500	14.75	Flat	Núm.5 + copy	Arancel 1870, proxy
1850 (proxy)	∞	1% × value	Proportional	Núm.6	Arancel 1870, proxy
1870	150	3% × value	Proportional	Núm.4 + copy	Gaceta 12 Jun 1870
1870	250	6% × value	Proportional	Núm.4 + copy	Gaceta 12 Jun 1870
1870	2,500	14.75	Flat	Núm.5 + copy	Gaceta 12 Jun 1870
1870	∞	1% × value	Proportional	Núm.6	Gaceta 12 Jun 1870
1880	250	3%–6% × value	Proportional	Núm.4 + copy	Gaceta 16 Mar 1880
1880	25,000	23.50–63.50	Flat (4 brackets)	Núm.5 + copy	Gaceta 16 Mar 1880
1880	∞	0.4% × value	Proportional	Núm.6	Gaceta 16 Mar 1880
1885	10,000	9.50–43.50	Flat (7 brackets)	Núm.2 Esc.1 + copy	Gaceta 13 Sep 1885
1885	∞	0.5% × value	Proportional	Núm.2 Esc.2	Gaceta 13 Sep 1885
1903	500	2–8	Flat (4 brackets)	Art.18 special (≤500 only)	Gaceta 5 Nov 1903
1916	10,000	11–45	Flat (7 brackets)	Núm.2 Esc.1 + copy	Gaceta 17 Jun 1916
1916	∞	0.5% × value	Proportional	Núm.2 Esc.2	Gaceta 17 Jun 1916

***Notes**: Fees are inclusive of copy charges and the marginal note. The 1850 rows apply 1870 rates as proxy. '∞' denotes the open-ended top bracket of each schedule. For 1903, the special rates apply only where plot value ≤ 500 PTA; the 1885 schedule governs above that threshold.*

2.6. Registry Fees (Arancel de Registradores de la Propiedad)
Registry fees comprise three distinct charges, all of which are summed in the index: a presentation fee (*derecho de presentación*), charged for submitting the deed to the registry; a registration fee (*derecho de inscripción*), the principal charge for the act of inscription, assessed on a value-bracket step function; and a certification fee (*derecho de certificación*), charged for the marginal note and the certificate confirming inscription. The tariffs assess the registration fee on the value of the right inscribed, without a separate scale according to the type of act.

Before 1861, the *Contaduría de Hipotecas* charged flat fees independent of plot value, and the index uses the 1ª clase rates (2.50 pesetas registration plus 3.00 certification) as the default, since the assignment of judicial districts to classes is not available for all provinces. The 1861 *Ley Hipotecaria* introduced a value-graduated scale; the aranceles of 1887 and 1920 expanded the number of brackets and raised nominal rates substantially.

Table 2.3. Registry fee schedule summary by reform year

In force from	Presentation (PTA)	Registration (PTA)	Certification (PTA)	Source
1845	—	2.50 flat (1ª clase)	3.00 flat (1ª clase)	Aranceles 1845
1861	0.50	0.125 ≤125; ~0.1% above	2.00	Arancel LH 1861
1863	0.50	0.25–1.00; ~0.1% above	2.00	RD 22 May 1863
1870	0.50	0.25–1.00; ~0.1% above	2.00	Arancel 1870
1887	1.50	0.60–20.00 (13 brackets)	0.25–2.00 (6 brackets)	RD 22 Dec 1887
1920	2.00	2.50–31.00 (12 brackets)	1.50–4.00 (5 brackets)	RD 5 Jul 1920

Notes: The 1845 Contaduría applied flat fees irrespective of value and levied no separate presentation charge. For 1861–1870 the registration fee above the flat-rate floor was assessed per line of inscription and is approximated at 0.1 per cent ad valorem. Only bracket endpoints are shown for 1887 and 1920.

2.7. Aggregation and Expression of the Index

For each province p and year t, the total sale transaction cost is:

$$(4)\ C(p,t) = Tax(V, t) + Stamp(V, t) + Notarial(V, t) + Registry(V, t)$$

where V is the average declared value of plots sold in province p in year t. The index is expressed as a share of that value:

$$(5)\ Index(p,t) = C(p,t) / V(p,t) \times 100$$

Each component applies a step function given V, the index selects the most recent schedule in force in year t and then the first bracket whose upper bound exceeds V. Fixed brackets are applied directly; proportional brackets are multiplied by V. Values are in current (nominal) pesetas, and no deflation is applied, since the index is a ratio of two contemporaneous nominal magnitudes and is therefore independent of the price level.

