Tracing Regulatory Capture in Microfinance: Irish Loan Fund Societies and the Loan Fund Board, 1860-1914

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Weak regulation and regulatory inaction have been cited as significant factors in the recent financial crises in Britain, Ireland and the US. In Ireland, this had led to suggestions of regulatory capture. However, the existing empirical literature of regulatory capture has primarily focused on the regulators of utilities in the US; moreover, it has not analysed the effects and costs of the capture of financial regulators. This paper aims to address this lacuna by contributing an empirical study of a case of regulatory capture from late nineteenth century Ireland. This paper analyses the effects of an idiosyncratic shock to the Irish financial system in 1896 that only affected loan fund societies - local financial quasi-mutuals that lent to non-members. It utilises a new dataset on loan fund societies to analyse the effect of regulatory capture on unit-independent financial institutions and finds that capture distorted depositor incentives, exploited borrowers and undermined their long-term survival prospects.

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1. Introduction

Regulation and financial regulators played an important role in recent financial crises in the US, UK and Ireland (Connor, et al., 2010; Honohan, 2009 & 2010). The causes and effects of the financial crises in the UK, US and Ireland were different; however, lax regulation permitted interest groups to have excessive influence on financial systems in each region. The situation in Ireland, whilst interrelated with events elsewhere, was unique, in so far as the financial regulatory apparatus seemed to turn a blind eye to the activities of an upstart lender, Anglo-Irish Bank, and encouraged a policy of hands-off regulation to encourage the development of a financial services industry in Dublin, the International Financial Services Centre (IFSC). The public perception of capture, the close relationship between the regulatory body and the regulated industry, in Ireland has entered popular parlance (Ross, 2009) and has received official sanction (Honohan, 2010, section 1.13).

This paper aims to contribute to the debate surrounding regulation and regulatory reform by analysing a unique financial data set from 1838 to 1914. The benefits of using historical data instead of contemporary sources in addressing these questions relate to the difficulty, and associated risks of unsubstantiated claims, of proving capture. This a study of a ubiquitous rural unit-independent quasi-mutual microfinancial institution – the Irish Loan Fund Society (LFS) - that constituted a declining portion of the Irish financial landscape in the 1800s. At their zenith, in 1845, LFSs made loans of £1.85 million, equivalent to €176 million in modern monetary value (hereafter in brackets), to the 'industrious poor' of Ireland – estimated to have been about 20% of households (Hollis & Sweetman 1998, p. 353). This was equivalent to 64 per cent of the savings held in Trustee Savings Banks (TSB), a contemporary financial institution with similar microfinance goals (LFSs emphasised

microcredit and TSBs focused on microsaving). The one time significance of the LFSs can be gauged by a contemporary commentator who, when discussing the Irish financial system in the early nineteenth century, stated that 'reference should be made to a system of Loan Funds, which are in extensive operation in Ireland, indicating the necessity of supplying a sound banking system'(Martin, 1848). An indicator of their comparative success can be seen in the disastrous failure of the Agricultural and Commercial bank (established in 1834, suspended payments in 1836 and closed in 1840) which attempted to replicate their methodology in the 1830s (Ó Gráda, 1994).

LFSs were under the direct supervision and regulation of a government appointed regulator, the Loan Fund Board (LFB) established in 1836, and this regulator was directly funded by the activities of the industry which it was created to regulate. This funding structure is common to many modern financial regulators and rating agencies – in the case of ratings agencies it has been criticised for distorting their incentives (e.g. see Dimsdale, 2009; *Financial Times*, March 2011). This paper analyses the activities of LFSs between 1860 and 1914. This period followed the tumultuous experience of LFSs during the 1840s when the number of active LFSs was truncated by about two-thirds. During the period 1860-1914 the activities of LFSs were constrained by legislation that ostensibly limited their profitability and actions; they also experienced growing competition from deposit mobilising joint stock banks (JSBs) and the Post Office Savings Bank (POSB). Such a hostile environment would lead one to expect that their market share and activities would decline, which they did until the 1880s. In the period 1882 to 1896, however, they experienced an unexpected, and unsustainable, resurgence. Coincidentally, this resurgence corresponded with agricultural depression, rural agitation and corollary land reform. It also coincided with the retirement of a long-standing regulator and members of the LFB. [1] This

erratic resurgence was halted dramatically in 1896 when the judicial system began to enforce the existing legal code for LFSs.

The focus of this paper is on the idiosyncratic shock that only affected LFSs.[2] In the period 1895 to 1900, the total capital (deposits + retained earnings + charitable bequests) of LFSs in Ireland fell by 52 per cent. However, such negative experiences were not shared by other financial institutions; in the same period, the deposits held by JSBs, TSBs and the POSB grew by 8, 12 and 46 per cent. This gives a strong indication that the events of the 1890s were idiosyncratic to the institutional structure of LFSs. The core argument of the paper is that the origins of the idiosyncratic shock in 1896 lay in the fact that the LFSs were inherently flawed institutions that captured their equally flawed regulator. Moreover, it is argued that the inherently flawed institutional structure created a situation where once altruistic institutions were captured by unscrupulous managers; a scenario similar to the US savings and loans crisis in the 1980s (Mason, 2004). Furthermore, it is argued that this situation was caused by formal constraints, essentially legislative constraints, coupled with an absence of legislative reforms, which resulted in institutional stagnation. It is argued that the paradoxical continued existence of the LFS system, so prevalent in the years immediately preceding the famine, was caused by both regulatory failure and capture in the post-famine period. In addition, the paper argues that the practical disappearance of LFSs in the 1900s can be explained by a loss of confidence in the system.

The effect of regulatory capture was that it led the individual LFSs to adopt practices which undermined their comparative advantage in information creation. In fact, the existence of regulatory capture distorted depositor incentives and led to moral hazard. Depositors in LFSs believed that there was a government guarantee for their

deposits and as a result the majority of LFSs made loans to indebted borrowers and loans were secured by equally indebted guarantors. Moreover, the existence of regulatory capture had a cost to society and this was the creation of debt peonage; or, in the words of the treasurer of the Newtownstewart LFS in County Tyrone, 'permanent borrowers'.[3] The perception of safe investments, despite their inherent riskiness, bears parallels to the recent sub-prime debacle whereby global investors purchased collateralised debt obligations in the misplaced perception that they were investing in safe securities.

The paper proceeds as follows: Section 2 discusses the existing literature relating to regulatory capture. Section 3 outlines the institutional structure of LFS and the Loan Fund Board. Section 4 analyses the idiosyncratic shock experienced by LFSs in 1896 and section 5 outlines empirical findings. Section 6 concludes.

2. Theoretical Literature Relating to Regulatory Capture

Regulatory capture, the capture or close relationship between a regulatory body and the industry which it was created to regulate, is a facet of regulatory activity that can affect any regulated industry. This section is a brief review of the discourse relating to regulatory capture in political science and economics.

The classic theory of the life cycle of regulating agencies was postulated by Bernstein (1955), and later Meier & Plumlee (1978). The Bernstein approach outlines four stages in the life cycle of a regulating agency. In the first stage, gestation, an agency is created due to political and public furore to establish a regulating institution. In the second stage, youth, the institution is created with remnants of the initial public and political support. In the third stage, maturity or regulatory failure, the institution has been established for a number of years but the public ceases to take active interest

in the regulatory institution. In the final stage, old age or regulatory capture, the regulatory agency reaches a compromise with the industry it was intended to regulate and the industry has power and influence over the regulator. In the Bernstein model this is due to the regulator ceasing to be politically relevant and therefore reliant on the industry for financial and material support. Effectively its interests converge with those of the industry it regulates. Bernstein hypothesised that the process was circular arguing that once capture takes place actions can lead to a renewal of political and public interest and the cycle begins anew.

Berry (1984) challenged two of the underlying assumptions of Bernstein's theory, namely that the character of individual regulators does not affect the nature of policy outcomes and that consumers and the public do not have significant influence on regulatory policy. Berry argued that personal characteristics, such as incentives and objectives, of regulator and consumer involvement affect the nature of the regulatory outcome.

Laffont & Tirole (1991) modelled regulatory capture from an information economics perspective and showed how interest groups can capture a regulator. Their model comprised of a two tiered agency structure. In the first tier, Congress was the principal and the supervisory body was the agent; however, the supervisory body became the principal and the regulated firm became the agent in the second tier. In their model, the supervisory body received an income from Congress. If this income was equal to or greater than the reservation income of the supervisory body it could prevent capture; whereas there would be capture if the regulatory agency had an incentive to hide information from Congress. They also postulated that if the regulated firms captured the supervisor body, over use of this power could harm them.

The majority of the literature relating to regulatory capture in the financial sector is theoretical in nature with few empirical studies undertaken due to data constraints.[4] Yet, given the high level of financial regulation, there is a possibility that some degree of capture may occur. Regulatory capture is present in other discussions on the regulation of financial markets (e.g. Dewatripont & Tirole, 1993, Spencer, 2000 and Barth, et al., 2006). A recent study by Hardy (2006) discusses how it is theoretically possible for regulatory capture to occur in banking but without providing any empirical support.

The existing empirical literature on regulatory capture has focused primarily on the US utilities industries (for an overview see Dal Bó 2006). There are a number of empirical studies of regulatory regimes and financial industries (for example see Donzé, 2006, Arnone, et al., 2007 and Masciandaro, et al, 2008).[5] There are also a number of notable studies that have implicitly analysed the effect of capture, such as Mitchener (2005), who found that States with stronger regulators had lower failure rates during the Great Depression in the US. Regulatory capture and looting are also present in the analysis of the Savings and Loan (S&L) debacle in the US in the 1980s, for example Akerlof & Romer (1993) and Mason (2004).

Regulatory capture has been discussed in relation to the recent financial crisis in Ireland. Popular works have highlighted the close relationship between the banking sector and the regulator (Ross, 2009). The Governor of the Irish Central Bank was particularly critical of the role of the financial regulator in the recent financial debacle in Ireland (Honohan, 2010).

