Social and Human Sciences Review, Batna 1 university Volume: 22. N.1 (June, 2021) pp 591- 604
ISSN: 1111-5149, EISSN: 2588 – 2430

Risk Management and Financial Distress

إدارة المخاطر والعسر المالي

Louardi Kheddouma*, Laboratory: EIERS-ZE (Batna 1 University).
Louardi.kheddouma@univ-batna.dz
Mokhtar Messamah, Laboratory: LEEGA, (Batna 1 University).
Mokhtar.messameh@univ-batna.dz

Received in	06-10-2020	accepted in	10-06-2021

Abstract

Financial distress is a condition in which a company or individual cannot generate revenue or income because it is unable to meet or cannot pay its financial obligations. This is generally due to high fixed expenses (like overhead or salaries), illiquid assets, or revenues sensitive to economic downturns. Firms with rising distress costs not only face potential bankruptcy but also a loss of profitability as management becomes preoccupied with darkening financial picture. Employees show lower productivity as they worry about their jobs; suppliers charge more money upfront for goods and services rather than invoicing or extending credit, and customers search for healthier companies to do business with. In this sense, distress costs can lead to a vicious cycle, deepening the degree of distress. There are methods or techniques that a company can use to reduce its overall risks and these methods are different in nature and efficiency. The success of using any of them depends on certain factors; the main factor is the cost of the technology itself. The cost of hedging against risks must not exceed the expected value of the loss that leads to those specific risks.

Keywords: Risk management, financial distress, bankruptcy, invoicing credit, extending credit.

الملخص:

يتناول هذا البحث كيفية إدارة المخاطر في الشركة التي تعاني الصعوبات المالية حيث لا تستطيع فيها الشركة تحقيق الإيرادات أو الدخل لأنها غير قادرة على الوفاء بالتزاماتها المالية أو لا يمكنها دفعها. ويرجع ذلك عمومًا إلى ارتفاع النفقات الثابتة (مثل النفقات العامة أو الرواتب) أو الأصول غير السائلة أو الإيرادات الحساسة للكساد الاقتصادي.

لا تواجه الشركات ذات تكاليف التي تعاني هذه الحالة إفلاسًا محتملاً فحسب، بل أيضًا تسجيل خسارة محاسبية حيث تنشغل الإدارة بالصورة المالية الخطيرة فينعكس ذلك على أداء الموظفين في صورة إنتاجية المتدنية بسبب القلق بشأن وظائفهم، ويطلب الموردون التسديد المسبق للسلع والخدمات بدلاً من تحرير الفواتير أو التوسع الائتمان، ويبحث العملاء عن شركات أكثر صحة للقيام بأعمال تجارية معها. وبهذا المعنى، يمكن أن تؤدي تكاليف الإضافية الناجمة عن معالجة هذه الوضعية إلى الدخول في دوامة مالية مما يعمق درجة المصاعب المالية. فهناك طرق أو تقنيات يمكن للشركة استخدامها لتقليل مخاطرها الكلية، وهذه الطرق مختلفة في طبيعتها وكفاءتها. يعتمد نجاح استخدام أي منها على عوامل معينة؛ العامل الرئيسي هو تكلفة التقنية نفسها يجب ألا تتجاوز تكلفة التحوط ضد المخاطر القيمة المتوقعة للخسارة التي تؤدي إلى تلك المخاطر المحددة.

الكلمات المتاحية: إدارة المخاطر ؛ الضائقة المالية؛ الإفلاس ؛ فواتير الائتمان ؛ تمديد الائتمان.

* Corresponding author

Introduction

In their paper, (Haugen & Senbet, The Insignificance of Bankruptcy Costs to the Theory of Optimal Capital Structure, 1978) said "Under any case the agents will find their holdings appreciate by the transaction cost". Therefore, the rational behaviour will keep the cost of bankruptcy limited to the lower level of transaction cost incurred in the financial market and the cost incurred through the court system. However we will accept this argument will only be accepted for ·the direct cost of financial distress leading to bankruptcy or liquidation. The indirect cost of bankruptcy will often cause severe harm to many parties.

The indirect costs include the reduction in product demand resulting from customers' fears of future difficulties in servicing increases in the input costs. This often results from the deterioration in the relationship between the firm and its suppliers and the flight of key personnel to other firms. (Altman, 1984) measures the indirect cost as the difference between the actual earning of the firm in each of the three years prior to bankruptcy and the earnings that could have been expected at the beginning of each year.

