

Financial Distress and Bank Restructuring of Small to Medium Size UK Companies

Julian Franks and Oren Sussman

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The authors are respectively, Corporation of London Professor at the London Business School and CEPR Fellow, and University Lecturer at the Said Business School, University of Oxford.

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Abstract

This paper uses a unique data set of 542 distressed English firms, typically small to medium-sized, to analyse how banks restructure distressed firms, both inside and outside bankruptcy. The study provides an opportunity to examine a contract-based bankruptcy process, with lenders and borrowers relying on the bankruptcy procedures written into the debt contract by the contracting parties. In this contract setting the courts are largely uninvolved.

The typical debt structure consists of one senior lender (a bank) and a large number of unsecured trade creditors who together provide about 80% of the company's total borrowings. For this sample, the process of financial distress is largely free of co-ordination failures and creditors runs. We attribute this to the debt structure of the borrower where seniority of borrowing and the liquidation rights are concentrated in the hands of the bank. Also, we find few signs of bank concessions to borrowers, for example, there is only one case of debt forgiveness by a bank. Finally, although the banks' loans are highly collateralised, the evidence that banks are lazy in monitoring is mixed.

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1. Introduction

In a well-known paper, Jensen (1989) argues that too often in the US, financial distress results in a “cumbersome court-supervised bankruptcy process that diverts management time and attention away from managing the enterprise”. Instead, he advocates a ‘privatised’ system that would “limit the courts’ abrogation of the contractual priority of claims”. Such a system should “provide incentives for the parties to accomplish reorganization of claims ... outside the court-room” in those cases where the firm is viable, and push for a speedy liquidation in those cases where continuation has no value. The strict enforcement of debt contracts would enhance their role “as a monitoring and incentive device, especially in slow growing or shrinking firms” where over-investment problems are pervasive (pp. 42-44).

Many would hesitate to adopt Jensen’s reforms if only for their radical nature. How would such a system work in practice? How would it deal with problems such as premature liquidation or asset grabbing? In this paper we address these questions using evidence from the UK, whose approach to bankruptcy is similar to the one advocated by Jensen. In such a ‘*contract-driven*’ system the parties should use the debt contract in order to allocate default-contingent rights *ex ante*, which the courts would strictly enforce *ex post* in those rare cases where the contract is challenged.

To study the operation of the UK system, we have surveyed a population of 542 small to medium-sized¹ financially distressed companies and followed them all the way through to the resolution of the process, either in bankruptcy or rehabilitation.² The sampling procedure was carefully

¹ Small to medium sized companies account for 43% of employment in the UK; see Klapper and Sulla (2002).

²In English law, the term ‘bankruptcy’ is reserved for individuals only; the word ‘insolvency’ applies to corporations. We use the term ‘bankruptcy’ in line with international practice.

designed so as to avoid any selection bias, and to provide a comprehensive picture of the entire cycle of distress and all its possible outcomes. The data set is unique, and was assembled especially for this study from the private records of three UK commercial banks.³ As we shall see, commercial banks are the dominant players in the credit market for small to medium-sized companies. In that respect, our paper is as much about banking relationships as it is about financial distress and bankruptcy.

Since the English system is driven by contract, the theoretical background for this paper is provided by the literature on debt structure; *c.f.* Hart and Moore (1998), Gertner and Scharfstein (1994), Berglof and von Thadden (1994), Bolton and Scharfstein (1996), Diamond (1984), Manove et al. (2000).⁴ The theory focuses on the various advantages and disadvantages of the concentration of debt and of liquidation rights. On the one hand, dispersion makes it harder for the borrowing firm to behave opportunistically and default so as to renegotiate better terms (known as strategic default). On the other hand, dispersion may lead to coordination failures, such as *asset grabbing* and *creditors' runs*. A disadvantage of concentrated debt is that the secured lender, *i.e.* the bank, may become *lazy*, lose interest in the going-concern value of the firm and liquidate it prematurely upon the first sign of distress. Hence, debt should be sufficiently concentrated so as to avoid a creditors' run, but not so concentrated that it would induce lazy banking and strategic renegotiation.

The paper has four main results. Firstly, we find that the liquidation rights are extremely concentrated in the hands of the bank. We carefully examine the contractual relations between debtor and creditor and find no evidence that debt dispersion is used to prevent strategic default by the borrower. Secondly, the banks are successful in resisting any attempt by the firm to renegotiate debt; we find only one case of debt forgiveness in our

³ The data was provided to a government-appointed committee of enquiry into UK insolvency procedures. One of the authors was a member of that committee.

⁴ Anderson and Sundaresan (1996) and Mella-Barral and Perraudin (1997) incorporate strategic default and renegotiation into dynamic asset pricing models.

sample. Another indication of their toughness is, that banks rarely expand credit during distress; on the contrary, bank credit tends to contract.

Thirdly, we find no evidence for asset-grabbing or creditors' runs. We believe that this result is directly related to the concentration of debt and liquidation rights in the hands of the bank. Being at the bottom of the seniority ladder, the unsecured creditors cannot 'jump the queue' by 'rushing for the exit'; the best they can hope for is that the bank will oversee a successful rescue. This result is consistent with the theory: once the liquidation rights have been concentrated, the scope for coordination-failures is limited. It serves, however, as an important reminder that asset grabbing is *not* a generic property of financial distress, but rather is an outcome of a particular debt structure. It seems that once debtors and creditors are allowed to choose their debt structure, they choose one that avoids the creditors' run problem altogether.

Fourthly, we find mixed results with respect to lazy banking. On the one hand, the evidence strongly suggests that the bank's propensity to liquidate a firm is sensitive to the firm's own restructuring efforts, such as replacing its manager. On the other hand, the bank's high recovery rates indicate that it does not wait too long once the quality of its security starts deteriorating. While the evidence does not allow us to conclude that UK banks exert the optimal amount of effort in restructuring distressed borrowers, it does reject the extreme view that UK banks automatically liquidate firms upon the first signs of distress. The overall conclusion of this study is that a freedom of contracting system is at least a viable, if not an optimal, system for corporate bankruptcy.

The low incidence of co-ordination failures in our sample may appear surprising. For example, Gilson, John and Lang (1990) examine co-ordination failures and holdout problems for a sample of distressed (listed) firms in the US. They find that about one half were able to restructure privately rather than through Chapter 11. The likelihood of a successful private transaction increases when debt is more concentrated, and when there are fewer classes of

creditors; see Asquith, Gertner and Scharfstein (1994) for similar results. Brunner and Krahen (2002) examine multilateral contractual arrangements among German banks, designed to mitigate co-ordination failures during distress. They find that co-ordination problems are reduced by such a contract, although its effectiveness declines as the number of banks increases. These results may be due to a different debt structure induced by a different bankruptcy procedure. It may also reflect differences in the samples: for example, median sales in our sample is about \$5 millions compared with \$52 millions in the US and \$162 millions in Germany.⁵

Other empirical work on contract-driven systems uses Scandinavian data. Although it is confined to the liquidation process rather than the entire cycle of distress as in our study, the results are similar. Thorburn (2000) examines Swedish auctions of bankrupt firms. The Swedish system resembles English receivership except for the auction being court-administered. She finds that the Swedish system compares favourably with Chapter 11 (performance is measured by the probability of survival, the direct costs of bankruptcy, and recovery rates for creditors). However, Stromberg (2000), using a similar sample finds that many of the auctions result in sales to existing management at the expense of the junior creditors; see Ravid and Sundgren (1998) for a study of Finnish auctions.

US evidence on strategic negotiation is mixed. Asquith, Gertner and Scharfstein (1994) find that banks participating in private debt restructurings rarely forgave debt. More recent work by Davydenko and Strebulaev (2002) examines the relation between proxies for strategic renegotiation and bond spreads using US data. They find that between 10-20% percent of the interest-rate spreads are explained by strategic renegotiation.

Our paper is organised as follows. Section 2 presents the theory and propositions tested in the paper. Section 3 describes the law on corporate bankruptcy in England. Section 4 describes the data set and provides an

⁵ Sales figures for the US are reported in Asquith et al (1994) but not in Gilson, John and Lang (1990). Instead, they report median assets of their sample are \$75 million.

overview of the cycle of distress. Section 5 provides a detailed analysis debt structure. Section 6 analyses the main propositions: softness in renegotiations, creditors' runs and lazy banking. Section 7 provides for additional findings, including evidence on the incidence of litigation. Section 8 concludes.