3. Institutional Structure of Loan Fund Societies and the Loan Fund Board

The first loan fund was founded in Ireland the early 1700s, established by Dean Swift in Dublin City.[6] However, it was not until the early 1800s that LFSs increased in number. LFSs were regulated by a series of legislative acts passed by the UK parliament[7] in 1823, 1836, 1838 and 1843. After 1843 there were a small number of amendments, in 1844, 1872, 1900 and 1906, but the institutional structure of LFSs was essentially unchanged from 1843 until the last LFS was wound up in the 1970s. LFSs were established by local initiative and not by central authority, however there were incentives, such as exemption from stamp duty and limitation of liability, in legislation which encouraged the formation of LFSs. There does not appear to have been a religious dimension to the LFS. There was a pamphlet written by a disgruntled clergyman in 1840 that compared LFSs to usury (M'Cormick 1841), but in general it appears that such societies had clerical approval. Clerical figures did take issue when LFS charitable expenditure was directed towards the other denomination. Individual LFSs had their own rules but these were constrained by legislation discussed below.[8] The argument presented in this discussion is that LFSs and their regulator, the LFB, had an inherently flawed institutional structure.

3.1 Loan Fund Societies

To get a deeper understanding of events in the 1890s it is important to analyse the organisational structure of LFSs. Firstly, Irish LFSs were not mutuals. The 1823 act stated that any number of people could form a LFS for the purpose of lending to the 'industrious poor'. This view was maintained in the 1836, 1838 and 1843 acts. Membership of these societies was comprised of trustees and debenture holders. The 1836, 1838 and 1843 acts also stipulated that societies could receive deposits from non-members. The 'industrious poor', however, were not members of these societies

and thus LFSs were not the equivalent of financial mutuals such as cooperative banks or savings and loans.[9] This essentially gave LFS the same organisational structure as contemporary TSBs – these were formed by trustees to protect the small savings of the 'industrial classes'.[10] Although both institutions emphasised different aspects of microfinance (LFSs focused on microcredit and TSBs on savings), there was, in fact, a close relationship between the two and in some cases LFSs shared the same building as TSBs.

Interestingly, there were contemporary LFSs in England & Wales, but these were legislated under different acts of parliament as these were in fact mutuals; membership was a requirement of borrowing and saving privileges. There were also contemporary, but legally distinct, LFSs in Ireland where borrowing and savings rights were a privilege of members only (McLaughlin, 2009). In their organisational structure, the Irish LFSs were more akin to quasi-banking institutions. This account of the organisational structure differs from that of Hollis & Sweetman (hereafter H&S) (2007) who stated that there were no equity holders. However, whilst strictly true, there was a seniority of debt holders; debenture holders, who were members, were given greater rights and control over societies than small depositors (under £20) who in many instances were non-members.

Legislatively determined ceilings were imposed on rates of interest on savings. Under the 1836 and 1838 acts the maximum interest on savings was set at 6 per cent, and reduced to 5 per cent under the 1843 act. To place this in context, the maximum interest payable to depositors in TSBs was 3.42 per cent from 1828-1843 and 3.04 per cent from 1844-1862. In the period 1860-1880 and 1895-1914, the average deposits held by LFS were £105 and £99. These were significant sums of money in the period

1860-1880, roughly five times greater than the annual average wage of the lowest socioeconomic group: agricultural labourers.[11]

Lending activities of LFSs were also regulated by legislation; most notably a £10 ceiling was placed on their lending. This ceiling appears to be related to a similar, but less restrictive, £10 ceiling imposed on contemporary pawnbrokers.[12] When LFSs were originally established, average annual nominal agricultural wages were in the region of £12 (Bowley, 1899), and mean LFS loans were in the region of £3 to £4: a significant size relative to wages. However, wages rose in the post-famine period and in the period 1860-1896 agricultural wages increased from £17 to £25; whereas average LFS loans were in the region of £5 in the same period. This was less significant relative to wage levels, but still considerable relative to prices of agricultural inputs such as cows, £5.88, and sheep, £1.27, in the period 1881 to 1895.[13] LFSs were only permitted to engage in short term lending and loan terms were fixed at 20 weeks. Repayments were either weekly or monthly, at the discretion of LFS management. Another feature of the legislation was that loan renewals, the renewal of extant loans, were illegal. Loans could only be issued once an existing loan was repaid. These legislative restrictions were in place from 1823 until the last society was wound up in the 1970s.

Loans were issued at a discount and legislative ceilings were placed on discount rates with the intention being to curb usury. Initially, under the 1836 act, the maximum discount rate was set at 6 pence in the pound, 2.5 per cent; this was reduced to 4 pence in the pound, 1.67 per cent, by the 1843 act. Contemporaries viewed the discount rates as equivalent to rates of interest of 12 per cent and 8 per cent respectively.[14] It is unclear why exactly rates on loans and savings were reduced. H&S (1997 & 1998) suggested that JSBs lobbied for reductions. There is evidence to

suggest this may be possible as the newly established JSBs had lobbied for restrictions on TSBs (Ollerenshaw, 1987). However, a more pressing concern may have been the actions of a rogue banker, Thomas Mooney, founder of the failed Agricultural & Commercial Bank of Ireland (Ó Gráda, 1994), who had attempted to fraudulently fund a JSB by issuing debentures under loan fund legislation (BPP, 1837-38).

Another facet of the Irish legislation concerned the imposition of 'reasonable' fines on borrowers. In the legislation referring to LFSs in England and Wales fines were illegal. In Ireland, however, whilst there was a reference to fines in the Irish legislation, there was no limit placed on them and they were imposed by all societies. Fines were ostensibly used as a punitive device for defaulting borrowers; however, they appear to have been used as an income generating mechanism.

According to legislation, LFSs were intended to be non-profit organisations. But, given that they charged discount on loans and fined borrowers, their activities generated income. They also accrued expenses in the form of rent, payment of interest on savings and salaries of staff. Profits, after all expenses were accounted for, were supposed to be either retained and added to existing capital, used to create a reserve fund, or applied to charitable purposes. Contemporary literature propagating the need for LFSs in the 1830s and 1840s emphasised the expenditure of profits on charitable ventures as a virtue of a LFS system. It must be stressed that these contemporary pamphleteers considered LFSs to be an alternative, not a complement, to the introduction of a compulsory poor relief system (see Gray, 2009 and McLaughlin, 2009).

LFSs were ostensibly able to overcome lower tier agency problems – monitoring borrowers. They did this by the informal screening of borrowers by using

local information. Additional screening came through charging aspiring borrowers 1 pence for an application card. The LFS used delegated monitoring, or 'peer monitoring', through a surety system, whereby loans were secured by two guarantors. However, a significant piece of the legislation limited the liability of management and staff for debentures/deposits held by the society unless the management specified in writing that they were willing to be liable. The fact that management of LFS had limited liability meant that they had less incentive to monitor staff, which in turn may have led to higher tier agency problems. Given that there were numerous cases of defalcation and embezzlement, it appears that local management were poor monitors of staff. A potential solution to this agency problem was the use of external monitoring by the regulator of LFSs.

3.2 Loan Fund Board

A government appointed regulator, the LFB (1836-1914), was legislatively established to regulate and supervise all LFSs in Ireland.[15] Its office was located in Dublin Castle, the heart of government administration in Ireland, its members were appointed by the Lord Lieutenant, the government representative in Ireland, and it was answerable to the UK parliament. The duties of the LFB included the registration and licencing of LFSs. It could sanction the establishment of societies in certain districts for the purpose of lending to the 'industrious poor' resident within the specified area; in a sense sanctioning the formation of local LFSs and determining the boundaries of their operations.

The LFB was also obligated to enforce the charitable element of LFSs and could order the reduction of expenses, including staff salaries, if it deemed them excessive. LFB approval was also required for the sanctioning of charitable expenditure. The

LFB made on-site and off-site inspections via a travelling inspector and an annual audit of society accounts. It was also required to submit annual reports to parliament.[16] The LFB was given the power to revoke certificates from societies, thus excluding them from legal privileges, such as tax exemptions and access to local courts, and to wind up offending societies and place societies in receivership.[17] However, LFSs were able to appeal such decisions; the cost of the appeals process may have deterred the use of these powers. The LFB was also given the power, although not the complementary resources, to make loans to societies under its supervision; effectively lender of last resort powers.

The LFB was required to act as a regulator of LFSs, but it was given very few resources to undertake its task. When it was first formed it was given a budget in the 1836 act, but there was no statement of the source of funding for this in either the 1836 or 1838 acts. 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. Money was lodged on an *ad hoc* basis into an account in the Bank of Ireland.[18] The 1843 loan fund act aimed to redress this by providing the LFB with a regular income through the sale of stationery to societies registered with it. The LFB charged 1 penny, increased to 2 pence in 1872, for promissory notes and 2 shillings for debenture forms. The LFB purchased UK government bonds, Consols, and corporate bonds with its surplus funds in the 1840s; and dividend payments from these investments were an annual source of income.

After 1843 LFSs, to continue operating legally and avail of legal privileges, were required to purchase this stationery from the LFB. Little of this stationery have survived, but plate 1 is a facsimile of a LFS promissory note. As can clearly be seen,

there is an LFB stamp on the note with a visible crown indicating its official status. The 1843 act stipulated that both promissory notes and debenture forms must be stamped with an LFB stamp. However, the LFB was not liable for debentures issued by LFSs.

[insert plate 1]

Table 1 gives an account of the structure of the LFB in the period 1841-1911. In the early years of the LFB, there were a large number of Board members, including high ranking officials, numerous earls and bishops. As time progressed the numbers on the Board decreased but the experience, measured in terms of mean years on the Board, of the LFB grew. However, the attendance rates of the Board members were not very high; in fact, the majority of members did not attend meetings. A quorum of three was all that was required to conduct LFB affairs. This is understandable given that membership on the LFB was unremunerated and only the secretary and clerks of the LFB received a salary. The powers of the LFB were vested in the secretary, who could undertake legal action on behalf of the Board.