The index is computed on two plot value series. The first covers rural plots alone, available for 1864–1878 and 1894–1934; the intervening years are missing from the source, since the registry handbooks did not report the rural breakdown over that interval. The second covers rural and urban plots combined and runs continuously from 1864 to 1934. The rural series is the more precise measure for the paper's argument, which concerns agricultural land; the combined series is used where continuous annual coverage is required, and as a robustness check on the periods where both are available. For the illustrative burden curves in Figures 1 and 3, the schedules are instead applied to three fixed representative plot values (50, 1,000 and 5,000 pesetas) rather than to the provincial averages; the provincial series is what enters the regional analysis and Table 1.

2.8. Limitations and Caveats

The following qualifications apply:

Under declaration. Declared sale values are subject to systematic underreporting, since the transaction tax was assessed directly on the declared price and the incentive to understate was correspondingly strong. Under declaration pushes observations into lower fee brackets, so the index probably understates the true proportional burden, and does so unevenly across provinces.

Category selection within the tariff. The tax rate used is that for onerous transfer of immovables between unrelated parties. Transfers between relatives, exchanges and adjudications in payment of debt carried different rates and are not separately modelled.

Pre-1870 notarial proxy. The 1870 arancel is applied from 1850, probably overstating notarial costs under the earlier escribano system.

1ª clase registry rates. For 1845–1860 the higher (1ª clase) flat rates are used throughout, since provincial district classifications are unavailable.

Three-page deed convention. Stamp and copy charges assume a three-page deed. Longer deeds, which were more likely for complex or higher-value transactions, would carry proportionally higher charges, so the index is mildly conservative at the upper end of the value distribution.

Appendix 3. Mortgage Transaction Costs: Sources and Methodology

3.1. Overview

The cost index measures the total fees incurred by a borrower to constitute a mortgage (*escritura de constitución de hipoteca*) over the period 1845–1935. It covers all four compulsory cost components of the formal mortgage process in Spain: the transaction tax (*Derechos Reales*), the documentary stamp duty (*Timbre del Estado*), notarial fees (*Arancel Notarial*), and registry inscription fees (*Arancel de Registradores de la Propiedad*). Only constitution costs are included; cancellation of the mortgage upon repayment, which would have required a second deed and a second registration, is excluded. This reflects our focus on the barriers to *accessing* the formal mortgage market rather than its full lifecycle cost.

The fee base in all calculations is the declared value of the mortgaged plot (*valor declarado*), expressed in current pesetas, as recorded in the annual statistical handbooks of the Colegio de Registradores. This is used as a proxy for the loan capital, since the actual loan amount is not available at the provincial level. In practice, Spanish mortgage law limited loans to two-thirds to three-quarters of the appraised value of the pledged property (*Ley Hipotecaria*, 1861, Art. 170), so the true fee burden on the capital received by the borrower was proportionally higher than the figures reported here. This is acknowledged in the text and discussed in Section 3. The resulting index is the source for Figure 2 in the main text.

3.2. Primary Sources

Fee schedules were reconstructed from primary legislation published in the *Gaceta de Madrid*. Each reform was located, read in full, and the relevant tariff tables transcribed. Table 3.1 lists all reform years covered and the corresponding primary source for each fee component.

