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ESSAYS ON CORPORATE DEFAULT PROCESS: UK AND FRANCE

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Table of Contents

Chapter 5

Chapter 6

List of Tables

List of Figures

List of Graphs

CHAPTER 1

Introduction

INTRODUCTION

1.1. Introduction

"…the time has come to make changes which will tip the balance firmly in favour of collective insolvency proceedings—proceedings in which all creditors participate, under which a duty is owed to all creditors and in which all creditors may look to an office holder for an account of his dealings with the company's assets." [1]

Recent years have witnessed a phenomenal increase in the frequency of corporate bankruptcies. The vulnerabilities which were lying dormant within contemporary bankruptcy regimes suddenly became apparent[2], causing concerns within the international corporate community. Ever since, industrial economies have demonstrated a rising interest in bankruptcy research fueled with the objectives of reforming their legal framework for the proliferation of an adequate and efficient bankruptcy regime to mitigate the existing flaws within the system. Consequently, corporate bankruptcy has emerged as a captivating subject of interest for academics as well as the corporate world and governmental policy makers.

The need for efficient procedures becomes imperative as bankruptcy does not only affect the debtor's company but causes severe damage to a lot of people directly (creditors, employees, shareholders) or indirectly (society, town, country) associated with it.[3] Soon after the East Asian crisis of 1997, international community and World Bank got concerned about the inefficiencies of bankruptcy laws in many countries[4]. Consequently, it set out a series of principles to provide benchmarks for examining the effectiveness and adequacy of bankruptcy laws under a wide range of jurisdictions further categorized into

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[1] Productivity and Enterprise: Insolvency—A Second Chance Cm 5234 (London: HMSO, 2001), para.2.5.

[2] In 2001, Enron appealed for protection under bankruptcy laws of US which also turned out to be the biggest bankruptcy filing and corporate fraud of that era. This brought out the vulnerabilites of the coprporate practices prevalent at that time and also inspired the creation of the Sarbanes–Oxley Act of 2002 which lays down specific mandates and requirements for financial reporting. This bill was enacted as a reaction to a number of major corporate (Tyco International, Adelphia, Peregrine Systems and WorldCom) and accounting malpractices

[3] The bankruptcies of chained small sized enterprises can result in a "domino effect" where the trade suppliers can fall into the realms of insolvency due to the failure of closely associated enterprise.

[4] See., B Eichengreen, Toward a New International Financial Architecture: A Practical Post Asia Agenda, (Institute for International Economics Washington, D.C. 1999), p28-30.

different legal orientations. In terms of formal rescue proceedings, the principles designed by the World Bank stipulate that:

"The system should promote quick and easy access to the proceedings, assure timely and efficient administration of the proceedings, afford sufficient protection for all those involved in the proceedings, provide a structure that encourages fair negotiation of a commercial plan, and provides for approval of the plan by an appropriate majority of creditors."[5]

These principles are in coherence with the legislative guidelines on insolvency law set by UNICTRAL.[6] However, these principles merely provide a framework and recommendations. However, it should be kept in mind that the 'one size fits all' approach cannot be considered appropriate for countries belonging to different jurisdictions.[7]

Since the World War II, almost ninety countries have reformed their bankruptcy laws and half of them have done it in the last decade. The success of these reforms depends on the design of its bankruptcy code and how successfully it has been implemented in a given country.[8] Most of the reforms were constituted with the aim of maximizing the value of the firm. Economic growth requires that old and obsolete activities should be phased out and room for new ones should be made, so that the economic resources are reallocated from activities that are no longer profitable to the more productive ones[9] and thereby resulting in overall growth of the economy. Joseph Schumpeter was one of the first economists, who considered failure as the key component of economic analysis. According to him, *"economic growth results from a creative destruction process where obsolescent companies go bankrupt replaced by companies whose founders have designed new products corresponding to consumers tastes,"* (Schumpeter, 1912). Here bankruptcy

[5] The World Bank, United Nations Commission on International Trade Law (UNCITRAL), Legislative Guide on Insolvency Law, 2004, p217-230.
[6] For more details, see UNCITRAL, above n.3, p209.
[7] K Gromek Broc and R Parry (eds), Corporate Rescue: An Overview of Recent Developments from Selected Countries (2nd edition, Kluwer Law International, 2006), p7.
[8] Claessens, S., et al., 2001; Franks and Loranth, 2005; Hart, 2000 and World Bank, 2004, 2005, 2006
[9] By allowing efficient firms to continue and eliminating inefficient firms (White, 1989)

is seen as a creative process, which helps an economy in getting rid of obsolete activities and in the process fosters economic growth.

In recent times, almost every country of the world seems to have incorporated at least two basic formal processes for dealing with corporate debt recovery: Liquidation and Reorganization. Liquidation is primarily aimed at termination of inefficient firms while reorganization is concerned with ameliorating the financial distress situation of efficient firms and supporting their revival. Besides formal procedures of resolving distress, there are private workouts also which have registered very high success rates in some economies (Hoshi, Kashyap and Schwarstein, 1990). In the midst of all these prevalent procedures, it is inherent to comprehend that under legislation, the notion of efficacy may differ. Some countries focus on the rights of creditors (hard laws) enabling quick liquidations while others give freedom to the debtors (soft laws) to continue management of business even after default and stress on the need for continuation in order to keep employment intact and preservation of social objectives. Whatever be the orientation of law (creditor friendly or debtor friendly), a good insolvency regime should be able to delicately balance between the rights of creditors and the debtors. By providing automatic stay on the assets, it provides breathing space to the debtors to rethink their strategy and formulate a rescue plan and at the same time it should provide voting rights to the creditors for approving the plan.

Governance of firms also varies with the orientation of law. In a debtor friendly country, management retains control of business while in a creditor-friendly country management is replaced by an insolvency practitioner. Whereas, in some countries management is retained but it is closely supervised by court appointed officials. Lastly, the rights of unsecured creditors (trade suppliers of raw materials, goods and services) are poorly protected in almost all the countries. They hardly receive anything out of bankruptcy even though their contribution is necessary for the efficient functioning of the firm. Thus, we can see how the orientation of law can affect the lives of the stakeholders.

The growing literature in law and finance[10] has investigated the differences between legal origins especially the difference between common law and civil law and their impact on economic performance. Their studies established the supremacy of common law countries over civil law countries by analyzing the set of creditor rights in bankruptcy proceedings across a cross country comparison[11]. According to these studies, it was established that creditors' rights are best protected in countries representing common law and are worst protected in countries representing civil law especially French civil law system. Indeed, common law countries were seen to provide best and the most efficient bankruptcy laws. But, these studies have often restricted themselves to a weak description of bankruptcy laws: either through a basic opposition between "creditor friendly" and "debtor friendly" approaches or with a non comprehensive computation of very few indexes (four in LLSV and Doing Business Report, World Bank), which is clearly insufficient given the complexity of individual legislations and also the number of rival procedures existent in each given country. However, these approaches did not consider the dynamics of bankruptcy laws in each country and were rather restricted to a biased and incomplete view.

This thesis is formulated upon a thorough exploration of bankruptcy laws of two major European countries, UK and France, which are representatives of the two main legal systems prevailing in Europe: Common Law and Civil Law. The key objective is to identify the factors (legal) that facilitate in increasing efficiency of bankruptcy procedures in both countries. As rightly marked by Finch (2002), "the main objective of a rescue regime is not only to satisfy the interests of the stakeholders but also maximize the economic life of the community and provide social stability".

1.2. Research Objectives and the Reason Why We Chose UK and France?

Europe is often identified by bankruptcy laws which favour creditors more than the debtors. It was especially true for the countries like UK, Netherlands and Germany (Wood,

[10] The law and finance theory can be traced back to two seminal and widely cited paper by LaPorta, Lopez-de Silanes, Shleifer and Vishny (1998, 1999, henceforth LLSV).
[11] See., LLSV, Davydenko and Franks, 2007, Classens and Klapper, 2005; Djankov et al, 2008

1995). It was only recently that many countries (UK, Germany, France, Spain, Netherlands...) in Europe reformed their bankruptcy laws making them slightly more inclined towards debtors. The main aim behind such reforms was to promote a culture of corporate rescue and enable the firms to survive bankruptcies. In this dissertation, we focus our attention on France and the United-Kingdom, two countries which represent the two major legal systems prevailing in Europe: Common Law and Civil Law. These systems are believed to be in total contrast with one another with respect to their approaches towards distress resolution

We investigate the theoretical, practical and legal perspectives of insolvency regimes prevalent in these two countries. The main objective of the dissertation is to study the two countries in detail and present the factors that can determine the choice of favouring a particular bankruptcy procedure within a given country and the legal determinants for increasing efficiency (recovery rate) in both the countries. We also aim to identify similarities and differences between the French and English legislations (bankruptcy) and to explore and highlight the underlying factors specific to each regime while at the same time examining the shortcomings and flaws so that in future it could be structured adequately and can become a pioneer for other developing countries looking for reforming their bankruptcy laws.

The widespread acceptance of their (UK and France) legal system in other jurisdictions makes them undoubtedly an optimum object for research. France is characterized by a highly debtor oriented system where debtor rights are given precedence over creditor rights and social objectives ranked higher than financial goals. The primary objective of such a regime is to promote continuation[12] and preserve employment.

France is identified as the only country which exhibits significant similarities to Chapter 11 of US bankruptcy code. France provides strong protection to its businesses and

[12] Yet, this trend does not mean the number of continuations is getting higher, compared to liquidations. On the contrary, in UK, Germany, and France, bankruptcy procedures end up with liquidation in more than 90% of cases. However, the quite recent change in the objectives of national laws means the institutional environment of default is evolving, which may finally affect the strategies, taking place in or out bankruptcy.

explicitly states it in its objectives. It aims for continuation of operations and preserving employment. It provides an automatic stay on all creditor actions and also provides superpriority status to post petition financing. French bankruptcy system provides strong protection to distressed businesses through its formal reorganization procedure, "*redressement judiciaire"*. For over twenty years, since the act of 1985, the focus of reforms has increasingly been on the avoidance of corporate failures and promotion of continuations. Additionally, in France, the decision making power is mainly in the hands of the judiciary: there is no voting procedure or veto power for stakeholders. The commercial court has genuine enforcement power during the collective process and is responsible for the adoption of reorganization plan which is in total contrast to many other European countries (see the Finish case studied by Bergtröm, Eisenberg, and Sundgren (2004)). In addition, French legislation offers the stakeholders a specific procedure dedicated to sales as a going concern and as an alternative way of continuing activity.[13] Lastly, the French bankruptcy law has inspired numerous countries in Europe (Belgium, Luxembourg) and in developing countries (Africa) so it will interesting to study the features of a country, whose legislation has been a source of inspiration for other legislations.

UK provides a good opportunity for studying bankruptcy laws. It is often referred to as the country best for creditors as it protects the interests of its creditors. In addition, UK was among the first countries to incorporate rescue mechanisms (administrations and CVA) in its insolvency system. While most of the countries offer a single formal rescue mechanism[14], UK provides a menu of rescue procedures. For instance, small sized companies facing imminent financial problems can seek protection under CVA.[15] Schemes of arrangement under Part 26 of the Companies Act have proved beneficial for the rehabilitation of large public companies.[16] In addition, all financially distressed firms can

[13] Since 2006, the sale as a going concern is viewed as a liquidation procedure. However, in our view, sales protect more employment than pure liquidations, as a part of the job positions is preserved through sales.

[14] Such as the US Chapter 11, the Australian Part 5.3 A of the Corporations Law and the Canadian Bankruptcy and Insolvency Act 1992

[15] NR Pandit, GA Cook, D Milman and FC Chittenden, "Corporate rescue: Empirical evidence on company voluntary arrangements and small firms" (2000) 7 Journal of Small Business and Enterprise Development 241; especially after the Insolvency Act 2000 that provides small firms temporary moratorium.

[16] J Townsend, "Schemes of Arrangement and the Asbestos Litigation: In Re Cape Plc" (2007) 70 MLR 837.

file petition for the initiation of the administration procedure irrespective of their size. This provides them with a chance for restructuring and revival[17].

Over the past few years, UK legislation has been exhibiting a rising inclination towards the creditors. With the Enterprise Act of 2002, receivership (a mechanism where secured creditors benefitted the most out of their exclusive rights and positioning) was abolished. Reforms were made to increase the likelihood of continuation and to provide level playing field to all the creditors including the unsecured ones.

Presence of hybrid features (creditor friendly and rescue mechanisms) makes UK a very interesting country for research. It is often seen as the pioneer in the field of efficiency of bankruptcy laws and thus can serve as a benchmark for those countries adopting or reforming their bankruptcy laws[18].

In the preceding text, we disseminated the legal specificities of both the countries (UK and France). Now, we elucidate on the primary reasons as to why these two countries have gained such international exposure within the framework of bankruptcy research. These countries are regularly assessed internationally by the World Bank and other esteemed institutions. Besides, they interest the academics from all over the World who are interested in cross country comparisons on the basis of different legal orientations. La Porta et al. (1998) studied the creditor rights across various countries; they obtain a score of 0 for France, 3 for Germany and 4 the best for UK. The Doing Business Report (2010) places UK in the 9th percentile in its closing of business report. This is a very high ranking if compared to countries like Germany and France which are placed in 35th and 42nd quartile respectively.

Now the questions that the academics should address are: how can we explain the differences between the rankings of the two countries (UK and France)? Are these

[17] For more details about administration regime, see R Mokal, Corporate Insolvency Law: Theory and Application (OUP, Oxford, 2005), p225.

[18] South Africa, Italy, Australia, Hong Kong (China), New Zealand and so on. For more details, see the P Lewis, "Corporate Rescue Law in the United States", in K Gromek Broc and R Parry (eds), Corporate Rescue: An Overview of Recent Developments from Selected countries (2nd edition, Kluwer Law International, 2006)

differences relevant and realistic or do we need to explore and conduct more detailed empirical studies to answer following questions: 1) to find the reasons for such major differences in rankings and 2) Are the rankings misleading?

1.3. Our Research Methodology and How Are the Aims Being Achieved?

The thesis has been conducted upon two unique and primary databases manually collected through courts and various reliable sources (governmental and non-governmental offices). This is the major strength of this thesis. With such databases, we built individual statistics on the corporate bankruptcy process for two major European countries (France and United Kingdom). To the best of our knowledge, the UK database has no equivalence and we are the pioneers of including real world data on liquidations[19] in our research database. For both countries, the collected data deals with the causes of financial default, the recovery rates of creditors, the process of decision making at the time of default, the efficiency of such decisions, etc. Such research project helps in distinguishing the origins of corporate financial default and in distinguishing whether they are independent of the national bankruptcy code or not.

Additionally, we were actively involved in constructing new legal indexes for corporate bankruptcy law in France and UK. And it is notable that we succeeded in computing[20] the most comprehensive legal indexes till date. These legal indexes consist of more than 300 questions that explain the particular function of bankruptcy. In order to empirically test the effect of legal environment on economic behaviors and financial outcomes, we consider these indexes as explanatory variables of the variables[21] that were hand collected in France and UK. This makes this thesis unique as it is composed of original sources of information.

[19] Liquidations constitute more than 85% of bankruptcies in UK, see Insolvency service website, UK.
[20] This data survey was financed by FNR (Luxembourg), and was supervised by R. Blazy and A. Boughami.
[21] The most important variable being the 'recovery rate'.

1.4. Brief Outline of Chapters

The thesis is composed of several essays (chapters) on corporate bankruptcy. The general organization of these chapters tries to capture the default process, viewed as a sequential process beginning from the arbitration between private and formal solutions and progressing onto the formal design of the legal solution and finally concluding by explaining the financial effects of legal indexes on various creditors.

Before entering the empirical analysis of such process, we first propose a survey of the previous studies conducted in these fields.

Chapter 2 presents the survey of literature on bankruptcy. It starts by explaining the basic concept associated with bankruptcy, need of bankruptcy laws, the main objective of bankruptcy, the main processes associated with bankruptcy, classification of bankruptcy regimes and the law and finance approach to understand as to how the legal environment affects the outcome of bankruptcy. Chapter 2 can be summarized as a blend of the exploration of previous studies conducted on this topic, presentation of various point of views for the justification of our research objectives and the addition of our research work with the intent of augmenting current bankruptcy literature.

Chapter 3 empirically investigates the path to the resolution of financial distress for a sample of small and medium French firms in default, in particular on the decision between bankruptcy and informal (out-of-court) negotiations. The procedure is depicted as a sequential game in which stakeholders first decide whether or not to engage in an informal negotiation. Then, conditional on opting for negotiations, the debtor and its creditors can succeed or fail in reaching a workout agreement in order to restructure the firm's capital structure. We test different hypotheses which captures i) the coordination vs. bargaining power issues, ii) informational problems, iii) firms' characteristics, and iv) loan characteristics. Using a sequential LOGIT approach, we first find that the probability of selecting for an informal negotiation decreases when the bank is the debtor's main creditor and increases with the size of the loan and the proportion of long term debt. In addition,

the likelihood of successfully reaching an informal agreement decreases when the management of a badly rated firm is considered as faulty and when the bank is the debtor's main creditor. Finally, we find no evidence for the impact of collateral on the resolution to financial distress.

Chapter 4 presents a macro view of the bankruptcy laws prevalent in UK and France and examines their functioning and triggering criteria along with underlying specificities of each process. Here, the reader is encouraged to pay special attention to the working mechanisms of each procedure because they form the basis of future chapters where we relate the result of our summary statistics and econometrics to specificities of these procedures and methodically derive useful conclusions and insights.

Chapter 5, presents the detailed summary statistics for two databases and also provides results of our multivariate analysis. We explore the two unique hand coded databases, collected through different reliable sources. Our database consists of 264 small and medium sized enterprises representing France and 564 small and medium sized enterprises representing UK. Based on our datasets, we provide summary statistics on both the countries. Our descriptive statistics explain the average profile of our sample companies and provide us with the reasons which effectuate bankruptcies. They also provide us with the detailed asset and liability structures of firms and their detailed claim structure and recovery structure. In addition they also provide us with the duration of the procedure and the costs involved in the process. We also perform multivariate analysis to test the choice between continuation and liquidation for France and to test the factors which increase or decrease the chances of receivership[22] and administration[23] in UK.

Chapter 6 aims to find the legal characteristics that impact the recovery rates. Previous studies (LLSV, Doing Business Report, World Bank) have usefully used a set of legal indexes to rank the bankruptcy law prevalent within the country. But they fail to identify the characteristics of bankruptcy procedures that create more recoveries. We give here

[22] Procedure made for the benefits of banks.
[23] Regarded as reorganization procedure of UK.

elements of answer by taking into consideration two countries that are good representatives of the two main legal systems prevailing in Europe: France (Civil Law) and United Kingdom (Common Law). To enable this, we built original legal indexes comprising of 158 binary questions that highlight ten major dimensions of corporate bankruptcy procedures: (1) accessibility, (2) exclusivity, (3) bankruptcy costs, (4) production of information, (5) protection of the debtor's assets, (6) protection of claims, (7) coordination of creditors, (8) decision power, (9) sanction of faulty management, and (10) inclination towards liquidation / reorganization. We then propose a mapping of procedures that shows a clear specialization between them. The French procedures ("*redressement judiciaire*" and "*liquidation judiciaire*") are more protective of the debtor's assets and favor more the coordination of secured claims, public claims, and unsecured claims. In UK, we find strong opposition between the procedures oriented to liquidation and the other procedures.

We then use an original database of 833 French and UK bankruptcy files to measure the recovery rates that are generated by each procedure. We find strong differences between them. We then turn to OLS regressions and use our legal indexes to isolate the characteristics of bankruptcy law that significantly impact on the total recovery rate. By controlling for the value of assets, the structure of claims, the origins of default, and the firm characteristics, we test for several hypotheses. We first isolate the legal features of bankruptcy procedures that are associated to higher total recovery rates: namely, accessibility of the procedure, protection of the debtor's assets, protection and coordination of claims, orientation towards reorganization, and bankruptcy costs. From that perspective, these costs are not sunk cost only, but can be viewed as the counterpart of a service provided by the practitioners that eventually serve the creditors' recoveries. On the contrary, we find that the production of information under bankruptcy has a negative impact on total recoveries, probably due to the breach in confidentiality. Last, some dimensions of corporate bankruptcy law are not significantly related to total recovery rates (inclination towards liquidation, severity towards faulty management).

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CHAPTER 2

Corporate Default: a Theoretical Survey

2. THE CORPORATE BANKRUPTCY PROCESS: FROM DEFAULT TO LEGAL SOLUTION

2.1. Introduction

In a well functioning market economy, one of the main drivers for economic growth is private investment and a corporation is a vehicle that injects majority of private investment into the economy. It finances its business operations by raising a combination of equity and debt capital. The providers of equity capital are compensated in the form of dividends and residual rights in case of liquidation, which is contingent upon creditor claims. Besides, they enjoy the right to vote on important matters concerning the management of the firm. On the other hand, the providers of debt capital increase the value of the firm by providing deductibility of interest expenses but at the same time it increases the probability of default and heightens the chances of bankruptcy[24].

The corporation must supply fixed payments to its creditors based on the contractual agreement between the concerned parties. However, certain circumstances may arise, which impact the supply of fixed payment to the creditors. This can be attributed to many catalysts[25] ranging from internal factors (bad management, lack of managerial experience), extended internal factors related to production (production of obsolete products, lack of product demand), financing (lack of financing), to external factors (industry downturn, macro economic conditions, increase in competition, fluctuation of currency, period of credit crunch) and to the unforeseen factors (accidents, floods, death, disaster, terrorist attack). Under such a situation, a company has few options left. It can either opt for a private solution (out of court restructurings) or has to file under judicial procedure (liquidation or reorganization).

Bankruptcy is not a simple straightforward process and involves lot of complexities and dynamics. Thus, it becomes imperative to study the whole bankruptcy process in detail to understand its intricacies.

[24] The terms 'bankruptcy, 'insolvency' will be used interchangeably throughout the thesis. However, in UK corporate default is referred as Insolvency and not as Bankruptcy.

[25] See for e.g., Regis Blazy, Joel Petey and Laurent Weill, "Can bankruptcy codes create value"? Evidence from creditors' recoveries in France, Germany, and the UK. Here a list of detailed causes of default is mentioned.

In this section of the thesis, we provide a detailed theoretical survey of the corporate default process. We analyze the previous literature and also present our opinions and contrasting views. We wonder as to what constitutes an "efficient" bankruptcy regime as the notion of efficiency may differ from one country to the other. For instance, in France preservation of employment is one of the major goals of bankruptcy whereas in UK saving the company as a going concern is the primary motive of reorganization process. Further, a sound bankruptcy regime is vital for restoring equilibrium to a nation's economy and more so in lieu of the current global financial crisis. Hence, these dynamics make bankruptcy a challenging topic of research. This chapter is divided in two major sections: Section 2.2-2.5 describes the whole process of bankruptcy and its major impediments, need for bankruptcy laws and their consequences on the economy, the rationale for the selection of informal workouts and features of an efficient bankruptcy regime. Section 2.6-2.7 presents our analysis of the existing law and finance literature and their major shortcomings (for instance current studies are based on very few legal indexes 4). We also study the effects of legal environment on bankruptcy and mitigate the flaws of previous literature by suggesting new and more comprehensive methodology based on our 300 legal indexes (presented in the last chapter of the thesis) that takes into consideration the dynamics and complexity of the bankruptcy process[26].

2.2. Defining the Object of Research: What is Bankruptcy?

Let us try to understand the term Bankruptcy and the factors that trigger it through this scenario: "*When a firm has debts in excess of their assets and is not able to pay them as they become due, it is said to be in distress. Further, the creditors have served enough repayment notices to the firm but the firm has failed to respond beneficially to the notifications. So, based on these factors a petition can be filed in the court to initiate bankruptcy procedure against the company. However, sometimes an insolvent firm, to seek relief from pursuant creditors, can file for protection under bankruptcy. So, as is evident, bankruptcy is a process designed, keeping the interests of both creditors and debtors in*

[26] Example: for the same country, different bankruptcy procedures can have different answers for legal indexes

perspective and aims at providing a mutually beneficial resolution to the distress situation."