[insert table 1]

4. An idiosyncratic shock – the 1896 loan fund crisis

Analysis of the data relating to LFSs, shown as the percentage change of capital and loans (£) in figure 1, highlights two key events in the history of LFSs. Firstly, there was an exogenous shock in the form of the Great Irish Famine in the 1840s, and secondly, there was an idiosyncratic shock caused by a crisis in 1896.

[insert figure 1]

There appears to be a straightforward explanation at hand for the sharp fall in 1896 in figure 1: verdicts in cases taken by a number of LFSs against defaulting borrowers went in favour of the defendants (BPP LFB report 1898, p. 5).

The court decisions adjudicated that the loans, for which cases were brought, were issued in violation of the 1843 loan fund act,[19] and that the borrower was exonerated from the repayment of the debt under the loan fund legislation.[20] The initial verdicts were challenged, but the appeals were dismissed. In the judgement of the case of 'the treasurer of the Enniskillen loan fund society [County Fermanagh] v Green' it was found that as the borrower did not reside within the area which the Enniskillen LFS had given as its area of operations, the loan could not be pursued in the petty session courts system (frequent local courts). The main issues that arose from the case were: that the sum of money being sought was in fact a renewal of a loan issued seventeen years previously, that the borrower was residing outside the loan fund's stated jurisdiction, that the loan fund had violated its own rules, and that there had been a change of treasurer since the original loan was made and the new treasurer could not sue for the debt in the name of the old.[21]

As this was a landmark case in the context of the LFB system it is worth elaborating on some of the evidence that was presented. In particular the point regarding the society violating its own rules referred to the fact that the borrower and sureties were already in debt to the society. In the case the borrower was previously indebted to the society, as he was the surety for his sureties. Also his sureties were already in debt to the society, as they themselves had outstanding loans. It was stated that:

> No money, however, had been advanced to any of the defendants on the 30th January, 1896, nor for many years previous, this note being the last of a series of renewals of an original note given more than seventeen years ago. It had been the custom of this society to allow borrowers to renew their loans every three months, the borrowers first paying all fines

> incurred under the previous note, and the interest which would accrue due on the new note, in the present case in all amounting to the sum of 9s 4d. The defendant had already paid £44 to the society, by way of renewal fines and interest on the original note.[22]

The borrower was also residing 5 miles outside of the district stated to be the area where the Enniskillen LFS operated. What the courts deemed to be at odds with the act was the fact that the loan fund act deemed that LFSs were to be for the benefit of the industrious poor within a stated area. Provided they operated within the area stated there would be no legal doubt surrounding the recovery of debt, but if the LFS operated outside its stated area, then the LFS ceased to abide by the loan fund laws. It is interesting that some of the elements in this case were so instrumental in derailing the LFB system as the reverberations seem to suggest that the faults highlighted in this case were universal amongst LFSs in Ireland. Shortly after the Enniskillen LFSs v Green, an appeal from the Castlederg LFS in Tyrone was dismissed. The resulting case determined that loan renewals were in fact 'contrary to the provisions of the loan fund act, 1843'.[23]

These decisions created panic amongst LFS members. There had been an increase in the number of LFSs in the period 1880 to 1896, and the verdicts, which were upheld, endangered any capital invested in loan funds. It meant that loans made via the LFSs could only be recovered if they were made in adherence to the 1843 act and to the rules that the societies had lodged with the LFB, and the subsequent parliamentary report published in 1897 showed that the majority of LFSs had not adhered to the law. The problem was compounded by the fact that LFSs, as they had registered under the 1843 Loan Fund Act, were thereby disqualified from suing for

promissory notes (i.e. debts)[24] under the alternative Petty Session Acts.[25] This situation was outlined in the fifty-ninth LFB report in 1898:

> The decisions lately given do not appear to involve the invalidity, under the ordinary law, of renewed promissory notes given to loan fund societies, working under 6 and 7 Vict. c. 91. They merely decided that such renewals cannot be sued on *under that statute.* If, however, actions are brought, under the ordinary law, upon renewed promissory notes given to Loan Fund Societies, the absence of a stamp (with the Loan Fund Act dispenses with) will be practically fatal to the claim. (sic.) (BPP, LFB 1898, p. 7)

Loan funds, by registering under the loan fund acts had taken advantage of the tax exemption which did not require the stamping of promissory notes, but by doing so they were prevented from suing for debts outside of the loan fund act – suing for debt required a stamp on the promissory note. In the opinion of one of the judges in the Enniskillen case there was nothing stopping a LFS from trying to recover a debt in court as the judgement did not necessarily invalidate the debt; only the judgement meant that the LFS could not recover debts under the petty sessions act.[26] As the 1843 loan fund act specially made reference to loan recovery in the petty session courts, this meant that LFSs could not adequately and economically enforce debts. Although recourse to higher courts could have been possible, this would have increased the transaction costs associated with debt recovery. Given the low value of LFS loans it is quite possible that the increased transaction costs would have been greater than the size of the loan.

4.1 Tracing the causes of the 1896 loan fund crisis

The main sources of information for LFS activity were LFB reports and these were inconsistently published in the last quarter of the nineteenth century. However, one period where there is an abundance of available source material regarding LFS activity is between 1896 and 1906. During this period the LFB resumed the publication of its annual reports and there was also a parliamentary inquiry into the activities of all loan funds associated with the LFB. There were also references to LFSs in parliamentary debates and in both local and national newspapers. The confusion caused by the two court cases instigated an independent parliamentary enquiry in 1896. This inquiry, conducted by civil servants, gathered information from all of the LFSs in operation. The subsequent report, when published in 1897, was a scathing criticism of the LFSs in operation in Ireland.[27] Following publication of the report and the enforcement of the law, there was a complete collapse of the LFB-monitored LFS system. Attempts were made to introduce reforming legislation, but delays led to adequate legislation not being enacted until 1906, ten years after the crisis. So why did LFSs grow in the period 1882 to 1895? Also, how, and why, did the LFB-monitored LFS system collapse?

As was outlined in section 3.1, LFSs operated under legislative constraints. They could not make loans for amounts over £10 nor charge competitive rates of interest on loans. Neither could they pay interest rates above 5 per cent on savings; a rate which did not compensate depositors for the risky nature of business undertaken by LFSs. This limited the possibilities for their expansion and affected their efficiency as financial intermediaries (i.e. they could not issue large loans or attract deposits

from risk averse borrowers). This was compounded by the fact that the Irish economy underwent significant structural changes in the post-famine period, most notably a shift from tillage to pasture. In the post-famine period, population continually declined and so too did the activities of LFSs. They also faced increasing competition from the POSB, a government run savings bank, and JSBs. The POSB was the largest branch banking institution in the UK and offered state guarantees for savings. Deposit mobilising JSBs also expanded their branch networks and the provision of loans using personalised security.

The LFS system did go into decline in the period 1860 to 1880, but it experienced a resurgence during the period 1883 to 1896. This period of growth coincided with a downturn in the Irish agricultural sector that sparked land agitation. However, land agitation was most prevalent in the south and west, areas under represented in LFS activity. An interesting counterfactual to the story outlined below, are earlier agricultural recessions, 1859-64 and 1877-82, when LFS activity declined, as seen in table 2.

[insert table 2]

A salient factor which explains the growth in the LFS system in the period 1883 to 1895 was the increased amount of deposits held by LFSs. Despite the fact that there was a legislatively-determined interest rate ceiling, 5 per cent, a rate which did not reflect the risky nature of their operations, LFSs attracted deposits in the period 1883 to 1895, as seen in figure 2.

[insert figure 2]

Key points in explaining the growth in savings is both the historic lows in long-term interest rates - Consol yields reached an all-time low in the 1890s - and the belief

that there was a government guarantee associated with LFSs debentures, the belief that investing in LFSs was as safe as Consols. In 1895, the mean rate of interest of deposits was 4.79 per cent, with a standard deviation of 0.78 per cent. This would have seemed like a reasonable return to contemporaries who were faced with average Consol yields of 2.99 per cent between 1880 and 1896, or 2.71 per cent according to Klovland's (1994) estimated yields. Savings bank rates were fixed at 2.5 per cent and the rates paid by JSBs were viewed as miserly as they adhered to the Bank rate, which averaged 3.12 per cent during the period 1880 to 1896.

Evidence from the 1896 parliamentary inquiry gives insights into the intricacies of LFS operations. As previously stated, LFSs operated under interest rate restrictions. So a question that needs to be asked was how were they able to operate and survive under these interest rate restrictions? The answer is relatively simple: they were able to avoid the law. LFSs charged higher rates of discount and paid higher rates of interest on savings than the legally permitted ceilings. This is surprising, especially given the annual on-site and off-site inspections performed by the LFB. What in fact had occurred was that the LFB had given misinformed advice to societies registered with it. This scenario was caused by confusion regarding discount rates and interest rates in the 1843 and a clause in the act that permitted 1.5 percent interest on monthly loans. However, the LFB advised LFSs that they could charge a higher discount rate, 1.5 pence in the pound per month, or 3.125 per cent, on monthly loans.

The parliamentary enquiry in 1896 found that the overwhelming majority of societies were charging rates over the legal ceiling, with only four societies charging rates within the legal ceiling. The distribution of LFS discount rates in 1895 is shown in figure 3, the mean discount rate was 2.57 per cent (the legal rate was 1.67 per cent), with a standard deviation of 0.57 per cent. Hence, when the law was enforced, many

of these societies were unable to charge rates of discount over the legal maximum and were less profitable, forcing many out of operation. It must be noted that the discount rates may not have been relatively high in comparison with local shopkeepers, one of the main sources of institutional credit.