Some argue that the deterioration of product demand is associated with the fear of bankruptcy, which means that firms with debts in the capital structure will suffer from this reduction in demand even if they are profitable in the short term, whereas those with no debt will not suffer that reduction because they may face liquidation, not bankruptcy. This argument is weak because the consumers 'fears were not a result of debt in capital structure but a lack of profitability. The form of capital structure will influence the decision of whether to go bankrupt, liquidate, or remain in business. Generally, shareholders prefer liquidation if the debt claim is not larger than the liquidating value. The cost of liquidation can be solved by giving the customers a claim on the liquidating value to the extent of their added cost; this can eliminate the moral hazard problem. Some argue that there is a difference between the cost of bankruptcy and the cost of liquidation.

The question of the study:
What kind different methods and technics can the company uses to reduces and avoid financial distress?

Hypotheses:

1- Financial distress could cause potential bankruptcy.
2- Invoicing and extending credit will be the first condition of suppliers.
3- Because of the worry about their jobs, Employees show lower productivity.
4- There are methods or techniques that a company can use to reduce financial distress.
5- When more of the firm's assets are tangible, financial distress is more likely to be resolved.
6- Capital structure plays a key role in the decision to liquidate the firm.

Background of the Study

Management has to use all means necessary to prevent bankruptcy and its agency costs. As a means of security collateral, it is among the best techniques which allow the firm to ensure its financing sources as well as giving the counterparty the guarantee from within the firm itself.

The objective of the Study

The main objective of this study is the identification of the methods and techniques that can be used by the company to face the risk of financial distress. These methods and techniques must take into account the financial capacity of the firm, and should be less cost than the financial effects that may result from financial distress.

The Importance of the Study

The importance of the study lies in the fact that financial distress is the most dangerous effect the company can face, which can lead to the bankruptcy and the costly financial implications of bankruptcy. Moreover, the study seeks to find methods and mechanisms that enable the company to manage these risks and reduce their effects.

The Methodology Used in this Study

In this study, the descriptive approach is used because the study is a theoretical research that seeks to review the financial methods and techniques which can be used by the firm to manage risks arising from financial distress.

Total Risk

The value of the firm is equal to its expected future cash flows, which were discounted at an appropriate interest rate. The key question here is: what is the appropriate interest rate? According to CAPM, sophisticated investors require a high rate of return on securities, thus imposing greater risk. Such investors risk premiums only for bearing systematic risk because they diversify the unsystematic risk by holding portfolio of different assets.

Systematic risk is measured by the sensitivity of market prices to a number of factors, such as change in interest rate, unexpected fluctuations in GNP growth, and changes in inflation.

In finance theory, total risk may not affect investors required returns because they are not concerned with the total variability of the firm's cash flows, which is the total risk. However, they are concerned with the variability of those flows with the performance of the economy as a whole.

Recent arguments have appeared which state that if a huge unsystematic risk is not removed, the value of the firm will be substantially reduced.

Diversifiable risks might not raise the discount rate, but they can lower the expected cash flow, therefore reducing total risks, which can increase the expected cash flow and, therefore, leads to an increase in the value of the firm since it is equal to its expected cash flows discounted at an appropriate interest rate. In this case, corporate hedging makes sense.

Total risk can lower expected cash flows since firms with higher total risks are more likely to disrupt the operating side of the business, thus reducing the level of future operating cash flows.

Financial distress will increase the incentives of management that conflict with other parties who do business with the company; this of course will affect sales and operating costs because of the risk aversion of customers, managers, employees and suppliers. In addition, these consequences vary according to the firm's earning capacity and will affect their ability to take full advantage of tax credits and write offs.

Effects of Financial Distress

Management incentive is affected by financial distress in three ways:

(a): Taking high-risk investment. A number of finance theorists (e.g. Michael Jensen and William Meckling- Stewart Myers - Dan Galai Ron Masulis) demonstrated that if bankruptcy is likely to happen, stockholders have the incentive to invest in risky projects even with negative NPV. This is because they enjoy most of the gains from the upside potential whereas the bondholders bear most of the downside risk form these investments.