In classical terms, the definition of bankruptcy has taken various forms over the period of time and it has been our effort to dissect them and present them to the reader so as to enhance his appreciation that bankruptcy in its basic essence has evolved from an abominable procedure to a much more humane process involving a mutually beneficial resolution to the parties concerned (debtors and creditors). To highlight this point, we present 3 notable definitions of bankruptcy:

According to Douglas G Baird (1987), *"Bankruptcy arises when a firm cannot meet its obligations and the creditors cannot resolve their competing claims without a collective proceeding"*.

In this definition, bankruptcy is primarily defined as a process that takes into consideration the interests of all the creditors and aims at resolving arising conflicts by enforcing the absolute priority order for reimbursing the claimants.

According to Philip R. Wood (1995), *"Bankruptcy is a collective procedure for the recovery of debts by creditors. It also protects individuals who have become overburdened by their debts."*

As you would have noticed, in this definition, a slight perspective shift towards providing some level of relief to the distressed firm can be observed. Hence, during this period, bankruptcy as a process started showing signs of inclination towards helping out distressed debtors, at some level or the other, while maintaining its objective of arriving at a resolution, to pacify the solicitation of the creditors.

According to Insolvency service UK (2001), *"Bankruptcy is one way of dealing with the debts you cannot pay. The bankruptcy proceedings free you from overwhelming debts so*

you can make a fresh start, subject to some restrictions; and makes sure your assets are shared out fairly among your creditors".

This definition reflects an interesting and radical shift in favor of the debtors. This was the time when various governments started acknowledging the plight of debtors burdened by an almost pro creditor bankruptcy system and incorporated norms to redress, in a humane fashion, the condition of the debtors as well. Thus, now it resonated with a rescue orientation rather than with intones of a sole creditor repayment mechanism.

Under the changing definitions/objectives of bankruptcy, it becomes even more difficult for the legal practitioners or the judges to decide whether the firm needs to be liquidated or reorganized. It is up to the court to decide whether the debtor can be given another chance and provided with adequate protection from the pursuant creditors or to terminate business. To comprehend the decision making mechanics of this process, one must embrace the fact that default does not signify bankruptcy.

2.2.1. Is Default different from Bankruptcy?

Default implies that a company fails to meet its financial commitments and as such is in distress. According to the Basel 2 criterion, if a creditor is unable to meet its credit obligation towards the banking group and exceeds the repayment by 90 days or more, it is said to be in default. Default does not mean that a firm is bankrupt because although it can be insolvent for one creditor but can remain solvent for other classes of creditors.

A company can face short term illiquidity during the normal course of business. This does not signify that it is bankrupt. Bankruptcy is a legal process and a company can be declared bankrupt only by the court if it meets certain legal requirements.

Thus a firm which has defaulted on its financial commitments is said to be in distress. The severity of the distress can be explained by two underlining concepts: Economic Distress and Financial Distress.

A. Financial Distress

A business is said to be in financial distress when it becomes cash-flow insolvent, which means it is unable to pay its debts as they become due[27]. Cash flow insolvency cannot be regarded as irreversible failure of the company. This short term insolvency of assets and debt payment may occur routinely in the normal life of business and results in temporary inability to pay debts. Such businesses have a going concern value greater than the market value of its assets. Dismantling such businesses is not favorable for the claimants of the company as well as for the assets of the company. Thus in such a case, to preserve the value of the company and to put the assets into highest use, the business should be allowed to continue and not liquidated.

Comprehending financial distress is not an easy task because how it is perceived depends on who is putting forth a declaration for it. For instance, a firm can declare financial distress if it faces an imminent threat of insolvency whereas for a bank or any other creditor a firm may be in financial distress if it fails to meet its credit obligations on time. As one would have noticed, both perceptions point towards an important situation which needs deployment of a rectification procedure (reorganization or rescue mechanisms). Now, how efficiently is this procedure implemented, still remains a matter of concern for many economies.

B. Economic Distress

A business is said to be economically distressed if *"the net present worth of the troubled company's business as a going concern is less than the value of the assets broken up and sold separately"*.[28] This means that business is not viable anymore and must be liquidated to protect further shrinking in the value of the business and also resources should be redeployed to more efficient use.

[27] Insolvency Act 1986, s 123(1)

[28] See E Ehlers, "Statutory Corporate Rescue Proceedings in Germany: The Insolvenzplan Procedure" in K Gromek Broc and R Parry (edition), Corporate Rescue: An Overview of Recent.

It is noteworthy that several studies have employed different proxies to acknowledge the difference between these two types of distress. For instance, Hotchkiss (1995) advocates negative operating performance as an evidence of economic distress whereas Denis and Rodgers (2007) affiliate higher leverage with more financial distress than with economic distress.

Table 2.1 below highlights the types of distress and their rectification procedures

Table 2.1: Types of Distress and efficient action at the time of distress

	DEFINITION	ACTION
ECONOMIC DISTRESS	The net present value of the assets is negative under any management team.	Piecemeal liquidation of assets.
	The net present value of the assets is positive under a different management team.	Sale of assets as "going concern" to enable the change of management.
FINANCIAL DISTRESS	The net present value of cash flow is positive but it is lower than the value of claims by non-shareholders.	Debt reduction in combination with restructuring and/or ownership change, if value of assets thereby can be enhanced.
	Liquidity problem	Debt-rescheduling, Liquidity enhancement.

Source: Blazy and Chopard (2004)

Let us reiterate that bankruptcy needs additional criteria to be triggered. In other terms, a distressed company may become a bankrupt company if (1) the legal criteria to justify the triggering of a procedure are met, and (2) the stakeholders fail to achieve a private agreement.

Now, let us consider a company that enters bankruptcy:

When an application for bankruptcy is filed, the first step is to determine the value of the firm's assets and verify the creditor claims. Accordingly, a plan is formulated for sharing these assets among various categories of creditors. In general, the creditors have divergent claims and may rush to grasp the assets of the firm. A collective procedure is thus designed to effectively confront and resolve these complex issues and it is here that the absolute priority order plays a significant role.

The first step is to determine the priority rights of the creditors. Some creditors are secured and can exercise property rights to enforce their collateral or sell it while some are unsecured and have no legal way of enforcing upon their claims. Collective procedures decide the best way for sharing the firm's assets on the basis of the given law. They ensure that the assets value is preserved[29] and put to best use and the distribution be made keeping economic objectives in mind.

For initiating collective proceedings, certain legal requirements need to be fulfilled. In the next section we describe bankruptcy as a sequential process comprising of three consecutive steps.

2.2.2. Bankruptcy is a sequential process

Collective treatment of distressed firms can be viewed as a series of consecutive steps:
1) initiation or the triggering of default, 2) management of the distressed firm and 3) final outcome of all these steps.

Interestingly, within each country the requirement, triggering and implementation of these steps might differ from one collective procedure to the other. For instance criteria for initiating liquidation proceedings may be different from the criteria for the initiation of reorganization proceedings. And triggering criteria for liquidation in UK can be different from the triggering criteria for liquidation in France. Now let us focus our attention on a general outline of the process of bankruptcy which comprises of 3 stages:

[29] Entrepreneurs need funds to start a business; generally they raise capital by a mix of equity and debt. Sometimes entrepreneurs invest in risky projects in the greed for higher returns for themselves and consequently if the project fails then not only the shareholders of the company but also the debt providers are negatively affected. Thus, to keep a check on entrepreneurs' risk taking abilities and keep the creditors in confidence, a bankruptcy law provides absolute priority order. Bankruptcy laws should be able to sanction the faulty management who destroy the value of the company by undertaking risky projects and putting the creditor's money at stake. Efficient bankruptcy regime should preserve the bonding role of the debt by penalizing the managers and the absolute priority rule is an enforcement measure in which shareholders fall into the category of residual claimant. Thus, collective procedures keep a check on the Entrepreneurs' risk taking abilities by putting them last in the list of priority. This is a very important feature of any insolvency process. Absolute priority inbuilt in the collective procedures keeps a check on entrepreneurs risk taking abilities and hence preserves the assets.

During the first stage of bankruptcy, a petition can be filed in the court against the company, by any of the stakeholders. Such petitions are governed by bankruptcy laws which outline their initiation criteria (present/future/expected financial difficulties) and bestow certain types of stakeholders with the power of initiation (creditors, state, court, and the debtor). This initiation stage is very crucial.

The advantage of an early initiation can be redeemed only if it is easily accessible by the stakeholders and is less restrictive of its demands. This means that the firms which have substantial assets still have a fair chance of resurrection, provided that the procedure is initiated at the right time. However, this easy accessibility can be fatal as it can generate opportunistic behavior on the part of the companies which can strategically decide to default[30], as part of their business strategy thus exploiting this vulnerability of the bankruptcy system[31].

Second stage is where vital decisions are taken about who takes control of the management of the distressed firm. It is during this stage that either a court appointed official is delegated with the management control or the incumbent management is allowed to continue. Also, these management rules vary from one procedure to the other and from one country to the other. The law decides who manages the company. Besides, it also decides whether there is an automatic stay on creditors' claims or some secured creditors can stay out of proceedings.

Retaining the managers can be favourable for the firm provided the managers are

[30] The case of Texaco Bankruptcy Filing is a brilliant illustration of an unorthodox adoption of Chapter 11 by an organization as a survival mechanism. Interestingly it also became the biggest corporate failures of that time. On the date of its bankruptcy filing, the managers at Texaco wrote a letter to its customers and suppliers. Here's an excerpt from the letter:
"Texaco Inc. is solvent - 8 - and financially strong. The Chapter 11 petition will enable Texaco Inc. to conduct its business in the ordinary course as it continues to appeal this judgment. Again, we wish to emphasize that our Company is not affected and is honouring all its obligations in full. We are financially sound and our business will continue as normal."
As is evident from the letter, this was not a conventional bankruptcy filing. Texaco had strategically deployed Chapter 11 as a shield of protection against a court imposed award of 10.5 billion dollars to its competitor organization: Pennzoil (Delaney, 1998:145). Similar tactful maneuvers have been employed by several organisations, over the years, for breaching labour contracts (e.g., Continental Airlines), resolving individual claims (e.g., Manville and A.H. Robins), avoiding pension funds financial responsibilities (e.g., LTV), bypassing payments on unprofitable leases (e.g., HRT Industries) and as countermeasures against issues pertaining to tax authorities (e.g., Whiting Pools). A similar example is that of Federal-Mogul Corp, which filed for legal protection against asbestos related claims in October 2001.

[31] See for e.g., Sheppard, 1995; Delaney, 1998; Rose-Green and Dawkins, 2002.

competent and honest.[32] The incumbent management can use their knowledge and experience to advantageously benefit and contribute towards a good rehabilitation plan for the company. On the other hand, if the managers are incompetent and fraud, allowing them to continue business can have disastrous effects. They can take advantage of their position and use the assets for their personal benefits and as such further destroy the value of the firm to a point where chances of survival are impossible. At this point altering the management is seen as the best possible solution for the firm. Considering this perspective, in some countries managers are replaced by a court appointed administrator. This strategy has multiple benefits. First, it can preserve the value of the assets (repossession rights, cancellation of previous sales…), second it can facilitate in coordination mechanisms (stay of claims, nomination of a creditors' representative and voting rights) and third it can protect the company from fraudulent managers who were, in the first place, responsible for bringing the company to such distressed situation (removal of managers and appointment of administrators).

The third step is the final stage where it is decided whether the firm will be declared bankrupt and liquidated or if it will be allowed to continue business. The choice between liquidation and reorganization is aimed at maximizing the value of the firm which is further influenced by the capital structure of the firm. As stated by Bergström et al. (2002) and Morrison (2007), the higher the numbers of secured creditors, the lesser are the probabilities for continuation under bankruptcy. This is true. Secured creditors are less likely to support debtor oriented reorganization procedure because the expected loan repayment under reorganization is lower than the loan repayment under immediate liquidation (Bulow & Shoven, 1978; White, 1989; Kordana et. al, 1999). Also, their incentive is more when a firm is liquidated rather than continued. Consequently, if the creditors are given voting rights to approve the reorganization plan for the firm then in such systems chances of type II error (viable firms get liquidated) might increase (White, 1994). The suggested remedy to such situations is to transfer the decision making power in the hands of the court. The courts do not have any direct incentives from the firm and can behave in an unbiased manner to arrive at an optimal solution. This transfer of power also

[32] As in such cases they cannot be blamed for misfortune of the company but rather to their bad luck

restricts creditors' decision making power.[33] However, type I and type II errors may still arise if the judge strongly abides by the primary objectives stated in law. For instance debtor's firm can be sold for a lower bid if it promises to keep employment contracts intact. In France, preservation of employment is one of the major goals of bankruptcy and is embedded within the law.

So far, we have presented the crux of the bankruptcy process and the dynamics involved within. Let us now shift our focus to the tradeoffs between opting for formal bankruptcy or a private solution and its associated major benefits and impediments. It is noteworthy that this choice can have a profound effect on the efficiency of the procedure and its outcome. Also, in the later part of this section we will analyse both types of efficiencies linked with a bankruptcy procedure.

2.3. The Ex-Ante Tradeoff: Should Financial Distress be resolved privately or not?

The inadequacies of contemporary bankruptcy processes came into limelight with the East Asian Financial Crisis of 1997. The phenomenal rise in the number of bankruptcies led to heavy losses to the government and to the market economy. This is when countries seriously started exploring for solutions to resolve financial distress and identified two ways of achieving it: either through a formal process (carried under the supervision of court) or an informal process (negotiations between the creditor's and the debtor's). They also started acknowledging the importance of informal procedures[34] which provided solutions outside the framework of court proceedings and thus saved a lot of time and money. Some of such market based solutions have been advocated by some of the academics[35].

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[33] Under such legal systems final outcome is not dependant on creditors' choice and in a sense works well to reduce any conflicts among various creditor groups.

[34] In mid 1970's, Bank of England created and promoted and informal way of corporate rescue called "London Approach". It became quite a success. See for e.g., John Armour and S Deakin (2001), 'Norms in Private Insolvency: the 'London Approach' to the resolution of financial distress'. Based on which many other economies (Korea, Malaysia, Thailand and Indonesia) adopted the same approach. For more details see M Pomerlano and W Shaw (edition), 'Corporate restructuring: Lessons from experience (the World Bank, 2005)', p104-107.

[35] Roe (1983) suggests a scheme where existing debt is erased and replaced with equity in the reorganized firm. This gives a chance to creditors to make decisions on the future of the firm. The distribution is made in such a manner where senior creditors are fully reimbursed before any disbursements made to junior creditors. The value of firm's shares is decided by selling 10% of the equity in market. Baird (1986) promotes a scheme of auction for the bankrupt firm. He believes that auctions not only protects the rights of creditors outside bankruptcy but also avoids unnecessary costs and time spent on negotiations. Thus, it leads to efficient outcome. Also

Informal procedures generally involve the bank[36] as the main creditor and can be initiated under their influence and support. Though these procedures have been in existence for long but because of an aura of confidentiality which surrounds them, their data is not readily available for research analysis[37]. However, we set out to deduce and list out the pros and cons associated with such procedures.

2.3.1. The Rationale for Selecting the Informal Process

One may question as to why an informal process should be selected for mitigating a distress situation. This can be best understood by taking into the account the following advantages:

a) Avoidance of Bankruptcy Costs

Bankruptcy is a legal mechanism involving both direct and indirect costs.[38] Formal procedures of bankruptcy involve direct costs (accruing out of the legal process for instance fees to lawyers, accountants, auditors and other professional fees) and indirect costs (arising out of foregone investment opportunities, lost sales, loss of competitiveness, all the costs arising out of suboptimal use of resources, asymmetric information, conflicts of interests and loss of management time) which eventually have to be borne by the already distressed company and thus can shrink the overall incentives of claimants. Given a choice, the creditors will always choose a method which increases their returns (Gilson, 1997; Gilson et al., 1990; Wruck 1990). Jensen (1989, 1991) argues that if private workouts are more cost efficient than formal processes, it always pays to choose them. Measuring the direct costs of informal workouts is difficult as this process is carried out

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see Thorburn (2000) and Baird and Ramussen (2003) for further discussion on the mechanics of auctions. Bebchuk (1988) and Aghion, Hart and Moore (1992) propose a scheme wherein senior creditors are allocated with equity in the firm and subordinate creditors receive options to purchase equity. Thus, it solves a lot of problems related to allocation of control rights and also satisfies APR.

[36] Gilson, John and Lang (1990) show that private workouts are more likely to prevail if firms owe more debt to the bank and hence complications arising out of hold out problems are mitigated. The same results were obtained and confirmed by Fisher and Martel (2008).

[37] Pre packs and London approach.

[38] For more detailed evidence of bankruptcy costs see for e.g., James S. Ang, Jess H. Chua and John J. McConnell, 'The Administrative Costs of Corporate Bankruptcy: A Note', 37 Journal of Finance (1982) p 219-226; Edward I. Altman, 'A Further Investigation of the Bankruptcy Cost Question', 39 Journal of Finance (1984) p 1067-1089; David T. Stanley and Marjorie Girth, 'Bankruptcy: Problem, Process, Reform, Washington D.C., The brookings Institution (1971) pp 270.

with confidentiality. However some researchers have been able to document these costs for the restructuring of public debt via a formal exchange offer. Gilson, John and Lang (1990) examine the exchange cost for 18 offers at 0.6% of the book value of assets. Betkar (1997) shows that for 29 exchange offers, a cost with a mean of 2.5% of pre-exchanged assets is registered (while median is 2%). It has been found that out of court restructurings are faster than a judicial process while court procedures are evidently time consuming as a proper legal process encompasses a complex myriad of multilevel interactions, creditor approvals and information exchanges. Here we would like to emphasize that out of court restructurings are faster because they do not involve such time consuming activities. Franks and Torous (1989) and Thornburn (2000) exhibit that the amount of time spent in bankruptcy proceedings is a proxy for indirect costs. Thus, opting for informal process seems like a feasible and an optimal solution to resolving default.

Haugen and Senbet (1978) further studied various efficient ways of restructuring debt in a market solution so as to avoid transaction costs accruing from formal processes. They advocate the use of informal procedures and state that if the capital structure problems can be resolved by restructuring of the liabilities and debts, the firm will be able to successfully avoid bankruptcy costs and resolve financial distress through informal workouts. Often bankruptcy costs[39] have been an important factor in selecting the approach for resolving distress: formal or informal. Several other works have adopted the Coasian approach for analysing the tradeoff between formal and informal ways of resolving default. However, in the absence of any possibility of private solution, the only measure available for resurrection is the legal solution.

b) Goodwill Effects

The practice of workouts remains quite a secret and hence the extent of its usage is difficult to fathom. They are carried out in a manner in which the company and its business goodwill do not suffer. It preserves the confidentiality of the financial distress surrounding the company and keeps the creditor's confidence alive in the company and

[39] Bulow and Shoven (1978) and White (1989)

also prevents a bad reputation in the market and in the public. Chatterjee, Dhillon, and Ramirez (1995) show that return on announcement of workout are less negative and abnormal as compared to those of Chapter 11 filings. Gilson, John, and Lang (1990) further add that stocks returns are more negative for firms that subsequently file for Chapter 11.

c) Protection of Internal Management

Informal workouts are also preferred over formal ones because of the arising conflicts between legal representatives and the company agents (managers/directors), wherein company agents lose control in the hands of the legal administrator (Franks and Nyborg, 1996). Fearing this fact, management is often reluctant to go to courts. Thus, the approach suggested by Haugen and Senbet (1978) which systematically favours the market solution and suggests unconventional approaches to resolving distress, questions the very existence of collective procedures of bankruptcy.

Despite market solutions offering better alternatives than formal ones for resolving distress, they are not free from impediments. This is why we observe that formal ways of resolving distress are more extensively used than the private solutions.

2.3.2. Limitations of Informal Process

a) Incomplete Contracts: Firstly, when a debtor and creditor sign a private contract, anticipating the event of default, they specify the terms of debt contracts and describe the manner in which proceeds will be realized and distributed (Baird 1987, Hart 1995). However in practice, such contracts are incomplete in nature as they lack detailed and critical information and hence are difficult to enforce and of little value towards a harmonious resolution. For instance the contracts contingent on cash flows[40] are difficult to enforce as their values keep on changing and are difficult to assess for

[40] Hart and Moore (1998) suggest that in order to make borrowing feasible, creditors should be given certain liquidation rights if they are unable to contract on cash flows. Otherwise, managers will always default strategically and divert the funds to their advantage.

outsiders and court. The managers can take advantage of their position in diverting these cash flows with the objective of gratifying personal gains even to the extent of putting creditor's money at risk without his knowledge. Moreover, problems like common pool and conflicts of interest initiate a run for debtor's assets and thus in the real world, enforcing these debt contracts is not such a straightforward process.

b) Information Asymmetry: Secondly, it is possible to negotiate debt informally if the market is perfect and the information available to parties is assumed to be symmetrical. Webb (1987) confirms the supremacy of informal process in the presence of symmetric information. Brown (1989) pointed out that a private workout is always successful in the presence of single creditor as information is considered symmetric. But in reality, it seems that the insiders are better informed than the outsiders and have better knowledge about the assets and liabilities of the company, the ongoing firm value and the liquidation value. They can greatly harness this information to their advantage. Giammarino (1989) and Mooradian (1994) proclaim that creditors might opt for costly bankruptcy procedures if they observe asymmetries of information and develop distrust towards the insiders. Carepeto (2005) asserts that presence of information asymmetry can lead to extended bargaining, requiring several plans before any agreement can be materialized. The existence of uncertainty of credible information on the part of the debtors might urge the creditors to embrace a costly bankruptcy procedure. Lack of information can be two sided. At times it is difficult for the creditors to possess all the information for assessing their own profitability. This has been noticed[41] and found true especially for small firms. Thus, the vicious loop of asymmetric information spoils any chances of private agreement between debtors and creditors.

c) Free Riding: Thirdly, a firm does not have a single creditor; it has several creditors and multiple categories of these creditors. All these creditors have divergent interests in the firm. Gertner and Scharfstein (1991) spotlight on the conflicts that arise in the presence of multiple categories of creditors. In addition, Bulow and Shoven (1978), Roe (1987) and Franks and Torous (1989) also discuss the conflicts arising because of

[41] Blazy, 2000, Allen, 1993, Rivaud-Danset, 1995

the presence of varied creditors. Some creditors have low priority, as compared to others, for the negotiation of debt terms (interest rates, extension of maturity period, principal amount). As private agreement requires the approval of all the parties concerned, some parties might decide to block the negotiation process in the anticipation of getting better recovery through a formal procedure. Grossman and Hart (1981) state that creditors with low priority, may realize that their decision to holdout, hardly affects their incentives and hence they prefer to stay out of it. While, other creditors fear the high costs involved in bankruptcy process and prefer to renegotiate informally. Moreover, each creditor has the incentive to be the first to enforce a liquidation process in order to guarantee full recovery. From this point of view, the collective procedures are chosen as they resolve in part the "common pool problem" (Baird, 1986). By freezing payments and suspending the creditor's rights, they provide some time for fixing the liability and maintenance of the assets of the debtor and the search for potential buyers.

2.3.3. Empirical Findings on Private Solutions

Few empirical works have examined the determinants of the firms' choice between private workouts and formal processes. But most of these studies were conducted on US firms. Subsequently as the reader will come across chapter 3 of the thesis he will notice that we have a conducted a thorough study to address this issue for French Civil System and we feel that this can be a valuable contribution to the existing literature because we have used an original database manually collected from the recovery units of 5 commercial banks of France. For now we present the main contributions of the previous literature.

a) **Balance Sheet Structure:** Gilson, John, and Lang (1990) find that the firms having greater proportion of intangible assets in their asset structure would prefer to opt for private workouts. This is because chances of their value reduction are maximized during the bankruptcy process (for instance asset fire sales or loss of customers). Franks and Torous (1994) find that the firms opting for private workouts are more solvent and liquid and possess less negative stock returns just prior to the negotiation

process. Chatterjee, Dhillon, and Ramirez (1995) demonstrate that the choice of restructuring out of court depends on the firm's level of debt and its short term liquidity. Thus, to some extent, balance sheet structure affects the way a default is resolved. However this may vary from one country to the other. In chapter 3 of this thesis, you will be able to understand whether the assets or debt structure of the firms in France affect the private resolution process or not.

b) Types of Creditors: Gilson, John, and Lang (1990) additionally suggest that the presence of fewer categories of debts[42] could help in privately resolving the problems which arise due to conflicts of interests. Further, recent studies on bankruptcy design have exhibited that in countries where informal reorganization procedures are prevalent (for instance in continental Europe which is characterized by bank based system), a court controlled reorganization procedure may not be so efficient or beneficial (Berkovich & Isreal, 1999; Hege, 2003). Therefore, in these countries firms have greater incentive in restructuring their liabilities via out of court proceedings because banks in comparison to common debts (trade debts or public debts) are better informed and can play a pivotal role in restructuring and internalizing some of the restructuring costs. A point to be highlighted here is that with lesser number of distinct debts,[43] private workouts become more manageable.