Table 3.1. Fee schedule reform years and primary legislative sources

Year in force	Tax (Derechos Reales)	Stamp (Timbre)	Notarial (Arancel)	Registry (Arancel)
1845	—	RD 12 May 1824 (proxy)	—	Contaduría de Hipotecas
1851	—	RD 8 Aug 1851	—	Contaduría de Hipotecas
1861	Ley 23 May 1845 (1%)	—	1870 proxy	Arancel 1861 (LH)
1862	—	RD 12 Sep 1861	—	—
1863	—	—	—	RD 22 May 1863
1870	—	—	Arancel Notarial 1870	Arancel 1870
1880	—	—	Arancel Notarial 1880	—
1882	Ley 31 Dec 1881 (0.5%)	Ley Timbre 31 Dec 1881	—	—
1885	—	Ley Timbre 30 Jan 1885	Arancel Notarial 1885	—
1887	—	Ley Timbre 16 Mar 1887	—	RD 22 Dec 1887
1892	Ley 30 Jun 1892 (0.5%)	Ley Timbre 15 Sep 1892	—	—
1899	Ley 2 Aug 1899 (1%)	—	—	—
1900	Ley 27 Mar 1900 (0.75%)	Ley Timbre 1900	—	—
1903	—	—	Ley mod. LH Art.18	—
1906	—	Ley Timbre 1906	—	—
1916	—	—	RD 5 Jun 1916	—
1920	—	Ley Timbre 1920	—	RD 5 Jul 1920
1926	Ley 26 Jul 1922 (0.9%)	Ley Timbre 1926	—	—
1932	Ley 11 Mar 1932 (1%)	Ley Timbre 1932	—	—

Note: '—' indicates no reform in that component for that year. The 1850 proxy for notarial fees uses the 1870 Arancel Notarial rates, the earliest recoverable notarial schedule. The 1824 stamp schedule is used as proxy for 1845–1850.

3.3. Transaction Tax (Derechos Reales)

The principal transaction tax applicable to mortgage constitutions was levied as a flat percentage of the declared capital of the mortgage. The governing legislation changed repeatedly across the period. The rates applied in the index are as follows:

1845–1860: zero (the *Derechos de Hipoteca* under the pre-1861 system did not generate a quantifiable proportional rate at the provincial level); 1861–1881: 1 per cent (*Ley de Presupuestos*, 23 May 1845, as applied to mortgage contracts post-1861); 1882–1891: 0.5 per cent (*Ley de Presupuestos*, 31 December 1881); 1892–1898: 0.5 per cent (*Ley del Timbre*, 30 June 1892); 1899: 1 per cent (*Ley de Presupuestos*, 2 August 1899); 1900–1925: 0.75 per cent (*Ley de Presupuestos*, 27 March 1900); 1926–1931: 0.9 per cent (*Ley de Derechos Reales*, 26 July 1922); 1932–1935: 1 per cent (*Ley*, 11 March 1932).

These rates apply uniformly across all provinces and plot values. No reduced rates for small transactions existed in this component throughout the period under study.

3.4. Stamp Duty (Timbre del Estado)

Stamp duty was charged on the *primera copia* (first authenticated copy) of the mortgage deed. The rate was not purely proportional: each reform established a **step function** in which a fixed fee was applied to the first page of the document according to the declared value bracket, with additional flat fees for subsequent pages. The index computes stamp cost for a standard three-page deed: first-page stamp (bracket-dependent) plus two additional pages at the contemporaneous per-page rate.

All stamp schedules were sourced directly from the *Gaceta de Madrid* (see Table 3.1). The 1862 schedule (*Real Decreto* 12 September 1861) introduced nine value classes; the 1882, 1885, 1887, and subsequent reforms revised the bracket boundaries and per-page charges while maintaining the same structural form. The 1892 reform substantially increased the bottom bracket threshold, reducing the stamp burden for small plots. The later reforms of 1906, 1920, 1926, and 1932 each increased nominal rates.

3.*5. Notarial Fees (Arancel Notarial)*

Notarial fees are the largest single component for most plot values, particularly small ones. The fee structure derives from the official *Arancel Notarial*, which governs all notarial acts. For mortgage constitution specifically, the applicable tariff is Número 7 of each arancel, which equals three-quarters (¾) of the general proportional scale (Número 6) applicable to contracts. The regulator — the value on which the fee is computed — is explicitly specified as the *capital of the hipoteca* (Número 8 of each reform). This distinction from the sale-deed scale is central: using the general scale would overstate notarial costs for mortgages by one-third. Because the provincial sources report plot value rather than the loan amount, the index uses declared plot value as a proxy for this regulator, as explained in Section 3.1.