2. Theory and hypotheses

As noted above, the English approach to bankruptcy is to enforce strictly the debt contract. Hence, the theoretical background for this study is provided by theory that was developed in the last ten years, dealing with debt structure, particularly the dispersion of both debt and liquidation rights among several creditors.

The basic observation is that real world contracts are inherently 'incomplete', in so far as the description of the relevant contingent payoffs may be vague and imprecise. In the absence of completeness, the parties will have to bargain *ex post* on how to implement the contract; by their very nature, real world contracts are open to haggling and re-negotiation. For example, in the case of the debt contract, creditors operate under a constant threat that debtors will behave opportunistically and default strategically so as to re-negotiate improved terms (see Hart and Moore (1998)). To mitigate the problem, creditors should retain the right to liquidate the debtor's assets, conditional upon default, and use this right as a counter threat in order to enforce their claim upon the debtor.

Berglof and Von Thadden (1994) have argued that this counter-threat would be more effective if the lending relationship was dispersed across many small creditors. The rationale is that a large creditor, typically a bank, cannot pre-commit itself to exercise the liquidation right and punish the debtor's default, as it would bear some of the loss due to the liquidation. In contrast, a small lender would not hesitate to satisfy itself out of the pool of company's assets, imposing any loss arising from liquidation on other small lenders. Once the debtor anticipates the dispersed lenders' greater propensity to liquidate, it will avoid strategic default altogether. Hence, by dispersing the lending relationship, a firm may 'harden its budget constraint' thereby

improving the terms of its borrowing. A crucial element of this argument is that the liquidation rights as well as the sources of finance should be dispersed. Thus, each lender should have the right to satisfy itself out of a pool of the company's assets, without seeking the consent of any other lender. Hence,

Proposition (soft banks): theory predicts that banks would be 'soft' in renegotiations, particularly when the liquidation rights are concentrated. At the same time, theory predicts that dispersed creditors would resist any attempt at re-negotiation.

Debt dispersion, however, has some disadvantages as well as advantages. The basic insight of the theory of banking is that concentrated lending is needed in order to resolve some informational externalities across lenders. According to Diamond (1984), delegated monitoring on behalf of small lenders provides the very *raison d'être* of banking. Bolton and Scharfstein (1996) extend the idea of monitoring from information production to debt restructuring. They argue that creditors, dispersed so as to harden the firm's budget constraint, will fail to co-ordinate a restructuring of an economically viable business. The argument is similar to that of Gertner and Scharfstein (1994) who show how the dispersion of debt and liquidation rights will disrupt a profitable restructuring of a financially distressed firm. Hence, the basic trade-off in debt structure is between dispersion of debt and liquidation rights so as to harden the budget constraint, and concentration of debt so as to avoid co-ordination failures. Given differences in industry conditions, we would expect this trade off to vary across companies. Hence,

Proposition (dispersed lending): theory predicts that in equilibrium, we would observe firms selecting different levels of dispersion of liquidation rights; that level should vary according to firm characteristics.

The literature on debt dispersion offers a different perspective on the widely held view that a creditors' run and asset grabbing is a fundamental hazard associated with any situation of financial distress. According to this view, bankruptcy courts should be empowered to intervene and suspend the

run by disallowing creditors from exercising their liquidation rights. It follows that a contract-driven system, where the court's role is restricted solely to the enforcement of creditors' rights, will be particularly prone to a creditors' run (see Jackson (1986)). Hence, creditors' runs (just like bank runs *a la* Diamond and Dybvig (1983)), may occur when loans are secured on a common pool of assets, and when the lenders are served according to the sequence of their arrival. A creditors' run would take place when each of the creditors tries to exercise its first-mover advantage.

Clearly, the asset-grabbing problem is a result of a particular debt structure. Webb (1991) recognized this point: "certain kinds of financial structure create an incentive for creditors to prematurely and inefficiently liquidate companies. ... The problem stems from the feature of this system which allows the creditors to act in individualistic self-interest. They have the right to recover the value of their claim without considering what happens to the overall pool of assets upon which they draw. ... [Hence], insolvency law may [and should] be used to constrain asset grabbing" (pp. 143-145). In his view, this state of affairs is prevalent in the UK.

Although Webb recognises that England has a contract driven system, he does not explain why contracts are written in such a way that potentially exposes companies to the hazard of asset grabbing. The new theory of debt structure provides an answer: securing loans on a pool of assets may be needed so as to harden the firm's budget constraint. A firm may deliberately choose a debt structure that is vulnerable to a creditors' run, because it wishes to pre-commit not to default strategically or renegotiate the debt. Although from an *ex-post* point of view asset grabbing may be perceived as a coordination failure, it serves a purpose *ex-ante*, to harden the budget constraint and improve the terms of credit. Like in banking theory, 'optimal runs' are a possibility; see Calomiris and Kahn (). Hence,

Proposition (creditors' run): a creditors' run may be observed in cases where a multitude of creditors have an equal liquidation right over the pool of the company's assets.

Another criticism levelled against the contract-driven system is that an excessive concentration of liquidation rights in the hands of banks may distort the bank's decision towards premature liquidation. In his discussion of the English system, Hart (1995) suggests the bank "may decide against keeping a good company going because it does not see the upside potential. Moreover, even when the bank does decide to sell a company as a going concern, it may not have an incentive to push for a high sale price, given the ceiling on its returns. As a result, there may be little left over for junior claimants" (page xx). As a result, banks may have an incentive to be 'lazy' in monitoring and restructuring the distressed firm, and automatically liquidate the firm once the debt exceeds the value of the secured assets. Hence,

Proposition (lazy banking⁶): in the extreme, lazy banks will put no effort in restructuring distressed firms, and will liquidate them automatically when debt exceeds the expected value of the collateral.

Finally, the theory of debt dispersion has been developed with bondholders in mind; in this paper we identify the dispersed creditors with the trade creditors. It is legitimate to ask whether the theory applies, in spite of some important differences that exist between trade creditors and public bondholders. For example, many have argued that trade creditors are typically well informed while bondholders are typically not (see Peterson and Rajan (1997) or Biais and Gollier (1997)). It might be the case, however, that being well informed makes them even better candidates for performing the role of dispersed lenders who can harden the firm's budget constraint, as they can 'pull the rug' from under the firm if they anticipate failure. In this respect, trade creditors may benefit from an early bankruptcy.

3. Legal Structure

The essence of the UK approach to bankruptcy and financial distress is that debtor and creditor should resolve their conflicts of interest through private

⁶ This colourful expression was coined by Manove et. al. (2000). Their paper is one of the few that provides a coherent argument for why the lazy banking problem is not resolved by way of

negotiations, like in any other commercial transaction. UK courts have no authority to interfere in the bargaining process between the two parties and help them to reach an agreement. In this respect, it is only a small exaggeration to say that the UK does not have a bankruptcy law at all, but simply a procedure for the enforcement of debt contracts. The parties are expected to use the debt contract to allocate default contingent rights, which are strictly enforced by the courts in the event that negotiations breaks down. Obviously, this state of affairs is in stark contrast to the US (see Jensen (1989), above).

Two types of debt security have evolved into common usage in England: fixed charges and floating charges.⁷ A fixed charge is secured on a specific asset such as real estate or heavy machinery. A floating charge is secured on the whole pool of the company's assets, including cash, rolling stock, receivables, etc. It is important to emphasise the contractual nature of the floating charge. It is up to the lender and borrower to agree whether to include it in the debt contract or not. It is also up to the parties to decide whether a floating charge should be held by one lender only, or distributed among several lenders. Regardless of how the liquidation rights are allocated the courts will enforce them.

Since the floating charge is secured on the whole pool of assets, it effectively gives the lender a default contingent control right over the company. Upon default, the holder of the floating charge has the right to appoint an administrative receiver (henceforth a receiver), who exercises all the powers of the board of directors and operates for the sole purpose of realising sufficient funds to repay the debt of that creditor. Specifically, the receiver has full discretion on whether to sell the firm as a going concern or liquidate it piece-meal. This discretion cannot be challenged in the courts on the grounds that the receiver has, for example, underestimated the firm's prospects of recovery. The receiver's responsibility is limited to "protecting

a contract. The argument relies on informational externalities across banks, by which one bank's information production depends on how much information is produced by others.