However, recent empirical studies have found a decline in the number of firms restructuring out of court. The reason could be that a large proportion of firms fail to successfully renegotiate out of court. Gilson, John, and Lang (1990) experimentally verified this by examining 169 financially distressed firms and discovered that 53 percent (89 firms) failed to restructure privately. Additionally, Franks and Torous (1994) also found that similar proportions of firms failed to restructure privately. The reason for the decline of private workouts in comparison to formal procedures was explained by Jensen (1991). He draws attention towards legal ruling that discourages workouts. The LTV Corp

[42] Out of which a higher proportion belonging to long term debts mainly accruing from banks

[43] James (1995) and Asquith, Gertner, and Scharfstein (1994) also claim that presence of public debts may hinder the process of private renegotiation. Chatterjee, Dhillon, and Ramirez (1995) also suggest that the choice of restructuring out of court does get affected in presence of various categories of creditors.

Bankruptcy case is an apt example, where the court held that the debtholders, who participated initially in out of court restructurings, could only claim the new reduced principal amount whereas holdout claimants received the original amount of money. This decision had a severe impact on the creditors who became apprehensive of the informal approach for settling their financial dues for fear of not being able to recover the originally lent amount.

2.3.4. The Rationale For Adopting a Formal Bankruptcy Procedure

A company facing insolvency strongly feels the need for bankruptcy laws because in the absence of such laws, creditors might confiscate assets critical to the functioning of the company's operation and may also harass the debtors towards payment of dues. Bankruptcy laws are designed to mitigate these arising problems and to find the best possible solution for the debtors company. Some of the major issues dealt by bankruptcy laws are:

a) Coordination – This problem arises when a company's debts and liabilities exceed its common pool of assets. In such a situation, there is a risk for some creditors of not being paid in full or not being paid at all. To tackle this situation, creditors rush to grasp the debtor's assets critical to the functioning of debtor's corporation in order to satisfy their own claims. Bankruptcy Laws provide relief from this problem by temporary halting of all such creditor actions which might diminish the value of an otherwise economically viable firm. This common pool problem has been widely discussed in literature.[44] The immediate solution to solve this common pool problem is to provide an automatic stay over debtor's assets. This means that creditors cannot pursue the debtor and cannot seize its assets. It provides a breathing space for the debtor and an opportunity to formulate a plan for meeting its obligations. In addition to solving the coordination problems, the bankruptcy law appoints creditor representatives, who represent creditor interests in the court. Moreover, it is the court which decides as to how the value of the firm will be shared

[44] Bulow and Shoven (1978), Gertner and Scharfstein (1991), and Longhofer and Peters (2004)

among various categories of creditors in which some can be dissenting creditors as well. In such circumstances bankruptcy law can force[45] the creditors to accept the terms of reorganization proposal and thus resolve the arising hold out problems. The order of disbursing stakeholder payments is also decided by the court. According to this rule, shareholders cannot be paid unless all creditor claims are fully satisfied.

b) Information – Presence of asymmetric information is often cited as the most critical impediment to the resolution of financial distress. In a firm, it is often believed that insiders are better informed and can often use this information to their advantage in the event of bankruptcy. The existence of uncertainty of credible information on the part of creditors propels them to opt for costly bankruptcy procedures which reveal the true picture of a company and its business. This saves the creditors from being tricked by the insiders. This is substantiated by the studies of Giammarino (1989) and Mooradian (1994) wherein they proclaim that creditors might choose costly bankruptcy procedure if they observe asymmetries of information and develop distrust towards the insiders. Here, a bankruptcy code tackles this situation[46] effectively by dissemination of credible information amongst various stakeholders of the firm and thereby facilitating viable decisions on their part. Further, to achieve this end, sophisticated audit procedures are conducted under the supervision of court appointed trustee.

c) Protection – The need for bankruptcy laws is strengthened so as to allow for the protection of debtors' assets which are critical to the functioning of the company. The assets and contracts that are likely to maximize the value of the firm can be reinstated within the firm. New resources can be hired and some can be fired if it is in the interest of the debtor. In the same manner, a bankruptcy law provides adequate protection against creditor claims by verification of each and every claim wherein creditors are given substantial time to report their claims to the bankruptcy judge. They receive notifications for creditors' meetings and have the right to formulate creditors'

[45] 'Cram down' provision of Chapter 11 of US bankruptcy code 1978 is an example of one of such measures taken by the bankruptcy court.

[46] Brown and al. (1993) test how the presence of asymmetric information can be resolved by offering choice of securities in a debt restructuring process. The negative share reaction can be seen if public debt holders are offered equity in debt restructuring process.

committee for representing their interests in the court. Thus, as the reader can discern, the need for bankruptcy laws is essential for the protection of both creditors and debtors.

d) Final Decision: If a conflicting situation arises wherein the debtor of the firm wants the firm to be continued while secured creditors want the firm to be immediately liquidated then the debtors can seek protection from the court by presenting a reorganization plan. The secured creditors deriving no benefits[47] from the reorganization can appeal for immediate liquidation in order to prevent any dilution of their collaterals. In such a situation, it is the court that presides and effectuates the final decision. In some legal systems, it is mandatory for the creditors to vote on the reorganization plan and if they approve the plan then only the court can accept it (creditor friendly regime). On the contrary, in some legal systems, the court has the discretionary power to accept or reject a plan (debtor friendly regime). Whatever be the legal orientation, the primary intention is to resolve the decision making dilemma and materialize an option that is in the best interest of all the stakeholders.

e) Faulty Management – Bankruptcy laws also facilitate towards the distinction between faulty managers and competent managers. Primarily, competent managers whose failure is attributed to unavoidable circumstances (misfortunes, natural calamities, external environment) should not be sanctioned by law. On the other hand, faulty managers who destroy the value of the company by recklessly undertaking risky projects and putting the creditor's money at stake should be liable for sanctions. These sanctions can be pecuniary[48] or non-pecuniary[49] depending on the country in which the sanctions take place. This tricky situation is proficiently absolved by the bankruptcy law by transferring the control from the management to the creditors (Harris and Ravid, 1991).

[47] Secured creditors repayment of loan is lower in reorganization than in immediate liquidation. See for example given Bulow & Shoven, 1978; White, 1989; Kordana et. al, 1999.

[48] Pecuniary sanctions are the sanctions which can make the managers liable to pay for the loss out of their own patrimony and personal estates.

[49] Non-pecuniary sanctions are those in which managers are asked to pay fines or can be put behind the bars.

In the above sections we have explained the rationale behind the legal and private solutions and have discussed the pros and cons associated which each of these processes. We have also presented bankruptcy as a sequential process consisting of a series of steps of which the most important step is to choose between a firm's liquidation and continuation. In order to screen out distressed businesses it is a prerequisite to determine the value of distressed company. An efficient bankruptcy regime thus should function as a filtering device which allows efficient firms to continue and inefficient firms to liquidate (White, 1994a, 1994b; Fisher and Martel, 1995). It should be free from type I error (allowing inefficient firms to continue) and type II errors (in which efficient firms are liquidated).[50]

The objective of the next section is to analyze these procedures from an economic, financial, social and legal point of view and disseminate their consequences.

2.4. The Ex-Post Tradeoff: Should Bankrupt Companies be Liquidated or Reorganized?

In recent times, almost every country of the world seems to have incorporated at least two basic formal processes for dealing with corporate debt recovery. These two important processes are Liquidation and Reorganization. Liquidation is synonymous with winding up, dissolution and bankruptcy while Reorganization is also known as rescue, reconstruction, renegotiation and rehabilitation. Many other processes which can stem from within the objective (survival) of Reorganization are as follows: Composition, Suspension of Payments and Corporate Voluntary Arrangement. Here we would like to focus on the two basic and most extensively used processes of corporate insolvency regime: Liquidation and Reorganization.

[50] Fisher and Martel (2004) postulated a more comprehensive way of measuring filtering failure. In their empirical study of 303 firms for the period between 1997-1988, they observed that Type I errors (welcoming a plan of reorganization from a nonviable firm) are likely to take place 4 times more than the Type II errors (refusing a plan of reorganization from a viable firm). Thus, for the efficiency of bankruptcy code, filtering between viable and nonviable firm is imperative. Based on this viability, the company is put under liquidation or reorganization.

2.4.1. What are Liquidation and its Consequences?

Liquidation is the oldest and most traditional way of dealing with the debts of a company. This process primarily involves selling off an organization's assets or business thereby resulting in the termination of organization's business tenure. It can be triggered voluntarily by the debtors or involuntarily by the creditors or the court. Although the basic features of all liquidation processes are similar for most of the countries, their implementation can vary based on institutional factors, legal origins or debtor or creditor orientations of the law.

Liquidation is observed as the most extensively practiced insolvency process worldwide. Indeed, in France, it is observed that 90 percent of the bankruptcies end up in liquidations (Blazy, Delannay, Petey, and Weill 2008) and similarly in UK this percentage ranges between 80-85 percent[51].

1) What is Liquidation from an Economic Point of View?

In any market economy, efficient firms should be allowed to continue and inefficient firms should be terminated as quickly as possible in order to facilitate deployment of resources to other better purposes[52]. Liquidation is a process that facilitates this motive and terminates inefficient firm and brings efficiency into the system. The assets are reallocated to more efficient and profitable entrepreneurs. Hence, economic theory justifies the process of liquidation as it avoids wastage of resources and results in the transfer of wealth in a faster and in an inexpensive manner.

[51] For statistics see Insolvency service website:
http://www.insolvency.gov.uk/otherinformation/statistics/historicdata/HDmenu.htm

[52] According to the Darwinian approach, "a capitalist economy will acknowledge that a certain level of corporate demise is both inevitable and necessary to the efficient functioning of the market", see J Argenti, Corporate Collapse: The Causes and Symptoms (McGraw Hill, London, 1976), p170;

2) What is Liquidation from a Financial Point of View?

Good reputation and a bond of trust are built on the foundations of honoring financial commitments and contracts. Dishonoring such commitments leads to loss of reputation and destroy such accumulated value. Thus, from a financial point of view, the process of liquidation signifies that the firm's financial links are dismantled. It also signifies that its creditors would now be apprehensive in doing business with it in future.

3) What is Liquidation from a Social Point of View?

From a social point of view liquidation can be seen as a process that terminates the labour contracts. An interesting question arises here as to whether this can be an issue or not. Let us present our arguments for the same. If the labour market is not at equilibrium (unemployment hysteresis[53]) then in that case liquidation has a social cost. On the contrary, if the labour market does not suffer from inefficiencies then switching to a more stable and reliable employer can be considered a feasible measure. However, this view is less credible in the current times of crisis. The prevalence of insurance schemes attaching privilege to unpaid wages, redundancy payments and so on can be viewed as a measure on the part of the Government for the protection of employees.

The Cork Report observed: "*We believe that a concern for the livelihood and wellbeing of those dependent upon an enterprise which may well be the lifeblood of a whole town or even a region is a legitimate factor to which a modern law of insolvency must have regard. The chain reaction consequences upon any given failure can potentially be so disastrous to creditors, employees and the community that it must not be overlooked*."

[53] In economics, "hysteresis" is generally defined as a particular type of response of a non-linear system when one modifies the value of the input: the system is said to exhibit the remanence property when there is a permanent effect on output after the value of the input has been modified and brought back to initial position. When the evidence of hysteresis is detected, there exists the availability to decrease the unemployment rate without changing the organization of the labour market. How rapidly the unemployment rate can be decreased depends on the mechanism of hysteresis.

4) What is Liquidation from a Legal Point of View?

From a legal point of view, liquidation implies the death of an 'artificial person' which has a separate legal entity. Legal theory supports this termination process as it is the genesis of a collective process that takes into consideration all the creditors (ranked according to their claims) and distribution is made in a fair and equitable manner so that no disputes arise and the firm is liquidated peacefully.

2.4.2. What are Reorganization and its Consequences?

Reorganization process is designed for the debtors who perceive that their companies have a fair chance of survival despite all financial problems. This procedure serves a dual purpose: It relieves the debtor from pursuant creditors and facilitates the continuation of its business. It also provides additional time to the debtor to formulate a suitable reorganisation plan for its ailing firm. One of the most noteworthy rescue regimes was initiated by Chapter 11 of US bankruptcy code 1978. Its main objective was to promote corporate rescue by providing a firm with an opportunity to restructure its debts and emerge out of its financial difficulties. Inspired by the goals of US reorganization process, a lot of the European countries (France, United Kingdom, Germany, Belgium, and Spain and etc...) reformed their bankruptcy laws thereby making them more debtors friendly. This reorganization can be carried out under different names and different procedures but the main underlying principle is: Survival.

The most commonly practiced methods of reorganization in Europe are 'Composition' or 'Arrangement'. Under these, the creditors and debtors mutually agree on certain terms and conditions for the reduction of a firm's debt and can restructure its liabilities in the following ways: extension of maturity period, deferral of interest payment, reduction in the rate of interest, conversion of debt into equity, closure of some non profitable business units and so on and so forth.

However, in practice and implementation, the process of reorganization process can widely vary from one country to the other and is not as universal in approach as liquidation.

1) What is Reorganization from an Economic Point of View?

Reorganisation is economically justified if the firm has positive value in the long run despite short term liquidity constraints. A market economy stresses the optimal use of its resources and competitive mechanisms which results in the maximization of economic value. Thus, dismantling such businesses is not considered an appropriate measure as it can reduce in the result of depletion of economic resources.

2) What is Reorganization from a Financial Point of View?

From the financial point of view, reorganization means temporary breach of financial contracts. One may note that this however does not signify permanent breakage of financial bonds. It might imply some changes in the debt contracts[54] and payment terms and can result in extension of maturity terms, reduction of interest rates, and reduction of debts and so on.

Thus, from financial point of view, reorganization restores the integrity of the debtor, who can still carry on with his financial relations and can avail new financing from the same creditors which is a necessary prerequisite for the implementation of any reorganization plan.

[54] In 1983, Roe proposed a strategy wherein existing debt was to be absolved and converted to its equivalent equity within the reorganized firm. He was of the opinion that this would empower the creditors with decision making powers about the future of the firm. Bebchuk (1988) and Aghion, Hart and Moore (1992) suggested a scheme wherein secured creditors will be allocated with equity in the firm and junior claimants receive options to purchase equity. This facilitates lot of coordination issues among the creditors and also solves the problem related to control rights.

3) What is Reorganization from a Social Point of View?

Reorganization from a social point of view allows the continuation of the same corporate entity and at the same time preserves employment. One of the observed advantages of this mechanism, for employees, is that they can continue working on their familiar production lines or business unit. This can be instrumental towards awakening of a spirit of camaraderie between employees and firm owners and can be a big step forward towards a combined effort for stabilizing the business of the firm. The directors/managers are the forerunners of an organization and hence it is noteworthy that they are the ones who can sense a financial threat at its nascent onset. Since this mechanism preserves the company's control with them,[55] they are naturally inclined to take timely preventive action in the wake of an early incoming financial threat. However, it is general point of view that managers do not think much about the creditor's losses and at times intentionally delay the onset[56] for fear of losing their jobs and authority if the bankruptcy system replaces the current incumbent management by a court appointed official. Thus, reorganization process should control this opportunistic and risky behavior of the shareholders thereby preventing reckless risk taking activities.

4) What is Reorganization from a Legal Point of View?

From the legal point of view reorganization does not have any significant impact and ensures the continuation of the same business entity.

[55] However, there are some exceptions too as this process varies from country to county (eg: In UK, directors are removed by a court appointed official)

[56] It has been observed that: "[Under Chapter 11] [s]hareholders, who know they will get peanuts if the firm is wound up, want the firm to keep trading in the hope that it will come good. Creditors, on the other hand, can be damaged every day that the firm trades without a rescue package…Managers have two good motives to avoid a deal with creditors for as long as they can: they keep their jobs longer, and they work for shareholders, who do not want a deal either". For more details refer to the "The kindness of Chapter 11", *The Economist*, 26 May 1991, at 97.

2.4.2.1. What should Sale of Company be considered as: Liquidation or Reorganization?

Within bankruptcy procedures sometimes sales are considered to be a part of liquidation process and sometimes a part of the reorganization procedure. In this section, let us analyse sales from different perspectives:

1) **Economic View**–Sales result in selling of business as a whole or in parts to different business entities. It results in saving of the business but not the entity in itself. There is a big debate whether the business should be saved or the company. For running a company, human and physical assets are required and a combination of these results in a productive activity that generates revenues and adds economic value. Company is a legal entity and comprises of all these activities. In absence of these activities, it is just a name, nothing more. By selling the business to a different legal entity, we redeploy the profitable assets of the company so that they can be optimally used elsewhere, whereas unprofitable assets can be broken down and sold piecemeal. Thus, saving business adds economic value whereas saving legal entity does not create any economic value. Thereby, from economic point of view sales is synonymous with liquidation as assets are transferred to profitable businesses.

2) **Financial View** – Interestingly from the financial point of view, sales cannot be considered as liquidation because financial contracts can be extended or continued under the name of a different legal entity. The payment received from the sale of assets or the business forms the basis of making disbursements to the creditors. Thus from financial point of view, sales commensurate the reorganization procedure.

3) **Social View** – From a social point of view, sales is closer to reorganization than liquidation. Under sales, certain employment contracts can be continued while some contracts can be annulled. Thus from a social perspective, sales can exhibit hybrid characteristics (liquidation and reorganization).

4) **Legal Point –** From the legal point of view, sales is liquidation. The personal legal entity is cancelled and transferred to a different legal entity.

Under the French Legislation, sales as going concern were considered to be the part of reorganization proceedings whereas after the 2005 bankruptcy reforms it has become a part of liquidation procedure. This is not neutral as it reflects the shift from financial and social point of view towards the economic and legal point of view. However, under new reformed administration procedure of UK (effective since 15th September, 2003), saving the company as going concern is considered as the primary objective in the hierarchy of statutory purposes[57]. This means that saving the company gets priority over saving its business. Sealy and Milman (2006) and Goldring and Phillips (2002) argued that the primary purposes of new administration regime were formulated especially keeping the incentives of directors in mind. This encourages the directors to enter into administration as they know their legal entity could be rescued in this process. On the contrary, if the directors know that it is the business that will be saved then they will have no willingness to seek protection under such a reorganization procedure.

2.4.3. Pros and Cons of Liquidation and Reorganization

Having discussed the mechanisms of two main processes of bankruptcy (Liquidation and Reorganization), it will be intriguing to delve into a comparative analysis of liquidation based and reorganization based systems. For this purpose, we will refer to some previous studies conducted primarily in US.

Many researchers have attempted to study the pros and cons of Liquidation based (chapter 7) and Reorganization based (chapter 11) Bankruptcy System (Pulvino 1999, Schleifer and Vishny 1992, Weiss and Wruck 1998). Denis & Rodger (2007) argue that Chapter 11 of US bankruptcy code induces substantial costs by protecting inefficient firms from the

[57] Insolvency Act 1986, Schedule B1

creditors and market forces. To add to this fact Morrison stated (2007) stated that, courts are underfunded and often lack economic expertise and often result in keeping unviable firms alive that should have been liquidated. Weiss (1990) demonstrates that a success rate of up to 86% was recorded for all the quoted companies filing for Chapter 11 during the period of 1980's. Baird and Rasmussen (2002, 2003) find evidence of a decline[58] of this success rate by 24% in 2002, while the usage of Chapter 11, being reduced to half as compared to the 1980's.

Despite of many criticisms against chapter 11, recent empirical work finds evidence that reorganization under chapter 11 of US bankruptcy code is not as expensive as often assumed. In certain cases it has been found to be effective thereby allowing viable firms to emerge out successfully in a faster and adequate manner (Bris, Welch, & Zhu 2006; Denis & Rodgers, 2007; Morrison, 2007). Mooradian (1994) also stated that Chapter 11 can often act as a successful filtering device between the viable and unviable firms.

Couwenberg (2001) finds evidence that reorganization success rates in European countries are considerably low as compared to Chapter 11 of US bankruptcy code. Moreover, he found that international comparisons between several countries were hindered by the lack of significant statistical coherent data. Brouwer (2006) in comparative studies between European and US bankruptcy procedures, exhibits poor functioning of European reorganization procedures as compared to Chapter 11. She further states that the Continental European countries are characterized by a creditor oriented bankruptcy system which is often biased towards liquidations. This is in contrast with common law countries where bankruptcy laws are more debtor oriented and thus provide more chances for survival to a distressed firm. However, here the author fails to recognize the case of UK, which alike US also belongs to common law system but instead of being debtor friendly it is more biased towards creditors. Thus, there is a need for additional work before arriving at any conclusions.

[58] White (1996) showed a very low success rate for small businesses filing under chapter 11.

Without knowing the exact reasons clearly for the success rate of Chapter 11, several countries of Europe amended their bankruptcy codes. They failed to notice the fact that the US and European practices vary drastically. The most significant difference being: who retains the power to manage the firm? In US, the incumbent management remains in control of about half of the reorganization cases filed (Franks, Nyborg, and Torous, 1996). However, this is not the case in European countries where most of the time a court appointed administrator or trustee takes control of the firm. He is the one who formulates a plan for reorganization of the distressed firm. This could explain why management is reluctant to file for reorganization. Moreover, most of the bankruptcies in Europe are initiated involuntarily by the creditors which are in contrast to what happens in 90 percent of bankruptcies in US which are initiated by debtors (Baird, 1991). Managers in general do not think much about creditor's losses and concentrate more on their incentives which results in late filing of bankruptcy and further distresses the firm. Such a bankruptcy system might delay the redeployment of resources to its best use instead of helping the economy in the elimination of nonviable firms (White 1990). Moreover, we see that in countries like France, 90 percent[59] of the bankruptcy filings end up in liquidation and this percentage for UK was 85 percent[60]. Thus, we see that the optimum design of bankruptcy code and what are its key attributes is still an active and debated topic of research and interests researchers worldwide.

So far, we have explained the pros and cons (and consequences) of each outcome, but without having provided a decision rule (which rule should be applied when choosing between liquidation and continuation). Now, we have to adopt a wider view and define what criteria a bankruptcy law should follow to attain efficiency and what should be the objectives of an ideal bankruptcy code.

[59] Blazy R., Delannay F. Anne, Joel Petey and Laurent Weill [2008] "Une analyse comparative des procEdures de faillite: France, Allemagne, Royaume-Uni", Regards sur les PME, n°16, OSEO.
[60] See for e.g., Insolvency service statistics UK:
http://www.insolvency.gov.uk/otherinformation/statistics/historicdata/HDmenu.htm

2.5. Talking about "Efficiency": What Should be the Objectives of Bankruptcy Law?

Economic theory suggests that an efficient bankruptcy regime should be able to distinguish between viable and non viable firms and the latter ones should be eliminated to stop further deterioration of the financial situation of the firm and former ones should be allowed to continue in the best interest of the firm and the stakeholders. This filtering is facilitated by the court and some authors have tried to study the devices[61] available to the courts for enhancing their decision making (Blazy, 2002, Besancenot & Vranceanu, 2005). An efficient bankruptcy regime thus should function as a filtering device allowing efficient firms to continue and inefficient firms to liquidate (White, 1994a, 1994b; Fisher and Martel, 1995). Also, it should be free from type I error (allowing inefficient firms to continue) and type II errors (efficient firms are liquidated).

