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Helping the Poor Help Themselves: Social Enterprise and Ireland's Peculiar Microfinance Revolution, c. 1836-1845

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Helping the Poor Help Themselves:

Social Enterprise and Ireland's Peculiar Microfinance Revolution, c. 1836-1845[♠]

Eoin McLaughlin[♦] and Rowena Pecchenino[♣]

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Abstract

In the decade before the Great Famine, Ireland experienced a boom in microfinance institutions (MFIs). Taking a social enterprise perspective, this paper analyses the institutional context for this boom. It finds evidence linking the boom in MFIs to the development, via the introduction of the poor law in 1838, of a nascent welfare state at the end of a very turbulent period in Irish history. Many contemporary writers saw microfinance as a legal means that could lessen the burden on rate payers by helping the poor help themselves. Econometric analysis at the level of the Poor Law Union confirms the link between MFIs, an Irish solution, and the poor law, a British solution, to Ireland's chronic poverty. The goal of the Irish solution was to address what was perceived to be the cause of poverty, a want of capital, while the British solution addressed the symptoms of poverty but not its root cause.

JEL codes: G21, H75, I38, N23, N33, N83

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1 Introduction

Since the 1980s there has been an expansion of social enterprise - the pursuance of social missions through commercial activities - in both the United States and Europe (Kerlin 2006). While social entrepreneurship is a contested concept (Teasdale 2011),[1] it is widely acknowledged that social entrepreneurship sits in a spectrum between purely philanthropic and purely commercial activity (Dees 1998; Ridley-Fudd and Bull 2016). There is a distinction between approaches to social entrepreneurship on both sides of the Atlantic with European approaches tending toward 'socialised enterprise' and US approaches being 'social purpose entrepreneurship' (Ridley-Duff and Bull 2016). Examples of the former are cooperative organisations, where ownership is diffuse and control is democratic; examples of the latter are business ventures with a social mission, with less emphasis on ownership and democratic control.

Microfinance is widely seen as an exemplar of social enterprise, both by leading practitioners such as Muhammad Yunus (2007), founder of Grameen Bank in Bangladesh, and wider academic and NGO community (Dees 1998, Martin and Thompson 2010). Microfinance institutions are hybrid organisations that combine multiple institutional motivations including social justice and profit generation (Hudon et al. 2020). Their core mission relates to poverty reduction (Yunus 2007). The emergence of commercial microfinance providers blurred the distinction between social and conventional enterprises (Bornstein and Davis 2010). The effectiveness, impact and commercial sustainability of their enterprises, contrary to their self-promotion (Ogden 2011), are not yet proven and recent crises in microfinance have led to warnings for social entrepreneurs.

Social enterprise is a new label for historic phenomena (Teasdale 2010; MacDonald and Howarth 2018) and many modern examples of social enterprise, such as microfinance, have deep historical roots (Hollis & Sweetman 1998). In early eighteenth century Ireland, Jonathan Swift,

[1] For example, Mair et al.'s (2006) edited volume contains 10 differing definitions, Zahra et al. (2010) document 20 definitions, and Dacin et al. (2010) document 37 different definitions.

Dean of St Patrick's Cathedral, Dublin (author of *Gulliver's Travels* and other social satires), established a fund to lend to local weavers, the "deserving poor," who would use the loans wisely to better their lot. It was Ireland's first loan fund. The *Dublin Musical Society,* following his example, established a loan fund using profits from their concerts (Piesse 1841). Further initiatives traced their lineage to these loan funds or developed independently (McLaughlin 2009). These early funds were established for purely philanthropic reasons and were funded by donations and grants. At the beginning of the nineteenth century, however, such forms of socially conscious microfinance remained rare.

In addition to the economic and social motivations of social entrepreneurs, Ridley-Duff and Bull (2016) argue that political contexts and power struggles provide important influences on the emergence of social enterprises. Institutional context in terms of state capacity and support is also seen as key in understanding the cross-country difference in social enterprise formation (Estrin et al. 2013, Stephen et al. 2014). In this vein, Pathak and Muralidharan (2018) argue that income inequality and social mobility are key to understanding the formation of social enterprises. Much of the evidence of the importance of institutional context comes from modern studies that use cross-country multi-level modelling where the institutional variables are at country level while information about social enterprises themselves are at individual or firm level, and different forms of social enterprises, from education to microfinance, are merged. Discerning the exact mechanisms relating institutional context to social enterprise formation is difficult. Here we contribute to this literature by exploring the institutional context of the varying experiences of social enterprise formation within one country at a point in time when state institutions were themselves only being formed and we focus on one specific type of social enterprise: Loan Fund Societies. In this narrow, specific context we are able to tease out the link between institutions and social enterprise formation.

By the 1830s Ireland was roiled by socioeconomic and political tumult. Catholic Emancipation in 1829, the Tithe War of 1831-38, the Repeal (of the Act of Union) movement, the 1833-36 Poor

Inquiry Commission into the extent and nature of Irish poverty, increased sectarianism, and the Poor Law of 1838 kept the country on edge. The very real fear of civil war that Westminster hoped had been quelled by Catholic Emancipation remained. Having identified poverty as a root cause of the unrest and recognizing the need for poverty reduction beyond caring for the destitute, microfinance institutions were seen by the Poor Inquiry Commission and social commentators as a mechanism for positive change as they addressed what was perceived to be a fundamental issue, the want of capital (Piesse 1841). Revisions to regulations and an expansion of incentives for the establishment of microfinance institutions provided the boost needed, significantly altering the microfinance landscape on the eve of the promulgation of the poor law. By the 1840s, 553 loan fund societies (LFSs)[2] had been established to serve the industrious poor. They were joined by a further 78 Trustee Savings Banks (TSBs) – see figure 1. The accessibility and outreach of these institutions was huge (McLaughlin & Pecchenino 2021).[3] This microfinance system was unusual by contemporary standards with Ireland having almost six times more microfinance institutions per capita than functional equivalents elsewhere in Europe and North America (McLaughlin & Pecchenino 2021, Table 1).

In this paper we draw on the modern theory of social enterprise to help understand this 'peculiar' microfinance revolution in the early nineteenth century Ireland.[4] Previous work focused on the institutional logics of the various microfinance institutions in operation on the island of Ireland using firm level data to analyse the revealed preferences of the operators of microfinance institutions (McLaughlin & Pecchenino 2021). In contrast this study focuses on administrative level data and analyses the foundation of microfinance as a social enterprise in the socio-economic and political context of the time. This study particularly focuses on wider social influences

[2] 392 Loan Funds registered with the Loan Fund Board between 1838 and 1845, and 161 separate loan funds registered with the London Relief Committee.

[3] At their peak, the LFSs made £2.99 million (£281.2M in 2017 pounds) in loans and the TSBs held £3.36 million (£315.98M in 2017 pounds) in savings deposits.

[4] It was noted by a nineteenth century history of Irish banking that with the UK, 'Charitable' LFSs were 'peculiar to Ireland' (Dillon 1889, p.108).

underpinning microfinance activity in Ireland and provides new insights into Irish LFSs. By analysing LFSs from a social enterprise perspective using novel poor law data, we establish the importance of the 1838 Irish poor law for the founding of LFSs. Most explicitly we seek to determine what influence the introduction of a nascent welfare system funded by a new property tax had on the foundation of microfinance ventures. This study seeks to explore reasons for Ireland's microfinance peculiarity by examining various political and socio-economic forces that led to the 1840s boom in LFSs, the most salient of these being the 1838 Irish poor law which taxed property holders to provide for the destitute rather than the deserving poor. To reduce potential burdens on rate payers, promoters of the LFS system touted microfinance as an explicit means to enable the industrious and financially savvy poor to weather normal economic fluctuations on their own. This would enable them to remain among the deserving poor or even move up the socio-economic ladder rather than join the destitute. While contemporaneous supporters of these LFSs believed they would complement (Shuldham 1839, Piesse 1841) or substitute for (Ryan 1838) public poor relief, contemporaneous opponents, such as joint stock banks, which were concerned with their own sustainability rather than the fate of the poor, saw them as a potent competitive threat (BPP 1854-55, Q. 470).

The Loan Society Act of 1836, prompted by the 1833-36 Poor Inquiry Commission, was a critical state intervention that enabled LFSs to be funded by interest earning deposits, rather than purely by philanthropy, where the rate payable was set by statute. However, the poor law enacted two years later was one not based on the 1833-36 Poor Inquiry Commission and crucially it did not have at its heart a symbiotic LFS-poor law system. The febrile atmosphere in late 1830s Ireland provided the remaining impetus needed. LFSs were established in great numbers after 1836, but with variance in formation across the island. The actual incentive to found LFSs, an indirect means of reducing the poor rate levy by effectively lessening poverty, varied positively with the burden imposed. Whenever there was mutual benefit to lender and borrower in terms of improved economic outcomes and where, in addition, helping the poor to help themselves lowered poor rate

assessments because the poor were adequately less poor as a result of LFS lending, LFSs were supported and established.

The paper proceeds as follows. Section 2 reviews the literature on social enterprise formation and behaviour given the institutional structure, funding prospects, and positive and negative incentives provided by various taxation regimes. Section 3 places the Irish Poor Law in its social and historical setting. Section 4 examines the official and unofficial relationships between the Loan Fund Societies and the Poor Inquiry Commission of 1836-1838, the subsequent Poor Law of 1838 which did not reflect Commission recommendations, and the 1836 and 1838 Loan Society Acts. What was made clear is that poverty alleviation would require both a source of reasonably priced credit for the deserving poor and poorhouses for the destitute. Section 5 considers the incentives and regulatory support provided to the elite in each newly formed Poor Law Union to found Loan Fund Societies. Using the lens provided by social enterprise theory, an econometric analysis of how Poor Law Union formation, taxation, regulation under the Loan Society Acts, potential competition from other lenders, and relative local wealth/poverty affected the founding and location of Loan Fund Societies. Since PLUs were of approximately equal size but very unequal wealth/economic viability, one simple interpretation is impossible, both relative wealth *and* relative poverty motivated LFS formation. Section 7 concludes.

2 Social Enterprise Formation and Taxation

Within wider studies of entrepreneurship, social, spatial, and institutional contexts are seen as key facets in the formation of enterprise (Autio and Acs 2010, Welter 2010). Significant studies, for example Aoki (1994) and Boyer (2005), consider in a world of second-best the importance of public and private sector institutions and associated non-market rules of the game that, while imposing constraints generate complementarities, improve economic outcomes. In this context social norms and fear of losing social capital can facilitate the provision of public goods (Aiko 2001b). Theoretical models suggest institutional complementarities whereby there are

interdependencies between institutions in different games and these may not be easily altered in isolation; empirical studies find that institutional complementarities drive the development of social enterprises (Gagliardi 2009, Gagliardi 2009b). Historical context is needed for understanding institutional arrangements (Aoki 2001b), but this contextualisation may also reveal ephemeral institutional complementarities (Boyer 2005).

Applied specifically to social entrepreneurship rather than capitalism more broadly, institutional context is seen as the most important factor in the development of a social enterprise. There are differing theoretical perspectives. The first suggests that less active governments and the resulting 'institutional void' coupled with social problems (e.g. poverty) encourage social enterprise formation. The second suggests that active governments and the 'institutional supports' they provide create a welcome environment for social enterprise formation (Dacin et al. 2010, Stephen et al. 2014).