[insert figure 3]

The enquiry also found that renewals, which were illegal, were endemic and that the majority of societies issued loan renewals. Also, it found that there was an overuse of fines; there was a reliance on fines rather than court enforcement of loan repayment. The mean fine rate in 1895 was 1.18 per cent, with a standard deviation of 0.50, the distribution across all societies shown in figure 4. LFS officials (evidence reported in local newspapers) argued that borrowers preferred to incur fines rather than make inconvenient repayment of loans. An important finding was that there was a conflict of interest as officers of LFSs were also magistrates of court. So if a case was brought to local courts, the societies had the implicit support of the judiciary. The problem was that the legislation enacted in the 1830s and 1840s actually permitted this type of scenario, therefore there was an inherent conflict of interest within the LFS system.

[insert figure 4]

Another issue that emerged was that of multiple clerkships whereby clerks were employed in more than one LFS. It was found that trustees (managers) and members were apathetic to the running of LFS and that clerks and treasurers were de facto managers. The salaries paid to clerks were relatively high compared to contemporary agricultural wages; even more so given the fact that LFSs opened once weekly for a limited number of hours. In 1895, the mean salary paid to clerks was £51 with a standard deviation of £25, comprising, on average, 45 percent of LFS expenses.

Another pertinent issue was that of overlapping boundaries of LFSs, which was meant to be avoided by legislation. The LFB was supposed to ascertain whether or not a LFS was necessary or required in a particular area, but it does not appear to have performed this function. This led to multiple indebtedness of borrowers, as they had borrowed from several societies. Also there was an issue of cross-securitisation, whereby indebted borrowers were guarantors for their guarantors. This effectively meant that there was no diversification of risk in these societies.

In terms of agency theory, the LFSs were undermining their theoretical information advantages. This is evident from the fact that they were lending to previously, and continually, indebted borrowers in the locale as they were unaware what their competitor LFSs were doing. This is similar to what has recently been uncovered in Indian microfinance (RBI, 2011).

4.2 Role of the Loan Fund Board

The LFS system had an appointed regulator that performed annual on-site and off-site inspections, so how did such a state of affairs develop? The LFB appears to be a case of both regulatory failure and arguably regulatory capture. For example, in the two years before the parliamentary enquiry, each society had been visited by a LFB inspector and nothing was deemed untoward in their accounts or practices.

The regulatory failure of the LFB was caused by its institutional structure as outlined in the 1836, 1838 and 1843 acts. It had inadequate powers to regulate the LFS system. It had hard sanctions, such as the ability to wind up societies, but it had no soft sanctions to enable it to enforce recommendations. It often issued communiqués to societies, but these were adhered or ignored based on the preference of the individual society's management. For example, it was ignored when it advised

against issuing renewals and to reduce interest on deposits, but not when it mistakenly advised societies that they could in fact charge rates of interest higher than the legal maximum.[28] Its annual on-site inspections were ineffective. In the period 1847 to 1896 it ordered the dissolution of 47 loan funds, but 64 per cent of these dissolutions came in the period 1847 to 1860. However, 250 of these annually inspected LFS ceased, many cases due to 'defalcations by officials', in the period 1847 to 1896.[29]

The regulatory capture of the LFB was caused by the way it was funded. Unlike contemporary government agencies it did not receive a parliamentary grant, e.g. the contemporaneous Board of Education (est. 1830) received a grant (Akenson, 1970). Instead the income of the LFB was primarily from the sale of stationery (depicted in plate 1). These arrangements were in place pre-famine, and were unreformed in the post-famine period when there substantial changes in scale of LFS system. There was an increase in price of promissory notes from 1d to 2d in 1872, but no other method of raising funds. Thus, given this income structure, the LFB had incentives to encourage LFSs to, at the very least, sustain their activity.

[insert figure 5]

The 1896 crisis took place in the period after the retirement of a long-standing incumbent secretary of the LFB, RR Madden. His successors no longer published the annual reports of the LFB and began to solicit new societies to form. For example, the following public notice by the LFB published in *Thom's Directory* in the 1880s and 90s: 'the [LFS] system was made more widely beneficial, it now yields not only useful aid to large classes of borrowers, but also a fair dividend (not to exceed 5 per cent) to persons investing in Public Loan Fund Capital…The Loan Fund Board will gladly co-operate with local gentlemen who desire to have the benefits of the public loan fund system extended to their districts.' Interestingly, use was made of the word

‘public’ as if to suggest that if a society were to form it would become a public institution and receive some benefits. Significantly, it was also stated that investors were in investing ‘Public Loan Fund Capital’. A report of a LFB meeting in *The Irish Times* stated that the ‘steadily increases’ in LFS activity were ‘in consequence of the spread of information as to the facilities afforded by it for small loans repayable by instalments and as to the soundness of this system of investment for small capitalists.’ (*Irish Times*, 2 December, 1886).

[insert maps 1 & 2]

Of the LFSs formed in the period 1880 to 1896, many had overlapping boundaries, as can be seen in map 1. Unsurprisingly, if we analyse where the majority of closures took place, these were located in close proximity to each other, as indicated in map 2. The actions of LFSs also suggest an element of double capture, whereby once altruistic societies were captured by unscrupulous managers and clerks. Many societies had no charitable expenditure in their accounts and the mean ratio of charitable expenditure to income was 4.5 per cent in 1895 (standard deviation of 17 per cent). Ostensibly this was due to a decrease in declared profits (after expenses), however, there were significant increases in both income and expenses. There were also a number of LFSs that were located in public houses, despite this being specifically banned in the LFS legislation. There were, however, no reported incidents of insider lending. Overall it appears that there were incentives for individuals to capture an existing LFS or establish a new society for their own immediate pecuniary gain.

In terms of this study, there is an independent regulatory body in existence from 1836 to 1914 and a long-standing regulator from 1850 to 1880. This period was also one which saw abiding members of the LFB, and their retirements coincided with that

of the secretary. The life cycle of the LFB appears to follow the Bernstein life cycle theory, discussed above, especially as capture appears to occur at the end of the period. However, it also appears to conform to the Berry (1984) view that the personal characteristics of the regulator are important. For example, RR Madden, LFB secretary from 1850 to 1880, was heavily involved in LFS issues and wrote a number of volumes of the subject (Madden, 1852). It was also alleged that 'the whole business [of the LFB] is in the hands of one man' (*Hansard* 26 March 1863). Following Madden's retirement, he was replaced by John Norwood (1880-1885) and Archibald J Nicolls (1885-1914). New members were also appointed to the Board, but as a whole there was a decrease in the experience of the LFB. Importantly, the only parties who received remuneration for LFB work was the secretary, inspectors and clerks. In 1895, salaries comprised 62 per cent of ordinary LFB expenses, and inspector allowances and expenses accounted for an additional 17 per cent of ordinary LFB expenses. The secretary, who received a healthy proportion of the LFB salary expenses, may have viewed the position as a sinecure and thus had conflicting incentives in his role. Also, given that the long-standing incumbent had a career as a prodigious writer when in office lends support to the hypothesis that the LFB position may have been perceived as a sinecure.[30] The inspectors likewise had distorted incentives because enforcing recommendations and highlighting issues would have meant putting LFSs out of operation and thus harming their future earnings.

Given the inexperience and the unaccustomed role of the LFB[31], what was the effect of the capture of the LFB? In short, it adversely affected borrowers and depositors. Borrowers were subjected to excessive fines and perpetually in debt; in essence it instigated an institution of cyclical debt or debt peonage.[32] It also altered depositor incentives as there was a belief that there was a government guarantee on LFS debentures and deposits. There was a perception that the LFB was a government regulator and that this equated to a guarantee of LFS deposits and debentures. The

LFB stamp on debenture forms, shown in plate 1, and annual inspections gave a misleading signal (e.g. see *Hansard*, 22 February 1897, p. 862). This led to moral hazard as depositors were not active in society management; according to evidence from the parliamentary enquiry and newspaper reports, many were not resident in the locality of the LFSs they invested in. Following the crisis in 1896 there were 'heavy losses' for depositors and Irish politicians continually raised the issue of depositor compensation in parliament (BPP 1914). Timothy Michael Healy, a National Liberal who represented county Louth,[33] stated that:

> …But what was the Irish Loans Fund? It was a body managed by Dublin Castle, whose inspectors were appointed by Dublin Castle, and Dublin Castle invited honest people to invest their money in debentures to be lent out a reasonable interest on the faith of the security of British audit and management. The result was something like £200,000 or £300,000 had gone, and the British government calmly announced that they would not even pass legislation to enable it to be collected. This money was largely the money of pensioners, ex-soldiers, politicians, clergymen [of different denominations]. (*Hansard* 2 August 1904.)

The belief that there was a government guarantee for deposits and debentures in LFSs was mistaken as this was not specified in legislation. Contemporary governments denied liability and responsibility for the LFB, going so far as to deny that the LFB was a government department. However, when the LFB was wound up, its functions and staff were transferred to Department of Agriculture and Technical Instruction, another government department. The government denial of responsibility is understandable given a contemporary fraud of greater scale in another government financial institution, TSBs in England (Horne, 1947), and thus the danger of setting an expensive parliamentary precedent.

5. Empirical Analysis

Given the outline of the history of LFSs and the LFB, it would be insightful if data could be used to determine what factors contributed to the collapse of the LFS system and whether or not regulatory capture was a significant influence. This is possible using data from the 1895 LFB report which gave the annual returns of 104 LFSs.[34] Using this data, the activities of individual LFSs can be analysed to determine the effect of different factors on the failure rate of LFSs.