Each arancel combines two structural elements: a flat-rate scale (Escala 1, applicable to lower and mid-range values) and a proportional scale (Escala 2, applicable above a threshold). The 1870 and 1880 aranceles also include copy fees (*derechos de copia*) as a separate line, which are added to the matrix fee; from 1885 onwards the copy fee is consolidated into the flat-rate brackets shown in the schedule. All values in the index include copy fees.

The 1903 *Ley modificando la Ley Hipotecaria* (Art. 18, *Gaceta* 5 November 1903) introduced special reduced rates for mortgage deeds on plots with individual value not exceeding 500 pesetas. These rates replace the 1885 schedule only for that value range; for all plots valued above 500 pesetas, the 1885 *arancel* remains in force until the 1916 reform. This interaction is handled explicitly in the index.

For the period 1850–1869, no earlier *arancel notarial* in the modern regulated form is recoverable from the *Gaceta de Madrid*. The 1870 rates are therefore applied as a proxy from 1850. This approximation likely overestimates notarial costs for the pre-1870 period, since the preceding escribano fee system was less standardised. This caveat is noted in the text.

Table 3.2. Notarial fee schedule for mortgage constitution (Número 7), selected reform years

Arancel year	Capital ≤ (PTA)	Fee (PTA)	Fee type	Basis	Source
1850 (proxy)	250	3% × capital	Proportional	Capital ≤ 250 PTA	Arancel 1870, proxy
1850 (proxy)	2,500	14.75	Flat	250 < capital ≤ 2,500	Arancel 1870, proxy
1850 (proxy)	∞	1% × capital	Proportional	Capital > 2,500	Arancel 1870, proxy
1870	250	3%–6% × capital	Proportional	Núm.4+copy (≤250)	Gaceta 12 Jun 1870
1870	25,000	14.75	Flat	Núm.5+copy (250–2,500)	Gaceta 12 Jun 1870
1870	∞	1% × capital	Proportional	Núm.6 (>2,500)	Gaceta 12 Jun 1870
1880	250	3%–6% × capital	Proportional	Núm.4+copy (≤250)	Gaceta 16 Mar 1880
1880	25,000	23.50–63.50	Flat (4 brackets)	Núm.5+copy (250–25,000)	Gaceta 16 Mar 1880
1880	∞	0.4% × capital	Proportional	Núm.6 (>25,000)	Gaceta 16 Mar 1880
1885	10,000	9.50–43.50	Flat (7 brackets)	Núm.2 Scale1, half+copy	Gaceta 13 Sep 1885
1885	∞	0.5% × capital	Proportional	Núm.2 Scale2, half	Gaceta 13 Sep 1885
1903	500	2–8	Flat (4 brackets)	Art.18 special (≤500 only)	Gaceta 5 Nov 1903
1916	10,000	11–45	Flat (7 brackets)	Núm.2 Scale1, half+copy	Gaceta 17 Jun 1916
1916	∞	0.5% × capital	Proportional	Núm.2 Scale2, half	Gaceta 17 Jun 1916

Notes: Fees shown net of copy charges (included in flat-rate brackets from 1885). The 1850 row uses 1870 rates as proxy. '∞' denotes the open-ended top bracket of each schedule. For 1903, special rates apply only if plot value ≤ 500 PTA; the 1885 schedule applies for all values above that threshold.

3.6. *Registry Fees (Arancel de Registradores de la Propiedad)*

Registry fees comprise three distinct charges: (i) a presentation fee (*derecho de presentación*), charged for submitting the deed to the registry; (ii) a registration fee (*derecho de inscripción*), the principal charge for the act of inscription, calculated on a value-bracket step function; and (iii) a certification fee (*derecho de certificación*), charged for the marginal note and certificate confirming the inscription. All three are summed in the index.

Before 1861 (the *Contaduría de Hipotecas* period), the registry applied flat fees independent of plot value. For the 1ª clase districts (the larger judicial districts, used as the default in the index given data constraints), the total flat fee was 5.50 pesetas (2.50 registration + 3.00 certification). From 1861 the *Ley Hipotecaria* introduced a value-graduated scale; the 1887 and 1920 aranceles substantially expanded the number of brackets and raised nominal rates.