Taxation, sometimes incentive, sometimes deterrent, is an important issue for social enterprises as they straddle both commercial and social duties (Killian and O'Regan 2019). Whether social enterprises should receive the institutional support provided by tax preferences, as do traditional nonprofits, is debated since preferential treatment may distort incentives, undermining the mission of social enterprises (Mayer and Ganahl 2014). Even taking this into account, the institutional supports perspective is corroborated by empirical findings. Estrin et al. (2013) find a positive relationship between supportive institutions, interpreted in terms of rule of law as well as state capacity, and social enterprise formation. State capacity is important as the tax and welfare provision determines the expected returns to entrepreneurial activity. Stephen et al. (2014) also find a positive correlation between government activism (a composite index based on fiscal freedom, government size, and the index of economic freedom) and social enterprise formation.

The 'institutional void' perspective is supported by historical findings. MacDonald and Howorth (2018) survey historiographical accounts of social enterprises (*avant la lettre*) in England. They note that social enterprises often emerged when state and charitable apparatus did not

'adequately provide welfare and poor relief' and in these circumstances 'quasi' social enterprises emerged to fill these gaps. Their narrative account emphasises the role of the poor law in England as a spur for social enterprises, both the generous old Elizabethan poor law and the more spartan new poor law of 1834. The former's generosity discouraged formation while the latter's meagre offerings encouraged greater engagement of social enterprise (Boberg-Fazlić and Sharp 2017). In terms of microfinance, savings banks, a specific form of social enterprise designed to encourage the industrious poor to save, were explicitly related to the poor law and were encouraged to relieve pressure on the poor rates and make the poor more self-reliant (Fishlow 1961, Gosden 1973).

A partial explanation of the 'institutional void' finding is the low level of state capacity in early stages of economic development when the predominance of agriculture in these low income economies made land taxes an important component of a polity's tax system (Musgrave 1969). The taxes that financed the UK poor laws were local property taxes. Property taxes are considered an efficient and equitable means to raise revenue. They have the advantage of transparency and offer relatively limited scope for avoidance and evasion since property is immobile. Because of these features, property taxes are the most preferred source of revenue for local governments (Norregaard 2013) explaining both why property taxes persist over time and the adage "an old tax is a good tax" (Hale 1985).

The introduction of new taxes, however efficient or equitable in theory, is never welcome. Moreover, it can alter the relative prices of different activities. These price changes can influence behaviour as individuals attempt to reduce their exposure, avoid taxes (Slemrod and Yitzhaki 2002), without changing their consumption patterns. In addition, the timing of the introduction of taxes can influence decision making. If individuals perceive tax minimising actions to be legal, they are more likely to pursue them (Blaufus et al. 2016). What actions are taken depend on one's socio-economic status. This is summarised in the old saying amongst tax professionals that "the poor evade and the rich avoid" by exploiting legal mechanisms unavailable to the poor (Slemrod 2007). Theories of rational choice predict greater tax evasion than actually occurs. This suggests

that quasi-voluntary compliance plays an important role, where compliance is influenced by how people perceive the quality and legitimacy of government and whether other taxpayers are perceived as paying their taxes (Kiser and Karceski 2017). Where donations can reduce or replace tax liabilities, tax structures can influence charitable donations (Greene and McClelland 2001).

3 Social background to the 1838 Poor Law

In 1838 the poor law in Ireland imposed a property tax which was seen as neither old nor good. In the two decades leading up to the poor law, Ireland was beset by social, political, and economic unrest, the causes of which were unresolved issues arising from the Act of Union, post-Napoleonic war disruption, and ongoing land disputes. A powerful grassroots organization, Daniel O'Connell's Catholic Association, was formed. Its goal was to achieve Catholic emancipation, something that had been promised in the Act of Union in 1801 but resisted by members of the Anglican hierarchy, lower clergy, the English people and the Irish Ascendency, and, perhaps most importantly, the King (O'Ferrall 1985, Davis 1999). It did so non-violently, but the extent of support and the increasing restiveness of the Irish population, leading to a very real fear of civil war, made it clear that the Catholic question could no longer be avoided (Lewis 1960, Davis 1999, Geoghegan 2000).

With the Catholic Relief Act of 1829, Catholic emancipation was finally won. But it was partial. The Act of Union was not repealed, one of O'Connell's primary goals. Ireland remained part of the United Kingdom rather than an independent state. As such, Irish Catholics were still required to support the Anglican Church via tithes, which were resented on religious, political, and economic grounds. The Anglican Church, the established church of the UK with relatively few adherents in Ireland, neither served the spiritual nor the temporal needs of the Roman Catholic Irish people, but these same people had to provide the income to support the established church and its clergy, many of whom were absentee. Further, politically, it was felt that Catholic Emancipation should have removed this responsibility from Catholic shoulders. It did not

(O'Donoghue 1965, 1966, 1972). Finally, under the Composition of Tithes Act of 1823, tithes, which had been paid in kind, were now paid in cash, a fixed amount assessed on the land and paid by the landholder, whether owner or renter thereof, and irrespective of the actual income earned on that land that year. This land tax shifted the risk and cost of a bad harvest or falling agricultural prices – as happened in the post-Napoleonic War period – onto the landholder, something that could not be diversified away by a small holder, a cottier or a tiller of a conacre plot (Shaw 2015, 2018).

For many, the burden and unfairness of the tithe was no longer to be born. By means legal and illegal, landholders refused to pay. The Tithe war of 1831-1838 was characterized by civil disobedience, intimidation, armed insurrection, military intervention as well as sectarian strife (O'Donoghue 1965, Ó Cuív 1960/61). Its cause was joined by collective organizations intent upon regulating rents and preventing evictions, such as the Whiteboys and the Rockites, although their forces remained independent (Clark 1978). The war ended with the 1838 Tithe Act which made the tithe a property tax payable by the owner of the property, provided a 25 per cent discount on tithe rates as an inducement, and converted the loan that had compensated the Anglican clergy for the tithes they had been unable to collect into a gift. Yet, given the heightened sectarian tensions, the continued failure to repeal the Act of Union, and the still unresolved land issues, the very real fear in Great Britain of civil war with Ireland remained (O'Ferrall 1985).

Poverty pressures from an increasing population, falling commodity prices, and Ireland's idiosyncratic land ownership and rental system, was seen as a critical cause of the continued unrest. Parliamentary inquiries, such as the 1833-36 Poor Inquiry Commission, were established to investigate the scale of poverty, to advise on the poor relief required, and to initiate new legislation to ameliorate this poverty as a matter of some urgency. Ignoring recommendations of the Commission, in the face of strong local opposition to the "English" structure suggested as well as to the programme itself, although the need was recognised, a poor law system replicating that in England and Wales was introduced in 1838.

The poor law was to be funded by a new local tax on owners of property and, as such, constituted a massive fiscal shock to land holders. This system was not, as in England and Wales, imposed on existing parish structures. Rather, it required that Ireland be surveyed taking account of landed estates and existing populations of poor. Poor Law Unions (PLU), local replacements for the British parishes, had to be established and one poorhouse (workhouse) per Union had to be built. PLUs were ideally to be centred on market towns and encompass the country within a ten-mile radius allowing applicants to the poorhouse to walk there in a single day. While care was taken to ensure, wherever possible, that landed estates were not subdivided among several PLUs, significant local negotiations took place concerning the setting of the borders. The actual solvency of the estates, many of which were severely encumbered, an important practical consideration, did not figure in the valuing of property or the setting of poor rates. Although intended, the system neither provided a consistent nor guaranteed a level of relief for the destitute poor, those unable to care for themselves out of their own resources. These poor, not associated with a specific parish as they would have been in England or Wales, could be and were evicted, dispossessed and "moved along" (O'Brien 1982; Dooley 2000), their care thereby imposed on other PLUs. In practice, relief was characterised by unequal provision linked to the distribution of wealth in the individual PLUs. The fewer relatively rich in a PLU and the more very poor, resident or newly arrived who applied for housing in the local poorhouse, the more meagre the provision of "poor" relief (Chapman 2019).

Contemporaries were not sanguine about the effectiveness of the system in the Irish context, especially given the absence of a residency requirement, and feared it would be abused, especially if outdoor relief (i.e., food rations) were offered. This was a very real fear because almost every year the previous year's store of potatoes would be depleted prior to the harvest and food, usually meal, often paid for by pawning goods, was temporarily required. To protect against this moral hazard, to receive assistance one had to apply for and receive admission to a poorhouse (O'Brien 1982), making it unpopular with the destitute poor themselves. Even with these draconian features,

opposition to and resentment of the poor law by ratepayers remained (O'Connor 1995; Gray 2009).

The poor tax was assessed on owners and holders (farmers/owners of industrial sites in urban locations) of landed property,[5] payable by 'every occupier of rateable hereditaments [property that could be inherited]'.[6] It had to be paid within two months of the stated date or legal action would be taken to recover the tax arrears.[7] Although tenants of properties with a capital value less than £5 (later £4), were exempted from paying the tax;[8] this tax burden was simply transferred to the property owner.[9] To ensure payment, a portion of the rates could legally be deducted from rents due.[10] The poor law effectively imposed a tax on rural property as this was the location of the population and the associated poverty. Implementation of the poor law was gradual: PLUs commenced from 1839 to 1840 and initial rates were levied from 1839 to 1846. The majority of poor law unions commenced in 1839 but only one union had rates levied in 1839, the majority of unions were unrated until 1842 (see Table 1).

When PLUs were established, the first task was to undertake a survey and valuation of all properties within the union.[11] Valuation was essential as the poor rate was a 'poundage rate' on the net annual value of property. To ensure uniformity in adherence to the law, detailed instructions for valuation and rating were issued to all Poor Law Unions with clarification that most property for which a profit was derived were subject to a poor rate[12] but with some exemptions provided there was no private profit derived from them.[13] Rates were then determined by the Boards of

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[5] (1 & 2 Vict.), c. 56, section lxi.
[6] Ibid.
[7] (1 & 2 Vict.), c. 56,, section lxxviii
[8] (6 & 7 Vict), c. 92. This essentially meant small farms. The mean land occupation of those under £5 was 3.95 acres (BPP 1846).
[9] (1 & 2 Vict.), c. 56, section lxxii.
[10] Ibid, section lxxiv.
[11] The poor law valuation was done afresh without making use of existing valuation exercises (Smyth 2008).
[12] These included land; buildings; opened mines; commons; rights of common; other profits out of land; rights of fishery; canals, navigation or rights of navigation; rights of way and tolls; other tolls; turf bogs where rent was payable (BPP1839b, p. 75).
[13] Turf bogs where no rent was payable; unused mines; buildings dedicated to religious worship; burial grounds; infirmaries, hospitals, charity schools, or other buildings exclusively used for charitable purposes; buildings, land, or hereditaments dedicated to or used for public purposes. (BPP1839b, p. 75)

Guardians who were responsible for 'making, levying, and collecting rates to be raised for the relief of the poor' (BPP 1839b, p. 65). Guardians struck rates that 'may seem sufficient for the purposes of defraying the expenses which may have been already incurred in the execution of the said Act, or which, previously to the administration of relief in any workhouse of the said Union, may be incurred by the Guardians, and be legally charged on the said rate' (BPP 1839b). It was noted in the Ninth Annual Report of the Poor Law Commissioners, that while the charges on the poor rate in England were made in the parish and in proportion to pauperism, in Ireland there was variation as rates were levied on the union and there was an uneven distribution of the burden of levied rates within a union (BPP 1843c, p. 44). There was also variation in the practical operation of the PLUs, it was complained that some PLU Guardians 'have shown themselves unwilling to make sufficient rates to meet their liabilities, and to provide at the same time for the current expenses of relieving the poor' (BPP 1844d, p. 37).