5.1 Data

Taking into consideration events in LFSs took place over a number of years, and that deposits grew in the period 1880 to 1896, greater insight could be gained if it were possible to construct a panel. Unfortunately, the LFB ceased publishing reports from 1880 to 1896.[35] Also, following the crisis of 1896, a number of LFSs ceased or suspended their activities. The LFB was very slow in striking them off its annual register; it was not until remedial legislative action taken in 1906 that the LFB began to strike inactive societies off its register. Hence, post-1896 there is inadequate information about the LFSs that failed, the very LFSs it would be of value to learn more about. Thus, it is not possible to create a panel pre- or post- 1895.

However, given these limitations, we can use the data from the 1895 report in a cross-sectional study. The data contained in the 1895 report gives detailed firm level information of the conditions of the LFS system, the year prior to its collapse. Furthermore, it is possible to match LFS data with Poor Law Union (PLU) data, an alternative administrative boundary data below a County level.[36] It was possible to match all but two of the LFSs to PLUs using Handran (1997).[37] Data were then

obtained from the 1891 census and 1895 agricultural statistics. Matching LFS data with PLU data highlighted an interesting facet of the data: spatial clustering. When LFSs were initially touted in the 1830s, they were intended to be alternatives to the poor law and its administrative boundaries, PLUs, with one per PLU. As shown in table 3, in 1895 there were 104 LFSs in 57 PLUs, but the distribution between PLUs was skewed.

[insert table 3]

5.2 Model

The aim of the exercise is to use data from the 1895 LFB report to find variables that represent regulatory capture, variables that the LFB had the power to control, and measure the effect of regulatory capture on a society's likelihood of failure. The variables used in the model have been selected to reflect activities that were ostensibly under the control of the LFB, variables determined by LFS management and geographic indicators, such as the wealth of the region etc. Guided by theory, the variables which the LFB controlled and managerial variables ought to explain the failure of rates of LFSs.

Failure is measured by whether a LFS was inactive in the 1901, 1906, 1911 and 1915 LFB reports.[38] This exercise estimates two models, a firm level model and another at a firm level matched with PLU data. Both firm level models are estimated using a Logit model [1].

$\text{Failure}_{i=1} = \beta_1 \text{(LFB)} - \beta_2 \text{(LFS)} - \beta_3 \text{(Geo)}$ [1]

Failure in [1] is 1 if a LFS had ceased or was suspended in year *t*; 0 if it was active. Failure was measured in different years, 1901 (51 per cent), 1906 (52 per cent), 1911 (58 per cent) and 1915 (56 per cent), to determine whether results were robust to changes in the failure year. Later dates were not chosen as the LFB was

wound up in 1914 (the 1915 report was the published by the Department of Agriculture and Technical Instruction). Also, 1915 is roughly 20 years after the initial shock, therefore after this date failures may be determined by other factors. In addition, the LFB continually recorded societies on its register in the hope that reforming legislation would breathe new life into them.[39] Due to their initial charitable constitution, LFSs were intended to be in continuous existence through the transfer of trusteeship from one generation to the next, such as the examples shown in the 1938 banking inquiry (IPP, 1938). Therefore, if a society did not exist or was inactive on the 1901, 1906, 1911 or 1915 register it is considered to have failed and this failure was due to something external to the LFS ownership/trustee structure i.e. a non-transference for trusteeship from one generation to the next.

The main variables that were chosen to reflect capture were interest on deposits as a ratio of income and clerk salary as a ratio of income. The economic significance of these variables is that the LFS were non-profit financial institutions so they would have been incentivised not to maximise profits. It could be argued that high clerk salaries may indicate an efficiency wage, but given the narrative above it is argued here that this variable represents capture. The LFB had power to control these expenses and could have done so; therefore these variables would be expected to be positively related to failure.

In an attempt to quantify the location of LFSs, with reference to the fact that there were overlapping boundaries that were supposed to be controlled by the LFB, geo-referenced variables were also included in the model. These variables included relative survival (the closest survivor as a ratio of the second closest survivor), relative failure (the failure of the closest failure as a ratio of the second closest failure), relative distance from the LFB (a ratio of the distance between the closest

LFS and the LFB), relative competition (a ratio of the closest LFS to the closest JSB, and a ratio of the closest LFS to the closet POSB, a ratio of the closest LFS to the second closest LFS) and relative survival to failure (a ratio of the closest survivor to the closest failure). These variables are intended to reflect competition, contagion and capture respectively. This is to analyse whether failures were unrelated, or were relative distances important (i.e. did failures increase with increases/decreases in relative distances). The relative distance between the nearest LFS and the LFB is not intended to be a reflection of the absolute distance of a LFS to the LFB, which may not be important in an era of extensive postal coverage and a developed railway network. Instead it is intended to account for the possible influence of local societies, on a given LFS, relative to the influence of the LFB i.e. do local societies have a greater influence on LFS practice than the more distant regulator? Relative survival and failure is determined by the survival/failure in year *t*, so each model takes account of the relative survival/failure in *t*.

A number of variables have been included to represent LFS specific variables and determine whether double capture, or mission drift, was significant. There was no information on manager quality or type, with the exception of loose information on occupation of treasurers; therefore indicator variables for manager quality have been added. The variables used were pseudo capital and reserve ratios, ratio of borrowers to population and the ratio of charitable expenditure to income. The capture of the LFB, or its acquiescence, may have encouraged risky management activity thus the pseudo capital and reserve ratios may give us an indication into management risk strategies. As LFSs did not possess equity capital, the pseudo capital ratio is measured as the ratio of a society's retained earnings and charitable bequests to its assets. The economic significance of this variable is that the lower a society's pseudo capital ratio

the more deposits are used to fund LFS activity; thus, do higher or lower capital ratios influence the likelihood of LFS failure? The reserve ratio is derived from annual accounts and is the ratio of 'working capital' to 'capital'. It can be considered as a society's financial reserve. High reserves could indicate a healthy financial situation or risk aversion; whereas, low reserves may indicate profit-seeking. The ratio of charitable expenditure to society income is a reflection of the original purpose of the society. Asset diversification is indicated by the ratio of borrowers to population.

To take account of a society's environment, economic variables were also included to control for local effects. These included agricultural variables such as the ratio of tillage to pasture, the number of livestock units per person or per farm, and the proportion of occupied farms under 15 acres.[40] These are indicators of the wealth of localities and agricultural structure variables. Religious variables were included, these represent the involvement of religious groups. Given the greater presence of protestant groups in the north, where LFSs were most prevalent, the non-Roman Catholic share of population was chosen.

5.2 Empirical Results

There are two sets of specifications reported for each model estimated; one set which includes the ratio of deposit interest to income and another including clerk salary to income. The pseudo capital ratio is negatively correlated with the ratio of deposits to interest and is excluded in the first model specification. Table 4 displays the marginal effects of firm level logit regressions and table 5 illustrates the marginal effects of firm level logit regressions matched with PLU data.

Interest paid to depositors as a ratio of society income was consistently positive, and statistically significant, with an economically significant marginal effect

suggesting that societies that specifically operated to pay interest to depositors were more likely to fail. The relative distance between the nearest LFS and the LFB (in Dublin castle) was negatively related to LFS failure and had a large marginal effect. This seems to indicate that the relative influence of the LFB may not have been negative but that its influence was conditional on other societies within a locality. This has implications for societies in the north-east of the island which were in close proximity to each other but equidistance from the LFB. The ratio of clerk salary to society income, however, was never statistically significant and had a small marginal effect. Overall, it appears as though the capture proxies were positively associated with LFS failure, but society actions seems to have been influenced by local LFSs.

The geo-referenced data provided some interesting results. The relative distance between LFSs and their nearest LFS (not reported), JSBs, and the POSB (not reported) were negligible. This suggests that competition was not an important determinant in this story. This is particularly interesting that JSBs were not significant, suggesting that LFSs were not in direct competition with them. The effect of the relative distance between the nearest survivor and the nearest failure were negligible. However, the relative distance of survival (survival1/survival2) was consistently positively related to failure whereas the relative distance of failure (fail 1/ fail 2) was consistently negatively related to failure (estimated independently to avoid a multicollinearity bias, but only relative survival is reported). This suggests that the events in 1896 were contagion driven. LFSs which were clustered, mainly in the north-east, were influenced by events in LFSs close to them. Interestingly, as the effect of competition between LFSs and JSBs (and POSB) was insignificantly related to failure, these results confirm that the 1895 LFS crisis was idiosyncratic.

The pseudo capital ratio had a negative economic and statistical significant relationship with failure. The pseudo reserve ratio, in contrast, was consistently positively related to failure, but this had a small marginal effect. This suggests that societies that had a greater proportion of retained earnings or who operated with charitable bequests, or whose activities were less funded by deposits, had a lower likelihood of failure. This is an interesting finding given the large increase in deposits in this period. However, increasing a society's reserves may not have been a viable solution to prevent failure as it indicates risk-averse management in a business model that required a large turnover of liabilities. The ratio of charitable expenditure to LFS income was positive in the initial years in all specifications, but switched to a negative sign in latter years. Its economic and statistical significance appears to have grown over time, suggesting LFSs that stayed true to their charitable origins were less likely to fail.

In terms of local conditions, borrowers as a percentage of population were negatively related to LFS failure with a large, but without a statistically significant, marginal effect. This seems to suggest that the greater the demand for LFS services, the less likely a LFS would fail and may indicate the drawbacks of concentration whereby LFSs competed with each other for the custom of a local population. LFSs that had less competition would have had a greater share of the borrower population in their district and relatively greater asset diversification. The religious indicator variable, the non Roman Catholic proportion of the population, was negatively related to failure; but not statistically significant. The ratio of tillage to pasture, however, was positively, and economically significantly, related to failure. This is interesting, as tillage was a more labour intensive activity relative to pasture in nineteenth century Ireland. Therefore, this can be seen as an indicator variable for labour demand and

labourers may have been the clientele of these LFSs. Labourers may have used such loans to supplement their wage income and could be an indication as to why these LFSs failed.