⁷ See Franks and Sussman (2002) for an analysis of the evolution of the system.

the interests of the security-holders who appointed [him]” (see Davies (1997) page 385). He has no duty to consider the interests of other lenders, in particular the unsecured lenders.⁸

The unsecured creditors, who are not a party to either the fixed or the floating charge, are thus left with very little power to enforce their claims against the company. The only remedy open to them is to apply for a *winding up*, which is a liquidation procedure. Unlike receivership, winding up is court-supervised and is undertaken by a *liquidator*. It is ‘collective’ in so far as the liquidator operates on behalf of both the secured and unsecured creditors. Nevertheless, he is obliged to pay the lenders in the order of their seniority. Crucially, the holder of a floating charge can always pre-empt a winding up order by appointing a receiver. Note also that although a winding-up procedure creates collective liquidation rights, it gives no first mover advantage to any one creditor: any funds available after the secured creditors have been repaid, accrue to all unsecured creditors on a *pro rata* basis.

Lastly, it is worth mentioning that the Insolvency Act of 1986 introduced two new rescue procedures in part modelled after Chapter 11: *Administration* and *Company Voluntary Arrangements* (CVA).⁹ Both of these procedures are court-administered and provide the company with temporary protection from creditors’ actions. However, the holder of the floating charge has the power to veto both procedures and appoint a receiver instead. These procedures therefore do not put any restriction on the rights of the creditor with the floating charge. As described by Webb (1991) the new procedures have “stopped a long way short of giving the UK the equivalent of Chapter 11. In that sense, it may not have given UK companies the protection from creditors that many people saw as necessary to encourage efficient restructuring.” (p.156)

4. The data

⁸ However, the receiver must respect the legal rights of other parties, including security and priority. Nor can the receiver steal or perform his task negligently.

⁹ See Davies 1997, pp. 768-770 and 817-829 for more detail.

The main purpose of this section is to describe the methods used to construct the data set. The section also provides an overview of some of the main characteristics of the cycle of distress, rescue and bankruptcy.

4.1 Sampling method

Our sampling procedure was carefully designed so as to avoid, as much as possible, any selection bias. As a result, we have *surveyed all the companies* that became financially distressed within a defined *sampling window*. We followed these companies through the rescue process to its resolution ending in either rehabilitation or bankruptcy.

The calendar period of the sampling window differs slightly across our three banks, but in all cases straddles 1997 through to 1998 (see Table 1, Panel A). Choosing an earlier period was difficult because the banks have only recently centralised data collection electronically. A later period was undesirable because it did not allow us sufficient time to observe how financial distress was resolved. During 1997 the economy was relatively strong, with 15,500 bankruptcies compared with an annual average of 19,000 (from 1987 to 1999).¹⁰ There is good reason to believe that the statistics reported below are sensitive to the state of the business cycle; *c.f.* Altman, Resti and Sironi (2001) who provide evidence that recovery rates for creditors are counter cyclical.¹¹

The data were supplied by the respective bank's specialized Business Support Units (BSU) that deal with small to medium-sized distressed companies. Larger distressed companies, especially listed ones, are managed by another unit, while very small distressed firms are dealt with by the local bank branch. The criterion for 'small to medium size' is defined differently across the banks. Bank 1 uses size of bank debt outstanding whereas the other two banks use (different) sales criteria (see Table 1, Panel A). As a result, the size distribution of distressed firms differs sharply across the banks, although

¹⁰ Source: table 1 A Review of Company Rescue and Business Reconstruction Mechanisms: Report by the Review Group, Department of Trade and Industry and HM Treasury, May 2000.

¹¹ See also Altman and Brady (2001).

it is heavily skewed towards smaller firms with a median turnover of between £0.8 and £5.5 million (see Panel C, Table 1).

[Insert Table 1 here]

To ensure the high quality of our data, we were allowed unrestricted access to each bank's original files. We have conducted numerous interviews with the staff of each bank so as to obtain information about the way they manage the process of distress. In addition, we collected data from the reports of the insolvency practitioners who have administered the firms placed in bankruptcy. Where needed, we have augmented the data supplied by the banks with a publicly available dataset, FAME (owned by Thompson Financial), which provides balance sheet and profit and loss data for a sample of all private and listed companies registered in the UK.

4.2 The cycle of distress

A company is defined to be in distress once the local branch of the bank and the regional credit officer transfers the account to BSU, the bank's specialised head-office unit that deals with small to medium sized distressed companies.¹² Appendix 1 provides information on the criteria that the credit officers use to determine whether a firm should be placed in the head office unit.

The pronounced objective of this 'Business Support Unit', is to 'turnaround' the company and send it 'back to branch'. Figure 1 describes the time line for the cycle of distress, rescue and liquidation. We denote the point when the company entered the BSU (and our sampling window) as $t=1$. We denote by $t=0$ the period prior to distress, and $t=2$ the point at which the rescue effort ends. At that point the firm leaves the BSU, either 'back to branch' or to the 'Debt Recovery Unit' (DRU), the bank's head office unit where formal bankruptcy proceedings are undertaken. The DRU is responsible for the appointment of a professional 'insolvency practitioner', typically an outsider, who will manage the process. One of his main decisions

¹² In only a few cases is a company placed in bankruptcy without first entering BSU. For Bank 1, 7 out of 86 firms are in this category; they are included in the sample.

will be whether to liquidate the company piecemeal, or sell it as a ‘going concern’ to new owners (see Section 7.2 below).

[Insert Figure 1 here]

A third possible resolution of the rescue process is that the firm repays its debt, terminates the relationship and opens an account with another bank. Typically, the bank’s private records will have no information on the performance of those firms post ‘rebanking’. However, using the FAME data base we found information on 59 of the 86 rebanked firms in the sample; 47 were still operating as of 2001, and 12 companies were placed in bankruptcy by their new bank, a survival rate of 80%.

The length of time spent in BSU varies considerably across the three banks between 6.9 and 11.2 months, with an average of 7.5 months. The period spent in the rescue unit is higher for firms that are rehabilitated, than for those that end up in bankruptcy, 9.2 versus 5.2 months.¹³

There are significant differences in the incidence of bankruptcy and rebanking across the three banks; see Panel B of Table 1. Bank 3 has the lowest rate of bankruptcy (13%) but there is a high incidence of rebanking (33%). This suggests either a difference in the quality of customers, or a different strategy of dealing with financial distress (or both). We shall comment further on this point in Section 7.4 below.

4.3 How distressed are firms in the sample

An important question is the extent to which companies sent to BSU are distressed. If they are not severely distressed then measures of the incidence of bankruptcy or turnaround will not give an accurate picture of the probability of rescuing a distressed firm. In Table 2, we provide data on the financial health of companies entering the distress unit of two banks, 1 and 2,

¹³ 9.2 months in BSU for firms that survive is downward biased since 28% of the sample was still ongoing in the BSU at the time data collection was completed. Discussions with the banks lead us to believe that most of these firms would survive, eventually.

extracted from FAME. Data for firms in Bank 3 were not available since the names of the borrowers were not disclosed to us (except for those firms who ‘rebanked’).

[Insert Table 2 here]

We collected three balance sheet ratios: book leverage (Total debt/Value of the assets), return on assets (net operating income before interest and after taxes divided by total assets), and a liquidity ratio (current assets minus inventory/ current liabilities). Data are reported for three years: the year prior to entry into BSU, the year straddling the entry date, and the year subsequent to exit; these years are referred to as –1, 0, and 1, respectively. The median leverage ratio for Bank 1 declines from 58% in year –1 to 49% in year 1 reflecting the fact that the worst firms (with the highest leverage ratios) enter formal bankruptcy and are therefore excluded from our sample in year 1. The ratios for Bank 2 are higher at 68%, 65%, 63% for the three years, respectively. An unpublished study by Franks and Sanzhar (2002) reports book leverage ratios of 66.4% for 51 quoted firms which engaged in a distressed restructuring and which stated in the prospectus that the issue was necessary for firm survival. This compares with much lower leverage of 21% reported by Rajan and Zingales (1995) for a sample of 608 UK quoted companies, which were not conditioned on distress.¹⁴

Additional data in Table 2 reveal low return on assets and poor liquidity. Return on assets for the average company is negative or close to zero for Banks 1 and 2 in years –1 and 0. The median liquidity ratios are well below 1 for all years for both banks; where 1 represents the minimum level for a healthy firm. Thus, the picture is one of high leverage, negative returns on assets, and poor liquidity. If the sample is confined only to those companies reporting for all three years, i.e. those surviving, leverage ratios are slightly higher, return on assets is marginally better, and the liquidity ratio is about the same.