This variation in practical implementation gave property owners in Unions competing incentives to minimise their tax liabilities. They had two means: illegally by civil disobedience, such as that practiced during the Tithe war, or legally by establishing MFIs.[14]

4 Loan Funds and the Poor Law

In response to the poor law, both in expectation and after promulgation, and the anticipated tax burden associated therewith, two types of MFIs could be established: Trustee Saving Banks or Charitable Loan Fund Societies. TSBs were explicitly related to the poor law as they were encouraged contemporaneously in England and Wales, where poor relief was also contentious. TSBs were attractive to wage earners, such as servants, rather than the small farmers, labourers and hucksters in rural Ireland who, given the economic environment of the time, needed to finance investment rather than save for a rainy day.

[14] In 1843 alone 21 Unions violently resisted the collection of rates requiring the deployment of both military and police to enforce the payment (BPP 1844b, pp 322-326).

LFSs were social enterprises providing affordable and necessary credit to the industrious poor, those who could and would help themselves. Unlike TSBs, LFSs were idiosyncratically Irish. LFSs and the poor law were linked in the 1833-36 Poor Inquiry Commission, also known as the Whately Commission, report and recommendations, the expected basis of the still unwritten poor law. It specifically proposed, but did not mandate, that, 'there shall be a loan fund established in each district [Poor Law Union], and that it be administered according to such regulations as the Commissioners shall approve' (BPP 1836b, p. 27). These new regulations, which distinguished the LFS from their philanthropic predecessors, such as the *Dublin Music Society Fund*, or their sister institutions, the Reproductive Loan Funds [RLF],[15] were set out in the 1836 Loan Society Act, which post-dated the release of the 1833-36 report while pre-dating the poor law.[16]

The subsequent LFS legislation in 1836 and 1838 actively encouraged the formation of LFSs as did proponents who extolled the virtues of LFSs in supporting the deserving poor – 'the great benefits to the peace and good order of the country which must flow from to foundation of a Loan Society in Tuam, and the moral effects of such societies on the habits of artizans and the peasantry ' [17] – and moderating poor rates – 'pauperism [will] be diminished and the burthen of the Poor Rates lightened'[18] – in the local press. But at the same time highlighting the inducements that were on offer from the act of parliament, namely 'freedom from responsibility', 'interest payable annually of 6 per cent', and the 'privilege of recommending to the Loan Society applicants, where worthy of recommendation.'[19]

While government support appears apparent from the recommendations of the Whately Commission, the actual poor law that was introduced in 1838 went in the face of these

[15] See Bailey (2006) and McLaughlin (2014b) for discussion of the Reproductive Loan Funds.
[16] The LFS bill was published in June 1836 and enacted in August 1836, this post-dated the release of the report which was leaked in April and published in June (Gray 2009, p. 188).
[17] Tuam Herald, 1 June 1838.
[18] *Tuam Herald*, 11 August 1838.
[19] *Tuam Herald*, 6 January 1838. In addition, there was an exemption from stamp duty for various LFS activities and the ability to sue to recover unpaid debts from local courts (Petty Sessions), both aspects effectively lowered the relative cost of transacting business: (6&7 Will 4), c 55, section xiv & xvi. See *The Tuam Herald*, 1 June 1838, and 11 August 1838, p3.

recommendations (Gray 2009). While the Whately Commission had concluded that a workhouse system was not suitable for Ireland, what was enacted, based on reports from George Nicholls (1838, First Report), who was well acquainted with the new poor law in England, was precisely that. Although Nicholls later referred to loan funds in his history of the poor law (Nicholls 1856, p. 142), he did not make any allusion to them in his 1836 reports and his report, ignoring the Whately Commission, was a strong advocate for a workhouse based system.

Moreover, during debates on the Irish Poor Law bill, a Loan Fund clause was proposed by John Aston Yates (MP for Carlow). Yates' proposed clause stated, 'that in case of emergency, and in order to prevent the increase of pauperism and destitution, it shall be lawful for the guardians of any union wherein such emergency shall exist to make temporary loans of money out of the poor rates to such loan fund societies as may be established in such unions, agreeably to the provisions of the Loan Fund Acts; provided that such societies shall give satisfactory security for the repayment of such loans; and provided also, that no such loan shall ever exceed one-half of the capital stock of such loan fund society as shall apply for the same.' Yates motivated his insertion based on the history of the precedent of the Reproductive Loan Funds in the 1820s.

The proposal was opposed, most vocally by Lord Clements (MP for Leitrim), himself a member of the Loan Fund Board,[20] not on the grounds of opposing loan funds but rather 'objected to making the poor rates liable to be called upon to supply money whenever the conductors of those societies needed it… when well managed, such societies would experience no difficulty in obtaining money for their purposes. The principle of the proposed clause was highly objectionable, not only because it would interfere with the proper administration of the poor laws, but because it would be injurious to the very societies which the Hon Member wished to benefit.' The clause was also objected to by Edward Lucas, member of parliament for Monaghan, on the same grounds as Lord Clements. While Lord Morpeth (MP for Yorkshire West Riding), then Chief Secretary of

[20] Tuam Herald, 6 January 1838

Ireland, objected to the clause as it would interfere with the other provisions of the poor law bill. Yates himself withdrew the clause without it going to a vote.[21]

Coincidently, the proposed loan fund clause followed Lord Castlereagh's (MP for county Down) poor law exemption clause, 'the object of which was to exempt those parts of Ireland which took care of their own poor from the operation of this bill.' Lord Castlereagh claimed that certain parts of the country had already implemented their own voluntary version of a poor law and were therefore not in need of an obligatory poor law. However this clause was also rejected by the Home Secretary Lord John Russell (MP for Devon) because had it been adopted ' it would have the effect of rendering the whole bill nugatory'. A symbiotic poor law and loan fund system never truly materialised, while attempts to preclude the introduction of the poor law within the legislative debate itself failed. What did materialise was an independent and privately operated loan fund system that operated outside the public poor law structures.

5 Incentives for Loan Fund Formation

The 1836 loan fund legislation incentivised establishment of LFSs by allowing LFSs to charge relatively high interest rates on loans, when compared to those offered by the JSBs but not moneylenders, and, importantly, to pay high rates on deposits, the first act to explicitly permit holding of deposits. Funding of LFSs by deposits was critical as it enabled the moderately well-off as well as the very rich to found LFSs. As imagined, LFS were sustainable financial businesses providing depositors with high returns and borrowers with essential finance for viable investments. They were "charitable", although that charity was not in the granting of loans. Borrowers had to make a compelling business case for the loan and provide two sureties for a loan to be granted. The charitable feature was confined to how its profits were used, either to fund charitable ventures or to increase its stock of loanable funds (McLaughlin & Pecchenino 2021).[22]

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[21] Reading of the Irish Poor Law Bill, 23 March 1838. As reported in the *Kerry Evening Post*, 31 March 1838.

[22] Loan funds established pre-1836 operated under a body of legislation enacted to support the work of the *Dublin Musical Society* and the RLFs.

The 1836 act established a governing body, the Loan Fund Board (LFB), for 'the general control and superintendence of all loan fund societies established in Ireland under the authority of this act'.[23] The LFB, given authority over all existing and future LFSs, had potentially quite vast supervisory powers 'to inspect the books, accounts, and papers of or belonging to such societies.'[24] LFSs were required to register with and submit a copy of their rules to the LFB. A failure to register or violation of rules caused the LFS to be excluded from the benefits of the acts, such as suing for loan payments outstanding. LFSs were required to submit an annual report to the LFB, which in turn produced an annual report on the LFS system for parliament. This is the main source of data on LFS activity. The LFB was, however, chronically underfunded; its regulatory powers were largely unrealized.

Depositors' and borrowers' perception that LFSs benefited from a, at least implicit, government guarantee was a boon to LFS founders.[25] This valuable misperception came about because the forms and stationery that registered LFSs used had stamps with the imprimatur of the crown. These were supplied by the LFB which had a correct, but misleading, Dublin Castle address, the heart of government administration in Ireland.

Contemporary pamphleteers strengthened the argument for LFS formation by the Poor Inquiry Commission by asserting that LFS activities would provide social benefits by raising up the deserving poor, thereby decreasing poor law expenditure and thus the pressure on rate payers (e.g. see Barrington 1836, Caldwell 1837, Connery 1837, and Ryan 1838).[26] Others saw LFSs as a complement to the poor law rather than as a substitute (e.g., see Shuldham (1839)).[27] This was also the view of the LFB. Piesse, secretary to the LFB and inspector of LFSs, published a letter previously circulated to all Poor Law Unions in 1840 and all LFSs in 1841. The letter, written by

[23] (6 & 7 Will. 4), c. 55, section ii.
[24] (6 & 7 Will. 4), c. 55, section iii; (6 & 7 Vict.), c.92, section xxix.
[25] Ibid., Q. 306
[26] Testing whether the presence of LFSs reduced poor law expenditure is complicated by the Great Irish Famine which occurred shortly after the implementation of the poor law.
[27] Shuldham was a land agent in Cork who operated a LFS in Dunmanway, his views were held in high esteem by the LFB (BPP 1842, p. 40; BPP 1841b, p. 226)

Hon Rev T. P. Kennedy, advocated agricultural educational societies be established in each PLU and that these be funded through the profits of LFSs. Further he advocated that 'one or more Loan Fund Societies, existing in each Poor Law Union might afford the means required' (Piesse 1841, p. 33). At the local level, LFS managerial reports evaluated fund performance with explicit reference to how fund activity reduced the use of workhouses (e.g. BPP 1843, pp 52-53). In this light, LFSs were seen as complementary agents of contemporary social policy, ideally organized to be the sole provider of credit in an area within a Poor Law Union, so tax relief could be captured, highlighting the interconnectedness of socially conscious microfinance and the poor law. This ideal was not always realized since the founding and location of LFSs was a private matter.

Local landowners played a key role in founding, funding – predominately by interest-bearing deposits – and operating LFSs on a *pro bono* basis (Porter, 1841). The management of LFSs was in the hands of large depositors and donors, all members of the Society. For example, the Castletown Delvin LFSs rules stated that depositors over £100 were automatically members. Unlike continental cooperative banks, membership was neither a requirement for borrowing (McLaughlin 2013) nor were members likely to apply for loans. Like TSBs, high level management of LFSs tended to be notable local trustees, who provided oversight while appointing and paying others to carry out the day-to-day business. In a not atypical example, Lord Westmeath, trustee of the Castletown Delvin LFS, appointed the Rev R. Dunne, a Church of Ireland clergyman, as treasurer of the Society.[28] The trustee system of management and LFB regulation gave smaller local depositors confidence in the institutions.

The main cost of establishing a LFS was the provision of adequate capital, a mix of donations, retained earnings and, very significantly, large deposits. The pre-1845 composition of the capital is unknown, but Porter (1841, p. 217) suggests that deposits over £50 were both the 'most numerous' and 'most valuable' in terms of setting up an LFS. When the LFB began reporting deposits, 90

[28] See also the 1841 LFB Report for additional examples, such as Viscount Mandeville's role as Trustee of the Tandragee Loan Fund, p. 44 and The Earl of Huntingdon, Lord Carew's role as Trustee of the Gaultier Loan Fund, p37. Their interests were served by appointed treasurers.

percent of LFS capital was comprised of interest-bearing deposits (BPP 1846b). Coordinating depositors to establish a fund was helped by the small number of available depositors within a district, usually a Poor Law Union or subdivision thereof. In 1842, there were 5,867 depositors in all LFSs, this averaged only 19 per LFS and 52 per PLU.