Alternative measures of agricultural structure and wealth were lacking in significance. In a study of interbank competition, Colvin (2009) also experienced similar difficulties matching microfinance institutions to geographic variables. A likely explanation in the LFS case may be that the data used were derived from administrative boundaries and may not have reflected the real economic boundaries faced by these institutions. For example, it was cited by investigators for the Congested District Board, a regional development body, that borrowers travelled across boundaries to avail of LFS services. Also, the court cases, cited above, found that the borrower in question was from a different boundary. This being said, the other variables are consistently economically and statistically significant. It appears that LFSs encouraged and sanctioned by the LFB within the boundaries of established LFSs were positively related to the failure chances of a LFS. Alternatively, this could be interpreted as a measure of competition and perhaps suggests that competition encouraged the adoption of abusive practices. If this was the scenario, then the LFB was responsible for curbing these practices, which it did not do. Overall, at a firm level, regulatory capture variables and management proxies are associated with higher likelihoods of failure and have significant effects. Thus, suggesting that the 1896 LFS crisis may have been one caused by double capture.

[insert table 4]

[insert table 5]

An important question that needs to be addressed is what factors influenced the location of LFSs in 1895. As was seen in maps 1 and 2, there was a concentration of

LFS activity in Ulster. To account for this concentration an 'outer Ulster' dummy variable was added to the model specifications (not reported). 'Outer Ulster' is a dummy variable and is defined as regions of Ulster, the northern province of Ireland in which the industrial city of Belfast was situated, that were not located in the industrialised east of the province in the late nineteenth century.[41] The results show that Ulster, although different, still fits a common trend. The core results are robust to the inclusion of a separate Ulster Dummy variable and are robust to the uniqueness of Ulster. But this leads us to a different question: why were LFSs so prevalent in Ulster?

LFSs had historically been heavily concentrated in Ulster and this concentration appears to be path-dependent. Ulster had a well-developed banking system, and it appears that the existing banking structure was positively related to the persistence of LFSs in Ulster.[42] This can be seen from the fact that LFSs used JSBs as a location to deposit their cash holdings, but also that members would have been aware of the lower rate of interest on savings in JSBs. Another significant factor explaining Ulster is the higher ratio of landlords to occupied holding in the province.[43] Landlordism, given the rural constitution of LFSs, would have been an integral component in such ventures, especially as trustees. There were reports of LFSs establishing at the behest of landlords in the early 1800s. Ulster had a higher ratio of landowners to occupied tenants relative to the rest of the island, and the geographic area with the lowest incidence of LFSs was in the west of the island which had the lowest number of land owners relative to occupied farms.

6. Concluding remarks

The experience of the Irish LFSs illustrates that regulatory capture is a possible outcome in regulated financial industries and thus has implications for financial and

microfinancial regulation. The main problem of the LFB and LFSs was the lack of institutional reform, which led to the LFB becoming dependent on the LFSs that it was designed to regulate. The cost of capture was borne by the vulnerable nature of borrowers from these societies; they were essentially poor and lacked resources. They were clearly exploited and abandoned by a judicial system influenced by LFSs. In modern day Ireland the cost of capture will be borne by future generations of taxpayers. A policy recommendation from this study would be that efforts should be made to strengthen the powers of regulators and periodically assess their performance.

In terms of microfinance today, the 1896 report into the abuses of LFSs is strikingly similar to a recent report by the Reserve Bank of India (RBI, 2011). The report found similar problems in terms of multiple borrower indebtedness, overlending and ghost borrowers. The exception being that the microfinance sector in India was not regulated and the report advocated that they be brought under regulation. If such regulation be imposed it must be periodically reviewed in order to prevent a repeat of the scenarios that developed in nineteenth century Ireland.

Ultimately the system of LFSs in Ireland collapsed because they were constrained by legislation that only permitted them to lend to certain types of borrowers. They were highly specialised, and the capture of the LFB, while beneficial for a short period of time, ultimately led to their downfall. The 1896 crisis in LFSs did have wider ramifications, as it undermined the introduction of Raiffeisen cooperative banks in the 1900s (Colvin & McLaughlin, 2011). In evidence to the 1897 moneylending enquiry, Horace Plunkett, a cooperative enthusiast in Ireland, stated that he aspired to combat the abuses of the LFS system. However, his cooperative endeavours failed, largely due to a rural population hesitant to become members and save based on their experience of LFSs.

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Table 1: Structure of Loan Fund Board, 1841-1911

Year	*LFB members*	*Mean years on LFB*	*Mean attendance*	*Mean attendance rate*	*Stdev attendance rate*
1841	36	2	-	-	-
1851	40	9	2	9.61	20.85
1861	36	16	1	9.19	20.21
1871	21	25	3	19.41	31.21
1879	15	15	3	18.49	26.49
1880	16	12	4	23.44	25.67
1895	20	9	4	27.31	29.47
1896	18	11	6	32.41	31.79
1901	12	10	3	23.21	31.67
1911	7	15	5	32.14	32.76

Source: Annual reports of the Commissioners of the Loan Fund Board, 1841-1911.

Table 2 Percentage change in LFS capital, circulation and loans issued

	'Capital'	*Loans £*	*Number of loans*
1858-65	-28.81	-33.80	-29.54
1876-82	-7.12	-24.79	-23.91
1883-91	47.08	23.20	9.50

Table 3: Number of loan fund societies in Poor Law Unions, 1895

Number of LFSs per PLU	*Number of PLUs*	*Total LFSs*
1	33	33
2	14	28
3	5	15
4	3	12
5	1	5
9	1	9
Total	57	102

Table 4: Marginal effects of logit regressions of the failure of loan fund societies in 1901, 1906, 1911 and 1915 (104 observations).

	1901	*1906*	*1911*	*1915*	*1901*	*1906*	*1911*	*1915*
Int:inc	1.711***	2.561***	1.704***	2.087***				
	[0.007]	[0.000]	[0.002]	[0.001]				
Clerk:inc					-0.169	-0.203	0.341	-0.036
					[0.754]	[0.727]	[0.533]	[0.947]
LFS1:LFB	-1.566	-1.388	-0.881	-0.717	-1.991*	-2.147*	-1.498	-1.364
	[0.137]	[0.200]	[0.382]	[0.470]	[0.066]	[0.063]	[0.157]	[0.186]
Surv1:Surv2	1.022***	0.798***	0.965***	0.780***	1.006***	0.874***	1.007***	0.858***
	[0.001]	[0.003]	[0.001]	[0.003]	[0.001]	[0.001]	[0.000]	[0.001]
LFS1:JSB1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	[0.766]	[0.777]	[0.439]	[0.484]	[0.823]	[0.865]	[0.406]	[0.543]
Surv1:fail1	-0.004	-0.001	-0.001	-0.001	-0.004	-0.001	-0.001	-0.001
	[0.547]	[0.594]	[0.546]	[0.570]	[0.544]	[0.505]	[0.497]	[0.504]
Capital Ratio					-1.175*	-2.076***	-1.517**	-1.597**
					[0.089]	[0.007]	[0.032]	[0.021]
Reserve ratio	0.007	0.00895*	0.00868*	0.00921*	0.011	0.0163**	0.011	0.0142**
	[0.135]	[0.080]	[0.081]	[0.059]	[0.130]	[0.032]	[0.118]	[0.049]
Char:inc	0.285	0.002	-0.940	-0.858	0.087	-0.185	-1.010	-0.936
	[0.631]	[0.998]	[0.193]	[0.256]	[0.883]	[0.778]	[0.139]	[0.171]
Observations	104	104	104	104	104	104	104	104
Log likelihood	-53.34	-50.05	-49.61	-51.11	-56.66	-54.76	-52.51	-55.36
Pseudo R2	0.26	0.305	0.3	0.284	0.214	0.24	0.259	0.225
DF	7	7	7	7	8	8	8	8
Chi2	37.46	43.92	42.48	40.56	30.83	34.5	36.69	32.07

pval in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Notes: Int:inc = interest share of income; Clerk:inc = Ratio of charitable expenditure to income; LFS1:LFB = nearest LFS/LFB; Surv1:surv2 = nearest survivor/ second nearest survivor ; LFS1:JSB1 = nearest LFS/nearest JSB branch; Surv1:fail1 = nearest survive/nearest; Char:inc = Ratio of charitable expenditure to income.

Table 5: Marginal effects of logit regressions of the failure of loan fund societies in 1901, 1906, 1911 and 1915 matched with Poor Law Union Data (102 observations)