¹⁴ The average size of the book assets of these companies is £16.5 millions.

Panel B of Table 2 reports sales turnover and the proportion of companies reporting a profit and paying a dividend. For Bank 1 there is some contraction in sales over the three-year period with a decline from £2.7 million to £2.2 million from year –1 to year 0; however, there is an increase for Bank 2. Only a minority of companies report a profit after taxes, 30% and 40% for years –1 and 0, respectively for Bank 1 and 50% for Bank 2 for both years. The proportion of companies paying a dividend is only 20% for Bank 1 and 30% for Bank 2. The picture is one of the majority of companies reporting losses and an even smaller proportion paying a dividend, and reinforces the picture of distress given by the balance sheet data in Panel B.

5. Debt structure

In this section we analyse the debt structure of the companies in our sample. We find that although the sources of funding are sometimes dispersed liquidation rights are extremely concentrated.

5.1 Debt dispersion

Panel A of Table 3 shows that the companies' principal source of credit is their ('main') bank (henceforth, 'the bank'). The second largest source of funding is trade credit. For Banks 2 and 3, these two sources of borrowing exceed 80% of the total; the figure is somewhat lower for Bank 1, at 62%. The 'other' source of lending includes other banks, leasing companies, and purchasers of receivables i.e. trade factors. The entire distribution of debt for Bank 2 is described in Figure 2, with larger companies (total debt above £2 million) designated with a triangle. The figure indicates that main bank's debt and trade credit are the dominant sources of lending for most companies in our sample (*i.e.* the observations lie close to the diagonal), especially the smaller firms.

[Insert Table 3 and Figure 2 here]

Although we have no comprehensive data about the composition of trade credit, we have good reason to believe that trade credit is highly

dispersed. Using receivers' reports we have obtained lists of individual creditors for two firms. For one firm, where the proceeds of sale were £619,000, 93 trade creditors were owed a total of £330,000. Of these, 46 were owed less than £1000, 31 between £1000 and £5000, and 14 more than £5000. The largest creditor was owed £42,000. For another firm, where the sales proceeds were £2.46 millions, 94 trade creditors were owed in aggregate £1.52 million pounds. Of these, 46 were owed less than £1000, 24 between £1000 and £5000, 19 between £5000 and £100,000 and 4 over £100,000.

Owners provide only a small fraction of company's funding (see Panel A of Table 3). Nevertheless, the amounts are sizeable in terms of personal wealth. In 10% of cases managers' lending exceeds £100,000 (see Panel B). Typically, this kind of debt is very junior. Additionally, panel C reports that the majority of owners provide personal guarantees for their business loans. The importance of guarantees can be better appreciated once it is realised that, unlike in the US, UK laws do not provide any exemption for the individual's assets in the event of personal bankruptcy. The implication is that owners and managers contract away some of the protection provided by limited liability: in the event of failure they stand to lose not only their salary and equity, but also some of their personal assets. By doing so, owners and managers may increase the supply of credit to their business.

However, the main security taken by the bank is in the form of fixed and floating charges. Panel C shows that for Bank 1, 91.2% of loans are secured by *both* a fixed and a floating charge. For Bank 3 the equivalent figure is 78.9%. It is the lowest for Bank 2 at 52.6%. However, officers of Bank 2 have informed us that taking both a fixed and a floating charge is the bank's standard policy. Possibly, the policy is so common that the credit officers take it for granted that reporting one implies the other. If this is the case, the 97.9% figure of 'fixed or floating charge' should be read as 'fixed and floating charge'.¹⁵

¹⁵ It is noteworthy that most of the cases where there is 'neither a fixed nor floating charge' are missing values, rather than a positive reporting of 'no charges taken'.

The power of the bank's liquidation rights may be better appreciated once it is realised that much of the bank's debt is provided through overdraft facilities and is callable at 48-hours notice. A failure to repay promptly will put the company in breach of its covenant and will provide the bank with a legal right to place the company in bankruptcy. As we have seen above, the bank typically waits 5.2 months while trying to rehabilitate the company in its BSU. This 'patience' may indicate the banks' confidence in the quality of their securities, and the dominance of their position among other lenders.

The bank's secured position is unique among the other creditors of the firm. Evidence on recovery rates (below) strongly indicates that the trade creditors have no significant collateral.¹⁶ We know that fixed and floating charges can be held by more than one creditor; in this event they are always prioritised. In an examination of bank files we have not found any cases of charges held by non-bank creditors. Furthermore, in an examination of 29 receivers' bankruptcy reports we have not found a single case where another creditor has challenged the bank's seniority.

We have shown that although the sources of credit can be dispersed, the liquidation rights are extremely concentrated. Even when creditors other than the bank have some liquidation rights, for example when trade creditors have the right to apply for a winding up order, the bank can always pre-empt the winding up order by appointing a receiver. Hence, lenders and borrowers structure the debt and liquidation rights so as to avoid a first mover advantage that might give rise to a creditors' run. Although, English law allows the dispersion of liquidation rights, it is never present in our sample.

5.2 Recovery rates

¹⁶ Because of their junior status and low recovery rates in bankruptcy, some trade creditors have found a legal mechanism for retaining title to their goods even after they have been delivered to customers, called Retention of Title. Although widely used, as a proportion of total trade credit it is typically small. For example, in one case, the receiver's report states that there were two Retention of Title claims with a value of 5400 pounds, but both were rejected because title could not be proved.

The importance of concentration of liquidation rights is shown by the sharp differences in recovery rates for the bank and the trade creditors when firms entered bankruptcy. Comparing the recovery rates we shall ignore the fact that they come from different bankruptcy procedures; see Panel A of Table 4 for the incidence of other procedures. The rationale is that all other procedures can be pre-empted by receivership, provided that the bank has a floating charge. Since this is usually the case, we believe it is reasonable to treat all bankruptcy procedures as bank-dominated.

[Insert Table 4 here]

Recovery rates are calculated as the actual payments made to lenders divided by the principal or face value of the loan. Panel B of Table 4 reports recovery rates for each of the three banks. They recover on average between 74% and 77% of their loan, with medians as high as 100% for two banks. Calculations of recovery rates are based on debt outstanding at the end of the rescue period (i.e. $t=2$) when the firm enters the debt recovery unit. These recovery rates may be considered as an under-estimate, since distressed companies make significant repayments to the bank during the period of rescue. Hence, recovery rates expressed as a percentage of debt outstanding at the beginning of the rescue period $t=1$ must be even higher.

Precise estimates of recovery rates for trade creditors are difficult to obtain. The banks do not collect such data, and the information in the receivers' reports is not sufficient to calculate them. However, we were able to infer recovery rates for trade creditors in the case of Bank 2. We know that in terms of seniority the bank comes first, then preferential creditors (See Section 7.2) and finally the unsecured. It follows that where preferential creditors recover less than 100%, the unsecured receive no payout. (In those cases where the preferential creditors are fully repaid, the precise recovery rate for the trade creditors is unknown). Using data on recovery rates for the preferential creditors (which only Bank 2 provides) we found that the median

recovery rate for preferential creditors is very small at 3.3%, which implies that the median recovery rates for the trade creditors are zero.¹⁷

5.3 Spreads on bank debt

There are two points worth making about interest-rate spreads. Firstly, spreads are generally low (see Panel A of Table 3), reflecting the quality of securities and the competitive nature of the industry. Secondly, interest-rate spreads vary across banks, reflecting differences in the quality of customers. Again, Bank 3 seems to have the highest quality of customers (see Section 7.4 for further discussion).

6. The rescue process

In section 5 we have shown that the concentrated debt proposition of Section 2 is inconsistent with the data. In this section we explain why: since banks are not soft in debt renegotiations, there is no incentive for them to ‘harden the budget constraint’ by dispersing liquidation rights. We show a virtual absence of creditors runs and asset grabbing by trade creditors, which is consistent with the theory given for debt structure. As for lazy banking, the evidence provides a more ambiguous picture.

6.1 Soft banks

According to theory, creditors are vulnerable to opportunistic behaviour by the borrower when the debt is concentrated (see Section 2). It follows that one should expect to observe banks acting softly in debt renegotiation while the trade creditors act tough. Soft behaviour might take the form of debt forgiveness or the expansion of existing credit without a significant increase in spreads.