While LFSs paid interest on deposits, they did not provide saving services to the poor.[29] Interest was paid only on deposits exceeding £5 (Porter 1841, p.217), making smaller LFS deposit accounts little more than safe deposit boxes. Porter noted that working classes were unlikely to deposit in LFSs and advocated that lower interest be paid on amounts from £0.25 to £4 to encourage saving (Porter 1841, p. 217). His suggestion was ignored, probably because the greatest local need was for credit rather than saving services which were already provided by the TSBs. In Porter's sample, the bulk of LFS depositors had balances of over £50, with only 20 per cent of depositors having balances below £5. LFSs depositors were, thus, unlikely to be poor, but were, according to Porter (1841, p.216), 'comfortable farmers' and thus subject to the poor tax.[30] This feature helps explain why the LFS share of the deposit market remained relatively small (McLaughlin 2014, Figure 5).

A key feature of Irish LFSs was that they operated as individual units serving a single PLU rather than as branches serving many PLUs.[31] This organisational structure differed from what was commonly found in other UK financial institutions where banks and charities operated branch networks (Prochaska 1988, p. 62). Because of this unit structure, the location of an LFS was totally up to the founders thereof. This was important given that a motivating factor was to reduce the locally assessed poor tax. It was also a cause of concern for existing societies when a new LFS was founded as they feared that borrowers would "borrow from Peter to pay Paul", reducing the social

[29] Although there were more LFSs than TSBs, and therefore were physically closer to their clients, they did not provide saving services to the poor. The mainly pre-existing TSBs, much larger financial institutions, did. In 1842, TSBs held deposits equal to five and half times the amount of capital invested in LFSs. In the peak year of LFS capital in 1845, TSBs held deposits equally six and half times this amount.

[30] Porter (1841) suggested that the greater part of LFS deposits 'was formerly employed in usurious practices'. Denis Henry Kelly, a magistrate and landed proprietor in Castle Kelly, Galway also believed that former usurers were depositors with the LFS (BPP 1845, W. 431(Q. 29)).

[31] Making Irish LFSs similar to unit banking operations in the US such as Savings and Loans (Mason 2004).

value of the lending. This led societies to request that the LFB restrict the establishment of new LFSs to currently unserved areas (BPP 1841, p.22; BPP 1843, pp 48 and 52), a position endorsed by the LFB itself (BPP 1843, p.4), but over which it had no regulatory control.

LFS transitioned from purely philanthropically funded entities to deposit funded commercial social enterprises as a result of the Loan Societies Act of 1836 and the Poor Law of 1838. The complementarity of loan funds to poor law provision are pictured in Figures 2a and 2b. While LFSs could not replace the need for the poor law in providing for the destitute poor, they did provide a means of helping the poor help themselves thereby improving their lot, avoiding the poorhouse, and not incidentally, moderating poor rates.

Leadbetter (1997) applies a cross-sectoral model of public, private, and voluntary sectors, and their overlap, to explain the rise of social entrepreneurship in the UK. Figure 2a relates the situation of LFSs, replacing public sector with the poor law, private with charitable loan funds, and voluntary with pure philanthropy. Pre-1836 loan funds operated as purely philanthropic entities in the sense that donors received no interest. As the poor law was introduced it overlapped with the emergence of charitable loan funds, funds that operated on commercial principles but applied profits to charitable purposes, this reduced the space for the purely philanthropic loan funds. As the poor law widened operations it took over greater space in this schema, after 1843 this coincides with the reduced profitability of loan funds and the ability of purely philanthropic to address these needs.

Dees (1998) argues that social enterprise operates somewhere on a spectrum between purely philanthropic and purely commercial. Dees (1998) devised a schema for assessing the nature of a social enterprise based on the outcome for key stakeholders: intended beneficiaries, capital, workforces, and suppliers. Figure 2b applies Dees (1998) schema to LFSs pre- and post- 1836 loan fund reforms. In terms of beneficiaries these are the borrowers from the funds. In relation to microfinance as a form of SE, scholars have focused on the role of profit maximising and interest rate setting as a way of assessing the commercial/philanthropic mix (Hudon et al. 2020) and

microfinance institutions have been criticised for charging high rates of interest (Hudon and Sandberg 2013). However, LFS legislation set a cap on interest rates, pre-1836 this was "legal interest", post-1836 it was calculated as 12% APR and reduced to 8.25% APR in 1843. These were discount rates and at 6 pence in the pound (2.5%) reduced to 4 pence in the pound (1.67%) were quite low relative to contemporary money lenders. Therefore, we have placed beneficiaries in the middle of the spectrum. For capital and suppliers, there is an overlap as they tended to be the same stakeholders. Pre-1836 these were donations and grants; these suppliers were unpaid, so this was purely philanthropic. Post-1836, with the introduction of interest payments, this shifted the stakeholders to purely commercial as they were receiving above market rate payments of interest of 6% (reduced to 5% in 1843). The workforce is centred on the spectrum as is management (i.e., trustees) was pro bono but clerks were paid, often above market rates.

6 Analysing LFS Formation

Applying the Zahra et al. (2009) typology of social enterprise, loan funds fit the "Social Bricoleur" description due to their local nature. While the poor law was promulgated from London with scant consideration of local peculiarities, local actors' perceptions of these laws and how they responded to the opportunities presented were influenced by local context. LFSs were small in scale, their scope was their locality. They neither had the resources nor the desire to expand beyond their locale where they had an informational advantage and where they could reap the perceived benefit in terms of rate reduction.

The majority of LFS were newly founded in the late 1830s and early 1840s, that is, on the heels of the passage of the Poor Law and the Loan Society Act. Of all the MFIs in operation, there are consistent LFS data from the annual reports of the LFB – see Table 2 for an annual summary of data from 1838 to 1844.

The total number of LFSs, new entrants, and exits in 1842 (the year with the highest number of LFSs registered with the LFB) are analysed using count models.[32] The focus is on this key year because legislation was introduced in 1843 that lessened the potential benefit of poor rate reductions by reducing the maximum rate chargeable on loans and payable on deposits and changing how profits could be distributed was enacted and implemented.[33] These changes significantly influenced LFS activity since their sustainability was challenged. We measure entry and exit in comparison to the number of LFSs registered in 1836, before the LFB was established.

As a result of overdispersion,[34] a negative binomial model was estimated with the distribution of y_i (the number of LFSs loan funds per poor law union) given x_i (control variables, outlined in Table 3):

$$E(y_i|x_i) = m(x_i\beta) \quad (1)$$

The unit of analysis is the Poor Law Union (PLU).[35] Because the PLUs needed to be mapped, poorhouses needed to be built and taxes needed to be assessed, there was no systematic effort to introduce the poor law simultaneously throughout the island. The timing of the commencement, rating, and opening of poorhouses in PLUs varied from place to place and union to union.[36] The poor law influenced contemporary behaviour since the poor rate had nontrivial implications for property owners, who sought to capture any reduction in local poor rates and mitigate the demand

[32] Results for 1841 & 1843 are shown in an appendix. With count data there is no natural a priori upper bound and 0 is an observed value for some of the observations in the population. Linear models have shortcomings when analysing count data most notably it can lead to negative predictive values of y. The most popular model for count data is a Poisson regression which assumes that y has a Poisson distribution and that the variance-mean ratio ($\sigma2 > 0$). Where $\sigma2 > 1$ implies overdispersion (the variance is greater than the mean). A popular alternative model in the presence of overdispersion is the negative binomial regression (Woolridge 2002, pp 645-684). Formal testing for overdispersion (null of equidispersion against an alternative of overdispersion) determines the most appropriate count model.

[33] It is also the year that amendments were made to the poor law amid protests (Gray 2009); rates on TSBs were reduced in 1844.

[34] Tests indicate presence of overdispersion in 1842 ($p = 0.041$) and 1843 ($p = 0.099$), a negative binomial regression (nb2) was chosen to analyse the count of LFSs (Cameron & Trivedi 1986, 2010, 2013).

[35] Two Unions (Tuam and Clifden) did not contain data on the number of rate payers and rate exempts and were excluded in the analysis. Tuam contained 8 RLFs and 1 LFS and Clifden contained 1 LFS.

[36] In fact, when the poor law was initially being implemented only 60 workhouses were contracted, implying that the eventual number of unions exceeded the original expectations of the law's architects (Nicholls 1858, p.246).

for poor relief.[37] The 130 PLUs were economically and politically significant as they were responsible for the administration and levying of poor rates as well as the provision of succour to the destitute poor.[38] Moreover, if the intention was to reduce poor-rates via successful LFS lending, this lending had to directly affect the poor of that PLU.

The main poor law variables explored are the ratio of the number exempt from rate paying to the number of ratepayers, the Poor Law Valuation (per acre), the timing of the commencement of a union, when first rates occurred, when the workhouse was functional, and violent resistance to rate collection representing the alternative mechanism to avoid the poor tax.[39] The hypothesis is that the timing of the introduction of the poor law influenced the number of LFSs, the number of new entrants, and the number of exits. The ratio of rate exempts to ratepayers provides an indication of the level of inequality/relative poverty and thus need within a union. The poor law valuation provides an indicator of the wealth of a union which determines the capacity of a union to support its poor. Lastly, the timing of commencement, rating, and workhouse opening indicate the functionality and credibility of the PLU.

Because there were other formal financial services available to LFS borrowers, the number of RLFs and the number of TSBs are included as explanatory variables. The hypotheses are that LFSs and RLFs would compete in areas with RLFs; where TSBs were present, LFSs and TSBs would cooperate, by providing complementary financial services. The competition or potential competition and cooperation would affect the entry, persistence or exit of LFSs and their market

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[37] Previous studies, Hollis & Sweetman (1998, 1998b, 2001, 2004) and Goodspeed (2016), analyse LFSs from a demand-side perspective at the baronial level. The 327 Baronies were administrative units dating from the Elizabethan period (Ó Gráda and O'Rourke 1997).

[38] An instrumental variables methodology is not taken owing to the difficulty of finding strong and credible instruments. Goodspeed's uses modern day musical societies (from the 2000s) as instrument for the *Dublin Musical Society*. However, there are two issues with this instrument. One it is anachronistic: modern day musical societies founded from the 1950s onwards have no connection with the *Dublin Musical*. Secondly, this instrument violates the exclusion principle as the *Dublin Musical Society* was still an active loan fund (BPP 1839, p. 1). Therefore, the following correlates cannot strictly be interpreted as causal estimates. However, as there is no discernible geographic or temporal pattern to the poor law implementation, there is an element of randomness to some of the explanatory variables.

[39] Other data available include the date of the first rate levying, rates paid (as a share of valuation), the date paupers were first admitted to workhouses but these are correlated with other poor law data, substituting in different variants of the data does not make a material difference to results.

activity. The influence of the commercial banking sector is also included in the analysis as JSBs were potential competitors to LFSs either directly or through their ability to lobby against what they saw as their unfair advantage in terms of return on deposits. The geographic radius of the Bank of Ireland's note-issue monopoly is included since it measures the Bank of Ireland's, the Government's bank, market power which influenced other JSB behaviour.[40] Regressions also include controls for local poverty (using so-called "fourth-class housing", see figure 4 and discussion below) and wealth (using vested means which are effectively a proxy for local elites). In addition, population density, and dummies for city and a dummy for the province of Ulster.