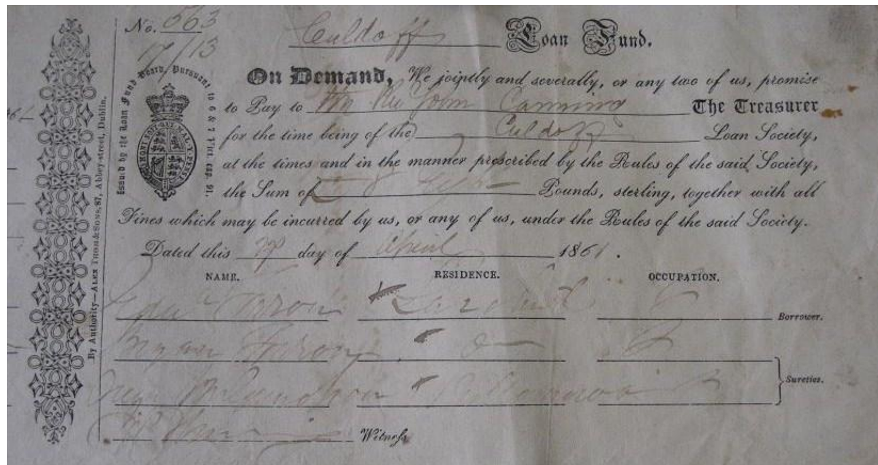
	1901	*1906*	*1911*	*1915*	*1901*	*1906*	*1911*	*1915*
Int:inc	1.653**	2.497***	1.470**	1.991***				
	[0.013]	[0.000]	[0.012]	[0.001]				
Clerk:inc					-0.105	-0.155	0.405	-0.032
					[0.866]	[0.802]	[0.496]	[0.955]
LFS1:LFB	-2.585*	-1.793	-1.347	-1.047	-3.039**	-2.689**	-2.040	-1.731
	[0.054]	[0.148]	[0.268]	[0.337]	[0.028]	[0.044]	[0.111]	[0.135]
Surv1:Surv2	1.109***	0.804***	1.000***	0.770***	1.082***	0.875***	1.047***	0.821***
	[0.001]	[0.004]	[0.001]	[0.005]	[0.000]	[0.002]	[0.000]	[0.003]
LFS1:JSB1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	[0.994]	[0.910]	[0.612]	[0.569]	[0.915]	[0.945]	[0.616]	[0.690]
Surv1:fail1	-0.004	-0.001	-0.001	-0.001	-0.004	-0.001	-0.001	-0.001
	[0.615]	[0.555]	[0.501]	[0.546]	[0.643]	[0.467]	[0.451]	[0.481]
Capital ratio					-1.079	-1.987**	-1.235*	-1.456**
					[0.128]	[0.011]	[0.076]	[0.031]
Reserve ratio	0.009*	0.020*	0.008	0.009*	0.013	0.018**	0.012	0.0142*
	[0.085]	[0.074]	[0.116]	[0.098]	[0.101]	[0.027]	[0.124]	[0.059]
Char:inc	0.348	0.027	-1.047	-0.795	0.118	-0.169	-1.101	-0.931
	[0.591]	[0.970]	[0.162]	[0.292]	[0.855]	[0.803]	[0.117]	[0.177]
borrpop	-0.054	-0.442	-2.387	-2.155	0.033	-0.173	-1.576	-1.722
	[0.981]	[0.848]	[0.323]	[0.361]	[0.988]	[0.940]	[0.520]	[0.457]
Non-RC	-0.003	-0.002	0.001	-0.001	-0.002	0.000	0.002	0.000
	[0.349]	[0.501]	[0.735]	[0.679]	[0.548]	[0.937]	[0.625]	[0.983]
Till:Past	0.668**	0.305	0.533*	0.163	0.747**	0.409	0.675**	0.274
	[0.034]	[0.287]	[0.087]	[0.556]	[0.017]	[0.138]	[0.036]	[0.308]
Observations	102	102	102	102	102	102	102	102
Log likelihood	-49.88	-49.12	-46.68	-50.05	-52.42	-53.2	-48.49	-53.67
Pseudo R2	0.294	0.304	0.324	0.282	0.258	0.246	0.298	0.23
DF	10	10	10	10	11	11	11	11
Chi2	41.48	42.82	44.85	39.37	36.4	34.66	41.22	32.13

p-value in parentheses

* p<0.1**, p<0.05, *** p<0.01

Notes: Int:inc = ratio interest on deposits to income; Clerk:inc = Ratio of charitable expenditure to income; LFS1:LFB = nearest LFS/LFB; Surv1:surv2 = nearest survivor/ second nearest survivor ; LFS1:JSB1 = nearest LFS/nearest JSB branch; Surv1:fail1 = nearest survive/nearest; Char:inc = Ratio of charitable expenditure to income; borrpop = Ratio borrowers to population; non-R.C.= Non Roman Catholic percentage of population; Till:past = Ratio tillage to pasture.

Plate 1


No.

Loan Fund.

On Demand, We jointly and severally, or any two of us, promise to Pay to ______ The Treasurer for the time being of the ______ Loan Society, at the times and in the manner prescribed by the Rules of the said Society, the Sum of ______ Pounds, sterling, together with all Fines which may be incurred by us, or any of us, under the Rules of the said Society.

Dated this ______ day of ______ 186

NAME.	RESIDENCE.	OCCUPATION.	
			Borrower.
			Sureties.

Witness

Source: 'Culdaff loan society account book,' 1860 (*N.L.I*, MS 23063 (bad condition))
The image has been reproduced with their permission of the National Library of Ireland.

Figure 1: Percentage change in LFS capital and loans (£), 1844-1914

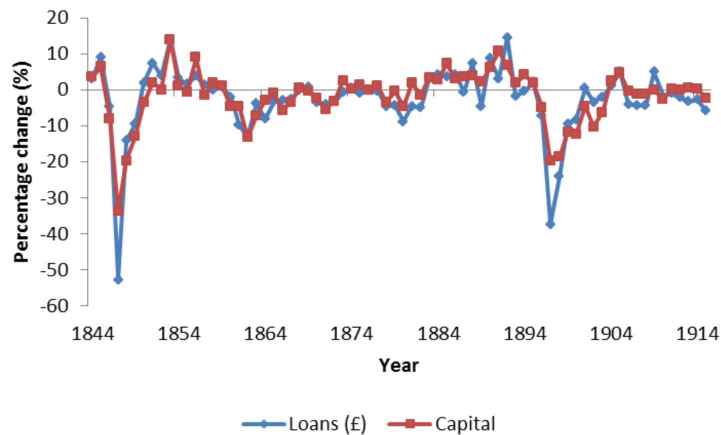


Figure 2 : LFS capital and capital decomposition, 1860-1914

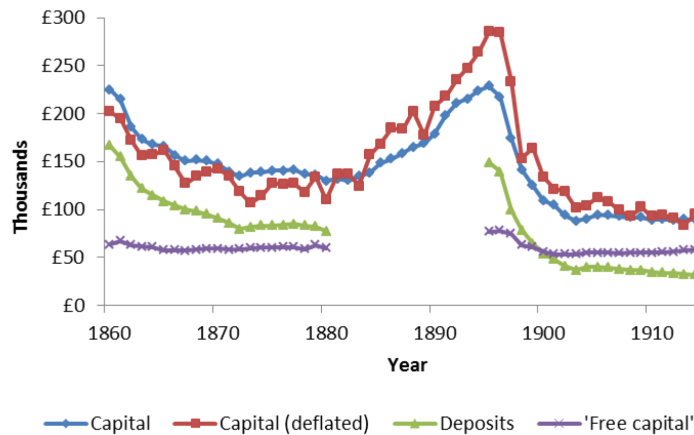


Figure 3: Discount rate of loan fund societies in 1895

Figure 4: Fine rate and ratio of fines to maximum discount in loan fund societies, 1895

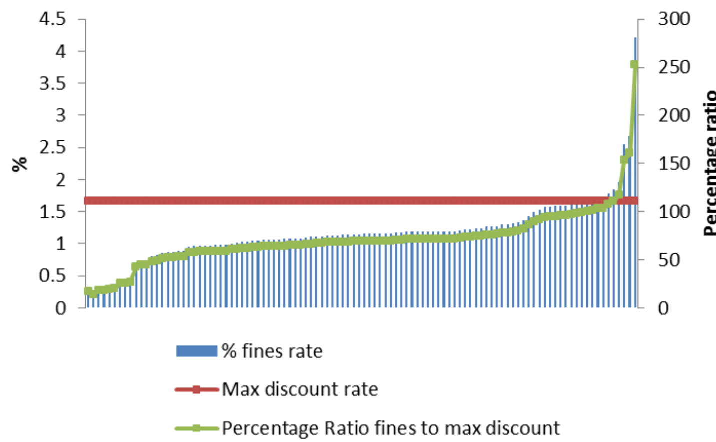
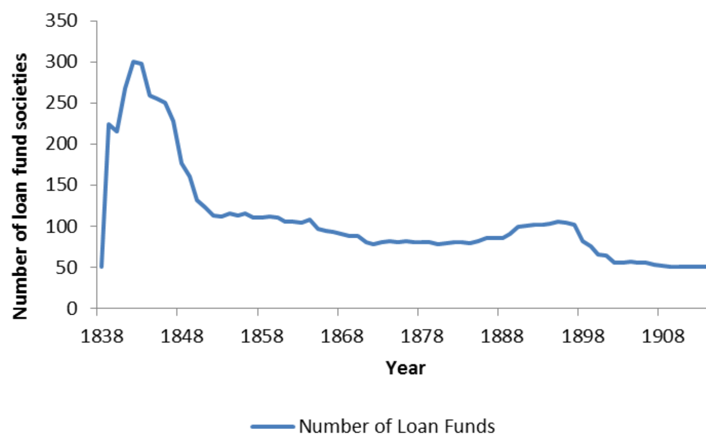
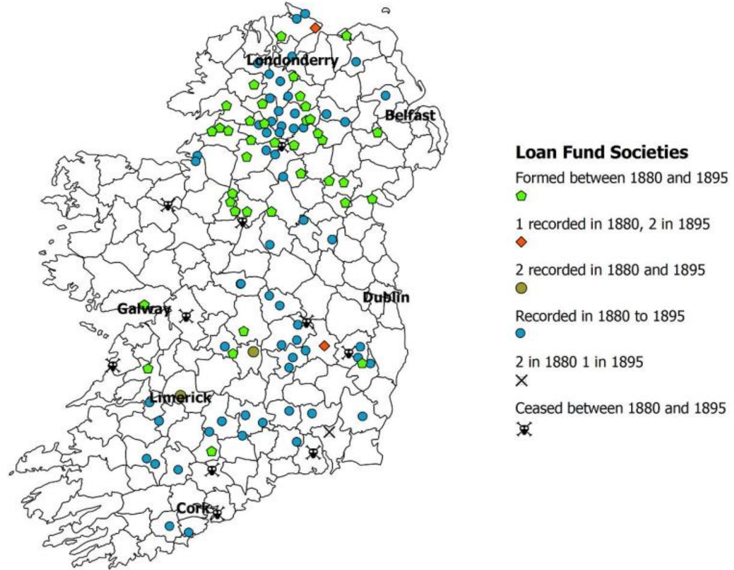
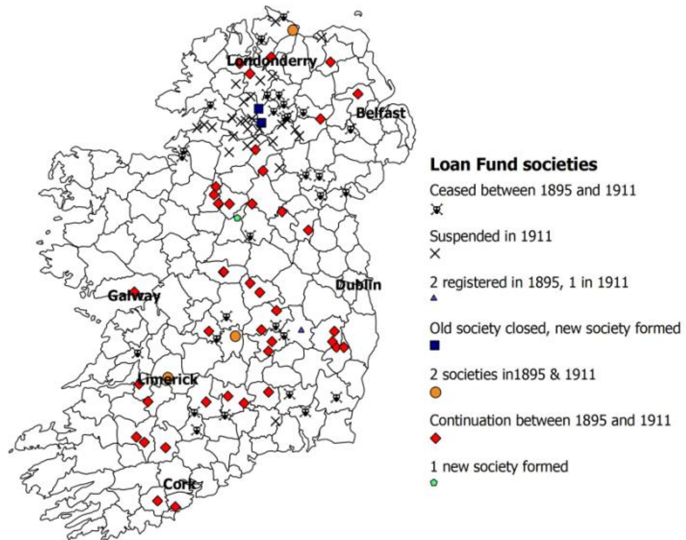