The evidence shows an extremely tough behaviour on the part of the banks. In Panel B of Table 5 we report only one case where a bank has

¹⁷ Using a similar approach, we examined receivership reports for 27 companies and found that for 19 companies trade creditors received a zero payout. In only two cases do the receivers’ reports state that there was a payout to trade creditors.

forgiven debt out of bankruptcy. Nor is there evidence of other bank concessions. For example, there are only a few cases where the bank expands credit during the rescue period. On the contrary, the banks' loans are reduced by between 30.8% and 43.5%, depending on the bank (see Panel A, Table 5).

[insert Table 5 here]

The only indication of 'soft behaviour' by banks is the tendency *not* to increase interest rate spreads in BSU to reflect the increased risk exposure following distress. However, in spread regressions (*i.e.* at $t=0$, prior to distress), we have found some evidence that Bank 2 charges a higher interest rate for firms with a history of credit distress.¹⁸ Hence, it is possible that the bank increases spreads after the firm leaves the BSU and returns to Branch.

At the same time that banks are contracting their lending, trade creditors are expanding theirs. On average, trade credit tends to *grow* in BSU, between 11.1% and 32.6%, depending on the bank. This growth is concentrated in a minority of firms since the medians are zero for two banks (see Table 5, Panel A). The result is even more dramatic once we split the sample according to the outcome of rescue, rehabilitation or bankruptcy.

In Figure 3, for Bank 2 only we describe the entire distribution of credit flows from the bank and trade creditors to the distressed firm (from $t=1$ to $t=2$). Lending by both the bank and trade creditors is normalised by total debt and trade credit outstanding at the beginning of the rescue period ($t=1$). The sample is sorted according to the resolution of distress, bankruptcy or turnaround. For many firms whose outcome is bankruptcy *i.e.* DRU, the bank manages to contract the amount of lending before the firm enters DRU. In the few cases that lending is increased, the amount is modest (see the truncation of the cloud along the vertical axis). In contrast, trade creditors expand their lending in a large number of cases. In one extreme case the bank contracts credit by an amount equal to the expansion of trade credit (the observation lies

¹⁸ The regressions are available on request.

on the diagonal in the NW quadrant). The implication is that there is a direct transfer of cash from the trade creditors to the bank. In an unreported regression, we find that for every pound the bank has withdrawn the trade creditors have put in 0.87 pounds. The pattern is very different for companies where the outcome is turnaround. In many cases the both bank and trade creditors expand lending, although in a number of cases we observe both parties contracting the amount outstanding.

[Insert Figure 3]

These findings raise two interesting questions. Firstly, what explains the expansion of trade credit during distress, particularly among those firms that end up, eventually, in bankruptcy. We shall deal with this question in the next sub section. Secondly, how do the banks manage to deal so effectively with the threat of strategic default? One answer given by the bank's lending officers in informal conversations is, that debt forgiveness for small to medium size companies is simply 'out of the question'. In other words, the credit officers are prevented from negotiating such concessions. Thus, the absence of debt forgiveness is an outcome of the bureaucratisation of the rescue process.¹⁹ If this explanation is correct, then we might expect to observe some concessions among larger firms, where more senior managers, higher up the bank's hierarchy, make the relevant decisions. A new study by Franks and Sanzhar (2002) on listed companies confirms that banks do forgive debt in a significant proportion of workouts.

6.2 Asset grabbing and creditors' run

The theory that is described in Section 2 predicts that once liquidation rights are concentrated, we should expect no co-ordination failures. The reason is obvious: once the firm is insolvent, if the trade creditors attempt to initiate a liquidation, the floating-charge holder appoints a receiver and realises the company's assets. Even if funds remain after the secured creditor has been repaid, the trade creditors will share them *pro rata*. Hence, the debt structure

¹⁹ A good example is the tax authorities that had a stated policy of refusing debt forgiveness under any circumstances. This has now been altered as a result of an insolvency review.

in our sample of companies does not give rise to creditors runs. This prediction of the model holds remarkably well.

These results are confirmed in a Probit regression that analyses the outcome of the rescue process. The dependent variable receives a value of 1 if the firm is placed in bankruptcy (i.e. in DRU) and 0 otherwise.²⁰ The explanatory variables can be classified into three groups. The first group includes variables such as size or interest rate spreads upon entry to BSU, which are intended to control for *ex ante* firm characteristics. A second group includes variables such as share of (main) bank debt or collateralisation rates, which are intended to control for debt structure. The third group includes variables such as managerial replacement and the evolution of both bank and trade credit, which are intended to capture the actions of major players during rescue.

[insert Tables 6 here]

Under the hypothesis that asset-grabbing by the trade creditors is an important factor in pushing distressed companies into bankruptcy, the growth rate of trade credit during the rescue process (GR-TRADE-1-2) should have a significantly *negative* coefficient. Namely, the greater the contraction of trade credit in BSU, the greater the pressure on the bank to stop the process by initiating a liquidation of its own. This hypothesis is clearly rejected. The coefficient of GR-TRADE-1-2 is always *positive* and significant at better than the 10% level. The results are clearly consistent with a competing hypothesis, according to which repaying trade creditors is a sign of strength and profitability.

Further evidence against the asset-grabbing hypothesis is provided by the very low incidence of winding up-orders, which is the remedy reserved for the unsecured creditors. In the whole sample, in only 11 cases was financial distress triggered by a winding-up order, with 4 being issued by the tax

²⁰ Data availability restricts our analysis to Bank 2 only.

authorities. Additional evidence is provided by the Banks' own description of the cause of distress. Of 109 cases documented by Bank 3, 100 are classified as 'bank initiated' and the rest as 'owner initiated'. There is not a single case where Bank 3 reports that the trade creditors have triggered distress.

As noted above, the absence of creditors' run is consistent with the theory. If there is any surprise in the findings, it is that the theory works so well. However, it is not clear why the trade creditors expand trade credit in BSU, especially in those firms that end up in bankruptcy.²¹ Nor, is it clear why the trade creditors do not begin a run on the firm at an earlier stage, when it is *just solvent*, so as to initiate a liquidation when there is still enough 'money in the pot' to pay everyone, including the trade creditors. Two explanations are possible. Firstly, trade creditors are simply unaware of the firm's distress since the bank's decision to place a firm in BSU is not a public event. Secondly, Cunat (2002) suggests that the high costs of trade credit reported reflect that suppliers lend precisely when banks are not willing to lend. He argues that 'suppliers are more willing to forgive debts and extend the maturity period of their credit when customers experience temporary liquidity shocks that may threaten their survival'. (page 51) The higher costs of trade credit reported by Wilner (1995) and Brealey and Myers (2000), often in excess of 100% annualised, may simply reflect the much higher risks of default.

6.3 Lazy banking

Although we have established that the English system has largely eliminated the problem of the creditors' run through the debt structure, the question remains whether that debt structure encourages 'lazy banking'. Here, the evidence is mixed.

In the extreme, lazy banking means that banks liquidate distressed companies automatically upon the first sign of trouble. We have already observed some evidence against this extreme view: on average, the banks wait

²¹ We are not certain, however, whether it is the old trade creditors who provide additional funding, or is new creditors

5.2 months before sending a company to DRU. There is evidence suggesting that this period is spent on a restructuring effort. In Table 6, we have included a dummy variable for managerial replacement (D-MANGE), which equals 1 if the company replaces its manager in BSU, and 0 otherwise. The negative coefficient indicates that replacement of a senior manager significantly decreases the probability of bankruptcy.²²

At the same time, other evidence points in the opposite direction. As observed in Table 4, the bank's high recovery rates indicates that it does not wait too long before it initiates bankruptcy. A more refined test can be found in Table 6. Lazy banking implies that the probability of bankruptcy is related to the extent to which a bank's loan is covered by its collateral. However, the relationship is unlikely to be monotonic. If the firm has only a small amount of collateral, the 'lazy' option of bankrupting the firm may be of very little value; the bank has more of an equity stake in the firm and therefore has a stronger incentive to bet on recovery. By the same argument, the more collateralised the loan, the stronger is the bank's incentive to force repayment or exercise its bankruptcy option. However, once the value of the collateral exceeds the value of the loan, the bank may bet on recovery and the continuance of a profitable relationship. To test this non-linear effect, we define, in Table 6, a pair of variables: the log of the security coverage ratio $\text{LN}(\text{SCRT1}/\text{MAIN1})$, and a slope dummy D-SLOPE with a breaking point at the value where $\text{SCRT1}/\text{MAIN1}=1$. The coefficients have the right signs, but are not statistically significant.