2.5.1. The Major Objectives: Ex-Post and Ex-Ante Efficiencies

2.5.1.1. Ex-Post Efficiency

The effectiveness of bankruptcy regime as investigated by the researchers is often measured by two of its complementary aspects: Ex Post[62] and Ex Ante Efficiency (Hart, 1995). A procedure is said to be ex-post efficient if it maximizes the value of the distressed firm, involves low bankruptcy costs and transfers the control to the creditors[63]. This signifies that law must choose the procedure that makes the best possible use of the firm's assets keeping in mind the rights of all stakeholders while deciding the priority order for distribution. The ex-post efficiency is determined by two important features of bankruptcy law. First, credible information about the debtor and its company is made available and is duly disseminated to other concerned parties so that they are able to make correct assessments. Second, it aids in decision making process by coordinating the actions of the creditors. Both these factors play an important role in maximizing the value of the

[61] Regis Blazy studied the sanction of faulty managers for abusive continuation of activity. The French legal system can lead to omission of manager or make him liable to pay partially or totally the insufficiency of assets.

[62] Hart (2000) establishes two goals of bankruptcy law: ex post efficiency and ex ante efficiency.

[63] Studies conducted by Baird (1986), Jackson (1986) and Aghion and Bolton (1992) stated that creditors should have the right to choose the future of the distressed firm as bankruptcy results in an implicit sale of firms assets to existing creditors.

firm and also in determining ex-post efficiency. Additionally an ex post efficient procedure impoverishes the over-investment and under-investment problems arising during the bankruptcy process. Over-investment takes place if the company invests in a project that decreases its value, and under-investment occurs if the company is not able to invest in the project that enhances its value. Upon the trigger of default an ex post efficient bankruptcy process, quickly decides between viable and nonviable firms and deploys the assets to their best possible use and thus maximizes their value.

i) How can we measure Ex Post Efficiency in practice?

A lot of empirical work has been done to measure the ex post efficiency of the procedure and often researchers have attempted to use it as a measure to judge the efficiency of the bankruptcy code[64]. However, in reality it is a herculean task because for doing so one needs to determine the liquidation value and reorganization value of each and every firm. While the liquidation value can be easily estimated, problems arise while computing the reorganization value. In US and Canada, under court supervised reorganization procedures, it is imperative for the courts to take 'best interest tests' into consideration. Best interest test compares the value of both the processes from creditor's perspective and chooses the one which provides a creditor a better pay off. However, researchers point out the weakness of this system emphasizing the fact that discount rates used are not appropriate (Klee, 1995). Fisher and Martel (2007) analysed the sensitivity of best interest tests by exploring a sample of 180 firms that filed for Canadian reorganization procedure. They tested the impact of discount rates, the estimated probability of success, time taken to liquidate assets and the market to book value of the assets. They suggested that bankruptcy courts can compare the sum of payments under reorganization to the net market value of the liquidated assets to arrive at the best choice. They do not need to take discount rates into consideration. Consequently, most of the researchers use proxy such as recovery rate (which should be highest for ex post efficient procedure) or the bankruptcy cost (should be lowest for ex post efficient procedure). In addition, to estimate the indirect cost of the

[64] Chapter 11 of the US Bankruptcy Code has received substantial criticism and a primary contributing factor to it is Ex Post Efficiency. For more details, the reader is urged to refer to the works of Baird (1986), Bebchuk (1998), Bradley and Rosenzweig (1992), Hart (1995), Weiss and Wruck (1998)

proceedings, the length of the procedure is calculated which is often regarded as a proxy for indirect costs. These indirect costs are difficult to measure so we use length of the process as a measure of indirect costs arising out of bankruptcy. Inefficiency of bankruptcy code is often judged on these factors. Towering costs, lengthy processes, higher failure rates and low creditor recovery rates all contribute to the ex post inefficiency of the code.

2.5.1.2. Ex-Ante Efficiency

Ex-ante efficiency analyses the effects of legal mechanism on the incentives of involved parties before the firm enters into default, even before any signs of financial distress are evident at the time of making contracts and taking financing decisions. This is the reason why bankruptcy law has been considered a significant factor in determining capital structure of the firm and major financing decisions[65]. The bankruptcy procedures have an impact on the access of credit long before any signs of default are visible. If the creditors[66] believe that they are less protected in the event of bankruptcy, they would increase the cost of credit or refuse it all together. In order to allow easy credit flow, collective procedures must protect the rights of the creditors and allow them to monitor the activities of the borrowers. Thus, bankruptcy procedures are ex ante efficient if they allow the company to undertake profitable projects and turn down projects that involve too much of a risk and at the same time keep a check on reckless risk taking by debtors.

Two main effects on the incentives that are of significance can be observed. Firstly, a bankruptcy procedure keeps a check[67] on excessive risk taking abilities of the managers and provides them with right incentives to manage the firm. Also it is in the best interest of stakeholders that the procedure is triggered as quickly as possible. For instance, criminal penalties on the directors and the managers, who sought to delay the opening of proceedings should encourage them ex-ante to initiate the process early. Secondly, a legal

[65] Bolton and Scharfstein (1996) points out the role of bankruptcy law in determining the capital structure of the firm.
[66] Davydenko and Franks (2008) show how the lenders overcome the lack of creditor protection by demanding more collateral at loan origin.
[67] Loss of job, no share in residual value

procedure reduces the overall cost of borrowing, for the firm, by protecting the rights of its creditors at the time of financial distress.

Thus, legislation is deemed to be effective if it encourages, ex ante, the creditor and debtor to trigger the onset of default in a timely manner. Moreover, the law can explicitly confer the power on to the debtors for the timely triggering of the procedure. By penalizing the managers if they deliberately delay the onset of the procedure, the law might prevent them from undertaking risky projects and keep their activities in check. Thus, from an economic point of view, both ex post and ex ante efficiency are crucial for determining the efficiency of the bankruptcy code. However, in practice ex post efficiency (due to its quantitative nature) is often measured by academics but measuring ex ante efficiency is a complex process and can be laced with plenty of obstacles (due to the qualitative nature).

i) How to Measure Ex Ante Efficiency in Practice?

In practice it is not easy to measure the ex ante efficiency of bankruptcy laws as the behavior of creditor and managers can vary widely from one situation to the other. The effects of bankruptcy law on the design of debt contracts[68] and on the claimant's behavior in terms of monitoring and granting of loans[69] have been discussed widely in the literature. Similarly, the effects on the behavior of managers are varied. A good bankruptcy regime can prevent the managers from undertaking risky projects[70] and thus reduce the moral hazard problem (Grossman and Hart, 1986). It also addresses under-investment problem in firms due to lack of availability of finances[71] and promotes investments in firm-specific human capital.[72] Besides, it aids in communication of information to the creditors and decides the timing of default (Baird, 1991; Berkovitch and Israel, 1998, 1999). Thus, the measures of ex ante efficiency are complex to implement in practice as the predicted sources can be varied.

[68] Gorton and Kahn, 2000; Jappeli, Pagano and Bianco; 2005
[69] Cornelli and Fella, 1997
[70] Gertner and Scharfstein, 1991
[71] White, 1989; Gertner and Scharfstein, 1991; Berkovitch and Israel, 1998
[72] Bebchuk and Picker, 1993; Berkovich, Israel, and Zender, 1997, 1998

The table 2.2 provides you with the literature on ex-ante and ex-post problems as studied by various researchers:

Table: 2.2 The literature on Ex-ante and Ex-Post problems of Bankruptcy law

Reference	Ex-Ante Problem	Ex-Post Problem
White (1980)	Debt overhang	Debt overhang
Eberhart / Senbet (1993)	Incentives to take high risks	
Giammarino / Nosal (1996)	Strategic default	Perk consumption (effort)
Kalay / Zender (1997, s. II)	Underinvestment	Managerial effort
Kalay / Zender (1997, s. III)	Excess continuation	Managerial effort
Cornelli / Felli (1997)	Incentives for monitoring	
Berkovitch / Israel / Zender (1997, 1998)	Investment in firm-specific human capital	
Berkovitch / Israel (1999)	Underinvestment	Allocation of bargaining power
Bebchuk (2002)	Overinvestment in risky projects	

Source: Wohlschlegel (2002)

2.5.2. Common Goals of Bankruptcy Laws

It is difficult to design an optimal bankruptcy law but it should aim at achieving at least the following goals:

a) **Filtering and Maximization of the Value of the Firm:** Whenever default is triggered, managers and the bankruptcy officials are left with determining the market value of the firm. This is a crucial decision based upon which future course of action (liquidation or reorganization) for the defaulted firm is decided. Thus, filtering of

viable and nonviable firms is inherent for any bankruptcy law[73]. This filtering should be accurate otherwise efficient firms will be liquidated and inefficient firms allowed to continue which would result in further economic losses.

A bankruptcy process should maximize the total value of the firm's assets to be divided among various stakeholders. Consequently, firms may be reorganized, sold as going concern, liquidated piecemeal or shut down. Whatever procedure is chosen, underlying principle should remain the same: maximization of the total value of the firm available to stakeholders.

b) Provide Good Incentives Before Default: A good bankruptcy regime should be able to maximize the value of the firm long before any signs of default are evident. This means providing right incentives to the debtors and the managers long before bankruptcy. Often the investment and financial decisions of a firm are taken much before any sign of default surfaces at the horizon. By monitoring the activities of debtors and keeping their risk taking activities under control, bankruptcy laws can ex ante protect the creditor claims. It must be able to sanction the faulty management which destroys the value of the company by undertaking too risky projects and putting the creditor's money at stake.

c) Preservation of the Bonding Role of the Debt: Absolute priority means that senior creditors must be paid in full before any proceeds are distributed among junior creditors and stockholders. It should preserve the bonding role of the debt and keep a check on the entrepreneur's risk taking abilities. This motivates the lenders to finance the companies as they feel confident that contractual agreements entered with the company will be honored even when company defaults. Every bankruptcy law provides for absolute priority order but how far it is followed still remains a question. Moreover, there is still a big debate among the academics about efficiency effects of this feature[74]. In practice we observe quite a lot of deviations from APR.

[73] Fisher and Martel (2004), study a sample of 303 Canadian firms in reorganization during 1977-1988. They find the type I errors (allowing a nonviable firm to continue) are likely to have four times more than the type II errors (shutting down a viable firm).

[74] For some academics deviations from APR is supposed to be beneficial [Bebchuk and Picker (1993), Berkovitch, Israel, and Zender

d) **Protecting the Interests of the Residual Claimants:** One of the reasons companies fall into distress is often attributed to the managerial behavior and excessive risk taking. Bankruptcy law must ensure transfer of control to the creditors who are directly affected by the outcome of bankruptcy and not to people who have been responsible for the onset of default (managers). The future of the firm should be decided by the residual claimants because their lives are directly impacted by bankruptcy. This process ensures that the outcomes are favorably inclined towards the stakeholders as well as in the best interest of the firm.

e) **Saving Procedural Costs:** Bankruptcy process should be easy, flexible and should provide quick and efficient solutions to the firm. As time is considered to be directly proportional to the cost of the procedure, adhering to a strict deadline, defined by laws, ensures a cost effective outcome. This is necessary so that stakeholders receive the maximum value out of the firm's assets and that the value of estate is not lost in lengthy and cumbersome bankruptcy proceedings. In US, these costs are found to consume substantial part of bankruptcy estate (Altman, 1984; Altman and Vanderhoof, 1994).

f) **Finding the Optimal Tradeoff between Transparency and Confidentiality:** Asymmetry of information between the creditors and debtors is one of the biggest obstacles in the way of resolving distress. An efficient bankruptcy regime should transfer credible information to all the stakeholders of the company. This information should be trustworthy and credible[75] so that stakeholders can make decisions. However, in bankruptcy, information is often made public and can trigger panic situations whereas confidentiality prevents panics. Chatterjee, Dhillon, and Ramirez (1995) show less negative abnormal returns for announcement of workout than Chapter 11 filings. Gilson, John, and Lang (1990) further add that stocks returns are more negative for firms that subsequently file for Chapter 11.

(1997, 1998), Baird (1991), Gertner and Scharfstein (1991), White (1989)]. While others believe adherence to APR increases efficiency [Jackson (1986), Hart(1995), Bebchuk (2002)]

[75] DTI/Insolvency Service, Productivity and Enterprise: Insolvency—A Second Chance, (Cm 5234, 2001) ; S Davies QC (ed), Insolvency and the Enterprise Act 2002 (Jordans, Bristol, 2003), p38-39

2.5.3. Changing Objectives of Bankruptcy Law

The treatment of debtors at the time of bankruptcy has evolved over the centuries and so have the objectives of bankruptcy. In the past centuries, the world of bankruptcy was highly stigmatized. The punishment for declaring bankruptcy in ancient Rome was slavery or being cut to pieces while in northern Italy insolvent debtors hit their naked backs against a rock three times before a jeering crowd and cried out, "I declare bankruptcy". In England bankrupt debtors were often put behind the bars and occasionally had an ear cut off. Gradually, the severity of punishment kept on decreasing because with the increase in number of bankruptcies, rising unemployment and the worsening economic crisis, governments felt the need for more humane bankruptcy procedures.

Thus, Chapter 11 of US bankruptcy code was introduced keeping this objective in mind. Its primary objective was to promote corporate rescue by providing a firm with an opportunity of restructuring its debts and for emerging out of its financial difficulties. A lot of theoretical and empirical studies have been conducted on Chapter 11 of American bankruptcy code since then. Inspired by Chapter 11 of American bankruptcy code, European commission in its communication[76] stated that, "Europe must re-examine its attitude to risk, reward and failure. Thus, enterprise policy must encourage policy initiatives that reward those who take risks. Europe is often reluctant in giving another chance to entrepreneurs who fail. Enterprise policy will examine the conditions under which failure could acquire a less negative connotation and it could be acceptable to try again. It will encourage Member States to review bankruptcy legislation to encourage risk-taking". The objective is to promote the survival of viable businesses, to enable smooth exit for non viable businesses and to offer opportunities for fresh start and at the same time fostering entrepreneurship and innovation[77]. As a consequence, a number of European governments (France, United Kingdom, Germany, Belgium, and Spain) reformed their

[76] Commission of the European Communities (2000) Challenges for enterprise policy in the knowledge-driven economy. Proposal for a Council decision on a Multiannual Programme for Enterprise and Entrepreneurship (2001-2005)

[77] Philippe & Partners, Deloitte & Touche Corporate Finance, Bankruptcy and a Fresh Start: Stigma on Failure and Legal Consequences of Bankruptcy, (Brussels, July 2002); European Commission, Enterprise Directorate General, Best Project on Restructuring, Bankruptcy and a Fresh Start, Final Report of the Expert Group (September 2003).

respective bankruptcy law procedures[78] to promote a culture of rescue and provide incentives to creditors who support the rehabilitation process[79] of the debtor corporation.

Governments have demonstrated a rising interest in bankruptcy research with the objectives of enhancing legal framework which would then foster an efficient reorganization process. Most of the countries are becoming debtor friendly which signifies that bankruptcy is comprehended as an economic tool for the protection of businesses and for helping economic growth. Legislations are prioritizing continuations over liquidations (shift from creditor friendly regime to debtor friendly regime), but in practice liquidation remains the dominant outcome of bankruptcy.[80]

2.6. The Orientation of Bankruptcy Laws

Having studied the objectives and main features of an optimum bankruptcy regime, it is inherent to comprehend that under legislation, the notion of efficacy may differ. Some laws focus on the rights of creditors [81](hard laws) while others give freedom to the debtors (soft laws) to continue management of business even after default while others strictly stress on the need for continuation in order to keep employment intact and focus more on social objectives. Consequently "for similar firms filing for bankruptcy in different countries, we could expect different outcomes for creditors depending on the level of creditor protection provided by bankruptcy code".[82] In their seminal work, LaPorta & al. (1997, 1998) have highlighted the difference in bankruptcy procedures across countries. Interestingly enough, such differences are likely to impact the default process and its outcome.

[78] For a detailed discussion of the US Chapter 11, see P Lewis, "Corporate Rescue Law in the United States", in K Gromek Broc and R Parry (eds), Corporate Rescue: An Overview of Recent Developments from Selected Countries (2nd edn, Kluwer Law International, 2006), p333.

[79] S Frisby (2004), 'In Search of a Rescue Regime: The Enterprise Act 2002', 67 MLR 247, 249-251.

[80] France it is observed that 90 percent of the bankruptcies end in liquidations (Blazy, Delannay, Petey, and Weill 2008) and similarly in UK almost 80-85 percent80 of bankruptcies end in liquidations.

[81] For the detailed guidelines for creditor rights see, The World Bank, Principles for Effective Insolvency and Creditor Rights Systems (Revised Draft, 2005).

[82] Davydenko and Franks (2006)

In this section by analyzing the previous literature, we address the following question: does the orientation of bankruptcy codes (which differs from one country to the other) depends on the origins of the legal system or is independent from it?

2.6.1. Classification of Bankruptcy Regimes as Creditor Oriented or Debtor Oriented

We have often seen that corporate bankruptcy regimes have been classified into debtor oriented regimes[83] or creditor oriented regimes[84] or debtor friendly or creditor friendly. Creditor friendly laws are traditionally considered contrary to debtor friendly laws[85]. Debtor oriented regimes are often called as "soft laws" and creditor oriented regimes called as "hard laws". This can be attributed to how the law treats the creditors and debtors rights under bankruptcy (Chopard, 2005). If creditors enjoy more protection in the event of default, then it is termed as creditor oriented regime and if the debtors enjoy more protection upon default, then it is termed as debtor oriented regime.

2.6.1.1. Debtor Oriented

Upon default, under the supervision of the court, if the reorganization plan permits the manager to continue the control of business and additionally provides for complete stay on the enforcement proceedings of the creditors, it is termed as debtor oriented regime. This means that this regime is soft on the management (soft law). Burdened by the poor financial condition of business and the relentless pressures of pursuant creditors, the debtor can choose to seek protection under this regime. It provides them with immediate relief from all creditors' action and also gives them ample time to come up with a reorganization plan. Expecting some kind of return under this form of bankruptcy regime, debtors are tempted to trigger the process at the very first signs of distress. Thus, it makes the process ex ante efficient. But on the other hand, by allowing these rights to debtors it

[83] Chapter 11 of US bankruptcy code 1978 is the best example of debtor-oriented regime, France is also considered to have debtor-oriented bankruptcy regime.

[84] Receivership procedure of UK's Insolvency code 1986 was considered to be highly creditor-oriented procedure. Sweden's auction based bankruptcy system is also considered highly creditor oriented.

[85] For details see, Gilles Recasens (2003), "Faut-il adopter un systeme pro-creanciers de defaillances? Une revue de la littérature", Revue Finance Contrôle Stratégie, vol 6, p119-153.

can give them an opportunity to indulge in ex ante risk taking activities or undertaking risky projects that can later put the company creditors into difficult position and can also encourage moral hazard behavior on the part of managers. Thus, on one hand, we see that debtor oriented regime encourages debtors to trigger the procedure as soon as they suspect first signs of financial distress while on the other hand, it encourages ex ante reckless behavior by the managers and excessive risk taking activities.

2.6.1.2. Creditor Oriented

Upon default and under the supervision of the court, if the reorganization plan replaces the management by a court appointed official (hard on management) and does not provide complete stay of creditors' enforcement rights, it is termed as creditor oriented regime. It allows the secured creditors to enforce upon their collaterals by allowing them to stay out of proceedings. Under this kind of regime, an official administrator takes charge of the complete proceedings and has fiduciary duties towards all creditors. Reorganization plan is formulated by the court appointed official and is voted upon by the creditors while the management has no say in the process. Under such a regime, management can intentionally delay the onset of the procedure as they do not see any incentives for themselves if the company is put under bankruptcy. By delaying the procedure they can keep their jobs intact and also continue to manage the firm and take decisions. Such delays encourage the managers to indulge in over-investment[86] and under-investment[87] activities if they believe that chance of returning to solvency is very low. Consequently, it further deteriorates the position of the firm leaving no chance of survival. Thus, we observe that this type of regime can be ex ante inefficient as it delays the onset of the procedure but can be ex post efficient too by transferring the rights of deciding on important matters to the creditors. It can be ex ante efficient in the sense that it gives secured creditors the right to

[86] J.E. Stiglitz, 'Some Aspects of the Pure Theory of Corporate Finance: Bankruptcies and Takeovers', 3 Bell Journal of Economics & Management Science (1972) p. 458 at p. 462; S. Titman, 'The Effect of Capital Structure on a Firm's Liquidation Decision', 13 Journal of Financial Economics (1984) p. 137 at p. 145; D.E. Ingbermann, 'Triggers and Priority: An Integrated Model of the Effects of Bankruptcy Law on Overinvestment and Underinvestment', 72 Washington University Law Quarterly (1994) p. 1341 at p. 1351; A. Schwartz, 'The Absolute Priority Rule and the Firm's Investment Policy', 72 Washington University Law Quarterly (1994) p. 1213 at p. 1216; R.K. Rasmussen, 'The Ex Ante Effects of Bankruptcy Reform on Investment Incentives', 72 Washington University Law Quarterly (1994) p. 1159 at p. 1172; M.J. White, 'The Corporate Bankruptcy Decision', in J.S. Bhandari and L.A. Weiss (eds.), Corporate Bankruptcy: Economic and Legal Perspectives, (Cambridge University Press, 1996) at pp. 211-15.

[87] See, e.g., G. Triantis, 'A Theory of Regulation of Debtor-in-Possession Financing', 46 Vanderbilt Law Review (1994) p. 901 at p. 920.

enforce upon their collaterals in the event of bankruptcy. This makes them feel protected under the regime and they tend to provide easy access of credit to the firms and thus reduce the cost of capital for the firm.

Thus, to sum up we see that both types of regime have some ex ante and ex post efficiencies and inefficiencies. A good bankruptcy regime should be able to mitigate the inefficiencies of both kinds of regimes by coming up with an optimum design for bankruptcy code and balancing these two aspects of law.

2.6.1.3. Categorising Countries On the Basis of Orientation of Law

We present a table 2.3 below, which is based on a study conducted by Wood in 1995. It ranks the insolvency laws of countries based on their legal orientation (creditor/debtor). According to Wood (1995), a creditor friendly regime recognizes the claims of the creditors to the greatest extent under insolvency while a debtor friendly regime provides adequate protection to the debtors. The latter allows the transfer of control to the debtors in the event of default even if there is no equity left in the firm. From the given table we can ascertain that British law strongly protects the creditor rights whereas France is considered to be worst in creditor protection and hence ranks last in the table and is considered to be a highly debtor oriented country. Whereas as countries like US and Canada fall in the middle in terms of orientation, while Germany and Japan are more inclined towards creditor orientation.

Table 2.3: Creditor/Debtor Orientation of Corporate Insolvency Law

1. Former British colonies except S. Africa and Zimbabwe
2. England, Australia, Ireland
3. Germany, Netherlands, Indonesia, Sweden, Switzerland, Poland
4. Scotland, Japan, Korea, New Zealand, Norway
5. United States, Canada except Quebec
6. Austria, Denmark, Czech and Slovak Republics: S. Africa, Botswana, Zimbabwe (all three Dutch-based);
7. Italy
8. Greece, Portugal, Spain, most Latin American countries**
9. Former French colonies, Egypt, Belgium and Zaire
10. France

Source: Wood (1995)

Scale: 1 = Most pro-creditor
10 = Most pro-debtor

No insolvency law: Liberia (many Arab countries)
Not classified: Russia, Belarus, Ukraine, and Kazakhstan.
*Orientation by explicit law disregarding implementation through the court system.
**Except Paraguay that protects security interests strongly.

In the table 2.4 below, we notice the main determinants of the degree of creditor-orientation of insolvency laws provided by Wood (1995). Protecting the security rights of the creditors in the event of default allows the secured creditors to enforce upon their collateral and thus encourages more financing against collateral. However, strong protection of secured creditors weakens the position of other stakeholders (employees, state and the unsecured creditors) in the event of default. From the perspective of the bank, insolvency procedures must guarantee recovery of their debt. This results in enforcement of loan contracts by taking over the assets that had been pledged against the loan. However, other stakeholders may also have some kind of stake in the firm, but are not well protected by law. Hence the manner in which the legal system protects the creditors or the debtors is often regarded as the basis for judging the efficiency of bankruptcy code.