Figure 3 presents marginal effects from negative binomial regressions of the number of LFSs, the number of entrants and exits in 1842- see Table A3 for full results. The results suggest that the poor law was an influential parameter. The analysis highlights the importance of the ratio of exempts to ratepayers as a negative correlate with the number of LFSs in 1842 and the number of new entrants (Table A3, column 1 & 2).[41] The poor law valuation is negatively correlated for both the total number, new entrants, and exits, but is only statistically significant in the case of all loan funds (Table A3, column 1). Other poor law variables vary in coefficient size and sign, notably if a workhouse is opened before 1842 this acted as a discouragement to new entrants. In terms of financial variables none show a strong correlation with the total number of LFSs, but the RLFs show contrasting signs for new entrants and exits. For new entrants RLFs are negatively correlated, whereas RLFs are positively associated with exits (Table A3, column 2 & 3).

Given the importance of the ratio of the rate exempts to rate payers, it is critical to determine what is driving these findings. One approach is to focus on the effects of different quintiles of the

[40] In previous studies the exclusion zone has been mis-coded (simply coded as Dublin in Hollis & Sweetman (1998, p. 374)). The extent of the zone is far greater and so the monopoly over note issue, and the seigniorage profits the monopoly ensured, more extensive than acknowledged as the critical distance was measured in Irish miles not statute miles.

[41] The number of LFSs, and where they were located, is consistent between 1841 and 1843 with a core number of LFSs registered in all years. For example, 90% of LFSs registered in 1842 appeared in 1843. 30 of the 1842 LFSs did not appear in 1843 and there were 28 newly registered LFSs, hence why the totals for the years, 300 and 298, hide this attrition. The entry and exit of LFSs was a straightforward and inexpensive process. While formal winding up when required by the LFB for malfeasance was time consuming, it would be expected that there would be similar coefficients for the years.

distribution of the rate exempts to rate payers. Focusing on quintiles highlights the importance of the most unequal unions (those in the fifth quintile) which has a larger negative coefficient than the other quintiles. Further analysis that excludes unions in the fifth quintile (25 Unions in different parts of the island with only 32 LFSs, with the other quintiles having more than double this amount) from the main specification shows the coefficient size on the ratio of exempts halves in size. Therefore, a significant determinant of LFS formation appears to be the distribution of land ownership. In PLUs with higher levels of inequality, many very poor and few relatively rich, LFSs were less likely to be formed. With very high levels of inequality the rate paying residents of a PLU could well have determined that there were too few deserving and too many potentially destitute poor, so "moving the poor along" or paying their rates was less costly than attempting to reduce their rates via establishing an LFS given the extent and prevalence of need. Thus, the legal and socially beneficial means of tax avoidance/reduction was found in these PLUs to be less effective.

The empirical findings are consistent with the historical narrative presented above that the poor law was a motivating factor in the establishment and activity of LFSs. This can be gauged from the timing of LFS formation. Contemporaneously, given essentially free entry and the high rates payable on deposits, there was a significant increase in the number of LFSs registered with the LFB (itself established in 1836) between 1838, when there were 50, and 1842, when there were 300. The timing of the increase in LFSs suggests a direct correlation with the introduction of the poor law.[42] This is inferred from Porter's (1841) data on date of formation and LFB data that aggregated since the funds commenced operation, both sources indicate loan funds formed in or after 1838.

The creation of the LFB in the 1836 Act may have provided an incentive to form LFSs, however there was still considerable regional variation in LFS formation. The LFB made the formation of LFSs more costly than it had been prior to 1836. Under LFB oversight, LFS founders faced higher

[42] In 1836 there were 141 LFSs registered, 93 of these were found in the area under the remit of RLF, whereas in 1838 the number of registered LFSs had increased to 247 and, of these, 124 were found counties associated with the RLF.

costs to establish a fund and had less freedom in their operations. However, the LFB was given poor resources to establish its regulatory role under the 1836 loan fund act as the act made no specific reference to the financing of the LFB, only stating that it would be financed by 'public grant or private donations';[43] neither of which were forthcoming. The 1838 loan fund act specified an annual budget of £600 a year for salaries and offices but again this did not include a source of funding.[44] It was only under the 1843 Loan Fund Act that any funds were directly attributed to fund its actions.[45] In any case, the LFB was established under the loan fund legislation that purposefully followed the recommendations of the 1833-36 poor inquiry as we outlined above. So ultimately it was the poor law which inspired the formation of the LFB in the first place.

The regression analysis also supports the conjecture that inequality in the PLU determined whether the benefits of establishing a LFS outweighed the costs. The higher the ratio of rate exempts to rate payers, that is the greater the inequality/relative poverty, the fewer LFSs a PLU could support. This implies that Unions with either equal or fewer rate payers than exempts were less likely to have or to have fewer LFSs. In these poorer Unions it was difficult to raise adequate funds and, importantly, the poor were effectively too poor to help themselves even if funds were available. At high valuations per acre there was also a negative correlation with the number of LFSs. In these more prosperous Unions, there was less need and the poor rate obligations were expected to be low.

Could the argument be turned on its head and could absolute poverty rather than relative affluence have been an influence on the location of LFSs?[46] In our regression specifications we

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[43] (6 & 7 Will. 4), c. 55, section vii. This appears to be a legislative oversight as it was stated in the 1836 bill that the LFB be funded from court fines, such as for drunkenness, but this was deleted in the subsequent act and no substitute source of income was included: *A bill for the amendment of the laws relating to loan societies in Ireland*, H.C. 1837, (486), section 7.

[44] (6 & 7 Will. 4), c. 55, section x.

[45] Under the 1843 act the LFB was funded by the sale of stationery to LFSs, in the form of promissory notes for loans and debenture forms for savings: (6 & 7 Vict.), c. 91, Schedule A, no. 2, Form of Promissory Note or Security for the Repayment of Money lent by a Loan Society and schedule A, No. 3, Form of Debenture or Security for the Payment of Money lent to a Loan Society.

[46] Econometrically speaking are our results due to a misspecification? In the literature on homicide and inequality there was a large number of studies that found an association between inequality and homicide, however this was challenged by Pridemore (2011) who argued that these models were misspecified because they did not include

control for the level of poverty using "fourth class housing", a qualitive measure of the housing stock. Figure 4 is an image reconstruction of such a fourth class house that was on display in University College Cork from 2018 to 2019.[47] Such a house effectively meant a mud cabin. Another measure of poverty is the level of illiteracy, and in fact both of these measures are strongly correlated and thus we only included the fourth class housing measure in our analysis. But is absolute poverty associated with LFS location? Table A5 repeats the main analysis but this time includes illiteracy in alternative specifications. Unconditional specifications do not show any effects, once controls are added there is a negative influence of both indicators of absolute poverty (columns 3 & 4). When the ratio of exempts to rate payers is included, it continues to have a large negative influence on LFS formation. The fact that LFSs appear to eschew the poorest is perhaps not surprising given the rhetoric of LFS proponents: recipients of LFS loans had to be good credit risks, something the poorest of the poor were not. It can also partially be explained by the pre-existence of RLFs in the poorest areas. The RLFs were similar organisations that had deliberately targeted the poorest areas in Munster and Connaught in the west and south-west to give the poorest of the poor the possibility of improving their lot enough to become deserving poor.

Returning to our discussion of the influence of the poor law in microfinance formation, a key consideration is how effective LFSs were in achieving the objectives of mitigating the effects of the poor law itself. As noted above, rates were levied on ratepayers to cover the expenses of the poor law. Table A6 analyses the cumulative rates levied per person from the instigation of the poor law until the eve of the famine, it also analyses rate arrears as a share of rates levied. In terms of social enterprise, LFSs appear to have played a role in reducing rates levied per person, so too did the RLFs, while, TSBs, the sister microfinance institution, did not. The opposing effects can perhaps be explained by the mistargeting of the savings banks which were used predominantly by middle class savers while the LFSs and RLFs were not the primary credit source for middle class

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controls for poverty. When poverty was included in the models the significance of inequality was no longer present. However, here we have included a measure of poverty but still find an inequality effect.

[47] 'An Bothán (recreation of a famine mud cabin)'. https://www.ucc.ie/en/nfc2018/anbothan/

borrowers. In terms of poverty, both absolute and relative, were negatively associated with rates levied, and, of the two, absolute poverty had a larger effect. At first glance the negative association with poverty seems puzzling as one would expect a welfare system targeting poverty to have high expenditure in places with high rates of poverty. However, the positive association of rates levied with the valuation of the land provides a key to understanding this. Column 6 presents standardised coefficients for the variables and the most important determinant of rates levied was the valuation of land. As the poor rate was a very local tax, it was the wealthier regions that could truly bear the cost of the poor law. This proto-welfare regime ignored Ireland's peculiarities in terms of ownership and distribution of wealth significantly differentiating it from modern centrally funded regimes that are not geographically constrained.

In terms of rate arrears, here LFSs are striking in their positive association with arrears which is much larger than the RLF effect. This is in line with our argument that LFSs were established as a means to avoid the poor rate, while RLFs had been established specifically to save those further impoverished by the 1820s famine from total destitution. Perhaps the tax avoidance motivation for LFS establishment led to tax evasion as well. Indicators of the operationalisation of the PLU are important explanatory factors here. PLUs that implemented rating earlier were negatively associated with arrears, but this was counterbalanced by the use of the workhouse which was positively associated with arrears. Places that violently resisted rate collection were, not surprisingly, more likely to be in arrears.

A final point relates to the persistently negative effect of Ulster throughout all the regression tables. Ulster was fundamentally different in this regard. Ulster was the centre of industrialisation on the island with an inner manufacturing core and an outer Ulster that was agriculturally focused. Our period of analysis coincides with the growth and concentration of the linen industry in the four eastern counties of Ulster (Ollerenshaw 1985). Outer Ulster (the remaining counties of the province) was integrated with the core through the growth of flax for linen production (Kennedy 1985). Ulster also developed commercial banking in conjunction with its industrialisation which

lessened the need for LFSs as financial institutions (Ollerenshaw 1987). In terms of the poor law itself, Ulster interest groups were widely opposed and argued for a voluntary system modelled on the Scottish presbyterian model (McCabe 2018). During the famine, after 23 PLUs were bankrupted, primarily in Munster & Connaught, the British government attempted to introduce an Ireland wide rate-in-aid scheme to support the affected unions; the largest opposition to this came from Ulster (Grant 1990). It has even been argued that in the post-famine period, despite a national poor law, a distinct welfare regime operated in Ulster (Purdue 2011).

7 Conclusion

Ireland experienced a peculiar microfinance revolution in the decade 1836 – 1845 with both 'institutional void' and 'institutional supports' key influences on this revolution. In terms of 'institutional void' contemporaries were highly incensed by the introduction of the poor law, seen as a stop-gap British solution with a high administrative burden to a chronic Irish problem, as this imposed a new and highly resented tax on property owners in Ireland. LFSs were seen as a pragmatic, Irish response to this fiscal shock, a preferred private means of providing for the poor, thus filling the 'institutional void', by enabling the poor to provide for themselves. Various legislative incentives for the formation of loan fund societies provided 'institutional supports' that facilitated the boom in LFSs. The focus of the analysis was on the years following the promulgation of the poor law to highlight the role of LFSs at this particular time.