Lazy banking is associated with automatic liquidation. If liquidation leads to a sale of assets as a going concern, then the economic costs of a premature liquidation should be small. However, if the liquidation involves closure of the business and a piecemeal sale of assets, then the costs of automatic liquidation may be higher. Data on the incidence of going concerns and piecemeal liquidations are not available in the banks' records. However,

²² The firms that replace managers tend to be of above average size. This may be because ownership and control tend to be combined in smaller firms, and replacing a senior manager means giving up ownership, with all the associated private benefits.

we have receivers' reports for a sample of companies from Banks 1 and 2. For Bank 2 we report the proportion of going concerns/liquidations as classified by the receiver. Of the 27 cases, 8 are reported as being sold as 'going concern sales', 8 as 'partial going concerns', with the rest being liquidated. Hence, the proportion sold as going-concern conditional upon receivership is 44%, scoring a partial going concern as one half. The corresponding number for Bank 1 with 20 receiverships is 63.6% going concern sales. These numbers compare with 44% 'going concern receiverships' published in the survey of the Society of Insolvency Practitioners (SPI) for that period.²³ Thorburn (2000) finds that in Sweden 74% of bankrupt companies were auctioned as going concerns. Thus, if the costs of automatic liquidation are lower for companies sold as going concerns in bankruptcy, then the estimated costs of 'lazy banking' may not be as high as high as the raw statistics suggest.

7. Additional Findings

In this section we elaborate on some of the main themes developed in the previous sections. Evidence on litigation sheds further light on the absence of co-ordination failures in the English system. We discuss the direct costs of bankruptcy as illustrating further evidence of lazy banking. We also show opportunistic behaviour by receivers on behalf of banks. Finally, we discuss how the incidence of rebanking provides some evidence on competition between banks.

7.1 Litigation

By and large, bankruptcy in the UK is settled out of court. For all three banks, only one case has been reported where the appointment of a receiver was challenged in court. In that case, the debtor argued that the registration of the debenture was defective and that the bank did not give the company sufficient

²³ In an examination of 27 receivership reports we tried to determine the incidence of going concerns. In some cases, parts of the business were liquidated, while other parts were sold as a going concern. Evidence of trading in receivership could indicate a going concern but might also indicate the completion of an existing contract to be followed by liquidation. A quick sale by the receiver may indicate liquidation or a pre-packaged receivership (analogous to a pre-packaged Chapter 11). Because of the difficulties of interpretation, we relied on the opinions of the manager of the debt recovery unit (DRU).

time to clear its indebtedness. The company's appeal was dismissed.²⁴ Even when 'court supervised' procedures (like winding up) are used, most of the work is done by officers of the court, with little judicial involvement if at all.

The state of affairs in the UK is in stark contrast to the US, particularly in Chapter 11. The differences may originate in the fundamentally different approaches to bankruptcy procedures in the two countries: strict enforcement versus judicial discretion. In the US, the contractual priority of claims is frequently 'abrogated', for example, when super priority finance is raised. Hence appeals to judicial discretion become a vital part of the process, even if only to pre-empt the other party. This is unlike the UK, where the absence of discretion usually provides a low payoff to litigation. Also, Chapter 11 tends to disperse power away from the secured creditors, for example, in the use of non-unanimity rules for different classes of creditors (and debtor) who have a statutory right to vote on any reorganization plan. This complicates further the distressed company's capital structure, making it more difficult to reach out of court settlements in the US. Litigation, by its very nature, is a co-ordination failure, since if lender and borrower could settle out of court they would share a larger pie. As a consequence the same debt structure that prevents a creditors run in the UK, pre-empts litigation.

7.2 Opportunistic behaviour by banks

In this section we present evidence showing that banks use their control rights in receivership to increase their recovery rates at the expense of the 'preferential creditors'.

Under current law, preferential creditors, mainly the tax authorities, are senior to the bank on money recovered from selling assets secured by a floating charge, but junior to the bank on money recovered from selling assets secured by fixed charge. It follows that the bank may increase its overall recovery rate by loading recovery costs onto the floating charge rather than the fixed charge, thereby reducing funds available to preferential creditors.

²⁴ However, that our data may not contain information on litigation where the bank is not directly involved. For example, it may not record litigation against the receiver.

Evidence described below shows that this type of opportunistic behaviour occurs and provides a further illustration of the benefits of control enjoyed by the creditor with the floating charge.

Using 35 receivers' reports supplied by Bank 2, we calculate the hypothetical allocation of costs of receivership to the fixed charge and the floating charge on a pro rata basis, proportional to the value of assets secured by each. We then compare the hypothetical cost allocation with the actual one. The results are striking: with the exception of two cases, the actual allocation is always above the hypothetical one. Out of the 21 cases where the bank's loan is not fully repaid, in 10 cases the bank has allocated sufficient costs to the floating charge so as to wipe out completely any recovery to the preferential creditors. According to our calculations, the reallocation, i.e. the difference between the hypothetical and actual allocation, involves 5.8% of the total value recovered from receivership.²⁵

7.3 The direct cost of bankruptcy

Hart (1995) predicts that lazy banks will not put sufficient effort into minimising the direct costs of liquidation as the extra costs falls on the unsecured creditors (see citation above in Section 2). There is some evidence for these concerns. The direct costs of bankruptcy seem to be relatively high.²⁶ We report medians of 19% to 27% of the total value recovered by the receiver for Banks 1 and 2 (see panel C of Table 4), compared with 19.1% reported by Thornburn (2000) for Swedish auctions of firms of roughly similar size. The results of an OLS regression show that costs in bankruptcy (relative to realisations) are strongly decreasing with the absolute size of the firm, indicating fixed-cost effect.

Other evidence suggests that costs of receivership are high in the UK. A fourth bank (The Royal Bank of Scotland) that is not included in our

²⁵ These findings are consistent with a government report, which stated that "a more active approach to managing preferential debt would be beneficial. The [Government] would be likely to secure increased recoveries of the amounts owed to them"; see The Department of Trade and Industry Redundancy Payments Service: Management and Recovery of Debt. Report by the Comptroller and Auditor General, The Stationary Office, 1996.

sample, has innovated recently a new procedure, intended to decrease costs, requiring that receivers tender for bankruptcy appointments. The Bank has provided us with preliminary results from a sample of 31 receiverships collected in order to study the effects of the new procedure. It shows costs averaging 14.5% as a percentage of total recoveries, which is between one third and one half lower than the costs for receiverships in our sample for Bank 1, after controlling for the size of company.²⁷

7.4 Competition among banks

It is sometimes argued that the floating charge, by its very nature, blocks competition among banks. This is because once a company mortgages its assets to a bank, it is locked into a relationship that is difficult to withdraw from even when a better bargain is offered by another bank. Evidence from our sample is not consistent with this view. We find a significant number of firms switching banking relationships during a period of distress. In Table 1, we report the incidence of rebanking for the three banks: 4.1%, 8.3%, and 24.7%, respectively.²⁸ Hence, even while distressed, it seems possible for a company to obtain a loan from a new bank, pay-off the old one, and re-mortgage its assets. Looking at the history of our sample prior to distress, rebanking appears a common phenomenon: of 186 companies who supplied credit history to Bank 2, 89 have moved from another bank. Of 23 companies that joined Bank 2 in the last two years, 7 have switched from another bank.

Some further conclusions may be drawn on the nature of competition from the different rates of rebanking across the three banks. Whereas Bank 3 tends to end distress by sending firms to bank elsewhere, Bank 1 tends to end distress with formal bankruptcy, Bank 2 being in the middle; (see Table 1). As we have described elsewhere, interest-rate spreads tend to be the lowest in Bank 3, and highest in 1 (see Section 5.3 above). It would appear that Bank 3

²⁶ Costs include the receiver's fees, the costs of selling assets, and legal fees.

²⁷ Costs for assets between £500,000-£1000,000 are 9% for Royal bank of Scotland compared with 19%, for Bank 2, and over 1,000,000 the costs are 7% compared with 16%, respectively.