(b): Sheridan (Titman, 1984) in his paper "**Effects of capital structure on a firm's liquidation decision**" argued that capital structure has an important impact on the firm's liquidation decision because managers, as representative of the stockholders, choose not to liquidate the firm to protect the stockholders and their personal interest such as losing their jobs. This can take place in the earlier stages of financial distress. The firm is controlled by wealth maximizing equity holders as long as the firm is not bankrupt. If the firm becomes bankrupt control

passes to its bondholders who seek to maximize their wealth, therefore they exert increasing influence on the management's decisions because they prefer liquidation of the firm.

(Haugen & Senbet, The Insignificance of Bankruptcy Costs to the Theory of Optimal Capital Structure, 1978) argued that the stockholders have a strong preference for continuing to operate since the firm they have is the lowest priority claim to the liquidation proceeds. Bondholders tend to prefer liquidation since they have the highest priority to the liquidation proceeds.

It can be concluded that the relationship between capital structure and liquidation is straightforward.

(c): Stockholders and management have a strong incentive to avoid bankruptcy and liquidation. They may act under the threat of distress and lower their quality of products and services in order to lower the costs of products and services to achieve higher cash flows. They may also reduce some safety measures of their employees, they may cut research and development, advertising, and promotional expenditures, they may also consider cuts in various forms of working capital like inventories and receivables.

Producing higher quality and providing safety measures to the employees and more research and development are considered as long-term benefits of the firm, but firms with financial distress are seeking short-term objectives, which enable them to avoid bankruptcy.

All these changes in the management's incentive will be anticipated by different parties when doing business with the company and they will react according to their interests. These reactions could affect the sales of the firm and then its value.

Effects on Sales

Producing low quality products will affect the attitude of potential customers towards the firm, and the problem will be severe in case firms produce differentiated products, need after purchasing services where customers become concerned about assured supply. In some industries and financial services, the cost of financial distress can destroy the value of the firm completely; the example of this is what happened to Drexel Burnham Lambert.

In the case of going out of business, the price of spare parts often increases because of the drop in quantity, and the same argument can be drawn for specialized training and equipment. (Shapiro & Titman, An integrated approach to corporate risk management, 1986) argued that reducing the likelihood of bankruptcy will provide the firm with greater assurance to potential

customers in that the company will be around in the future to service and upgrade its products.

To be sure that suppliers do not change and shift to other firm's competitors, the firm has to present a low risk image. The importance of this position increases in the case where the suppliers provide complementary products or services that add value to the firm's product. The importance of showing a low risk image of the company can lead to diversification among suppliers in order to reduce disruption in operations in the event that any supplier is unable to meet its commitments.

Risky firms become the victim of the customer's loss of confidence. Sales decrease to the same degree as the firm's riskiness, because the remaining customers will reduce the price they are willing to pay for the firm's products by an amount equal to their expected damages.

Consequently, both the volume and the value of sales will be affected by the total risk; the result of declining sales affects the ability to take advantage of economies of scale, which lead to less competitiveness.

To conclude, risk can accelerate the process of bankruptcy or liquidation.

Effects on Operating Cost

Firms which struggle because of financial distress or are threatened by bankruptcy are unlikely to find suppliers bending over backwards to provide them with products or services, therefore, the operating cost may increase. Consequently, the firm will struggle to find other sources of production factors. The investment in the long run will depend on whether the firm's customers expect the firm to survive or not. Whenever the likelihood of bankruptcy is higher, this will increase prices of less-closely-tailored- services and products. Higher risk firms have no easier time attracting and retaining good personnel, and they may lose key employees or have to increase their salary to keep them from abandoning the company. In his paper, (Gilson, Bankruptcy, boards, banks, and blockholders: Evidence on changes in corporate ownership and control when firms default, 1990) found that only 46% of incumbent directors and 43% of CEOs (chief executive officer) remain with their firms at the conclusion of the bankruptcy or debt restructuring. It was found that directors who resign from financially destroyed firms subsequently serve of fewer boards of other companies.

The cost of capital may increase because of suppliers' refusing to supply the firm in favourable credit terms.

Effects on Financing Costs

The problem of the firm's creditors is very sensitive; the company which intends to remain in its current business has to have a good credit reputation. A

good credit reputation is lower for firms facing financial distress. Some may mistreat creditors by borrowing money under false pretences in order to delay the onset of bankruptcy. As a result, creditors will understand this change in incentive. Therefore, those firms will find it very difficult to borrow, even if a firm facing financial distress in tends to be conscientious in dealing with its creditors, it will have difficulties in assuring them of its intentions. These kinds of firms will find difficulties in using trade credits, which is the most preferable. The alternative sources are very costly in terms of the variety of transaction costs imposed on them. It was mentioned that the firm's cash flows may be affected by financial distress, and then the variability of cash flows will affect the firm's ability of borrowing.