LFSs were established throughout the island, and operated in all Poor Law Unions, providing credit where credit was needed, largely to the benefit of the target clientele, the "industrious poor" – essentially small farmers and hucksters. The analysis of LFS incidence shows that levels of inequality were a negative influence on the formation of LFSs. The poor could not be too poor if the goal was for them to be able to help themselves. This supports the view that (excess) inequality is detrimental to financial development (Rajan and Ramcharan 2011). Thus, the industrious poor in relatively more equal unions were more likely to be beneficiaries of microfinancial services before the famine.

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Table 1 Commencement of the poor law: Number of Unions formed and poor rates first levied

Year Poor law commenced	Number of unions formed	Poor rates first levied
1838	0	0
1839	93	1
1840	31	9
1841	6	40
1842	0	59
1843	0	8
1844	0	7
1845	0	5
1846	0	1

Table 2: LFS activity, 1841, 1842, 1843, 1844, and 1845

	Number of registered loan funds	Number of new entrants in poor law unions (relative to 1836)	Number of exits relative to poor law unions	Total capital (£)	Total loans (£)	Number of loans
1836	141	-	-	-	-	-
	Funds registered with the Loan Fund Board					
1838	50	25	116	67,130	180,526	148,528
1839	224	150	67	-	816,473	352,469
1840	215	147	73	-	1,164,046	463,750
1841	268	185	58	370,054	1,435,725	411,044
1842	300	209	50	421,920	1,691,871	488,702
1843	298	208	51	403,343	1,650,963	490,870
1844	259	182	59	417,584	1,702,918	488,207

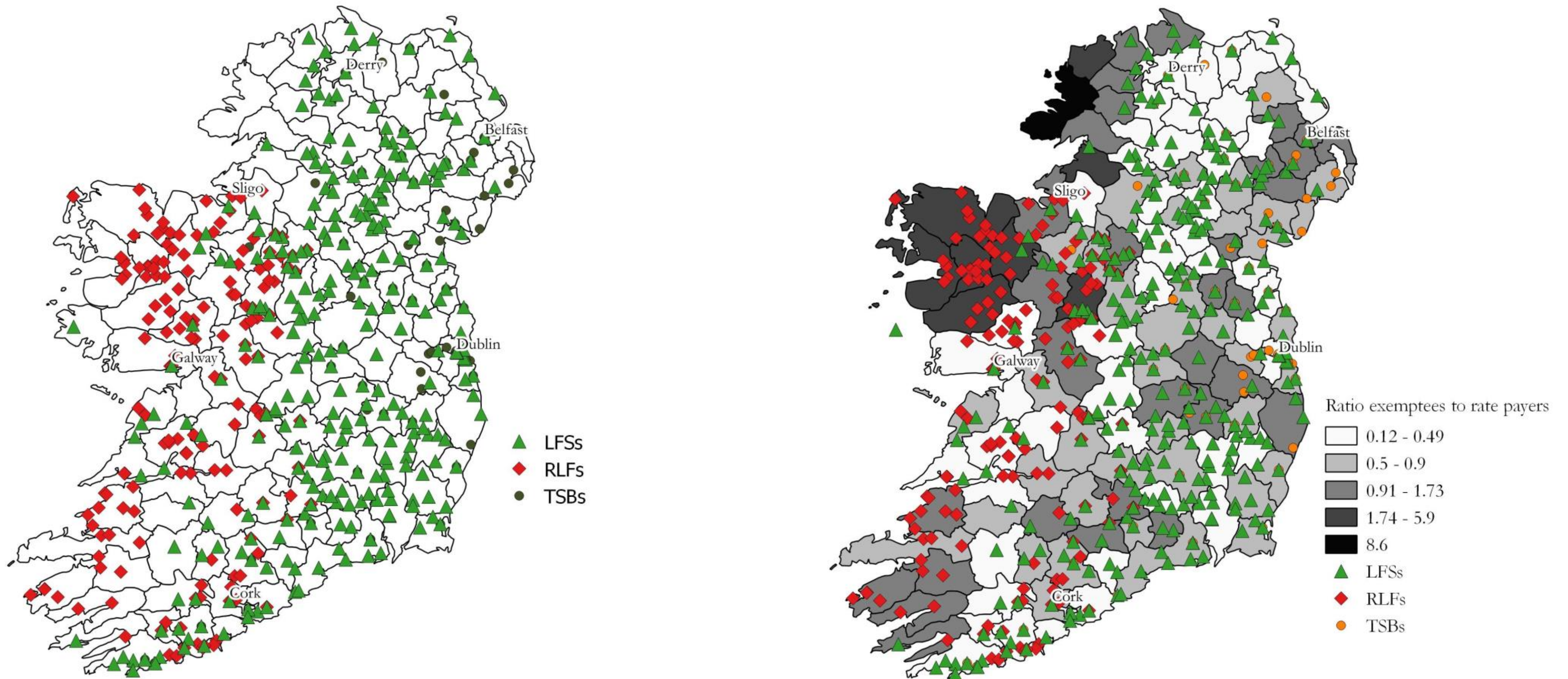
Table 3 Variable Description

Number	Variable	Description	Source
1	All LFSs (1842)	Total number of loan funds registered with the LFB in a particular year	BPP (1836); BPP (1843b)
2	New formations (1842)	Number of new loan funds in 1842 compared with the number registered in 1836 before the LFB was established	BPP (1836); BPP (1843b)
3	Exit	Number of funds from 1836 that exited in 1842	BPP (1836); BPP (1843b)
4	Ratio exemptees to rate payers	Ratio of those exempt from paying poor rate to actual rate payers	BPP (1846)
5	Valuation per acre	Poor law valuation per acre of land	BPP (1844b), appendix b table 12-15
6	Union commenced in 1839	Union commenced in 1839 is a dummy variable where 1 = commenced in 1839, 0 otherwise	BPP (1844b), appendix b table 12-15
7	Workhouse opened before 1842	Workhouse opened and receiving paupers before 1842 is a dummy variable where 1=opened before 1842, 0 otherwise	BPP (1844b), appendix b table 12-15
8	Poor Rate levied before 1842	Poor Rate Levied before 1842 is a dummy variable where 1=levied before 1842, 0 otherwise	BPP (1844b), appendix b table 12-15
9	Violently resisting rate collection	Violent resistance to rates is a dummy variable where 1 = a union violently resisted rate collection , 0 otherwise	BPP (1844b), appendix b table 12-15
10	RLFs	Reproductive Loan Funds	BPP (1840)
11	TSBs	Trustee Savings Banks	Pratt (1846)
12	Bank of Ireland radius	Bank of Ireland monopoly is a dummy variable whereby 1 if a Union was within the Bank's monopoly radius and 0 otherwise	Estimated using Qgis
13	JSBs	Number of joint stock banks	Barrow (1973)
14	Population density	Population density per acre	BPP (1843b); Clarkson et al. (1997)
15	City	City is a dummy variable, 1 if a Union contains a major city (as defined by barony classifications)	Defined as Belfast (Co. Antrim & Co. Down), Carrickfergus, Cork City, Drogheda, Dublin City, Galway Town, Kilkenny

			City, Limerick City, Waterford City
16	Ulster	Ulster is a dummy variable, 1 if the union is in the province of Ulster, 0 otherwise	Ulster = Antrim, Armagh, Cavan, Donegal, Down, Fermanagh, Londonderry, Monaghan, Tyrone.
17	4th class housing (%)	Families in fourth class housing (the lowest classification of housing) as a share of total housing	Fernihough & Ó Gráda (2022)
18	Vested means (%)	Vested means per capita	Fernihough & Ó Gráda (2022)

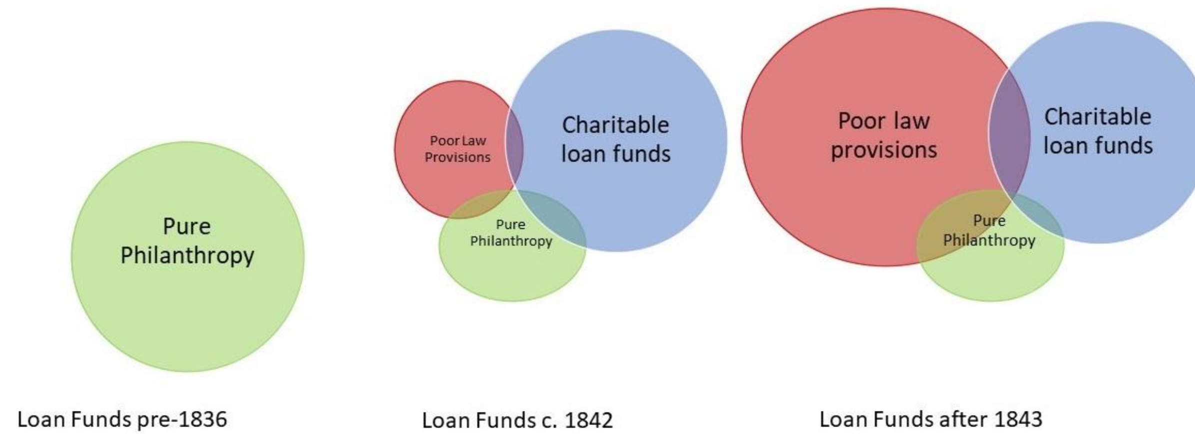
Data matched to Poor Law Union using GISsoftware. LFS location mapped using methodology in McLaughlin (2009) and matched to Poor Law Union boundaries from Gregory and Ell (2004)

Figure 1: Microfinance institutions by Poor Law, c. 1842



Notes: LFSs 1842, RLFs c. 1839, TSBs 1844. There were 130 Poor Law Unions from 1838 to 1846.
Two unions did not contain data on rate exempts and rate payers, Tuam and Clifden. Both of these are found in Connaught. Tuam contained 8 RLFs and 1 LFS. Clifden contained 1 LFS.
Shape file of poor law boundaries: Gregory & Ell (2004):

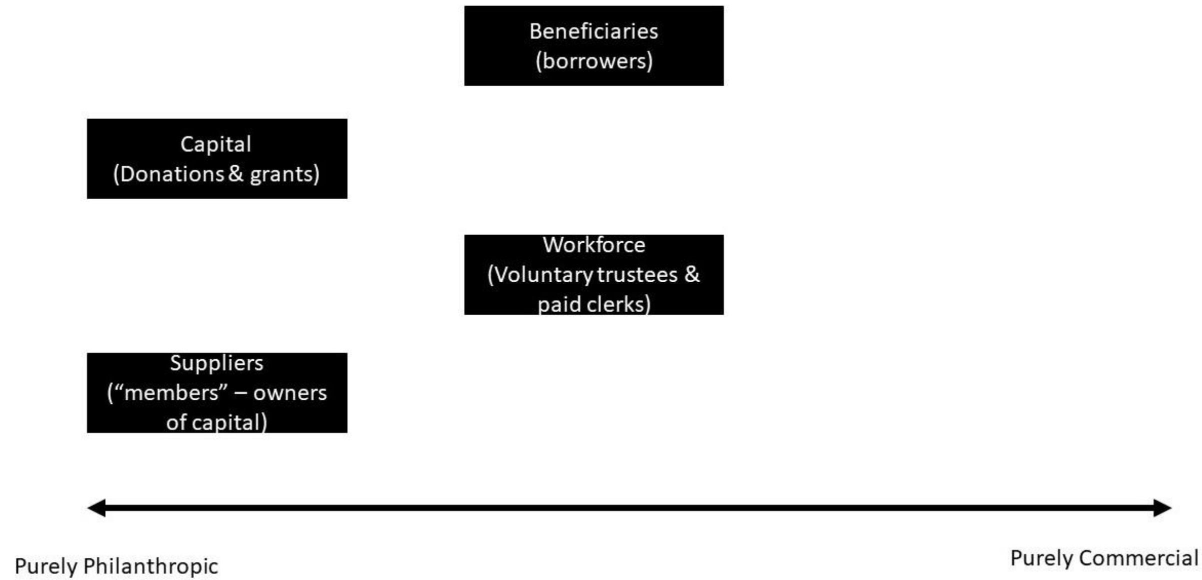
Figure 2a: Funding: LFSs in relation to Poor Taxes