Figure 5 Number of loan fund societies registered with the Loan Fund Board, 1838-1914



Maps 1 & 2





Appendix

Table A1: Negative binomial regression, dependent variable number of Loan Fund Societies in 1895

	I	*II*	*III*	*IV*
Landowners	0.004**	0.003**	0.003**	0.003*
	[0.023]	[0.022]	[0.045]	[0.057]
Shopkeeper	0.002	-0.008	0.006	-0.006
	[0.853]	[0.409]	[0.633]	[0.529]
Arrears	0.000	0.000	0.000	0.000
	[0.741]	[0.510]	[0.764]	[0.486]
Till:past	-0.009	-0.010	-0.007	-0.008
	[0.303]	[0.186]	[0.469]	[0.332]
Rural	0.048*	0.040*	0.059**	0.050**
	[0.098]	[0.100]	[0.050]	[0.039]
jsper10000	1.951***	1.890***	1.862***	1.881***
	[0.004]	[0.001]	[0.006]	[0.002]
posbper10000	-0.086	-0.007	0.010	0.023
	[0.685]	[0.968]	[0.961]	[0.891]
Ulster	1.605**	2.224***	0.895	1.628**
	[0.045]	0.000	[0.375]	[0.024]
RLF	1.256	1.653***	1.154	1.580**
	[0.108]	[0.009]	[0.148]	[0.013]
Presbyterians	-0.035	-0.021		
	[0.247]	[0.397]		
Romancatholics			-0.001	-0.007
			[0.954]	[0.688]
under5	-0.0868*		-0.0908*	
	[0.058]		[0.051]	
over50		0.052***		0.056***
		[0.002]		[0.001]
Lnalpha		-2.038*	-1.127**	-2.187
		[0.059]	[0.041]	[0.107]
Constant	-6.048*	-8.054***	-7.075**	-8.530***
	[0.083]	[0.006]	[0.042]	[0.003]
Observations	32	32	32	32
Log likelihood	-62.48	-60.4	-63.19	-60.71
Pseudo R2	0.161	0.189	0.151	0.185
DF	11	11	11	11
Chi2	23.95	28.12	22.54	27.5

pval in parentheses

*** p<0.1, ** p<0.05, *** p<0.01**

Notes: landowners = land owners over 1 acre as a proportion of occupied landholdings in 1875; shopkeepers = shopkeepers and dealers per 10,000 population; arrears = farms in arrears in 1882 as a proportion of occupied landholdings; Till:past = ratio of tillage to pasture; jsper10000 = joint stock banks per 10,000 population; posbper10000 = Post Office Savings Bank per 10,000 population; Ulster = 9 counties of Ulster (dummy); RLF = Reproductive Loan Fund (dummy); Presbyterians = proportion of Presbyterians; romancatholics = proportion of Roman Catholics; under 5 = proportion of occupied land holdings under 5 acres; over 50 = proportion of occupied landholdings over 50 acres.

[1] RR Madden was LFB secretary from 1850-1880 (Madden, 1891), and most original members of the LFB were appointed in 1837 retired or died by 1880.

[2] The subject of effect of the systemic shock is addressed elsewhere (Hollis & Sweetman, 1998 and McLaughlin, 2009).

[3] *Tyrone Constitution*, 2 October 1896.

[4] The sensitive nature of findings, if unsubstantiated, would also have legal implications.

[5] It must be noted that Ireland scored very highly in this body of research, but given how events transpired one must question the measures of regulatory regimes constructed in these studies.

[6] Jonathan Swift was an author of numerous literary works. including *Drapier's letters* (1724) and *Gulliver's travels* (1726).

[7] Great Britain and Ireland, 1800-1922

[8] Some of the features of the LFS institutional structure are discussed in Hollis & Sweetman (hereafter H&S) (2007); however, this summary includes some new archival material and alternative interpretations of legislation to H&S (2007).

[9] Loan fund societies are briefly discussed in Ó Gráda (1999) and likened to credit unions, however this analogy is incomplete as membership is a prerequisite for both saving and borrowing in a credit union.

[10] (57 Geo. 3), c. 55. and see Ó Gráda (2003).

[11] There are no GDP estimates for Ireland during the nineteenth century, and although there are estimates for Irish GDP per capita in the period in Maddison (2003), these are approximations derived from British GDP estimates.

[12] 28 Geo. III, c. 49, s. 19. [Ire]

[13] Average price of store cattle 1-2 years old and average price of lambs.

[14] Calculated by the amount of time a shilling, (12 pence or £0.05) was in the hands of a borrower.

[15] Lobbying by LFSs associated with the London Relief Committee exempted circa 100 LFSs in Connaught and Munster, but these were all wound up in 1848.

[16] These reports were published from 1838 to 1880, and then publication for a number of years until they were resumed from 1895 to 1914.

[17] (1 & 2 Vict.), c. 78, s. 17.

[18] The de facto Central Bank and government banker (Hall, 1948).

[19] Renewals were illegal under loan fund legislation, and interest was reduced under the 1843 act.

[20] A headline from a newspaper in 1897 was 'decision in favour of borrowers', *Anglo-Celt* (7 August, 1897).

[21] *The treasurer of the Enniskillen loan fund society v Green*, [1898] 2 Ir. R. 103 (QB).

[22]Ibid, pp 104-105.

[23] *Skey v. Shield* [1899] 2 IR 119 (QB).

[24] Essentially IOUs, except the loan funds were required to use special promissory notes with an LFB stamp; an example is seen in plates 1.

[25] The key feature of the loan fund legislation was an exemption from stamp duty. This also included an exemption of stamps on promissory notes. But such an exemption effectively excluded loan funds suing for debts issued that contravened the 1843 loan fund act.

[26] The treasurer of the Enniskillen loan fund society v Green, [1898] 2 Ir. R. 103, pp 116-117.

[27] Evidence was heard in public and hearings were advertised in local newspapers, however when the report was published the government opted not to publish the evidence on the basis that the local newspapers had provided ample coverage of the inquiry (*Hansard*, 57, 2 May 1898).

[28] In the initial bills the LFB was given powers to design its own regulations, but this clause was deleted from the subsequent act.

[29] Anecdotal evidence showed that the treasurer of a loan fund society in Drumquin County Tyrone did not 'understand' the accounts and was reliant on the LFB inspector to put the books in order; a case of the proverbial blind leading the blind. (*The Tyrone Constitution*, 25 September 1896)

[30] RR Madden is more famous for his literary activities in Irish history and his period as secretary of the LFB received little reference in neither his memoirs nor his entry in the *Dictionary of National Biography*: see Madden (1891) and Rigg (2004).

[31] For example, at the Irish industries inquiry, it was alluded to that the LFB did not do anything and that it should be converted into an investment bank (BPP 1885).

[32] This does not appear to be an example of 'free money', as outlined in the court cases, borrowers made loan repayments but were also subjected to fines and charges of loans issued years previously.

[33] Michael Stenton and Stephen Lees, *Who's who of British members of Parliament: vol ii, 1885-1918* (Sussex, 1978), p. 165.

[34] 105 are listed in the report, but the Fethard society was dissolved and did not submit its annual accounts: *Copy of the fifty-eighth annual report of the Loan Fund Board of Ireland*, H.C. 1896 (243).

[35] The acts stated that it had to transmit an annual report to parliament, but not that they had to be published. These manuscripts are cited as being kept in the National Archives of Ireland (Hayes, 1970) but it is difficult to trace them as they are not catalogued. In fact, the data source used in this study is a published copy of the manuscript.

[36] In 1895 there were 32 historic county boundaries and there were 159 PLUs in Ireland; however, the PLU boundaries did not correspond exactly to county boundaries with a number of PLUs spread across different counties.

[37] Most societies were given the name of their town, but two societies in Limerick were given titles 'Limerick Industrial' and 'Limerick Perry & Jubilee'. These presumably indicate Limerick city but it is not certain.

[38] As discussed above, the LFB does not strike off inactive societies until after the 1906 loan fund act. If a LFS was inactive on the LFB register it was considered to have ceased.

[39] It is only after the passing of an act in 1906 that it began actually striking LFSs off its register.

[40] Irish agricultural statistics include two annual series of farm sizes, landholdings and occupied holdings. It was discovered that the landholding series was inflated by double counting in 1914 which resulted in the over representation of small holdings and under representation of large holdings. Contemporary statisticians advocated the use of land occupation statistics (McLaughlin, 2009, vol. 2 chapter 7).

[41] The regional variation in Ulster is outlined in Kennedy (1985).

[42] Negative binomial regressions reported in appendix

[43] A proxy variable for the incidence of landlordism is the ratio of landowners over 1 acre to the number of occupied land in 1876 (the only year that this piece of information is available). This was positively associated with the number of LFSs in 1895.