Shareholders have the incentive to select high-risk projects which increase their wealth by reducing the value of the firm's liability, whereas bondholders share in down side loses.

From this argument, credit suppliers will ask for high compensation for financing risky projects, this compensation will be in terms of higher interest rate and other guarantees because of this situation firms which cannot meet their obligation towards its old creditors; therefore, the firm will borrow more to meet them, and this could lead firm to forgo attractive projects, especially if the alternative is an equity issuer enquiring disclosure of valuable information to competitors.

To resolve the problem of financial distress, the firm can choose between bankruptcy and private negotiation with the creditors. The choice is between these two options and depends on these factors:

1) - Both stockholders and creditors will collectively benefit from solving the problem out of court when the negotiation cost is less than the bankruptcy cost. Consequently, the incentive to solve the problem of financial distress out of court increases with the potential size of the costs saved.

2) - The share of cost saving between stockholders and creditors plays a major role in solving the problem out of the court.

In his research paper (Gilson, Bankruptcy, boards, banks, and blockholders: Evidence on changes in corporate ownership and control when firms default, 1990)he examined 169 troubled companies and found that 50% of these companies have succeeded in restructuring their debts out of court. He said that when more of the company's assets are tangible, financial distress is likely to be resolved through private negotiations, and more debt to banks is relatively.

Private negotiations are unlikely to be successful where there are more privileged categories of outstanding debt due to the struggle to share the cost of financial distress.

Stock returns indicate that the market is able to determine which companies are most likely to be successful in privately negotiating debt

restructuring, as the cumulative stock return is higher when the debt restructuring is performed specifically.

Jensen argued that companies with relatively higher debt stocks would default sooner if poorly managed. (Jensen M. C., 1979).

It can be concluded that relatively high value companies are more likely to restructure their debt, especially because more of that value tends to be lost for various reasons, including those related to the sale of assets.

Risk Aversion

The value of the firm is reduced by the total risk either if the firm is debt-equity financed or 100% equity" financed. The employees are anxious about their future; therefore, riskier firms must pay them more to induce them to commit their human capital to the firm.

The anxiety of the employees added to those of external parties such as suppliers, customers, and distributors will increase the pressure on management to act to compensate them for bearing added risk. As a result, higher total risk increases the cost of maintaining the survival of the organisation.

Collateral as a Security

Collaterals are provided by the firm as security for loan agreement. Securing debt by collateral gives the bondholders titles to pledged assets until the bonds are paid in full. Thus when secured debt is issued, the firm cannot dispose of the pledged assets without first obtaining permission of the bondholders.

Collateral will not change the value of the firm if the firm's policy of investment is constant or if the managers have an incentive towards maximising the value of the firm.

Collateral and agency cost

Conflict between bondholders and stockholders can be reduced by using collateral. Specifically, pledging collateral may lower a firm's total cost of debt by:

1) Preventing asset substitution.

2) Reducing foreclosure costs.

3) Limiting claim dilution.

4) Mitigating the underinvestment problem.

(Smith Jr. & Warner, 1979), (Smith Jr. & Warner, Bankruptcy, secured debt, and optimal capital structure: Comment, 1979), (Stulz & Johnson, 1985)

Preventing asset substitution

if the management wants to substitute high-risk projects for low-risk projects, bondholders are in a strong position to oppose this in appropriate behaviour of management, because the bondholders have legal recourse to recover collateral and call the debt in this case. (E.g., UNIFORM COMMERCIAL CODE).

The same code provides that a security interest in collateral continues after sale, exchange, or other disposition unless authorized by the lender. This privilege will lower the price which can be paid for the equipment and other pledged property; and therefore makes asset substitution more difficult.

Reducing foreclosure cost

a collateral provision also reduces debt expense by assuring the lender title to specific assets in case of default.

During bankruptcy proceeding, secured debts eliminate free riders and holdout problems, and so lower ex post foreclosure costs.

By setting the question of how the firm's assets will be divided among the various claimants in the event of bankruptcy, a collateral provision allows a firm to substitute higher initial negotiation costs for lower expected future renegotiation.