Table 2.4: Determinants of high degree of creditor orientation

1. Wide scope and efficiency on bankruptcy of security and title financing (retention of title, factoring, leasing)
2. Weak corporate rehabilitation statutes
3. Insolvency set-off enables reciprocal unsecured creditor to be paid ahead of other unsecured creditors
4. *Ownership of assets in the possession of debtor is recognized (e.g. trusts)
5. *veil of incorporation and protection of directors against personal liability

Source: Wood (1995)

*These determinants are ambiguous from creditors' point of view, but creditor- orientation by these determinants can be seen as the recognition of explicit and implicit contracts between the firm and various stakeholders.

2.6.1.4. Does the Distinction Make Sense?

Is it effective to judge the bankruptcy regimes of the various countries on the basis or their orientation of law ("pro-debtor" or "pro-creditor")? We rather believe the distinction to be artificial and even more misleading. For instance, Chapter 11 of US bankruptcy code is supposed to be the most debtor friendly system as it allows the distressed firm's managers to stay in operation. But, on the other hand, if the managers are competent, it may prove to be a creditor friendly feature as it may increase the value of firm available to all stakeholders including the creditors. The availability of new financing during the default process is considered to be a debtor friendly feature as it allows the continuation of the reorganization plan by supplying necessary credit to the firm. However, the super priority status provided to this category of creditors ensures the protection of the rights of post default creditors especially the unsecured ones. In this sense, it can be also be seen as a creditor friendly feature.

Having observed that this distinction does not hold good and suffers from certain flaws, as mentioned above, it cannot be considered as a measure of efficiency of bankruptcy regime. As much we feel that there is further scope for conducting empirical studies for arriving at a definitive conclusion with respect to the ranking of countries based on their legal orientation.

2.6.2. The Legal Origins of Corporate Bankruptcy Codes

The growing literature in law and finance has investigated the differences between legal origins, especially the difference between common law and civil law and their impact on economic performance. Even though the laws of two countries are not supposed to be exactly similar, still the presence of some features can help them to be classified into major legal traditions of the world. "Among the criteria often used for this purpose are the following:

a) historical background and development of legal system
b) theories and hierarchies of sources of law
c) the working methodology of jurists within the legal system
d) the characteristics of legal concepts employed by the system
e) the legal institutions of the system
f) the divisions of law employed within the system" (Glendon et al. 1992, pp. 4-5)

Based on this approach, researchers have identified two broad legal traditions: Common Law and Civil Law. Civil law has further resulted in the origination of three distinct laws: French Civil Law, German Civil Law and Scandinavian Civil Law. Let us now delve into a discussion of the characteristics of these legal regimes:

2.6.2.1. Common Law

Common law originated in England and spread through colonization. It provides great flexibility to its judges as long as their judgments are fair and in conformity with the law of precedent. The judges can administer the case according to their discretion and the outcomes can vary from case to case. The common law is concerned with facts and deciding concrete cases, rather than adhering to logical principles of codified law (Beck and Levine 2003, p 9 f). Common law planted the legal system above the Crown (State) and as such restricted monarch's potentiality to alter property rights and grant monopoly rights (Beck and Levine, 2004, 12). Australia, India, Nigeria, United States and Canada are some notable examples representing common law legal tradition

2.6.2.2. French Civil Law

Contrastingly, civil code originated from French Code Napoleon of 1804. The main intention was to bring about a system of uniform law and replace the fragmented system that prevailed in many countries. This law was pioneered in France and disseminated in the countries under their establishment. Civil law tradition depends on statutes and written codes. Judges have to follow the written code and cannot act with full liberty to exercise their discretionary power. Their powers are restricted by the statues. As such this code is regarded more rigid. The civil law established the supremacy of State over the judges and relegated their powers to minor bureaucratic role (Dawson, 1968). Spain, Argentina, Italy, Belgium, Luxembourg, Portugal and Mexico are few of the notable countries representing French civil code.

2.6.2.3. German Civil Law

Many countries derived their laws from Roman law statutes and codes and came to be classified as civil law family. The German civil law, though sprouted from the French civil code, is considered to constitute a different class because of its differences from the civil code. German commercial code came into existence in the year 1897, after Bismarck's unification of Germany. It impacted and influenced the legislations of various countries: Austria, Czechoslovakia, Greece, Hungary, Italy, Switzerland, Yugoslavia, Japan and Korea. Chinese law is also heavily influenced by German civil law.

2.6.2.4. Scandinavian Civil Law

Scandinavian law is also considered to be originated from civil law tradition. However, it is considered less derivative of Roman law than the French and German civil law (Zweigert and Kotz, 1987). Thus, Scandinavian countries adopted their own civil law which was different from both French civil law and English common law legal tradition and formed a separate family of legal tradition. Norway, Finland, Sweden and Denmark represent Scandinavian legal tradition (La Porta el al,. 1998).

Thus, most of the countries were divided into the four dominant legal origins- Common Law countries, French Civil Law countries, German Civil Law countries and Scandinavian Civil Law countries.

2.7. Understanding Bankruptcy: Through Law and Finance Approach

Failure of firms is an inherent element of any economy. Economic growth requires that old and obsolete activities must be abandoned so that the economic resources are deployed for better and profitable projects. Bankruptcy is a legal process which allows the termination of such inefficient firms. However, in recent times the objectives of bankruptcy laws of many countries have been reformed to incline them towards rescue culture. Some of the legal origins provide for quick and strict liquidation of firms whereas some allow chances for restructuring activities. Countries offering liquidation are often referred to as creditor oriented regimes as their main aim is to satisfy the claims of their creditors. Whereas countries offering rehabilitation are considered to be debtor oriented as they believe that the firm has potential and can be revived out of financial difficulties. Based on these differences, some authors have attempted to study how the legal orientation affects the legal rights of creditors and shareholders under bankruptcy proceedings.

The law and finance theory can be traced back to two seminal and widely cited papers by LaPorta, Lopez-de Silanes, Shleifer and Vishny (LaPorta et al., 1997, 1998, henceforth LLSV). Their findings demonstrate that Common Law countries (Anglo-Saxon) generally provide the best investor protection whereas Civil Law origin (French, German and Scandinavian) countries provide the least investor protection while French Civil Law countries often fall into worst category. These studies established the supremacy of Common Law over Civil Law tradition especially the French Civil Law. This supremacy of Common Law over others was further established by various distinguished researchers (for example see: Davydenko and Franks, 2007, Classens and Klapper, 2005; Djankov et al, 2008).

However these studies have often restricted themselves to a weak description of bankruptcy laws: either through a basic opposition between “creditor friendly” and “debtor

friendly" approaches or with a non comprehensive computation of very few indexes (four in LLSV and Doing Business Report, World Bank), which is clearly insufficient given the complexity of individual legislations and also the number of rival procedures existent in each given country. These approaches did not consider the dynamics of bankruptcy laws in each country and were rather restricted to a biased view.

2.7.1. Impact of Legal Origins on Creditors' Rights

Recent literature in law and finance has established the significance of creditor rights and the role played by them in determining the development of financial systems and in affecting the firm's corporate governance and financing patterns. Recent financial crisis further highlighted the importance of bankruptcy laws with respect to rights of creditors and their efficiency in confronting and preventing corporate distress. These creditor rights not only significantly impact the ex post resolution of financial distress but also affect ex-ante risk taking incentives and an economy's degree of entrepreneurship more generally.

We also observe how these specific creditor rights affect creditor behaviors during the resolution of financial distress. If the insolvency law provides for automatic stay[88] during the bankruptcy process then creditors try to renegotiate their claims and prefer to opt for out of court solutions. On the contrary, if the insolvency law does not provide automatic stay on assets during the bankruptcy process, creditors run to grasp the assets and trigger a creditor's race[89] which consequently deepens the chances of bankruptcy and also reduces the value of the firm.

Similarly, presence of absolute priority rule[90] in the insolvency law helps in determining the payout order for the creditors (senior creditor being paid first followed by unsecured creditors and residual going to shareholders). Absence of this law would have resulted in conflicts of interests and coordination issues among the creditors and could have induced

[88] United Nations Commission on International Trade law (UNCITRAL), Legislative guide on Insolvency law, 2004, p217-230.
[89] Bulow and Shoven (1978), Gertner and Scharfstein (1990), and Longhofer and Peters (2004)
[90] White (1989) and Hart (2000)

hold-out problems[91]. Presence of this law ex ante reduces risky behaviour of the debtor and hence reduces chances of bankruptcy. However, if the shareholders believe that they are not going to receive anything out of bankruptcy, they may attempt to delay its onset and also initiate high risk projects with the intent of increasing their incentives and protecting their jobs[92]. This in turn depends on the fact that whether the managers are automatically removed during the bankruptcy process or they continue to manage the business thereafter. Thus, behavior varies according to the variance in the law.

In some countries, behavior of the creditor varies with the judicial efficiency of the system and its enforcement. Creditors are keen on pursuing a formal bankruptcy procedure if they believe that the law is efficient. Thus, a country having an efficient legal enforcement regime will witness larger number of bankruptcies[93]. On the other hand, a weak enforcement regime would see debtors and creditors negotiating privately to avoid high costs of bankruptcy. Ayotte and Yun (2009) find a link between the optimal bankruptcy code and the legal environment. They show that the creditors should be granted more rights under bankruptcy for countries with inefficient judicial system and a low quality of judiciary.

Several countries have reformed their bankruptcy regimes making it debtor friendly thereby simplifying the process of corporate rescue. However, the efficacy of these reforms has been hampered by the lack of empirical evidence across countries on the effects of bankruptcy use and efficiency. The cross country empirical evidence has been limited to the general effects of creditor rights and fails to explain the interaction of specific creditor right features on the judicial system and other inherent country characteristics. From this perspective, we highlight the work of three main papers that

[91] Gertner and Scharfstein (1991) study the problems which can be manifested with the presence of multiple creditors. One such significant problem is holdout, which emanates if public debt is diffusely held. To remedy such situations, bankruptcy law can force upon the creditors terms of reorganization proposal. Cram down provisions of chapter 11 of US bankruptcy code is an example of how can court use its powers.

[92] For detailed analysis of ex post and ex ante efficiencies see Cornelli and Felli (1996).

[93] As evidenced through studies conducted by Classens and Klapper (2003), the incidence of bankruptcies is significantly less in countries governed by the French Civil Law as compared to countries with English orientation. This leads them to believe that bankruptcy is more dominant in countries having efficient system of judiciary The creditors are more willing to resolve financial distress through court if ex-ante they are able to write strong contracts and ex-post they are expect speedy and efficient recovery through courts

came close to providing cross country comparisons and contributed to the existing literature by using different methodologies and complementary answers.

2.7.1.1. Building Legal Indexes Based on Comparative Law

LLSV in their comparative studies[94] empirically measure the legal protection of minority investors, based on a set of rights[95] of shareholders and creditors: securities exchange, the law of bankruptcy and corporate competition law and commercial code.

LLSV (1998) studies a set of legal rules protecting shareholders and creditors under bankruptcy. They measure the prevalence of these rules in a sample of forty-nine developed and developing countries. In the given sample they have 21 countries representing French Civil Origin, 18 countries representing Common Law, 6 countries representing German Civil Origin and 4 representing Scandinavian tradition. The authors then compare the legal rules and quality of their application throughout the world. In this context, LLSV classify countries according to the legal culture into four groups: the Common Law, Civil Law countries: French, German and Scandinavian. To empirically measure the legal protection of minority investors LLSV developed two indicators. The first indicator relates to the protection of the rights of minority shareholders called "anti-director rights" which is further composed of eight rights (six of them are binary and two continuous). These are as follows:

1. One share one vote (one if company law or commercial code of the country requires that ordinary shares carry one vote per share; zero otherwise).
2. The opportunity to vote by proxy (one if shareholders are allowed to mail by proxy vote; zero otherwise).
3. The absence of an obligation of shareholders to transfer their securities to a trustee approved by the General Assemblies (one if firms are not allowed to require their

[94] Taking place in 1997, 1998, 1999 and 2000
[95] Investors are also protected by regulations of stock markets and certain accounting standards.

shareholders to deposit their shares prior to a General Shareholder Meeting thus preventing them from selling those shares for a number of days; zero otherwise).

4. Cumulative voting or proportional representation of minority shareholders on the board (one if shareholders are allowed to cast all their votes to one candidate in the election of board of directors or if there exists a system of proportional representation in the board by which minority interests may name a proportional number of directors; zero otherwise).

5. The existence of a protection for minority shareholders in case of oppression (one if minority shareholders are granted either a judicial venue to challenge the decisions of the management or if the assembly or the right to step out of the company by requiring the company to purchase their shares when they object to certain fundamental changes, such as mergers, assets dispositions and changes in the articles of incorporation; zero otherwise. Minority shareholders are those who own 10% or less share capital).

6. The right of pre-emption (one if shareholders are granted the first opportunity to buy new issues of stock and this right can only be waived off by a shareholder vote; zero otherwise).

7. Extraordinary meeting (minimum percentage of ownership of capital required to call for an extraordinary shareholders' meeting. It ranges from 1% to 33%).

8. Mandatory dividend (equals the percentage of net income that firms are required to distribute as dividends among ordinary shareholders; zero for countries without such a restriction).

The value of the indicator "anti-director rights" is obtained by the sum of all the marks awarded to the six selected rights, knowing that each right is represented by a binary variable. At the end of their econometric study, LLSV find that Common Law countries are characterized by regimes of protection for shareholders significantly better than those of Civil Law. (Table 2.5 given below).

Table: 2.5 Anti-directors and Creditor Rights Index

	Common Law (18)	French Civil Law (21)	German Civil Law (6)	Scandinavian Civil Law(4)	International Mean (49)
Index : Anti-Director Rights	4	2,33	2,33	3	3
Index : Creditor Right	3,11	1,58	2,33	2	2,30

Source: LLSV (1998)

The second indicator relates to the rights of creditors which in turn are composed of binary variables, representing five rights for the legal protection of creditors and out of these, 4 are binary variables and one continuous. Ranking of this indicator can vary from 0 and 4. These creditor rights are:

1. Reorganization Rules (one for the imposition of certain restrictions to obtain creditors consent to file for reorganization; zero for countries without such restrictions).
2. Automatic Stay (one if the reorganization proceedings do not impose an automatic stay on the assets of the firm during reorganization proceedings; zero otherwise).
3. The Priority given to secured creditors (one if the secured creditors are ranked first in the distribution of the proceeds of a bankrupt firm; zero if non-secured creditors such as state, employees etc are given priority).
4. Stay of Management (one if the official appointed by the court or the creditor takes charge of the business operation; zero if the debtor retains the control of the business).
5. Legal Reserve (minimum percentage of total share capital mandated to avoid dissolution of an existing firm).

From creditor right indexes, LLSV argue that the countries of Anglo-Saxon legal tradition offer more protection to creditors as compared to Civil Law countries, including French Civil Law. (table 2.5 above)

From these two indicators, the authors confirm the existence of two families: Common Law and Civil Law. They find that Common Law countries are characterized by regimes

of protection, for shareholders and creditors, significantly better than those of Civil Law countries, including French Civil Law. The values of indicators representing the rights of shareholders were recorded as follows: For common law countries (4 which is maximum), for countries following Scandinavian Civil Law (3) while for countries following French and German Civil Law (2.33). The indicator of creditors' rights is highest in common law countries (3.11) and lowest in French Civil Law countries (1.58) whereas Germanic and Scandinavian Civil Law countries provide medium protection to creditors (2.33 and 2 respectively).

Besides investigating the prevalence of creditors' rights under bankruptcy proceedings during a cross-country comparison they also employed these results to show the importance of the legal protection of investors in explaining the differences in the structures of ownership and control in one hand, and modes of corporate governance on the other.

The strong point in their approach of research was that it offered an innovative (legal indexes) way for comparing several countries. However, the weakness of their approach is that they employed only 4 indexes to describe creditors' rights during bankruptcy. Moreover, these 4 indexes signify different implications and which raises an important question: Should it be considered wise to aggregate them and arrive at ratings? Analogically, can we add apples with mangoes, certainly not! These indexes imply different meanings and adding them together is not a wise decision. For instance these indexes take the value of 0 or 1 based on creditors' rights within a particular country. However, with a varied menu of bankruptcy procedures, this approach becomes highly vague and misleading. For instance in France, "does the manager stay in reorganization proceedings?" The answer is yes for "*sauvegarde*" and "*concilliation*" but under "*redressement judiciare*" sometimes no, as the insolvency practitioner might replace the incompetent managers. This highlights the fact that even within one country answers can be different. Therefore, here the relevant level of analysis should not be country specific but specific to procedures prevalent within a country. Thus, as evident now, their approach did not consider the dynamics of bankruptcy process and was based on a general country

specific analysis rather than taking account of the specific procedures prevalent in each country. In the chapter 6 of the thesis we resort to procedure level analysis rather than the country level analysis. In this chapter, we try to augment, previous studies which were conducted in the fields of Law and Economics that built very few legal indexes (four) to rank economies, we drastically increase this number (158 legal indexes) in our studies.

While the work of La Porta et al. provided detailed insights on the features of creditor rights, still there can be many other unexplored aspects of bankruptcy wherein creditor rights differ across countries. Thus, given the complexity of individual legislations and also the number of rival procedures existent in each given country, rating the economies on the basis of investor protection and legal tradition with a non comprehensive computation of very few indexes (four in LLSV) is clearly insufficient. Their approaches did not consider the dynamics of bankruptcy laws in each country and were rather restricted to a biased view. In spite of receiving high accolades, these studies are not free from criticism (Singh et al., 2001; Fohlin, 2000; Berkowitz et al., 2003; Stulz and Williamson, 2003; Licht et al., 2001; Acemoglu et al., 2001, 2002; Ranjan and Zingales, 2003). The results of the legal argument may be questioned if one opts for the "stakeholder value". In this model, the objective is to maximize the total value of the company and the interests of all stakeholders are taken into account. Further, shareholders are set to the same status as other stakeholders (employees, customers, suppliers ...). An empirical study conducted by the OECD (1999) in fact shows the existence of two groups of countries. On one hand, countries of continental Europe and Japan that are characterized by high protection of employees and low investor protection and on the other hand, the United States and Great Britain where the reverse situation is observed (Pagano and Volpin, 2001). Hence from a "stakeholder value" Civil Law countries are more effective than those of Common Law.

These criticisms essentially reveal the lack of empirical depth in the work of LLSV; however, it does not in any way affect the reputation acquired by these authors on the international level. The methodology used by these authors in turn, is replicated by

numerous studies despite the fact that it raises questions about the reliability of the results announced.

Ultimately, it is essential to evaluate the results of Law and Finance theory in the context of a Civil Law country such as France and Common Law country like UK. However both countries flag contrasting objectives with respect to creditor protection under bankruptcy.

2.7.1.2. Building Legal Indexes Based on a Hypothetical Case Study

Djankov et al. (2008) studied efficiency of debt enforcement in 88 different countries belonging to different legal origins and representing different economic characteristics. To facilitate this, the authors build up a hypothetical firm, which is a hotel and is insolvent. The same case study is presented to the practitioners of 88 countries and their responses are recorded. The firm has employees, has a capital and ownership structure and has higher going concern value and lower piecemeal liquidation value. The hypothetical case is presented to the practitioners and they are asked to describe the way in which debt contract[96] is most likely to be enforced (foreclosures, liquidation or reorganization) in their respective countries. On the basis of this, authors collected the time and costs involved in computing a measure of efficiency of the debt enforcement procedure for each country. In addition, the authors also collected information on legal origins and economic characteristics, to study the effect of institutional features on efficiency of debt enforcement.

The authors emphasize the significance of legal origins in determining the efficiency of a debt enforcement procedure. According to the results obtained by the authors, Common Law performs better than the French and German Civil Law, taking into consideration all the procedures (foreclosures, liquidations and reorganizations). German Civil Law performs better than the French Civil Law when it comes to foreclosures and liquidations but lag slightly behind when it comes to reorganizations. The reason for poor performance

[96] A corporation generally finances its business through a combination of equity and debt. Debt facilitates the company with its financing based on the certain contractual agreements between the company and the debt provider. These debt contracts require timely payment of interest to the debt provider. However, a situation might arise that leads the non-payment of these debts by the company. In that case, the creditors have the right to obtain their assets and go after the assets of the debtor. However, this procedure gets complicated in the presence of multiple of creditors where everyone is entered in a race to grab most of the assets to meet their lending amount.

by French Civil Law countries is due to the fact that no matter what kind of procedure they apply, they only succeed in keeping Mirage (hypothetical name of the hotel) as a going concern in 16 percent of the cases whereas in Common Law countries it is 75 percent. French Civil Law countries take 3.4 years to resolve debt whereas Common Law countries take 1.56 years on an average. They also documented the deviations in absolute priority rule[97] in relation to senior creditor's debts. These deviations were more prevalent in poorer countries and those belonging to French legal origin. In these countries, many a times, law gives priority to employees, preferential creditors or even the shareholders over secured claims which is believed to hamper the development of debt markets.

The Doing Business Report (2010) uses the same approach in order to rank 183 countries by studying 10 indicators of small and medium sized enterprises that measure the regulations applying to them through their life cycle (from starting of business to closing of business). The bankruptcy issues are contained in 'closing a business' topic, and exhibit the recovery rate in these economies. For this indicator, UK is classed in the 9th percentile where as Germany and France fall into 35th and 42nd percentile. The results are obviously similar to Djankov et al. (2008); UK appears to benefit most from the efficient bankruptcy regime than Germany and France. Yet, this study is based on a hypothetical case and what happens in reality can be completely different and dynamic.

The potency of their approach is that it is able to remove the heterogeneity between the countries by presenting a similar hypothetical case to all practitioners that facilitates cross country comparisons. But it is not free for criticism as well. First, its main weakness lies in the fact that it is hypothetical in nature and far away from reality. It fails to adapt to the local conditions and the environment. Second, this hotel had 201 employees, 50 suppliers and one major secured bank. Can this be considered as a representative of a typical company within the sample countries? In UK probably yes, but not in France, where the

[97] La Porta (1997, 1998) uses violation of absolute priority order by law as a measure of creditor rights index. The authors obtained quite intriguing results for violations of absolute priority rule. According to their results, only 45 percent of the countries in their sample are able to abide by the rule and 55 percent of them deviate from it. 33 percent of high income group countries deviate from absolute priority rule. 50 percent of upper middle income group countries deviate from absolute priority rule, and 74 percent of lower income group countries deviate from rule. With respect to legal origins, no violations occur in Nordic law countries. The authors find that 25 percent of common law countries deviate from this rule, 52 percent of German civil law countries deviate from this rule and 74 percent of French civil law countries violate the rule.

bulk of the hotels have less than 5-10 employees. Third, the estimated variables related to bankruptcy costs and recovery rates are only vague estimates because they are not based on real case studies and do not rely on statistics and credible data samples. Fourth, they choose a rather simple capital structure having only one secured lender, whereas in reality it is common to have more than one secured lender. Thus, to rank the countries on the basis of this study can be misleading and jeopardizing. A more comprehensive and serious measurement methodologies should be used based on real cases rather than hypothetical case backed by professional wisdom as well as guided by practical rules.

2.7.1.3. Building Legal Indexes Based On Empirical Data

Davydenko and Franks (2007) using the data from ten banks of France, UK and Germany, study a large sample of 2280 defaulted small to medium sized firms. The question they addressed in their paper is "whether the bankruptcy codes affect distressed reorganizations, and can lenders overcome the lack of creditor protection by adjusting their lending practices at loan origination"?

They found evidences that the legal rights of banks across the countries (UK, France and Germany) tend to correlate and vary with the significant differences in banking strategies and outcome. In particular, French banks resort to the creditor-unfriendly code by demanding more collateral from lenders than in UK and Germany. They also reckon on special collateral forms in order to minimize the risk of dilution during court administered bankruptcy procedures. Even after such alterations, the bank recovery rates remain the lowest in France.