Table 3.3. Registry fee schedule summary by reform year

In force from	Presentation (PTA)	Registration (PTA)	Certification (PTA)	Source
1845	—	2.50 flat (1ª cl.)	3.00 flat (1ª cl.)	Aranceles 1845
1861	0.50	0.13–0.1% ad val.	2.00	Arancel LH 1861
1863	0.50	0.25–1.00 + 0.1% ad val.	2.00	RD 22 May 1863
1870	0.50	0.25–1.00 + 0.1% ad val.	2.00	Arancel 1870
1887	1.50	0.60–20.00 (12 brackets)	0.25–2.00 (6 brackets)	RD 22 Dec 1887
1920	2.00	2.50–31.00 (11 brackets)	1.50–4.00 (5 brackets)	RD 5 Jul 1920

***Notes**: The 1845 Contaduría de Hipotecas applied flat fees irrespective of plot value; the 1ª clase rates are used throughout. Presentation fee was not a separately itemised charge in the 1845 system. The 1887 and 1920 registration scales each have 12 and 11 value brackets respectively; only the range endpoints are shown here.*

3.7. *Aggregation and Expression of the Index*

For each province p and year t, the total mortgage transaction cost is computed as:

$$(6)\ C(p,t) = Tax(V, t) + Stamp(V, t) + Notarial(V, t) + Registry(V, t)$$

where V is the average declared value (in current pesetas) of mortgage plots in province p in year t, sourced from the annual statistical handbooks of the Colegio de Registradores de la Propiedad.

The index is expressed as a percentage of the plot value:

(7) $Index(p,t) = C(p,t) / V(p,t) \times 100$

Each fee component applies a step function: given the plot value V, the index selects the most recent fee schedule in force for year t and then identifies the first bracket whose upper bound exceeds V. If the bracket type is 'fixed', the stated fee is applied directly; if 'proportional', the fee equals the stated rate multiplied by V. For the Notarial component, as noted above, the applicable rate is three-quarters of the general proportional scale (Número 7).

The index is computed separately for two plot value series: (i) rural plots only, available from 1894 onwards; and (ii) rural and urban plots combined, available from 1850 onwards for most provinces. The rural series is the primary series used in the regression analysis (Section 5). The combined series is used for the long-run descriptive figures (Section 3) and as a robustness check. For the illustrative burden curves in Figure 2, the schedules are instead applied to three fixed representative mortgage values (50, 1,000 and 5,000 pesetas) rather than to the provincial averages; the provincial series is what enters the regional analysis.

All values are in current (nominal) pesetas. No deflation is applied, since the interest in the index is its value as a proportion of the contemporaneous declared plot value, which is itself a nominal figure, and that ratio is independent of the price level. For time-series comparisons of nominal fee levels across decades, the reader should bear in mind the general price inflation of the 1910s–1920s.

3.8. Limitations and Caveats

Several limitations should be borne in mind when interpreting the index:

Proxy for loan capital. Plot value is used because loan capital is not available at the provincial level. Since mortgages typically covered 67–75 per cent of plot value, the true fee burden on the capital received was proportionally higher than the index value. The direction of any bias is uniform across provinces and years and does not affect cross-sectional comparisons.

Pre-1870 notarial proxy. The 1870 arancel is applied as a proxy for 1850–1869. This likely overestimates the notarial burden for the pre-reform escribano system, which was less standardised and potentially cheaper for small transactions.

Declared versus actual values. Plot values in the registry handbooks are declared values, subject to underreporting. Pro Ruiz (1995) and the paper's own analysis (Section 2 and Appendix 1) document systematic undervaluation, particularly for rural plots and in areas dominated by local elites. Underreporting compresses fee brackets downward, suggesting that the true proportional burden on correctly-valued plots was lower than the index implies for the high-bracket observations.

1ª clase registry rates. For the 1845 period, when the Contaduría de Hipotecas applied flat fees differentiated by judicial district class, the index uses the 1ª clase rates (higher) as the default, since the provincial assignment of districts to classes is not available for all provinces for that period.

Constitution costs only. The index captures only the cost of constituting a mortgage. Cancellation on repayment required a second notarial deed and a further registration. If the full lifecycle cost were computed, the total burden would be approximately 40–50 per cent higher, though some components (notably the transaction tax) were not levied on cancellation acts.