²⁸ These numbers are lower than the incidence of terminated accounts cited in Table 1. A terminated account may be followed by liquidation, acquisition or rebanking. The latter figures have been calculated after discussions with the banks on individual cases.

has a higher quality of customers, and that it tends to punish low performance by terminating the relationship and sending the company to the lower quality Bank 1.

8. Conclusion

We began this paper with Jensen's proposals advocating a 'privatisation' of the US bankruptcy system. Our study of the UK system has shed some light on the feasibility and desirability of his proposals.

Clearly, the evidence is not sufficient to establish that a contract-driven system performs better than a statutory system such as Chapter 11. Efficiency in bankruptcy is the result of a trade off between conflicting objectives, for example, providing incentives to the firm to service the debt, for the bank not to be lazy and precipitate a premature liquidation, and for the junior creditors not to grab assets in distress and precipitate a run. Establishing that a system is indeed efficient means appraising these effects both qualitatively and quantitatively.

However, this paper does provide a contribution towards a normative evaluation of a contract-driven approach to corporate bankruptcy. The major part of this paper provides a description of how English bankruptcy operates: how debt contracts allocate rights across creditors, how those rights are enforced and how the resulting incentives affect the behaviour of creditors and debtor in distress. The description strongly suggests that the English approach, whether optimal or not, is at least a viable option. Particularly, we found no evidence to support the notion that the contract-driven system is strongly affected by co-ordination failures, or that it creates incentives for banks to liquidate automatically upon the first sign of distress. The evidence casts serious doubts on these propositions.

English bankruptcy procedures can be rationalized as providing the correct incentives to the players who manage financial distress. The evidence shows that the parties in England have found a contractual solution to the asset-grabbing problem. Also, the debt contract and bankruptcy procedures

have been simplified to the point that litigation is rare. At least, along this dimension, the English system clearly outperforms the American system. However, the direct costs of bankruptcy appear relatively high, the main bank takes some advantage of its control rights to load costs on to preferential creditors, and there is some evidence, albeit conflicting, of lazy banking. Whether the English solution is better than the American one is still an open question. However, it is also fair to say that the English approach to bankruptcy, which is to leave matters to the contracting parties, is not *prima facie* flawed.

Appendix 1

Criteria for placing companies in a bank's Business Support Unit

The three banks' criteria for placing a firm in the business support unit are based on a number of measures of distress. Each bank has provided us with a written description of the guidelines to its bank branches. Typically, it consists of an early warning list with three levels of concern: low, medium and high. To be placed on the early warning list, a company may have experienced one or more of the following: difficulty meeting payment obligations, high leverage, unexpected declines in profitability and cash flow. In addition, its bank account will have experienced breaches of covenants, failure to meet interest or repayments, overdrafts in excess of agreed limits and returned checks.

A rating of *low* implies 'caution' about a customer exhibiting some of the unsatisfactory features mentioned above, and although not giving rise to immediate concern, their viability in the medium term may be affected. Such companies are not sent to the BSU but are dealt with at the local branch level. A rating of *medium* implies 'doubt' as to the long term viability of the borrower, but that the borrower can meet its obligations for the next 6-12 months and that the bank is not at risk over this period. *High* implies definite concern. The borrower is at present considered viable for the next six months but any deterioration would result in failure and the bank's loan would be at risk. There is a high probability of some loss to the bank. Companies rated *medium* or high are placed in the Business Support Unit.

References

- Altman, Edward I., and Brooks, Brady., 2001, Explaining aggregate recovery rates on corporate bond defaults, NYU Salomon Center, S-02-3.
- Altman, Edward I., Resti, Andrea., and Sironi, Andrea., 2001, Analyzing and explaining default recovery rates: A report submitted to The International Swaps and Derivative Association.
- Asquith, Paul., Gertner, Robert., and Scharfstein, David., 1994, Anatomy Of Financial Distress: An Examination of Junk-Bond Issuers, Quarterly Journal of Economics August, 625-658.
- Baird, Douglas., (1986), The Uneasy Case for Corporate Reorganizations, Journal of Legal Studies 15, 127-147.
- Berglof, Erik, Gerard Roland, and Ernst Ludwig von Thadden, 1999, Optimal capital structure and bankruptcy law, mimeo, Stockholm School of Economics.
- Berglof, Erik., and Von Thadden, Ernst-Ludwig., 1994, Short-Term versus Long-Term Interests: Capital Structure with Multiple Investors, Quarterly Journal of Economics 109, 1055-1084.
- Biais, Bruno., and Gollier, Christian., 1997, Trade Credit and Credit Rationing, Review of Financial Studies 10, 903-37.
- Bolton, Patrick., and Scharfstein, David., 1996, Optimal Debt Structure and the Number of Creditors, Journal of Political Economy 104, 1-25.
- Cunat, Vicente., 2002, Trade Credit: Suppliers as Debt Collectors and Insurance Providers, unpublished paper, Universitat Pompeu Fabra.
- Davies, Paul (1997). *Gower's Principles of Modern Company Law*. London: Sweet & Maxwell.
- Diamond, D.W., 1984, Financial Intermediation and Delegated Monitoring, Review of Economics Studies, 51-166, 393-414.
- Diamond, D,W. and P.H. Dybvig, 1983, Bank Runs, Deposit Insurance and Liquidity, Journal of Political Economy, 91, 401-19.
- Franks, J. and W. Torous, 1994, How firms fare in workouts and Chapter 11 reorganizations, Journal of Financial Economics, 35, 349-370.
- Franks, Julian and Sergey Sanzhar, 2002, Equity Issues by Distressed Firms, working paper, London Business School.
- Gertner, Robert and David Scharfstein, 1991, Theory of Workouts and the Effects of Reorganization Law, Journal of Finance, 46(4), pp. 1189-1222.

- Gilson, Stuart C., John Kose, and Larry H. P. Lang, 1990, Troubled Debt Restructurings: An Empirical Study of Private Reorganization of Firms in Default, *Journal of Financial Economics*, 27(2), pp. 315-53.
- Gilson, Stuart, 1998, Flagstar Companies, Inc., Harvard Business School, 9-299-038.
- Hart, Oliver, 1995, *Firms Contracts and Financial Structure*, Oxford: Clarendon Press.
- Hart, Oliver and John Moore, 1998, Default and Renegotiation: A Dynamic Model of Debt, *Quarterly Journal of Economics*, 113(1), pp. 1-41.
- Hart, Oliver, 1999, Different Approaches to Bankruptcy, paper presented to the Annual World Bank Conference on Development Economics, Paris, 1999.
- Hotchkiss, Edith, 1995, Postbankruptcy Performance and Management Turnover, *Journal of Finance*, March 50, 3-21.
- Jackson, T, 1986, *The Logic and Limits to Bankruptcy*. Boston: Little, Brown.
- Klapper, Leora and Victor Sulla, 2002, SMEs Around the World: Where do they matter most? World Bank working paper.
- LoPucki, M. Lynn, 1983, The Debtor in Full Control – System Failures Under Chapter 11 of the Bankruptcy Code, *American Bankruptcy Law Journal* 57, 99-126 and 247-273.
- Manove, Michael, Jorge Padilla and Marco Pagano, 2000, Collateral vs. Project Screening: A Model of Lazy Banks, mimeo.
- Peterson, Mitchell A. and Raghuram G. Rajan, 1997, Trade Credit: Theories and Evidence', *Review of Financial Studies*, 10, Fall, 661-692.
- Rajan, Raghuram G., and Andrew Winton, 1995, Covenants and Collateral as incentives to Monitor, *Journal of Finance*, 4 September, 1113-1146.
- Rajan, Raghuram G., and Luigi Zingales, 1995, What do We Know about Capital Structure? Some Evidence from International Data, *Journal of Finance*, December, 50, 1421-1460,
- Ravid, S. Abraham., and Sundgren, Stefan., 1998, The Comparative Efficiency of Small-Firm Bankruptcies: A Study of the US and Finnish Bankruptcy Codes, *Financial Management* 27, Winter, 28-40.