Thus, outcome of bankruptcy may vary distinctly with the levels of creditor protection. In a debtor friendly country, where debtor has increasingly higher control over bankruptcy proceedings, the creditor recovery may be low and in countries where creditor's rights are well protected during the proceedings, creditor recovery may be high. In France the main objective, as defined explicitly by laws of 1985, is to maintain the firm and preserve

employment[98]. To attain these objectives court can even sell the firm to a lower bid if it promises to keep employment contracts intact. The creditors have no rights to vote in a reorganization plan and their approval is not required by the court to initiate reorganization proceedings. Contrastingly in UK before Enterprise Act of 2002, under the Receivership[99] process, secured creditors had the right to appoint a receiver out of court, who had fiduciary duties only towards the appointee. Indeed, assets were realized in a manner to attain highest recovery for secured and floating charge creditors and other parties had no right to veto his appointment. Germany is a country adopting a middle approach. Here, the reorganization procedures require the approval of creditors and they retain considerable right during this process.

Davydenko and Franks (2007) find evidence that banks do tend to alter their lending and reorganization practices depending on the bankruptcy code. They found that in a pro-debtor country, banks demand for more collateral at the point of loan origination to mitigate the risk. France is the best example as French banks demand for higher levels of collateral per dollar of debt. Moreover, types of collateral also vary distinctly in these countries. Real estate is the best form of collateral practiced in UK and Germany as it promises good bank recovery. Contrastingly in France, due to the current bankruptcy codes, courts often tend to sell the assets intentionally below market price, if it promises to preserve employment. Also in addition, preferential claims such as wages and legal fees during bankruptcy tend to dilute bank's claims. As a result of which French banks prefer collateral forms like accounts receivable and personal guarantees as they can be accessed directly by them with no risk of dilution by the preferential creditors. Thus, types of collateral at loan origination vary with the type of bankruptcy code in place. Secondly, they found that even though the bank alters its lending practices depending on the bankruptcy codes, it hardly affects the outcome of default. They exhibit undiscounted median recovery rate for banks- 92% in UK, 67% in Germany and 56% in France. However, they find that the recovery rates in workouts are very similar across these three countries. Thirdly, they find that contrary to the expectations of many academics, a

[98] See, Kaiser (1996) for more detailed analysis of French bankruptcy law.

[99] For detailed criticism of receivership process see, Benveniste (1986), Aghion, Hart and Moore (1992)Milman and Mond (1999), Finch (1999) and Mokal (2004)

creditor friendly country like UK, which is more biased towards liquidations and where secured creditors enjoy more freedom to sell their collateral[100], seems to have a growing proportion of going concern reorganizations. Whereas in France, where the objectives clearly state survival of business and preservation of employment as their primary motives of insolvency, they observed a low proportion of going sales reorganizations as compared to UK. Fourthly they argue in support of the effect of institutional features in understanding bankruptcy legislation. UK is represented as a market oriented economy whereas France and Germany are considered to be bank oriented. This affects the way the lending practices are carried out. UK banks can demand higher interest rates even when expected losses are low, because it has higher industry concentration and lower competition among banks.

Their regression results confirmed that recovery rates tend to vary with the kind of creditor protection that the country offers. Their results confirmed the supremacy of a Common Law country over a French Civil Law country. The author suggests that the levels of collateral affect the number of bankruptcies because banks often use formal procedures for the selling of collateral. Thus the number of bankruptcies is higher in countries where collaterals are used. One of their interesting findings exhibited the strong relationship between reorganization and age of the firm. They showed that the firms which have long credit relations with the banks are less likely to be liquidated. This is because in such cases banks often have complete information about the firm and are likely to save them by offering some negotiations. Their results are coherent with the studies conducted by Giammarino (1989) and Chen (2003) who show that the higher the level of information shared, the more are the chances of survival.

To summarize: we notice that works of Davydenko and Franks (2007) depicted large disparities in the legal rights of banks across three countries (UK, France and Germany) correlate with significant changes in banking strategies and outcomes. In particular, French banks have a Coasian approach to their national pro-debtor bankruptcy code. They require more collateral than lenders in the UK or Germany. They also rely on special

[100] Hart (2000), Acharya, Sundaram, and John (2006)

collateral forms which minimize their risk of dilution during the court administered procedure. Still, they report that bank recovery rates remain inferior in France due to the lack of creditor protection.

We acknowledge the strength of their approach to include both formal bankruptcies and informal renegotiations. Yet their results are restricted to bankers' claims only. It is noteworthy that, since the objectives of insolvency laws do not restrict to the bankers' interests only, but must embody all classes of claimants (employees, state, trade suppliers and so on), this is a critical issue.

With our empirical research we aim to contribute the existing literature. We not only aim to provide a detailed and comprehensive view of determinants of recovery rates in UK and France but also provide global recovery rates, taking into consideration all classes of creditors for each country (senior creditors such as banks, preferential creditors such as employees and state dues, junior and unsecured creditors like trade suppliers, new money which encompasses claims arising after bankruptcy petition) and also the practitioners fees that is a measure of the bankruptcy costs.

In contrast to the previous studies conducted by LLSV, Djankov et al. (2008), Doing Business Report and the World Bank which used only 4 legal indexes to rank the economies, we built legal indexes, based on 300 questions, for both the countries that provide answers to what we call as 10 functions of bankruptcy laws. This template and its functions will be analyzed in detail in the last chapter of the thesis. This will exhibit that creditor right index is not the sole criteria for judging the efficiency of any bankruptcy code nor the legal tradition approach appropriate to judge the efficiencies of debt contracts. We link these indexes to our empirical work to provide a more appropriate relation between these two countries and to find impact of these legal indexes on the recovery rates. In addition we built indexes for all the main bankruptcy procedures prevalent in both these countries (for instance for UK we have indexes for 4 main procedures and for France for 2 main procedures). It is crucial to separately analyse each procedure as the objectives of each procedure under bankruptcy can vary drastically, even within the same country. In this manner, we aim to provide credible solutions to the most critical weakness of the previously conducted studies.

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CHAPTER 3

The choice between Informal and Formal Restructuring

(Co-written with Prof. Regis Blazy and Prof. Jocelyn Martel)

2. The Choice Between Informal and Formal Restructuring: The Case of French Banks Facing Distressed SMEs

3.1. Introduction

In their seminal work, LaPorta & al. (1997, 1998) have highlighted the difference in bankruptcy procedures across countries. Although there have been harmonization attempts, there still exists important differences in their functioning.[101] Interestingly enough, such differences are likely to impact on the default process prior to bankruptcy. From a conceptual point of view, default can be viewed as a two-step mechanism. First, a firm fails to repay its debt obligations or chooses to postpone the payments in which case it can open up negotiations with its creditors in order to reach an informal (out-of-court) restructuring agreement or it can file for bankruptcy. Second, the negotiation process may succeed or fail, in which case the firm will seek protection from the bankruptcy court.

According to Haugen and Senbet (1978, 1988), given that private restructuring is less costly than the formal bankruptcy process, firms in default and their creditors have incentives to negotiate out-of-court. By doing so, they can internalize these costs savings. However, the increasing number of bankruptcy procedures show that, although less costly, out-of-court restructuring is not always feasible. The tradeoff between the out-of-court and the court solutions is not straightforward and depends on a number of factors such as the classic common pool problem, the nature of the banking relationship, the national specificities of the bankruptcy law, the presence of asymmetric information and the design of debt contracts. Recent studies in Europe have examined the variables that influence the creditors' and the debtor's strategies taking place just after default. Franks & Sussman (2005) examined the UK system while Jostarndt & Sautner (2010) focused on Germany. These studies cover two of the most important European legal systems; the Common Law and the German Civil Law. However, both systems have significant differences, especially with regards to the design of their bankruptcy codes. Surprisingly, no study has yet been performed on the French Civil Law. Yet, this legal system has inspired other important legislations in continental Europe such as Belgium or Luxembourg.[102]

[101] See La Porta *& al*. (1997, 1998) for a classification of bankruptcy systems in the world.

[102] Luxembourg in known to attract most of the European investment funds due to its attractive legal environment, including its bankruptcy law.

This research contributes to the bankruptcy literature by examining the decision between an informal (out-of-court) negotiation and a formal bankruptcy procedure for a sample of French firms in default. Unlike previous studies considering the default resolution as a static process (simple Logit or Probit approach), we model it as a two-step dynamic process. First, the debtor and its creditors decide between opening up negotiations to arrive at an informal restructuring or filing for a formal bankruptcy procedure. Second, conditional on opting for the workout solution, this process may either lead to an informal agreement between the parties (success) or a formal bankruptcy procedure (failure). Indeed, one can expect that the decision to undertake private negotiations is conditional on the expected outcome of the informal restructuring procedure. Given that structure, we propose to use a sequential LOGIT model that explicitly considers the two transitional steps.

We test a number of hypotheses. The first hypothesis (H1) deals with the coordination and bargaining problems faced by firms in default. The coordination argument suggests that the likelihood of entering into an informal negotiation process decreases with the number of creditors while the bargaining power argument suggests the opposite. Hence, there may be a tradeoff between these two effects and this may depend on the legal environment in which the negotiations are taking place. We believe that, in the context of the French court-administered system, the bargaining power argument may dominate the coordination argument. The second hypothesis (H2) reflects the informational problems prevailing when a firm is in financial distress. These problems can be mitigated through the length of the banking relationship between the bank and the firm and the use of collateral acting as a signaling device on the firm's quality level. We predict that the likelihood of an informal restructuring increases with the length of the banking relationship and the level of collateral. The third hypothesis (H3) captures the impact of the firm's characteristics. We predict that the likelihood of an informal workout increases with the firm's profitability and the manager's competence level. Finally, the fourth hypothesis (H4) examines the role of the loan characteristics on the type of procedure used to resolve financial distress. This effect is captured by two variables; the size of the loan and the level of collateral. We predict that the probability of an informal workout increases with the size of the loan while

the collateral effect is undetermined and depends on the strength of the liquidation bias of banks and the severity in the application of the absolute priority rule.

The analysis is based on an original data set collected from five major French commercial banks.[103] Under the supervision of *Standard & Poor's Risk Solution*, the data was manually collected from the banks' recovery units. The sample includes 735 credit lines allocated to 386 distressed companies. Following the Basel II criteria, a firm is considered in "default" when the repayment delay exceeds 90 days. Our variables cover the firms' individual characteristics such as the company's profile, the cause of the default, and the loan characteristics.

Our main findings are that the likelihood of negotiation i) decreases if the firm has a bank as its main creditor which suggests that the bargaining power argument dominates the coordination argument and ii) is positively related to the size of the loan and the proportion of loan term debt. In addition, we find that the firm's profitability and the managers' reliability and competency do not impact on the initial decision to opt for negotiations over bankruptcy but they are essential elements in successfully reaching an informal agreement. Finally, we find that collateral has no significant impact on the choice between bankruptcy and negotiation and on the outcome of negotiation.

The article is organized as follows. Section 3.2 offers a review of the literature on the resolution of financial distress. Section 3.3 presents the different hypotheses which could explain the decision between informal restructuring and formal bankruptcy. In Section 3.4, we discuss the data and present some descriptive statistics. Section 3.5 presents the econometric implementation of the sequential LOGIT estimation and the results. Section 3.6 concludes.

3.2. Resolution of Financial Distress

Strictly speaking, a firm is considered in financial distress when it cannot meet its current obligations as they become due. The Basel II criteria define a firm as being in "default" when its scheduled payments are delayed for more than 90 days. In such circumstances, the debtor and its creditors must find a solution. There are basically two mechanisms for the resolution of financial

[103] This data set is the French part of a wider database (France, United-Kingdom, and Germany) examined by Davydenko and Franks (2008).

distress. First, stakeholders can open up negotiations with the objective to arrive at an informal (out-of-court) restructuring of the firm's capital structure. Typically, this involves the reduction of current obligations or their postponement to a later date. Second, they can opt for a formal bankruptcy procedure in which the firm can either file for liquidation or reorganization under the supervision of the bankruptcy court. According to Haugen & Senbet (1978), Roe (1983) and Jensen (1989, 1991), given that the costs of an informal restructuring (workout agreement) is lower than a formal restructuring under the protection of the bankruptcy law, firms in financial distress should opt for the later in order to internalize the cost difference which could then be shared by the debtor and the creditors. There exists some empirical evidence to document this prediction. Gilson, John and Lang (1990) examined 18 exchange offers of publicly traded firm and estimated that offer (workout) costs represented 0.65% (median of 0.32%) of the book value of assets. Based on a sample of 29 exchange offers, Betker (1997) reports a mean direct cost of 2.5% (median 2%) of pre-restructurings total assets. These are typically lower than direct bankruptcy costs associated with a court-supervised procedure such as the U.S. Chapter 11. Finally, informal workouts are also known to be faster than a court-supervised procedure, involving lower indirect costs.[104]

There is still a lot to be learned on the structure of informal workouts and the extent to which it is used by firms in financial distress. Unlike a formal bankruptcy procedure, negotiations leading to workouts are often confidential in order to preserve the company's ongoing activity and its goodwill. It ensures confidentiality on the financial difficulties encountered by the firm and the associated negotiations with creditors, preserve creditors' confidence and the firm's image for investors and the public. For instance, Chatterjee, Dhillon, and Ramirez (1995) show less negative abnormal returns for announcements of workouts than for Chapter 11 filings. Gilson, John, and Lang (1990) find that stock returns are more negative for firms that subsequently file for Chapter 11. This represents evidence that the market is able to identify firms that will successfully renegotiate its debt. In addition, Franks and Torous (1994) report that firms that successfully reach a workout agreement with their creditors are more solvent and more liquid than firms emerging from court-supervised restructuring. In addition, they find that senior

[104] See Hotchkiss, John, Mooradian & Thornburn (2008) for a complete survey of bankruptcy costs in the U.S.

creditors in private workouts are ready to forego some of their priorities to junior creditors, which illustrates the importance of bargaining in the context of a workout agreement.

Yet, a large number of firms end up in a formal bankruptcy procedure. There are a number of reasons which explains this outcome and they are linked to the impediments to reaching an informal agreement. Indeed, there are well known conditions under which a private workout is the efficient solution to financial distress: i) single creditor, ii) complete contracts, and iii) symmetric information. However, in practice, these conditions may not be satisfied which makes an informal agreement more unlikely.

A first impediment to informal workout is the presence of many creditors. Studies by Bulow & Shoven (1978), Gertner & Scharsfstein (1991), Franks & Torous (1991), Roe (1987) and White (1989) have illustrated the problems arising in a multi-creditors context. First, this gives rise to holdout problems whereby each individual creditor has an incentive to holdout, hoping that the rest of the creditors accept the agreement. This is particularly important in the case of public debt restructuring in which a new agreement on the interest rate, extension of maturity and the principal requires unanimity. By holding out, a creditor hopes to increase the relative value of its claims in the event that the agreement is signed by all other parties. As pointed out by Grossman & Hart (1981), this effect may be stronger for lower rank creditors, especially those with small claims (individual bondholders and trade creditors), who may feel that their decision to hold out has little impact on the outcome of the restructuring process. Thus, given that each creditor has the same incentives, negotiations may fail. According to Blazy & Chopard (2004), such free-riding incentives could be reduced if the bankruptcy law was to allow some deviation from absolute priority rule. These deviations could then be internalized through the private negotiation process [Friedman & Viswanath (1994)].[105]

Second, the presence of many creditors may lead to the formation of coalition and conflict of interests. For instance, managers, representing equity holders, may have an incentive to form a coalition with the bank in order to extract a rent from bondholders. In addition, different classes of creditors may have different preferences on the outcome of the negotiation and this may lead

[105] See Weiss (1990) and Franks & Torous (1989, 1991) for evidence of APR deviations.

to a common pool problem and a race for the firm's assets by individual creditors. In such a case, reaching an agreement that suits all parties may become impossible.

A second impediment to informal workout is the incompleteness of contracts. As argued by Hart (1995), complete contracts are difficult and costly to enforce because assets and cash flows may vary over time, in which case contracts would need to be continuously adjusted. Given these difficulties, it may be impossible to design a contract that would specify the most appropriate procedure to follow in every state of nature. Hence, contracts are by definition incomplete.

Finally, a third impediment to informal workout is the presence of asymmetric information. The main issue at stake in a restructuring is the firm's value. It is generally accepted that managers are better informed about the value of the firm's assets and future cash flows than outside creditors and investors. This informational advantage may then be used by managers to extract a rent from creditors. In this context, Giammarino (1989) and Mooradian (1994) have showed that poorly informed creditors may prefer a formal court-supervised restructuring, and more costly process to an informal workout. According to Carapeto (2005), the presence of information asymmetry can lead to extended bargaining, requiring several rounds of negotiations before any agreement can be reached. Hence, from a creditors' point of view, the existence of uncertainty on the firm's value can propel them to go for a costly bankruptcy procedure in which they would get better and more accurate information on the true value of the firm. An alternative point of view has been suggested by Hotchkiss and Mooradian (2003) who show that in the context of bankruptcy auctions, a combined bid for the firm by a coalition of the management and creditors may convey positive information about the firm's true value to outside investors.

There exists some empirical evidence on the difficulties of reaching an agreement in an informal setting. Gilson, John, and Lang (1990) who examined a sample of 169 financially distressed firms report that 53 percent fail to restructure privately. Franks and Torous (1994) find similar results. According to Jensen (1991), the legal environment in which informal workouts are conducted may partly explain the decline in the relative use of private workouts. He cites the example of LTV Corp. bankruptcy case, where the court held that the debtholders who initially participated in the out-of-court restructuring were only compensated for the reduced claim they have agreed

upon in the agreement whereas debtholders who holdout, received the full amount of their original claim. This decision is expected to have a negative impact on the creditors' behavior and may reinforce their incentives to holdout during informal workouts.

Although there are real impediments to informal workouts, there are means by which they can be mitigated. Gilson, John & Lang (1990), show that negotiations in informal workouts are more likely to succeed when firms have closer relationships with their bank and deal with a smaller pool of banks. Similar results were found by Hoshi, Kashyap and Scharfstein (1990) in their study on Japanese industrial firms that had privileged relationship with their banks. Gilson & al. (1990) also find that the firms with a larger proportion of intangible assets in their asset structure prefer informal workouts to a formal restructuring procedure in which they have a higher chance of losing firm value through fire sales or loss of customers. In addition, they suggest that the likelihood of reaching an informal workout agreement increases when the firm has fewer categories of debt, especially if there is a high proportion of long term bank debt. Indeed, a smaller number of debt categories and more debt owed to banks, which are assumed to be better informed, have a positive impact on the outcome of the negotiations. James (1995) and Asquith, Gertner, and Scharfstein (1994) also claim that presence of public debt, as opposed to private bank debt, may hinder the workout process. Finally, Chatterjee, Dhillon, and Ramirez (1995) show that the choice of out-of-court restructuring depends on the firm's debt level, its short term liquidity and probability of occurrence of coordination problems among creditors.

It is now clear that the choice between either an opening up of negotiations for an informal restructuring and a formal bankruptcy procedure depends on a number of factors and that, in fact, there are reasons why stakeholders may opt for the more costly formal procedure. The next section develops a number of theoretical hypotheses that can be found in the literature in order to explain that decision.

3.3. Hypotheses

This section reviews the main theoretical arguments and proposes a number of hypotheses on the factors which may have an impact on the resolution of financial distress.

3.3.1. Hypothesis 1: Coordination vs. Bargaining Power

One common view in the bankruptcy literature is that the formal bankruptcy can minimize the coordination problems arising during debt restructuring. To quote Jackson (1986),

"The basic problem that bankruptcy law is designed to handle, both as a normative matter and as a positive matter, is that the system of individual creditor remedies may be bad for the creditors as a group when there are not enough assets to go around. Because creditors have conflicting rights, there is a tendency in their debt-collection efforts to make a bad situation worse. Bankruptcy law responds to this problem."

By freezing the rights of all creditors, formal bankruptcy offers a collective procedure to avoid the common property problem and allows for a fair valuation of the firm's assets and the creditors' individual rights in order to maximize the value of the firm.[106]
As mentioned in the previous section, a number of authors have shown that informal workouts are more likely when there are fewer classes of creditors and when a large portion of long term debt is held by banks. Hence, debt restructuring through a private workout is more difficult to reach as the number of creditors increases simply because of coordination problems. The lack of coordination is amplified when creditors have different rankings in the absolute priority ordering (APO). We can now state our first hypothesis.

H1.A (Coordination): The probability of renegotiation decreases with the number of creditors.

Yet, a recent study has argued the opposite, suggesting a positive relationship between the number of creditors and the probability of an informal workout. Dewaelheyns and Van Hulle

[106] This mechanism is country specific with the USA, UK, Germany and to some extent France (since 2005) relying on a voting procedure by creditors and France (except for the "sauvegarde" procedure) relying on the discretionary decision of a judge.

(2009) consider a firm in default with a single creditor (bank). In such a setting, the coordination problem disappears since the bank does not have to compete with other potential creditors in bankruptcy so that informal negotiation and formal bankruptcy offer similar advantages. As argued by the author, "*the bank may be less supportive (…) if the chances that substantial value may be lost in the future are high. In practice, reorganization is unfeasible with bank support*". Now, let's transpose this argument in a framework where the choice between renegotiation and bankruptcy is in the hands of a bankruptcy judge such as the system prevailing in France. In addition, let's suppose that the bank has a liquidation bias. Given that the debtor has no chance to survive without the bank's support, the bank should not fear the bankruptcy procedure as it can expect the court to have little choice but to liquidate the firm since there are no possibilities for the debtor to find alternative sources of financing in order to continue its operations. This argument is reinforced by the fact that if a firm has a single creditor with a strong bargaining power, the later may be too greedy during negotiations and thus force the firm to opt for formal bankruptcy. This outcome is a credible one for countries, such as France, which are strongly debtor friendly.

The alternative hypothesis to H1.A is thus:

H1.B (Bargaining): The probability of renegotiation increases with the number of creditors.

One can expect these two effects to be at play in the resolution of financial distress. Although we believe that the bargaining argument dominates the coordination argument in the context of the debtor friendly bankruptcy system such as in France, this is a matter of empirical verification.

3.3.2. Hypothesis 2: Information

Most theoretical works in economics and finance are based on the assumption that the banks are under-informed relative to managers, thus generating adverse selection and moral hazard problems. Adverse selection stems from the bank's inability to observe the quality of the project to be financed. Moral hazard is associated to the debtor's opportunistic behavior. Namely, once

the funds have been granted to the firm, the debtor may not provide the optimal level of effort or invest in riskier projects.

There are different means by which these two problems can be mitigated. First, information asymmetry is less severe when the firm and the bank have been involved in a long term credit relationship. *Ceteris paribus*, being more informed should increase the likelihood of an informal renegotiation since there is less need to trigger bankruptcy and pay the associated costs in order to discover information. In addition, reputation and trust are build over time in the context of a long and stable financial relationship. Triggering bankruptcy may break that trust and reputation and destroy such accumulated value.

H2.A: The probability of renegotiation increases with the length of the banking relationship.

Second, collateral can be used as a signaling device by "high quality" borrowers in order to separate themselves from "low quality" borrowers. Indeed, the use of collateral is assumed to be more costly for "low quality" borrowers having a higher risk of default and hence more likely to lose their collateral [Bester (1985), Besanko and Thakor (1987)]. In addition, collateral can be used to reduce moral hazard problems and align the borrower's and the bank's interests, since a higher value of collateral imposes a greater loss on the borrower in the case of default. This incentive effect is stronger in the case of outside collaterals that extend limited liability to some external assets [Boot, Thakor and Udell (1991), Hainz (2003)].

H2.B: The probability of an informal workout increases with the level of collateral.

One should note that this argument is being challenged. According to Berger and Udell (1990) and Jimenez and Saurina (2004), banks have sufficient information (financial reports, movements on the bank account, random audits…) to sort adequately their borrowers. For instance, banks use credit scoring to assess a firm's default probability and screen between good and bad firms. This argument is known as the "risk-observed" hypothesis. In addition, as we will see next, the use of

collateral can have additional opposite incentives effect on the banks to participate in a negotiation leading to an informal workout.

3.3.3. Hypothesis 3: Firm's characteristics

The likelihood of opting for a renegotiation also depends on a number of firm specific factors such as i) the firm's profitability and ii) the reliability of the managers (competency) to run a successful restructuring. An increase in profitability is synonym for higher cash flows if the firm is restructured and a lower probability of default in the future. More competent managers are also more likely to be in a position to successfully restructure the firm in the context of an informal workout. Therefore, we can make the following hypotheses:

H3.A: The probability of an informal workout increases with the firm's profitability.