Limiting claim dilution

to prevent the issuing of more debts by borrowers, which transfers wealth from existing debt holders to stockholders, bondholders will either price their debt to reflect the risk associated with the added debt or reduce the risk with covenants restricting future financing. This allows them to monitor loan agreement compliance and enforce borrowing restrictions; a collateral provision reduces these enforcement costs by permitting a lender to foreclose on specified assets if the borrower violates any bond covenant. A collateral provision ensures the lender title to pledged assets at the event of bankruptcy; therefore, it limits some aspects of claim dilution.

Mitigating the underinvestment problem

In some cases, the firm will reject profitable investment projects when only equity or unsecured debt financing is available.

Using a security provision, new assets (new projects) will support the new debt in the event of bankruptcy, reducing the gains to existing creditors. Since the new debt will be priced to reflect the situation of the company shareholders, it will capture the payoffs by diverting them away from the existing debt holders (unsecured debt). Consequently, secured debt raises the value of any new project to shareholders and reduces the chance that they will reject positive NPV projects.

Factors increasing the use of secured debt

1) Probability of default

the value of secured debt increases with the possibility of default because the contract rate of interest on debt compensates lenders for expected bankruptcy costs. Thus, the high chance of default magnifies the interest rate reduction that results from lowering foreclosure expenses. Moreover, collateral requirements can be explained as a response to imperfect information that may serve to reveal information about the default risk of loan applicants.

High-risk borrowers can be identified because they prefer loan contracts with lower collateral and higher interest rates.

2) The size of the firm

Small businesses should use secured debt because they are more likely to go into liquidation than large businesses. This argument can be explained by the fact that small businesses have a greater chance of liquidation due to the sale of their assets; Bankruptcy is often more common in small businesses than in large companies.

3) Percentage of specialized assets

As the value of the company's highly specialized assets is greater than its market value, it is unlikely that the company will replace the high-risk project with a low-risk project and, therefore, borrowers need to offer security less frequently than other businesses

4) The time of maturity

The transfer of wealth on short-term debt is relatively small, as the transfer of wealth from new creditors to shareholders by replacing high-risk projects with low-risk projects takes much longer. Therefore, short-term loans reduce the incentives to replace assets. Thus, short-term creditors will rely heavily on the reputation of the company, which is relatively cheap and efficient, while long-term creditors will rely on more expensive linkage mechanisms such as providing collateral.

The maturity of the loan may increase the collateralization due to the higher probability of default on long-term loans.

5) The size of the loan

the cost of monitoring the collateral can exceed the revenue from secured debt if the size of the loan is small. As loan rises secured debt will become more economical for the creditor and collateral will become useful even for the applicant because use of collateral reduce the interest rate and

with the big size of the loan, the cost of borrowing will be reduced at minimum level.

Risks Facing Foreign Investment

The risks facing foreign investments can be broken into two sections:

1) Economic risks: the economic risks are divided into three sections according to their nature.

1.1: Economic exposure: it is related to the change in value due to changes in the future operating cash flows because of the unexpected change in exchange rate. Change in the value depends on the effect on the exchange on the future sales, volume, and costs.

1.2: Transaction exposure: it is related to the change in value of outstanding financial obligations incurred prior to a change in exchange rates but not due to beset tiled until after the exchange rate changes in cash flows that resulted from existing business obligations.

1.3: Translation exposure: (sometimes called accounting exposure). This exposure is change in equity that resulted from the need to translate foreign currency financial statements of affiliates into a single reporting currency consolidated financial statements.

2) Political risk: the source of political risk is due to the political events, which occur in the host country or changes in political relationship between the host country and the home country; in other words, it is a conflict of objectives between host country and the multinational firm.

The risk can take the form of some constraints imposed up on the firm by the host government and the extreme case of these risks is expropriation.

To minimize political risks, multinational firms must seek ways to be in a good bargaining position with the host's country government.

Another measure, which can be taken, is to turn to the home-country's political risk-insuring agency.

For example, the OPIC [Overseas Private Insurance Corporation] gives insurance to American firms operating abroad. Some risk-reducing policies can be undertaken in the areas of production and logistics, marketing, financial, organisational, and personal policies. To reduce political risk, multinational firm may withdraw the maximum amount of cash from the local operation and this can be achieved by:

2.1: deferring maintenance expenditure.