- Stromberg, Per., 2000, Conflicts of Interest and Market Illiquidity in Bankruptcy Auctions: Theory and Tests, *Journal of Finance*, 55 6, 2641-2692.
- Thorburn, Karin, S. 2001, Bankruptcy Auctions: Cost, debt recovery and firm survival, *Journal of Financial Economics*, 58 3, 337-368.
- Webb, David, 1991, "An Economic Evaluation of Insolvency Procedures in the United Kingdom: Does the 1986 Insolvency Act Satisfy the Creditors' Bargain," *Oxford Economic Papers*, pp. 139-157.
- Weiss, L.A., 1990, Bankruptcy Resolution: Direct Costs and Violation of Absolute Priority of Claims, *Journal of Financial Economics*, 27, 285-314.
- Welch, Ivo, 1997, Why is Bank Debt Senior? A Theory of Asymmetry and Claim Based on Influence Costs, *Review of Financial Studies*, 10 4, 1203-1236.

Figure 1
The cycle of financial distress

The figure describes the cycle of distress and sampling procedure. A firm enters the bank's rescue unit (BSU) at $t=1$, and leaves it at $t=2$. Either the firm returns to branch, or is placed in the debt recovery unit (DRU) at $t=3$, which means being placed in a formal bankruptcy procedure.

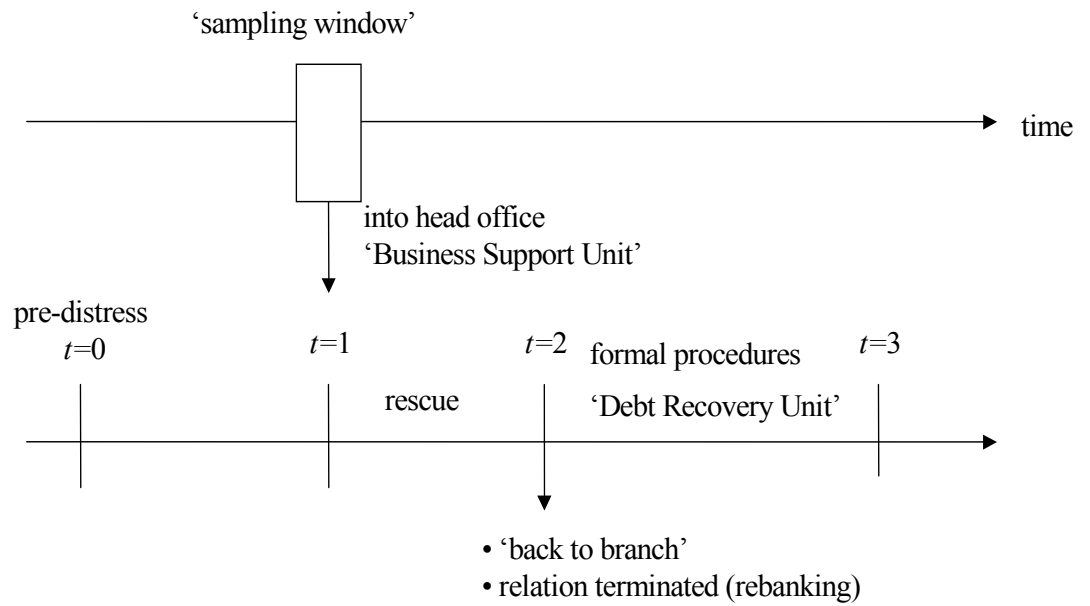


Figure 2

Proportion of firm's debt owed to the main bank and trade creditors for Bank 2.

The figure describes the importance of trade debt and main bank debt expressed as a proportion of total debt outstanding. Firms with total debt above and below £2 million are designated with a triangle and a circle, respectively. The mean main-bank/total debt is 49.0% for the sample, and the mean trade credit/total debt is 37.4%.

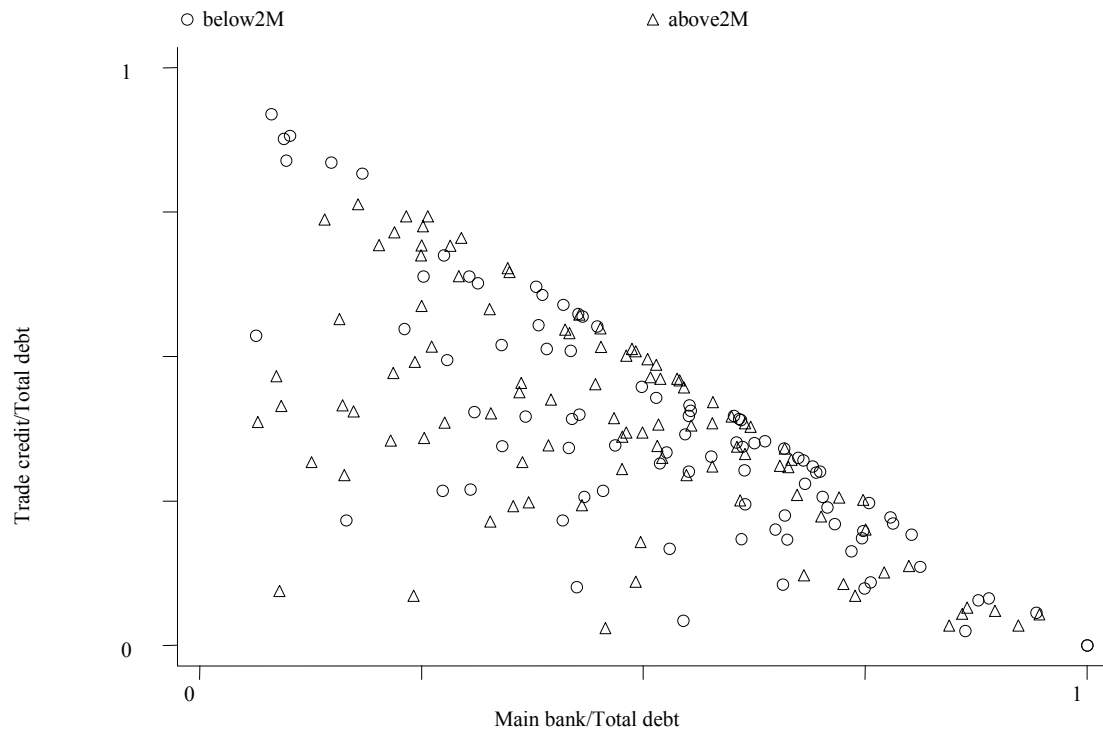
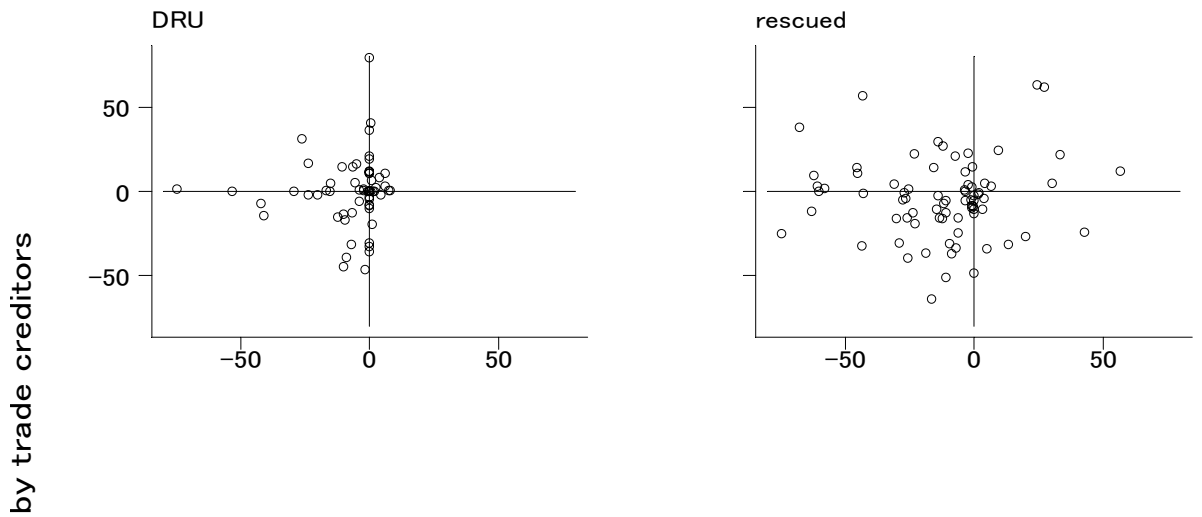


Figure 3

Credit flows, by trade creditors and by the bank for individual firms, sorted by the outcome of the rescue process, for 132 Bank-2 firm: 68 were rescued, 64 that went to DRU. Both flows of credit are normalised by initial ($t=1$) total debt.



by bank
Graphs by resolution in BSU