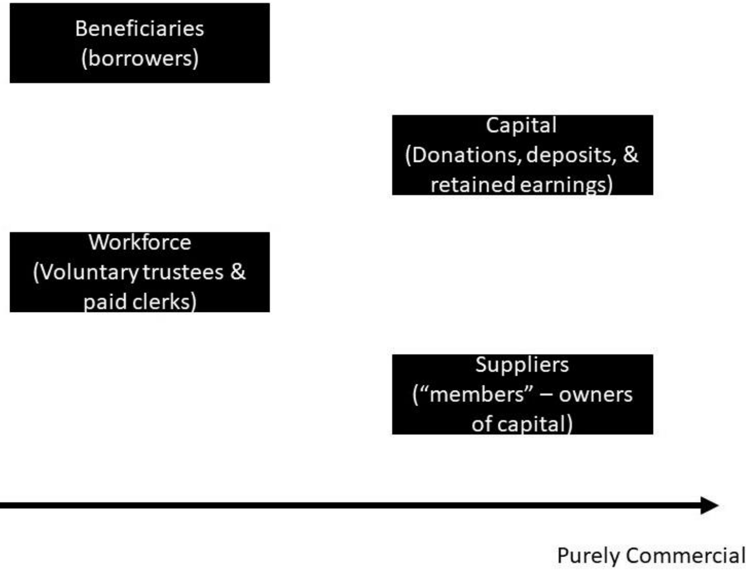
Note: Schema is an adaptation of Leadbetter (1997)'s cross-sectoral model of social enterprise

Figure 2b Loan Funds on the Social Enterprise spectrum

a) Loan funds Pre-1836

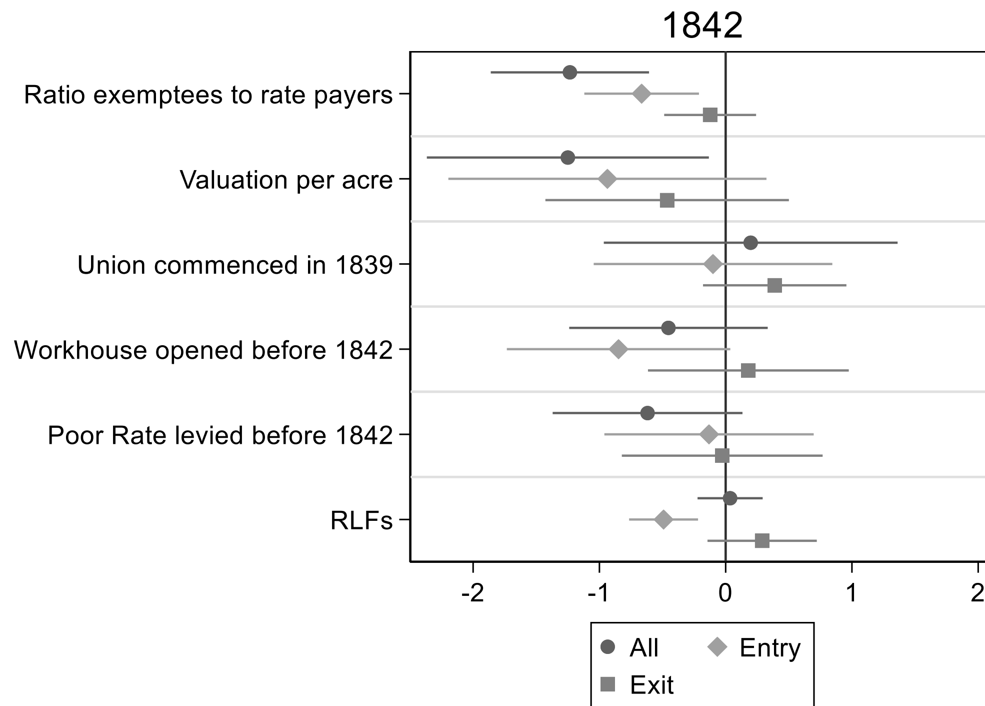


b) Loan funds post-1836



Schema derived from Dees (1998)

Figure 3 Number of Loan Fund Societies in 1842 by Poor Law Unions: marginal effects



Additional controls:
Violently resisting rate collection, TSBs, Bank of Ireland, JSBs, Population Density, City, Ulster, fourth class housing, and Vested means. Cluster robust standard errors at county level.

Figure 4: Image of a reconstruction of a fourth class dwelling

Image: photographed by the authors in April 2019.

Appendix

Table A1 Summary statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Number of LFSs in 1841	130	2.062	1.896	0	9
Number of LFSs in 42	130	2.308	2.011	0	9
Number of LFSs in 1843	130	2.292	1.923	0	10
New formations 1841	130	1.423	1.665	0	8
New formations 1842	130	1.608	1.815	0	8
New formations 1843	130	1.600	1.732	0	8
Exit 1841	131	0.443	1.204	0	8
Exit 1842	131	0.382	1.077	0	6
Exit 1843	131	0.389	1.200	0	8
Ratio exemptees to payees	128	0.902	0.990	0.123	8.599
Ratio exempt to payees under 1	128	0.368	0.305	0	0.934
Ratio exempt to payees under 1 (excluding 1 and over)	90	0.523	0.224	0.123	0.934
Ratio exempt to payees equal 1	128	0.056	0.233	0	1.058
Ratio exempt to payees equal 1 (excluding under and over 1)	7	1.02	0.37	0.968	1.058
Ratio exempt to payees over 1	128	0.478	1.132	0	8.599
Ratio exempt to payees over 1 (excluding under 1 and equal to 1)	31	1.972	1.542	1.113	8.599
Poor valuation per acre	130	0.910	1.444	0.063	12.681
Union commenced in 1839	131	0.710	0.456	0	1
Workhouse opened before 1842	131	0.267	0.444	0	1
Poor Rate levied before 1842	131	0.382	0.488	0	1
Violently resisting rates					
0	130	0.838	0.369	0	1
1	130	0.162	0.369	0	1

Table A1 Summary Statistics (continued)

Variable	Obs	Mean	Std. Dev.	Min	Max
RLFs	130	1.238	2.188	0	9
TSBs	130	0.600	0.774	0	5
Bank of Ireland radius					
0	130	0.662	0.475	0	1
1	130	0.338	0.475	0	1
JSBs	130	1.154	1.332	0	5
Population density	130	0.456	0.407	0.141	3.462
City					
0	130	0.938	0.241	0	1
1	130	0.062	0.241	0	1
Ulster					
0	130	0.669	0.472	0	1
1	130	0.331	0.472	0	1
Fourth class housing (%)	130	36.466	14.541	13.161	83.393
Vested means (%)	130	2.160	0.889	1.205	10.341

Table A2 Correlation matrix

	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**16**	**18**
1	1																	
2	0.829	1																
3	-0.061	-0.319	1															
4	-0.242	-0.204	0.059	1														
5	0.010	0.061	-0.061	-0.145	1													
6	0.188	0.046	0.125	-0.308	0.199	1												
7	-0.100	-0.127	0.091	-0.182	0.342	0.384	1											
8	-0.035	-0.041	0.042	-0.204	0.295	0.465	0.658	1										
9	0.001	-0.062	0.116	0.087	-0.054	0.136	0.107	0.164	1									
10	-0.140	-0.310	0.473	0.272	-0.119	0.017	-0.049	-0.089	0.169	1								
11	0.148	0.154	-0.036	-0.154	0.369	0.201	0.242	0.156	-0.022	-0.121	1							
12	0.242	0.210	-0.074	-0.154	0.224	0.233	0.073	0.196	-0.143	-0.379	0.323	1						
13	0.134	0.184	0.027	-0.076	0.142	0.129	0.214	0.226	0.072	-0.011	0.244	-0.101	1					
14	0.041	0.103	-0.063	-0.150	0.953	0.217	0.314	0.252	-0.072	-0.118	0.368	0.173	0.266	1				
15	0.070	0.106	-0.002	-0.082	0.621	0.162	0.276	0.190	0.147	0.007	0.256	0.017	0.331	0.619	1			
16	-0.149	0.026	-0.206	-0.001	-0.099	-0.254	-0.065	-0.163	-0.226	-0.403	-0.026	-0.132	0.185	0.035	-0.115	1		
17	-0.254	-0.271	0.191	0.186	-0.205	-0.142	-0.063	-0.181	0.048	0.620	-0.208	-0.452	-0.152	-0.207	-0.043	-0.338	1	
18	0.141	0.064	-0.034	-0.056	0.199	0.132	0.074	0.149	-0.001	-0.075	0.231	0.231	-0.044	0.101	0.046	-0.173	-0.359	1

Note number in bold in first column and first row refers to variable number from Table 3

Table A3 Number of Loan Fund Societies in 1842 by Poor Law Unions

	Regression Coefficients			Marginal effects at mean		
	All	Entry	Exit	All	Entry	Exit
Ratio exemptees to rate payers	-0.53***	-0.40***	-0.24	-1.23***	-0.67***	-0.12
	(0.128)	(0.128)	(0.264)	(0.320)	(0.232)	(0.186)
Valuation per acre	-0.54**	-0.57	-0.90	-1.25**	-0.94	-0.46
	(0.236)	(0.392)	(0.617)	(0.570)	(0.643)	(0.492)
Union commenced in 1839	0.09	-0.06	0.75	0.20	-0.10	0.39
	(0.256)	(0.293)	(0.531)	(0.594)	(0.482)	(0.290)
Workhouse opened before 1842	-0.19	-0.52*	0.35	-0.45	-0.85*	0.18
	(0.169)	(0.265)	(0.815)	(0.401)	(0.452)	(0.406)
Poor Rate levied before 1842	-0.27	-0.08	-0.05	-0.62	-0.13	-0.03
	(0.166)	(0.258)	(0.797)	(0.384)	(0.423)	(0.406)
1.Violently resisting rate collection	0.04	0.10	0.18	0.09	0.17	0.10
	(0.163)	(0.224)	(0.506)	(0.391)	(0.395)	(0.286)
RLFs	0.02	-0.30***	0.56***	0.04	-0.49***	0.29
	(0.056)	(0.088)	(0.160)	(0.132)	(0.139)	(0.221)
TSBs	0.10	0.12	0.66	0.22	0.20	0.34
	(0.136)	(0.155)	(0.552)	(0.321)	(0.259)	(0.428)
1.BankofIreland	0.14	-0.06	0.73	0.32	-0.09	0.51
	(0.131)	(0.183)	(0.700)	(0.315)	(0.300)	(0.767)
JSBs	0.07	0.10	0.02	0.17	0.16	0.01
	(0.062)	(0.086)	(0.197)	(0.145)	(0.144)	(0.101)
Population density	1.63**	1.91	0.28	3.80**	3.14	0.15
	(0.798)	(1.323)	(2.116)	(1.901)	(2.159)	(1.095)
City/Town	0.04	0.29	0.78	0.10	0.55	0.59
	(0.272)	(0.268)	(1.372)	(0.658)	(0.564)	(1.570)