2.2: cutting investment to the minimum necessary to sustain the desired level of production.

2.3: curtaining marketing expenditure.

2.4: producing low-quality merchandise.

2.5: setting high price.

2.6: eliminate training programs.

None of these policies will guarantee that firm will be in business for a long term.

There is another strategy that can be undertaken by the firm to minimize the political risk; this strategy is to try to achieve some of the host government objectives for example:

a) Establishing local research and development facilities.

b) Developing export markets.

c) Expanding production facilities.

d) Training local workers and managers.

e) Manufacturing products as substitutes for imports.

The strategy that seems most positive is the one, which cultivates local individuals and groups who have a stake in the firm's continued existence. These groups according to (Shapiro, Multinational financial management, 1986) are; consumers, suppliers, the subsidiary's local bankers, and joint venture partners.

Summary and Conclusion

Financial distress can be very harmful not only to the firm but also to many other parties such as suppliers, customers, creditors, and employees. Financial distress can cause the firm to restructures debts with creditors out of the court; otherwise, they may have to liquidate or declare bankruptcy. Some techniques which can be used to prevent financial distress in its early stages are: financial methods and real methods, which have been already discussed. The empirical work showed that when more of the firm's assets are tangible, financial distress is more likely to be resolved through private negotiation. Capital structure plays a key role in the decision to liquidate the firm. The conclusion is that management has to use all means necessary to prevent bankruptcy and its agency costs. As a means of security collateral, it is among the best techniques which allow the firm to ensure its financing sources as well as giving the counterparty the guarantee from within the firm itself. However, there are problems associated with the use of these kinds of techniques.

Bibliography

1. Altman, E. I. (1984, Septembre). A Further Empirical Investigation of the Bankruptcy Cost Question. *The Journal of Finance* (04), p. 39.
2. Bodie, Z. (1990). Pension funds and financial innovation. *Financial Management* , pp. 11-22.
3. Gilson, S. C. (1990, October). Bankruptcy, boards, banks, and blockholders: Evidence on changes in corporate ownership and control when firms default. *Journal of Financial Economics, 27* (02), pp. 355-387.
4. Gilson, S. C., John, K., & Lang, L. H. (1990, October). Troubled debt restructurings: An empirical study of private reorganization of firms in default. *Journal of Financial Economics, 27* (02), pp. 315-353.
5. Haugen, R. A., & Senbet, L. W. (1988). Bankruptcy and agency costs: Their significance to the theory of optimal capital structure. *Journal of Financial and Quantitative Analysis* , pp. 27-38.
6. Haugen, R. A., & Senbet, L. W. (1981). Resolving the agency problems of external capital through options. *The Journal of Finance, 36* (03), pp. 629-647.
7. Haugen, R. A., & Senbet, L. W. (1978, May). The Insignificance of Bankruptcy Costs to the Theory of Optimal Capital Structure. *The Journal of Finance, 32* (02), pp. 383-393.
8. Jensen, M. C. (1979, sprinter). The theory of the firm: Managerial behavior, Agency costs, and ownership structure. *Economics social institutions* , pp. 163-231.
9. Shapiro, A. C., & Titman, S. (1986). An integrated approach to corporate risk management. *The revolution in corporate finance, 3*, pp. 251-265.
10. Smith Jr., C. W., & Warner, J. B. (1979). On financial contracting: An analysis of bond covenants. *Journal of financial economics, 07* (02), pp. 117-161.
11. Smith Jr., C. W., Smithson, C. W., & Wilford, D. S. (1990). *Managing Harper & Financial Risk.* New York: Harper & Row.
12. Smith, D. J., & Taggart Jr, R. A. (1989). Bond market innovations and financial intermediation. *Business Horizons, 32* (06), pp. 24-34.
13. Stulz, R., & Johnson, H. (1985, December). An analysis of secured debt. *Journal of financial Economics, 14* (04), pp. 501-521.

14. Titman, S. (1984). The effect of capital structure on a firm's liquidation decision. *Journal of financial economics, 13* (01), pp. 137-151.

15. Varma, R., & Chambers, D. R. (1990). Journal of Financial Economics. *Journal of Financial Economics, 26* (02), pp. 289-298.

16. Weiss, L. A. (1990). Bankruptcy resolution: Direct costs and violation of priority of claims. *Journal of Financial Economics, 27* (02), pp. 285-314.