H3.B: The probability of an informal workout increases with the manager's competency.

3.3.4. Hypothesis 4: Loan characteristics

In addition to the above factors, we believe that the likelihood of private renegotiation depends on the loan characteristics, in particular on the amount of the loan (or maximum value of loan authorized) and the level of collateral granted by the firm. These two variables are related to the "expected loss" (EL) as defined by the Basel 2 agreement.[107]

First, let's examine the impact of the loan value. One can expect the bank's behavior to be a function of the size of the loan. Indeed, a bank has more incentives to try to reach an informal agreement when its stakes in the firms are large.[108] From that perspective, a formal bankruptcy procedure provides a standardized way of resolving distress irrespective of the firm's size whereas informal negotiations are more adequate for large and complex companies.

[107] According the 1st pillar of the Basel 2 agreement, the expected loss is the combined product of three elements: probability of default, exposure at default, and loss given default.

[108] Banks also have more incentives to invest time and money to gather information about the debtors when the size of the loan increases.

H4.A: The probability of an informal workout increases with the size of the loan

In addition, one can expect that the likelihood of renegotiation be related to bank's financial involvement in the firm's long term financing.

H4.B: The probability of an informal workout increases the proportion of long term debt in total debt

Second, the use of collateral can have opposite effects on the likelihood of an informal workout. On the one hand, as we have seen above, collateral can be used to mitigate information asymmetries between the bank and the firm.[109] On the other hand, it provides protection for the bank in the event of bankruptcy. Indeed, financial distress generally implies that all the creditors cannot be repaid in full. Among them, the secured creditors are those who are likely to have the highest bias in favor of liquidation, especially if their loans are fully secured. Several theoretical and empirical works pointed out this bias. For instance, Blazy and Chopard (2010) identify the circumstances under which the secured creditors prefer reorganization over liquidation: such circumstances depend on (1) the level of collateralization, (2) the absolute priority rule, (3) the capital structure, and (4) the beliefs about the firm's reorganization value. Other recent empirical works confirm that the likelihood of reorganizing the debtor is negatively correlated with the level of creditors' seniority [Ayotte and Morrison (2009), Bergström, Eisenberg, and Sundgren (2002), Fisher & Martel (2009)]. As a consequence, secured creditors may reduce the collective effort to maintain distressed firms' in operation [Frouté (2007)].

However, this effect depends on the bank's position in the absolute priority rule prevailing in each country. Indeed, a strict application of the APR in which secured (bank) claims are well protected may reduce the bank's incentives to try to arrive at a negotiated agreement. Inversely, bankruptcy codes which allow for deviations from the APR may reduce the attractiveness of bankruptcy procedures and force the parties to enter into informal negotiations in order to reach an out-of-court settlement. As pointed out by Davydenko and Franks (2008), the French bankruptcy law offers a weak protection for secured claims at the expense of a greater protection

[109] See Hyp. H2.A

for social claims. Thus, French secured creditors have more incentives to favor an informal restructuring over a formal bankruptcy procedure. Thus, depending on the relative strength of these factors, we can make two alternative hypotheses:

H4.C: The probability of an informal workout increases with the level of collateral if the bank has no liquidation bias and there are deviations from the APR.

H4.D: The probability of an informal workout decreases with the level of collateral if the bank has a liquidation bias and there are no deviations from the APR.

As we can see, the impact of the collateral is difficult to predict since it may capture different effects.

3.4. Data Analysis

The data comes from five major French commercial banks and were hand-collected from their recovery units. Our sample contains 735 credit lines allocated to 386 French distressed firms (excluding agricultural and financial companies). After dropping observations with missing or incoherent data, the final sample includes 282 distressed companies.[110]All firms in the sample have liabilities in excess of 100 thousand €. We thus focus on SMEs and exclude micro borrowers. The sample covers firms in default between 1993 and 2003 for loans granted between 1984 and 2001.[111] The event of "default" follows the Basel 2 criteria: a firm is considered in "default" as soon as the delays on its financial commitments exceed 90 days.

The variables collected cover i) the company's profile, ii) the origin of the default, and iii) information on the loan and the debtor's banking relationship. Tables 1 and 2 provide some stylized facts on firms in our sample. The first table offers a comparison of the characteristics of firms in bankruptcy and informal renegotiation. The second table focuses on firms in renegotiation and offers a comparative analysis between firms which failed and those which succeeded in their negotiation attempt.

[110] The econometric analysis is based on a final sample of 233 firms.
[111] The sample comes from a larger database we built between 2004 and 2005 under the supervision of *Standard & Poor's Risk Solution*.

3.4.1. Bankruptcy vs. Renegotiation

Out of 282 firms in the sample, a majority of firms opted for bankruptcy (65%) over negotiations (35%). When looking at Table 3.1, the first striking feature is that although firms opting for renegotiation appear to be different than those in bankruptcy on the basis of the mean value of the different listed variables, there are very few aspects on which there is a statistically significant difference. For instance, let's consider measures of firm size. The mean value for total assets, total debt, turnover and number of employees for firms in renegotiation is two to three times larger than for firms in bankruptcy while the median values are quite similar. A test of difference in means concludes that there is no statistical significant difference between the two samples based on these variables. One of the reasons is that there is a large variance in each of the two samples.

Long term debt represents over 25% to 30% of total debt, while short term debt, measured by the sum of short term bank debt and trade debt, represents over 50% of total debt financing. Both types of firms exhibit negative cash flows (cash minus short term bank debt) at the time of default, although this problem seems to be a bit less severe for firms in renegotiation. Interestingly, there is no statistical difference in the capacity of both types of firms to generate sales from their assets, as measured by the turnover to assets ratio.

Over 40% to 45% of firms in the sample belong to a group and the vast majority has limited liability, this number being slightly higher for firms in bankruptcy. This may reflect the fact that because of limited liability, shareholders for this type of structure have incentives to take more risks than others, so that the chances to renegotiate are ultimately lower. The proportion of firms operating in the "Services" industry is significantly higher (41% vs. 26%) for the renegotiation sub-sample. Interestingly, the industry distribution in our sample differs from the one prevailing for French firms in bankruptcy where Commerce, Industry and Services represent respectively 22%, 48% and 30% of the industrial sectors.[112]

[112] Insee nationale série statistics défaillances d'enterprise

Table 3.1: Characteristics of Firms in Bankruptcy and Negotiation

	Formal Bankruptcy			Renegotiation		
	#obs.	Mean	Median	# obs.	Mean	Median
Total assets (K €)	93	7 307	2 317	60	17 328	2 255
Total debt (K €)	91	5 681	2 118	60	11 691	2 060
Total assets / total debt	91	1.24	1.15	60	1.29	1.16
Long term debt (K €)	90	843	377	60	5 085	492
Short term bank debt (K €)	89	1 508	288	60	1 136	234
Trade debt (K €)	91	2 447	642	60	2 942	547
Long term debt / total debt (%)	90	26.5	19.0	60	30.1	25.0
Short term debt / total debt (%)	90	53.6	60.0	60	49.5	48.0
Cash (K €)	91	254	29	60	1 098	25
Cash flow (K €)	91	-1 235	-176	60	-38	-125
Turnover (K €)	92	9 181	3 128	60	18 204	2 007
Turnover / total assets (K €)	91	1.69	1.32	60	1.3	1.05
Nb. Employees	136	60	22	48	202	16.5
Age (years)	183	15.0	9.8	99	17	8.1
Firm belong to a group (%)	183	45.4	--	99	39.4	--
Limited liability (%)**	183	92.4	--	99	81.8	--
Commerce (%)	183	36.1	--	99	34.3	--
Industry (%)	183	21.1	--	99	19.2	--
Services (%)**	183	26.2	--	99	41.4	--
Bank is the main creditor (%)	165	57.0	--	99	52.7	--
Length of bank's relationship (years)	183	6.7	4.3	99	7.4	4.6
Length of default resolution (years)**	183	1.03	0.83	99	1.5	1.0
Maximum loan authorized (K €)**	169	436	275	91	1 075	450
Collateralization rate**	169	1.87	1.04	91	1.1	1.0
Bad rating at time of default (%)	183	40.0	--	99	44.0	--
Faulty management (%)	183	19.0	--	99	19.0	--

Source: Authors' calculations

Note: * and ** indicate a statistically significant difference in mean values at 10% and 5% level.

The data also contains information on the behavior of management and in particular whether or not the management was "faulty".[113] This information can be found in the internal reports of the banks' recovery units which contain a literal description of the origin(s) of default from which we

[113] Dummy variable if one of more causes of default are related to faulty management: conscious acceptance of non-profitable markets, over-investment, under-investment, excessive speculations, private benefits and fraud.

identified 50 possible origins of default which were then classified in six broad categories: "asset substitution", "voluntary excessive risk taking", "private abuse of the company's assets", "tricky behavior and swindle", "accounts falsification", and "financial fraud". According to Table 1, "faulty management" can be found in about 20% of all procedures. Consistent with expectations, over 40% of firms report bad ratings, as measured by a negative Z-value, at the time of default.

According to data, the majority of firms have a single bank as its main creditor, the proportion being slightly lower for firms in renegotiation.[114] This finding is consistent with the fact that SMEs have limited access to financial markets and rely heavily on a single bank to finance its operations. This is even more so in a bank-oriented country like France with a highly concentrated banking sector. The average length of the credit relationship between the debtor and its main bank is around 7 years with little differences across procedures. One should notice that this is about half the firm's life which means that the firm's main bank has been supporting the debtor's activity for half of its lifetime. This also suggests that these banks are lending to companies that are not pure start-ups since they are, on average, 7 years old at the beginning of the relationship. This could be explained by two factors. First, we know that there is a positive correlation between age and loan size and our sample includes only firms with liabilities in excess of 100 thousand €, therefore excluding younger firms with smaller loans. Second, in France, start-up businesses of less than 2 to 5 years of age are mainly financed by specialized financing rather than traditional loans. In fact, a significant percentage of the French start-ups are financed by a public financial institution named OSEO.[115]

Firms which opted for an informal renegotiation have access to more banks financing than those filing directly for bankruptcy. Indeed, the average maximum loan authorization for firms in renegotiation (1.1 million €) is statistically and significantly higher than for those in bankruptcy (436 000 €). This data is consistent with hypothesis H4.A on the loan size effect. On the other hand, loans of firms going directly in bankruptcy are significantly more collateralized than that those of firms in private restructurings. This is consistent with the hypothesis H4.D which states that banks may turn more easily to bankruptcy when their loans are more secured. Based on data

[114] The criterion used to determine whether or not the bank is the "main creditor" is not clearly defined. This is a qualitative statement that can be found in the individual internal reports provided by the recovery units.
[115] The OSEO's website is: http://www.oseo.fr/

for France, the U.K. and Germany, Dadydenko and Franks' (2008) suggest that the French banks require more collateral when they grant a loan. In addition, they may rely on special collateral forms which minimize the risk of dilution during the court-administered bankruptcy procedure. Our data is consistent with this view.

Finally, as expected, the length of default resolution is greater for firms which enter in a private workout than those which file directly for bankruptcy.

3.4.2. Successful vs. Failed Renegotiation

As mentioned above, 99 out of the 282 firms in our sample opted for a negotiation with its creditors. About 55% of these firms succeeded in reaching a workout agreement while 45% failed. Table 3.2 reports the same information as Table 3.1 but focuses on firms which opted for an informal renegotiation and compares the characteristics of those that failed from those that succeeded. The first important feature reported in Table 3.2 is that size matters in renegotiation. Indeed, firms that succeed in reaching an informal workout are statistically and significantly larger, as measured by total assets, total debt and turnover, than those that fail. In addition, on average, successful firms seem to be in better financial health than those that fail with a higher asset to debt ratio and positive cash flows. Although firms which succeed in renegotiation have significantly more short term debt than those that fail, there is no statistical difference in the proportion of short term debt in total debt.

Table 3.2: Characteristics of Firms in Negotiation by Outcome

	Failed Negotiation			Successful Negotiation		
	#obs.	Mean	Median	# obs.	Mean	Median
Total assets (K €)**	23	2 930	1 856	37	26 273	2 248
Total debt (K €)*	23	2 892	1 758	37	17 161	2 211
Total assets / total debt**	23	1.03	1.05	37	1.45	1.30
Long term debt (K €)	23	581	311	37	7 763	617
Short term bank debt (K €)**	23	504	200	37	1 528	268
Trade debt (K €)*	23	1 163	447	37	4 048	637
Long term debt / total debt (%)	23	27.0	25.0	37	31.9	21.6
Short term debt / total debt (%)	23	52.3	56.0	37	47.9	46.8
Cash (K €)	23	130	10	37	1 699	37
Cash flow (K €)	23	-374	-147	37	170	-90
Turnover (K €)**	23	5 944	1 517	37	25 825	2 302
Turnover / total assets (K €)	23	1.48	1.18	37	1.18	0.99
Nb. Employees	32	30.7	11	16	543	27.5
Age (years)	45	16.6	7.3	54	17.3	8.3
Firm belong to a group (%)	45	40.0	--	54	39.0	--
Limited liability (%)	45	87.0	--	54	78.0	--
Commerce (%)*	45	44.0	--	54	26.0	--
Industry (%)	45	20.0	--	54	18.5	--
Services (%)**	45	28.0	--	54	52.0	--
Bank is the main creditor (%)	44	59.0	--	49	47.0	--
Length of bank's relationship (years)	45	7.5	4.4	54	7.3	5.0
Length of default resolution (years)**	45	2.04	1.34	54	1.03	0.83
Maximum loan authorized (K €)	40	827	305	51	1 270	594
Collateralization rate	40	1.13	1.0	51	1.05	1.0
Bad rating at time of default (%)	45	43.0	--	54	46.3	--
Faulty management (%)	45	25.0	--	54	13.0	--

Source: Authors' calculations

Note: * and ** indicate a statistically significant difference in mean values at 10% and 5% level.

About 40% of firms in the sample belong to a group and the vast majority has limited liability, this number being slightly higher for firms which failed. The proportion of firms operating in the "Commerce" industry is significantly higher for failing firms while successful firms are more represented in the "Services" industry. "Faulty management" seems to be more prevalent in failing cases but there is no statistical difference between the two samples. The proportion of failing firms which have a single bank as its main creditor is a bit higher than for successful firms.

It is well known that informal restructuring and/or bankruptcy are time-consuming procedures. As pointed out by Wruck (1900), Franks & Torous (1989) and Thornburn (2000), the time in bankruptcy can be used as a proxy for indirect bankruptcy costs. Data shows that the time to complete a successful informal workout takes, on average, half the time (1.03 years) as the one it takes for failed workouts (2.04 years).[116] This suggests that failed restructuring attempts are much more costly than successful restructurings and that, banks have incentives to correctly identify the likelihood of reaching an agreement with the debtor prior to opening up the negotiations. If the expectations are too low, the bank should favor the use of the formal bankruptcy procedure, which is much faster, in order to minimize the costs. Hence, informal negotiations to find a solution to financial distress should only be opened when the bank estimates that the probability of success is high enough.

Lastly, firms which successfully reorganized in a private workout have, on average, a maximum loan authorization in excess of 50% of those that failed. There is no statistical difference in the collateralization rate between the two sub-samples.

3.5. Econometric Implementation and Results

Two recent studies have examined the determinants of financial distress resolution. Franks and Sussman (2005) focused on the United Kingdom while Jostarndt and Sautner (2010) looked at the German system. These two studies cover two of the most important legal systems prevailing in Europe: the Common Law and the German Civil Law. Unfortunately, no studies have yet been

[116] The length of the default resolution covers the period from the date of entry into the recovery unit to the date of the final resolution (private workout or liquidation / sale / reorganization under bankruptcy). It does not include the extra time needed to definitively close the file (i.e. when all the proceeds are recovered).

done to examine the resolution of financial distress under the French Civil Law which has inspired other important legal systems in continental Europe (Belgium, Luxembourg…). Thus, we have an incomplete view of the process driving the default resolution in Europe.

Franks and Sussman (2008) study a sample of 542 distressed SMEs and covers the complete default resolution process from its beginning to its end. More specifically, once the default firm enters the bank's "Business Support Unit", there are three possible outcomes: 1) the firm is successfully rescued (so that the firm returns to branch), 2) the firm is transferred to the "Debt Recovery Unit" (where formal bankruptcy procedure starts) and 3) the firm repays the loan and enters into a new banking relationship with another lender. The authors analyze the links between the debtor's financial structure and the way financial distress is resolved. Using PROBIT regression to model the probability of triggering bankruptcy (outcome (1)) *vs.* the probability of escaping bankruptcy (outcomes (2) and (3)), they show that the liquidation rights are largely concentrated in the hands of the main banks, which give them a dominant position in liquidating or restructuring their debtors. One of the likely effects is banks may become lazy as they rely too much on the value of their collateral. Overall, their study does not find any evidence of coordination failures and/or creditors' runs.

Jostarndt and Sautner's (2010) adopt a similar approach and focus on a sample of 116 listed German companies having earnings before interests and taxes (EBIT) inferior to the interest charges for more than two consecutive years. Also using a PROBIT regression, they model the probability of reaching a successful workout. According to the authors, the approach is robust and is not subject to potential endogeneity bias[117]. The authors find that about half of the firms in their sample succeed in restructuring their debt contract while the other half file for bankruptcy.[118] Overall, their results suggest that the probability of reaching a private agreement is greater for (1) highly leveraged companies and for (2) companies exhibiting higher going concern

[117] As pointed out by the authors: "The exogeneity assumption can be justified by the actual process of a debt-restructuring: firms choose a certain debt structure first and then, upon a default, renegotiate the pre-determined terms. However, borrowing arrangements could also be determined endogenously *ex ante* by claimants' expectations about a firm's restructuring prospects in case of a future default. In this case, the coefficients in the above regressions would provide us with correlations but do not allow for a causal interpretation of the link between the borrowing characteristics and the workout probability of a firm" (quoted from Jostarndt and Sautner (2010)).

[118] In this study, we may suspect a sample bias as it focuses on the German distressed companies for which the assets' value is high enough to cover the expected bankruptcy costs, so that a formal bankruptcy procedure can be triggered (the sample on bankruptcy is restricted to "opened files" only).

value. Formal bankruptcy is more likely to happen for the cases showing lack of lenders' coordination and/or high fraction of collateralized debts.

Despite their valuable contribution to the literature, one may raise some concerns about the econometric implementation of both approaches which model the resolution of financial distress as a one step rather than as a sequential game. By doing this, the authors implicitly assume that such outcomes stem from a static rather than a dynamic process. In reality, most attempts to resolve financial distress follow a sequential structure. First, the creditors and/or the debtor decide between straight bankruptcy and a renegotiation in order to reach a private agreement. Second, conditional on opting for renegotiation, the parties may fail or succeed in reaching an agreement. The two approaches are illustrated in Figure 1 which considers three possible outcomes: (1) direct bankruptcy, (2) failed renegotiation leading to bankruptcy, and (3) private agreement. Figure 1a illustrates the simple multinomial LOGIT approach where the choice between the three rival outcomes is modeled as a one-step process. Figure 1b illustrates the sequential LOGIT approach which consists of two transitional steps in which a separate LOGIT regression is run for each decision. These decisions are called "transitions". As quoted by Buis (2007) (2008), this approach is known under several names: "continuation ratio LOGIT" (Agresti (2002)), "model for nested dichotomies" (Fox (1997)), "sequential response model" (Maddala (1983)), or "sequential LOGIT model" (Tutz (1991)). In such models, the first transition consists of an alternative between "direct bankruptcy" and "renegotiation attempt" while the second transition consists of an outcome between "failed renegotiation" (i.e. bankruptcy) and "successful renegotiation" (i.e. private agreement) for those cases that have selected the alternative "renegotiation attempt" during the first transition.

Figure 3.1: Resolution of financial distress

Figure 3.1a: Static model (simple LOGIT)

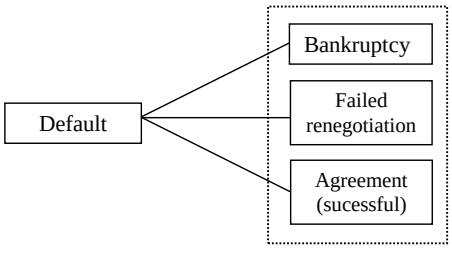
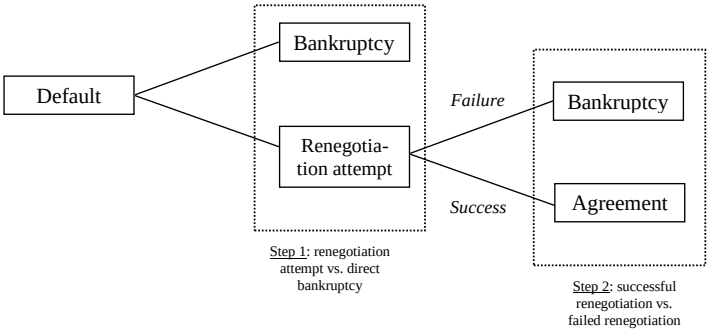


Figure 3.1b: Dynamic model (sequential LOGIT)



Although we believe that the sequential approach is a more appropriate and natural approach to this problem, we estimate both models in order to highlight the differences between the two approaches. In addition, French data clearly distinguish between direct bankruptcies, failed renegotiations leading to bankruptcy and successful agreements. This allows us to account for the accumulation of information over time.

Our explanatory variables are separated into two categories: i) the *test variables* and ii) the *control variables*. The test variables aim at testing the validity of assumptions H1 to H4. The first variable, "Bank is the Company's main creditor" (dummy), aims at determining which of the coordination (H1.A) or the bargaining (H1.B) hypothesis dominates. When equal to one, this variable indicates that the debtor's main (and/or exclusive) sources of financing rely in the hands of one single bank which is also the one in charge of the recovery process. One should note that the company may be financed by other banks (and/or other trade creditors) but these other financing opportunities are marginal as compared to the main one.

Hypothesis H2 captures the importance of informational problems in the context of a banking relationship. The variable "length of the banking relationship" is used to test hypothesis H2.A which predicts that the probability of renegotiation is positively correlated to the length of the relationship between the debtor and its bank. According to H2.B, the likelihood of renegotiation increases with the level of collateral. For the purpose of the analysis, we separate this variable in two: inside and outside collaterals. Inside collaterals cover the securities whose value relies on the debtor's own assets such as mortgage, long-term assets other than mortgage, short-term assets and other inside collaterals. Outside collaterals extend the bank's priority to other patrimonies such as guarantees from individuals and guarantees from companies. Both types of collaterals are included in the list of explanatory variables.[119]

Hypothesis H3 deals with the impact of the firm's characteristics on the firm's decision between bankruptcy and renegotiation. This effect is captured by two variables: i) firm's profitability (H3.A) measured by the dummy variable "bad rating at default" and ii) manager's competency (H3.B) captured by the dummy variable "faulty management". We also include a variable which

[119] These three variable are taken in natural logarithm.

captures the interaction between faulty management and bad rating. One would predict that a badly rated firm run by faulty management would have a lower chance of opting for renegotiation and/or reaching a private agreement.

Hypothesis H4 relates to the loan characteristics. According to H4.A the firm's decision in financial distress depends on the size of the loan. This effect is captured by the variable "maximum loan authorized". Hypothesis H4.B which looks at the debt structure is captured by the "proportion of long term debt". H4.C and H4.D predict that the firm's decision also depends on the level of collateral (as for H2.B) but its effect depends on whether or not the bank has a liquidation bias and to what extent the absolute priority ordering (APO) is respected. Hence, the variables for collateral may capture different effects.

Finally, we control for other effects that may impact on the debtor's decision between bankruptcy and renegotiation. We include a dummy variable for the legal form of the debtor ("limited liability"), the sector of activity (commerce, industry, relatively to the services), the economic organization ("company belongs to a group"), and the macroeconomic context (GDP growth in the year of default). [120]

[120] In France, the bankruptcy procedure can be extended to other companies if, first, they belong to the same group of the debtor, and second, the respective patrimonies are mingled together.