Table A3 Number of Loan Fund Societies in 1842 by Poor Law Unions (continued)

Ulster	-0.78***	-0.68***	-0.97	-1.68***	-1.08***	-0.34*
	(0.221)	(0.259)	(0.757)	(0.437)	(0.394)	(0.207)
4th class housing %	-0.02*	-0.01	-0.01	-0.05*	-0.01	-0.01
	(0.012)	(0.009)	(0.016)	(0.026)	(0.015)	(0.008)
Vested means (%)	0.03	0.04	-0.23	0.07	0.07	-0.12
	(0.057)	(0.098)	(0.559)	(0.134)	(0.160)	(0.293)
Ln alpha	-2.52***	-1.29**	0.84			
	(0.736)	(0.596)	(0.681)			
Constant	1.74***	1.03*	-1.79			
	(0.583)	(0.605)	(1.504)			
Observations	128	128	128	128	128	128
Ll	-224	-199	-75.9			
chi2	97.4	192	280			
r2_p	0.11	0.10	0.17			

Standard errors clustered at county level in in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Table A4 Negative Binomial Regressions of LFSs and the Ratio of exempts to rate payers by quintiles in 1842

	(1)	(2)	(3)	(4)	(5)	(6)
	All	Entry	Exit	All	Entry	Exit
					Excluding fifth quintile	
Ratio exemptees to rate payers:						
First Quintile	Reference group	Reference group	Reference group			
Second Quintile	-0.14	-0.02	0.44			
	(0.200)	(0.237)	(0.569)			
Third Quintile	-0.01	0.09	0.61			
	(0.218)	(0.238)	(0.497)			
Fourth Quintile	-0.18	-0.06	-0.77			
	(0.252)	(0.294)	(0.811)			
Fifth Quintile	-0.69**	-0.46*	-0.90			
	(0.273)	(0.241)	(0.961)			
Ratio exemptees to rate payers				-0.33*	-0.33*	-2.09*
				(0.175)	(0.192)	(1.152)
Valuation per acre	-0.55**	-0.58	-1.78**	-0.49**	-0.64**	-1.84**
	(0.246)	(0.413)	(0.787)	(0.195)	(0.299)	(0.891)
Union commenced in 1839	0.16	0.00	0.64	0.11	-0.01	0.09
	(0.255)	(0.300)	(0.496)	(0.272)	(0.314)	(0.912)
Workhouse opened before 1842	-0.20	-0.53*	0.42	-0.24	-0.58**	0.41
	(0.183)	(0.275)	(0.775)	(0.171)	(0.268)	(0.887)
Poor Rate levied before 1842	-0.26	-0.07	0.01	-0.31*	-0.15	0.11
	(0.175)	(0.250)	(0.642)	(0.181)	(0.317)	(0.845)

Table A4 Negative Binomial Regressions of LFSs and the Ratio of exempts to rate payers by quintiles in 1842 (continued)

1.Violently resisting rate collection	-0.02	0.05	0.25	0.06	0.19	-0.15
	(0.146)	(0.187)	(0.461)	(0.167)	(0.285)	(0.821)
RLFs	-0.02	-0.33***	0.57***	0.03	-0.31***	0.81***
	(0.057)	(0.083)	(0.152)	(0.058)	(0.107)	(0.311)
TSBs	0.08	0.11	0.83	0.06	0.10	1.38**
	(0.136)	(0.147)	(0.688)	(0.134)	(0.138)	(0.644)
1.BankofIreland	0.11	-0.06	0.63	0.18	-0.08	0.83
	(0.146)	(0.198)	(0.643)	(0.152)	(0.231)	(0.679)
JSBs	0.06	0.09	-0.10	0.07	0.09	-0.25
	(0.066)	(0.090)	(0.191)	(0.064)	(0.091)	(0.253)
Population density	1.74**	2.01	2.53	1.55**	2.22**	2.09
	(0.822)	(1.404)	(2.490)	(0.656)	(1.016)	(2.929)
City/Town	-0.01	0.22	0.42	0.03	0.25	1.66
	(0.239)	(0.204)	(1.352)	(0.268)	(0.286)	(1.484)
Ulster	-0.76***	-0.65**	-1.32*	-0.78***	-0.77***	-1.61*
	(0.244)	(0.294)	(0.724)	(0.222)	(0.260)	(0.874)
4th class housing %	-0.02*	-0.01	-0.01	-0.02	-0.01	-0.01
	(0.011)	(0.010)	(0.015)	(0.014)	(0.011)	(0.035)
Vested means (%)	0.05	0.06	-0.13	0.03	0.07	-0.20
	(0.057)	(0.094)	(0.596)	(0.052)	(0.080)	(0.455)
Lnalpha	-2.47***	-1.25**	0.84	-2.60***	-1.35**	1.50**
	(0.731)	(0.533)	(0.662)	(0.836)	(0.571)	(0.588)
Constant	1.37***	0.65	-2.50	1.53**	0.88	-0.71
	(0.528)	(0.645)	(1.607)	(0.677)	(0.635)	(2.414)
Observations	128	128	128	103	103	103
Ll	-227	-201	-74.2	-191	-171	-57.0
chi2	126	230	461	122	144	50.1
r2_p	0.093	0.100	0.19	0.076	0.084	0.14

Table A5 Negative Binomial Regressions of LFSs and measures of poverty in 1842 (marginal effects at mean)

	(1)	(2)	(3)	(4)	(5)	(6)
Fourth Class Housing	-0.04		-0.04*		-0.05*	
	(0.029)		(0.026)		(0.026)	
Illiteracy		-0.02		-0.02*		-0.03*
		(0.020)		(0.013)		(0.013)
Ratio exemptees to rate payers					-1.23***	-1.20***
					(0.320)	(0.338)
Valuation per acre			-1.09*	-1.12**	-1.25**	-1.28**
			(0.601)	(0.529)	(0.570)	(0.500)
Union commenced in 1839			0.62	0.81	0.20	0.45
			(0.596)	(0.633)	(0.594)	(0.654)
Workhouse opened before 1842			-0.46	-0.50	-0.45	-0.50
			(0.409)	(0.435)	(0.401)	(0.396)
Poor Rate levied before 1842			-0.51	-0.56	-0.62	-0.66
			(0.464)	(0.486)	(0.384)	(0.411)
1.Violently resisting rate collection			-0.12	-0.00	0.09	0.21
			(0.360)	(0.367)	(0.391)	(0.388)
RLFs			-0.11	-0.17	0.04	-0.04
			(0.153)	(0.151)	(0.132)	(0.140)
TSBs			0.25	0.17	0.22	0.13
			(0.334)	(0.294)	(0.321)	(0.272)
1.BankofIreland			0.22	0.47	0.32	0.61*
			(0.356)	(0.382)	(0.315)	(0.356)
JSBs			0.18	0.19	0.17	0.18
			(0.150)	(0.158)	(0.145)	(0.155)

Table A5 Number of Loan Fund Societies in 1842 by Poor Law Unions (continued)

Population density			3.30	3.48*	3.80**	4.02**
			(2.024)	(1.784)	(1.901)	(1.676)
City/Town			0.17	0.21	0.10	0.14
			(0.640)	(0.704)	(0.658)	(0.745)
Ulster			-1.54***	-1.44***	-1.68***	-1.55***
			(0.477)	(0.461)	(0.437)	(0.428)
Vested means (%)			0.05	0.13	0.07	0.17
			(0.134)	(0.147)	(0.134)	(0.142)
Observations	130	130	130	130	128	128
Ll	-249	-252	-234	-236	-224	-227
chi2	1.63	0.88	109	116	97.4	112
r2_p	0.019	0.0049	0.077	0.069	0.11	0.095

Standard errors clustered at county level in in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Table A6 OLS regressions of the poor rate levies and poor rate arrears (1838-1845)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Loan Fund Societies (1842)	-0.01***	-0.01***	-0.01***	-0.16	0.84**	0.76*	0.79**	0.24
	(0.003)	(0.003)	(0.003)		(0.376)	(0.383)	(0.335)	
Fourth Class Housing	-0.19***	-0.18***	-0.17***	-0.22		-8.62	-6.56	-0.14
	(0.048)	(0.047)	(0.043)			(5.217)	(5.312)	
Ratio exemptees to rate payers		-0.02***	-0.01***	-0.08		0.10	0.13	0.02
		(0.005)	(0.003)			(0.324)	(0.409)	
Valuation per acre		0.05*	0.05*	0.66	-1.86	-2.02	-1.50	-0.33
		(0.027)	(0.026)		(1.460)	(1.456)	(1.472)	
Union commenced in 1839			0.04***	0.15			1.31	0.09
			(0.012)				(1.310)	
Workhouse opened before 1842			0.06***	0.26			3.52**	0.24
			(0.017)				(1.368)	
Poor Rate levied before 1842			-0.01	-0.03			-3.53***	-0.26
			(0.015)				(1.311)	
1.Violently resisting rate collection			-0.01	-0.04			4.10**	0.23
			(0.018)				(1.863)	
RLFs	-0.01***	-0.01*	-0.01*	-0.11	0.01	0.25	0.16	0.05
	(0.003)	(0.003)	(0.003)		(0.277)	(0.286)	(0.297)	
TSBs	0.03***	0.03***	0.02***	0.18	0.17	0.23	-0.19	-0.02
	(0.008)	(0.009)	(0.008)		(0.609)	(0.640)	(0.566)	
1.BankofIreland	0.02	0.02	0.01	0.05	-1.48	-2.16	-1.28	-0.09
	(0.018)	(0.016)	(0.015)		(1.583)	(1.876)	(1.686)	
JSBs	-0.00	0.00	-0.00	-0.01	-0.11	-0.25	-0.14	-0.03
	(0.005)	(0.006)	(0.005)		(0.461)	(0.466)	(0.481)	

Table A6 OLS regressions of the poor rate levies and poor rate arrears (1838-1845) (continued)

Population density	0.07***	-0.10	-0.11	-0.44	11.95**	12.26**
	(0.021)	(0.089)	(0.085)		(5.272)	(5.204)
City/Town	0.10*	0.09	0.08	0.19	0.73	0.88
	(0.063)	(0.070)	(0.067)		(2.833)	(2.777)
Ulster	-0.08***	-0.06***	-0.05***	-0.20	-4.34***	-5.13**
	(0.017)	(0.016)	(0.016)		(1.654)	(1.985)
Vested means (%)	-0.00	-0.01	-0.01	-0.06	0.22	-0.19
	(0.008)	(0.007)	(0.006)		(0.562)	(0.508)
Constant	0.23***	0.27***	0.22***		-0.00	4.50
	(0.038)	(0.040)	(0.036)		(1.919)	(3.368)
Observations	130	128	128		130	128
R squared	0.58	0.63	0.71		0.30	0.31

Robust standard errors in parentheses, *** $p<0.01$, ** $p<0.05$, * $p<0.1$