Table 3 reports the results of two regression models presented in Figure 3. Model I is simple multinomial LOGIT model: the dependent variable is the probability that renegotiation either fails (column 1) or succeeds (column 2) against the reference alternative represented by direct bankruptcy. Model II is the sequential LOGIT model. The first step captures the firm's decision between renegotiation and bankruptcy. The dependent variable is equal to 1 if the firm chooses renegotiation over bankruptcy. The second step models the outcome of the game conditional on the choice of renegotiation by the firm. The dependent variable is equal to 1 if the renegotiation is successful. Estimates of both steps are reported in columns 3 and 4 respectively.

3.5.1. Static Model

The first striking feature about the results in Table 3.3 is that the simple LOGIT approach generates very few significant independent variables. In fact, a Wald test rejects the global significance of the model (the p-value is just above 10%). The Score test is significant (below 3%) but it is less strict than the Wald test. The first column, which reports the estimates of the probability of failed renegotiation, does not show any significant independent variables. The second column reveals that the probability of successful renegotiation (informal workout) increases with i) the value of loan authorization and ii) the proportion of long term debt in the firm's total debt financing. These results are consistent with hypothesis H4.A and H4.B. In addition, the likelihood of reaching an agreement is lower for firms with limited liability, which belong to a group and which operate in the Commerce and Industry sectors. Firms with the bank acting as the main creditor are also less likely to reach an informal agreement. This is consistent with hypothesis H1.B and suggests that the bargaining effect dominates the coordination effect. It also confirms the findings of Dewaelheyns and Van Hulle (2009).

Other test variables such as bad rating, faulty management, length of the banking relationship and the level of collateral have no impact on the likelihood of failing or succeeding in renegotiation relative to opting for direct bankruptcy.

Table 3.3: The determinants of firms' decision in financial distress

Independent variables	**Model I: Simple LOGIT**				**Model I: Sequential LOGIT**			
	Failed negotiation vs. bankruptcy		**Successful negotiation vs. bankruptcy**		**Step 1** negotiation vs. bankruptcy		**Step 2** successful vs. failed negotiation	
Test variables	Estimate	Prob > χ^2	Estimate	Prob > χ^2	Estimate	Prob > |z|	Estimate	Prob > |z|
Bank is the main creditor	-0.0387	0.854	-0.5180**	0.014	-0.5417*	0.094	-1.5516**	0.013
ln (length banking relationship)	0.1595	0.550	0.2338	0.383	0.2097	0.317	0.4005	0.306
ln (internal collaterals, K€)	0.0270	0.708	-0.0479	0.495	-0.0089	0.872	-0.0802	0.394
ln (external collaterals, K€)	0.0068	0.922	0.0167	0.807	0.0085	0.875	-0.0246	0.796
Bad rating at default	-0.1251	0.582	0.1397	0.516	0.0325	0.925	0.4307	0.471
Faulty management	-0.0795	0.800	0.1363	0.639	0.0531	0.910	0.7472	0.361
Bad rating × faulty management	0.6671	0.164	-0.5536	0.396	0.4569	0.571	-2.8897*	0.072
ln (max. loan authorized, K€)	0.2806	0.170	0.4946**	0.016	0.3751**	0.022	0.0603	0.793
% long term debt (due amounts)	0.5140	0.255	0.9828**	0.029	0.7477**	0.034	0.0119	0.986
Control variables								
Limited liability	-0.1157	0.704	-0.4492*	0.088	-0.5956	0.186	-1.1625	0.125
Company belongs to a group	-0.2553	0.209	-0.4358**	0.035	-0.7001**	0.029	-0.5656	0.315
Commerce	-0.0658	0.779	-0.4248*	0.169	-0.5134	0.169	-1.3376*	0.056
Industry	-0.3008	0.246	-0.6243**	0.016	-0.9381**	0.019	-0.8632	0.236
GDP growth	-1.2791	0.928	22.932	0.133	10.2872	0.368	23.8933	0.232
Constant	-3.2410**	0.016	-5.9475***	<.0001	-2.2137**	0.049	1.4809	0.422
Test statistics	**Stat**		**Prob > Chi^2**		**Stat**		**Prob > Chi^2**	
Likelihood ratio	-210.16		--		-185.39		--	
Score	44.11**		0.027					
Wald	37.87		0.101					
Chi^2					49.54***		0.0073	

Source: Authors' calculations

Note: *, **, *** indicates statistical significance at the 10%, 5% and 1% level

3.5.2. Dynamic Model

Let us now assume that the resolution of financial distress follows a dynamic process. The sequential LOGIT estimates for step 1 (renegotiation *vs*. direct bankruptcy) are reported in columns 3 while column 4 reports the estimates for step 2 (successful workout agreement *vs*. failed renegotiation attempt leading to bankruptcy). Compared to the simple static model, we can now identify many explanatory variables which allow us to predict the likelihood of renegotiation over i) direct bankruptcy and ii) reaching a private agreement conditional on renegotiating with its bank.

Let us first consider step 1. According to our regression results, the probability of opting for renegotiation, irrespective of the future outcome, increases with the value of loan authorization and the proportion of long term debt. This result differs from the simple LOGIT which suggests that these two variables have a positive impact on the likelihood of successful renegotiation when the alternative is bankruptcy. The sequential LOGIT suggests that when the amounts at stake are large and/or when the firm has more long term debt, the chance of undertaking renegotiation is higher but this has no influence on the future outcome of such renegotiation. Thus, one can expect small borrowers to be more attracted by bankruptcy than renegotiation. This is consistent with hypothesis H4.A and H4.B.

In addition, firms which belong to a group operate in the Industry sector and for which the bank is the main creditor are also less likely to opt for renegotiation. Again, this confirms the dominance of the bargaining effect (H1.B) over the coordination effect (H1.A).

Turning now to step 2 of the regression model, we find that the likelihood of succeeding in renegotiation is lower for badly rated firms where the management has been identified as faulty. Interestingly, these two variables on the firm's profitability and management's competency have no significant effect on the firm's decision between renegotiation and bankruptcy (hypothesis H3.A. and H3.B). In addition, they have no direct effect on the outcome of the renegotiation process. Yet, their combined effect is negative and

significant. This suggests that when the bank knows that the firm is badly rated and that managers are faulty, the likelihood of reaching a private workout agreement is lower. One can view this result as a natural outcome of the sequential information gathering process. At the early stage of financial distress, the bank may have information on the firm's low profitability through its rating but yet, this piece of information may not be sufficient to have a direct impact on the decision between bankruptcy and renegotiation. In fact, the profitability issue can be overcome if the managers are perceived as competent, reactive, and honest. Discovering the managers' capacity to restructure the firm requires additional time. Although profitability and competency are two essential conditions to avoid bankruptcy, the bank needs time to acquire that information. This explains why the first step of the decision process (renegotiation attempt *vs*. direct bankruptcy) does not depend on these variables but infact it is conditional on entering the renegotiation process, the combined effects of these two variables have a significant negative impact on the likelihood of reaching an agreement.

The fact that a firm has a bank as its main creditor not only reduces the likelihood of entering the renegotiation process but it also lowers its likelihood of reaching an informal agreement. This reinforces the argument that the bargaining effect dominates the coordination effect in financial distress. This is consistent with the argument that a major bank may not wish to renegotiate because (1) the competition with the other minor creditors is expected to be weak under bankruptcy, and/or because (2) the debtor cannot survive without the main bank's financial support. Thus, bankruptcy may be the most desired outcome by the bank.

Interestingly, even a court-administered procedure such as the one prevailing in France may not have dissuasive effects provided the bank's bargaining power is strong enough. On the contrary, such procedure may attract the bank (or, symmetrically discourage the firm) whenever nothing can be renegotiated or reorganized without his (her) support. This is all the more likely to happen in a country where substitutes to credit financing are scarce (in France the SMEs have limited access to the capital markets and rely more on intermediated financing). This first result appears relatively strong as it is confirmed

whatever the way of modeling the arbitration (simple and sequential LOGIT models). In the opposite situation (i.e. when the bank is not the firm's main creditor), a balanced pool of creditors may have strong incentives to overcome the coordination issue, and consequently, to agree together, as they may lose the decision power under a bankruptcy procedure where the final decision is transferred to the court.

Now, let's consider the impact of collateral. As mentioned in Section 2, collateral may have opposite effects on the likelihood of opting for bankruptcy. According to hypothesis H2.B, an increase in collateral should decrease the likelihood of bankruptcy by lowering the information asymmetry between the debtor and the bank. However, hypothesis H4.D predicts that the probability of bankruptcy increases with the level of collateral provided that three conditions prevail: (1) the bank prefers liquidation and the law facilitates such liquidation, (2) the renegotiation process cannot fully replicate the APO prevailing under bankruptcy, (3) there are no deviations from the APO under bankruptcy. We find no evidence of any impact of collateral on the resolution process of financial distress. This result can be interpreted in two ways. First, collateral plays no role in the resolution of financial distress. Second, these separate effects compensate each other. We believe that in the context of the French legislation which presents conflicting characteristics that compensate each others, the later view may be more convincing. On the one hand, the French law favors clearly continuation over liquidation,[121] and grants the social claims a higher rank in the APO than the secured ones. On the other hand, over 90% of the French procedures end up in liquidation and provide a complete and rather sophisticated framework to sell as a going concern (which is, finally, *in fine*, an integrated way to liquidate the debtor's assets). [122] In such a context, the French banks have to consider the pros and the cons of the French legal framework that mix liquidation and continuation biases and that provides only a limited protection of their secured claims. Overall, in France, there is no guarantee that secured claims generate more money inside than outside of bankruptcy.

[121] See the 1st article of the 1994 French bankruptcy code, whose inclination to continuation was extended in 2005.
[122] See Blazy, Delannay, Petey, and Weill (2008).

3.6. Conclusion

This paper investigates the determinants of financial distress resolution for a sample of French firms in default. Recent studies have looked at this issue in the context of other legal regimes but until now, no studies have been conducted on the French legal framework. In addition, these previous studies have modeled the resolution of financial distress as a static game. We propose an alternative approach where the path following default follows a sequential or dynamic process in which firms first decide between bankruptcy and negotiation with its main bank and second, conditional on negotiation, the process can either be a success (workout agreement) or a failure (bankruptcy).

A striking feature when analyzing the data is that firms opting for bankruptcy do not appear to be quite different than those opting for negotiation with their bank at least in terms of firm size and capital structure. More significant differences appear when comparing firms which succeed to those that fail in reaching a workout agreement. Data show that firm size matters in negotiation, with larger firms being more likely to succeed in their negotiations. We then test a number of hypotheses relative to the effect of i) coordination problems and bargaining power, ii) information asymmetry, iii) firm's characteristics and iv) loan characteristics on the likelihood of opting for negotiation and the likelihood of successfully reaching a workout arrangement. We find that the probability of negotiation decreases if the firm has a bank as its main creditor which suggests that the bargaining power argument dominates the coordination argument. In addition, we find that the likelihood of negotiation is positively related to the size of the loan and the proportion of loan term debt.

We also find that the firm's profitability and the managers' reliability and competency are two essential conditions to escape bankruptcy, but this information requires time to be discovered by the bank. This explains why the first step of the sequential game (i.e. negotiation attempt *vs*. direct bankruptcy) does not depend on these two factors but that, conditional on opting for negotiation, the combination of both variables have a positive and significant impact on the probability of reaching a workout agreement. Finally, we find that collateral has no significant impact on the choice between bankruptcy and

negotiation and on the outcome of negotiation. We believe that this result simply reflects the opposite effects that collateral is expected to have on these outcomes.

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Appendixes

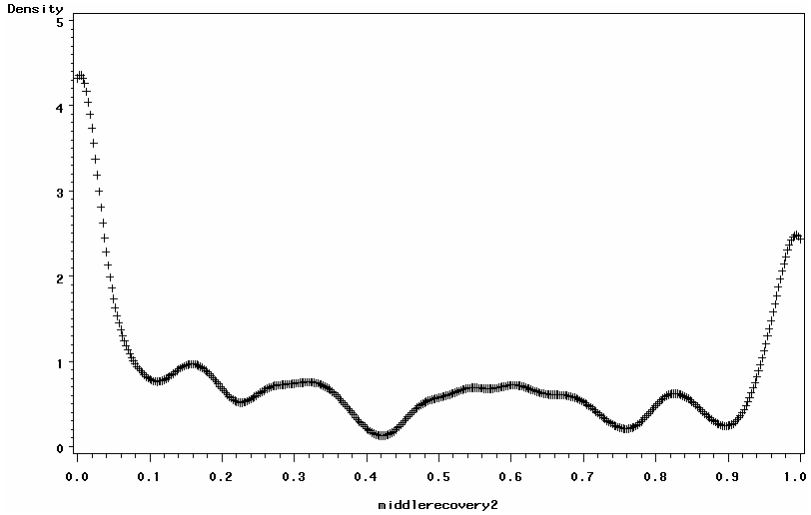
A1. Variables

The following table provides the list of our explanatory variables, with the complete description.

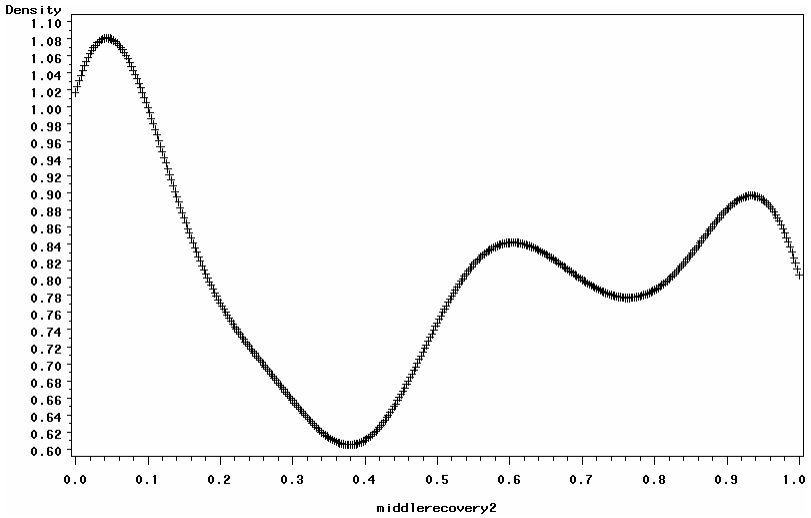
Name of the variable	Description
Origin of default: faulty management	Equals 1 if one (or more) cause(s) of the default is related to faulty management (conscious acceptance of non-profitable markets, overinvestment, underinvestment, excessive speculation, private benefits, fraud)
Faulty management x Bad rating at default time	Equals 1 if the one (or more) cause(s) of the default is related to faulty management *and* the debtor's last known rating was bad (negative Z value).
ln (length of the banking relationship, in years)	log of the duration of the banking relationship, from the first lending date up to the date of default (in years).
Bank is the company's main creditor	Dummy variable, equal to 1 if the bank is the company's main creditor (based on the list of all the creditors).
Bad rating at default time	Dummy variable, equal to 1 if the debtor's last known rating was bad (negative Z value).
ln (authorized amount, K€)	log of the maximum amount of authorized credits (as defined in the debt contract).
% of long term credit lines (due amounts, K€)	Percentage of long term lending (more than 1 year) out of the total lending.
ln (internal collaterals, K€)	log of the amount of internal collaterals (mortgage, long-term assets other than mortgage, short-term assets, other inside collaterals).
ln (external collaterals, K€)	log of the amount of external collaterals (guarantees from individuals, guarantees from companies).
Limited liability	Dummy variable, equal to 1 if the debtor benefits from limited liability (LTD).
The company belongs to a group	Dummy variable, equal to 1 if the debtor belongs to a group.
Commerce	Dummy variable, equal to 1 if the sector is 'commerce'.
Industry	Dummy variable, equal to 1 if the sector is industry'.
GDP growth	Increase annual rate of the GDP of the year of default.

A2. Density Functions of the Bank Recovery Rates

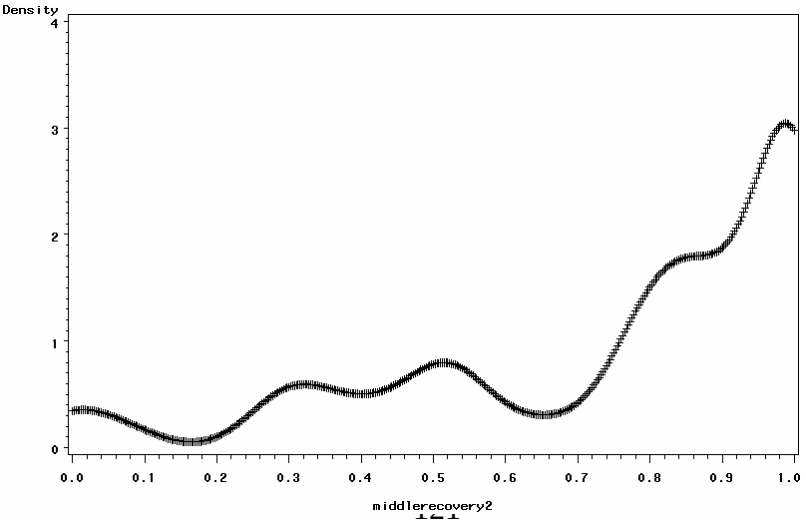
Distribution of the bank recovery rate: *Direct bankruptcy*



Distribution of the bank recovery rate: *Failed renegotiation*



Distribution of the bank recovery rate: *Sucessful renegotiation*



A3. Correlation Matrix

	Origin of default: faulty manage-ment	Faulty manage-ment x Bad rating at default time	ln (length of the banking relationship, in years)	Bank is the company's main creditor	Bad rating at default time	*ln* (due amount,K€)	Part of long term credit lines (%)	*ln* (internal collaterals)	*ln* (external collaterals)	Limited liability	The company belongs to a group	Commerce	Industry	GDP growth
Origin of default: faulty management	1													
Faulty management x Bad rating at default time	0.52044 <.0001	1												
ln (length of the banking relationship, in years)	-0.03696 0.5365	0.12824 0.0313	1											
Bank is the company's main creditor	-0.00316 0.9597	0.03659 0.5585	0.04115 0.5105	1										
Bad rating at default time	-0.09885 0.0976	0.30078 <.0001	0.21976 0.0002	-0.08399 0.1787	1									
ln (due amount,K€)	-0.02858 0.6328	-0.06182 0.3009	0.13888 0.0196	-0.10422 0.0948	-0.07124 0.233	1								
Part of long term credit lines (%)	-0.00773 0.9022	-0.00209 0.9735	-0.07156 0.2549	0.21034 0.0012	-0.08632 0.1694	0.10191 0.1045	1							
ln (internal collaterals)	-0.04582 0.4434	-0.0515 0.3889	0.13159 0.0271	0.09611 0.1236	0.06035 0.3125	0.29941 <.0001	0.17041 0.0064	1						
ln (external collaterals)	0.02512 0.6745	0.13346 0.025	0.04384 0.4633	0.08123 0.1934	0.10881 0.0681	0.07491 0.2098	0.0315 0.6166	0.08627 0.1485	1					
Limited liability	0.00363 0.9516	0.09062 0.129	0.00285 0.9621	-0.1955 0.0016	0.02897 0.6281	-0.08747 0.1429	-0.1963 0.0016	-0.12007 0.0439	0.02384 0.6902	1				
The company belongs to a group	0.0298 0.6182	0.01941 0.7456	0.1431 0.0162	-0.12854 0.0391	-0.00896 0.8809	0.16116 0.0067	0.06884 0.2735	0.00478 0.9363	-0.10883 0.068	-0.02609 0.6627	1			
Commerce	0.05371 0.3689	0.09255 0.121	-0.0816 0.1718	-0.04871 0.4359	0.09795 0.1007	-0.08854 0.138	-0.1248 0.0465	-0.09551 0.1095	0.0808 0.176	0.12497 0.0359	-0.13858 0.0199	1		
Industry	-0.03155 0.5978	0.04763 0.4256	0.15642 0.0085	-0.11092 0.0753	0.04003 0.5031	0.07329 0.2198	-0.17522 0.005	0.02007 0.7372	-0.08109 0.1745	0.16691 0.005	0.03421 0.5673	-0.45023 <.0001	1	
GDP growth	-0.03555 0.5522	0.07046 0.2382	0.08756 0.1424	-0.03331 0.5943	0.13791 0.0205	-0.00169 0.9775	-0.03358 0.5935	0.05888 0.3245	0.04418 0.4599	-0.01038 0.8622	-0.04264 0.4757	-0.02012 0.7366	0.10082 0.091	1

Note: The Table shows the Pearson correlation indexes for the variables that are considered in our regressions. The small figure that is displayed below each correlation index is the p-value for the null hypothesis (a p-value less than 10% means the null hypothesis can be rejected so that the correlation index is significantly different from zero).

CHAPTER 4

France and United Kingdom:

A Panorama of the Bankruptcy Procedures

4.1. Introduction

The purpose of this chapter is to provide a panorama of the bankruptcy procedures prevailing in France and in the United Kingdom. Both these countries have been pioneers for other countries who have emulated the same legal systems: Civil Law and Common Law and especially the structure of their rescue mechanisms[123].

This chapter is more descriptive in its approach as it intends to explain the detailed functioning of formal procedures and at the same time provides national statistics showing strong imbalance between liquidations and other reorganization procedures in both the countries.

Previously Europe was often identified to have bankruptcy laws favouring creditors more than the debtors. It was especially true for the UK, Netherlands and Germany (Wood, 1995). It was only recently that many countries (UK, Germany, France, Spain, Netherlands...) in Europe reformed their bankruptcy laws making them more debtors friendly. The main aim behind such reforms was to promote a culture of corporate rescue and enable the firms to survive bankruptcies. In this section, we focus our attention on France and the United Kingdom as the widespread acceptance of their legal system in other jurisdictions makes them unquestionably an ideal object for research.

France is supposed to have a highly debtor oriented system where social claims can often outrank the secured ones and continuation and preservation of employment is the primary objective. Even though the process of continuation[124] does not reward the creditors much in comparison to the debtors but it preserves the employment by allowing the business to continue and hence can create value for the firm as well as for the economy.

[123] Countries like South Africa, Italy, Australia, Hong Kong (China), New Zealand have structured their respective rescue system based on UK's rescue procedures. For details see P Lewis, "Corporate Rescue Law in the United States", in K Gromek Broc and R Parry (edition), Corporate Rescue: An Overview of Recent Developments from Selected Countries (2nd edition, Kluwer Law International, 2006), p333.

[124] Yet, this trend does not mean the number of continuations is getting higher, compared to liquidations. On the contrary, in UK, Germany, and France, bankruptcy procedures end up with liquidation in more than 90% of cases. However, the quite recent change in the objectives of national laws means the institutional environment of default is evolving, which may finally affect the strategies, taking place in or out bankruptcy.

Notably, France is the only country which shares significant characterizes of Chapter 11 of the US Bankruptcy Code and its policies are formulated and enforced in a manner so as to ensure strong protection for its business entities by incorporating concepts of automatic stay on all creditor actions and the granting of super priority status to post petition financing

For over twenty years, since the Act of 1985, the focus of reforms has increasingly been on the avoidance of corporate failures and promotion of continuations. With respect to this, the articles of 1985 and 1994 of the French bankruptcy code explicitly state these objectives**:** [1] "safeguarding the business", [2] "maintaining the firm's operations", and [3] "discharging liabilities"[125]. In France, the decision making power is solely in the hands of the judiciary which can exercise their genuine enforcement power during a collective process. Bankruptcy judge is responsible for the adoption of reorganization plan which is in total contrast to many other European countries,[126] and also there is no voting procedure for creditors or veto power for other stakeholders. In addition, French legislation offers the stakeholders a specific procedure dedicated to sales as a going concern, as an alternative way of continuing activity[127].

UK also provides a good opportunity for studying the bankruptcy laws. And in contrast to France, it is often referred to as being a highly creditor friendly country. La Porta et al. (1998) studied the creditor rights regarding bankruptcy across various countries and obtained a score of 0 for France, 3 for Germany and 4, the best for UK. The Doing Business Report (2010) places UK in the 9th percentile in its closing of business report. This is a very high ranking as compared to countries like Germany and France which are placed in 35th and 42nd quartile respectively. In addition, Davydenko and Franks (2007) exhibit undiscounted median recovery rate for banks- 92% in UK, 67% in Germany and 56% in France. This is the measure for the ex-post efficiency of a bankruptcy regime.

[125] Weber (2005) explores the effects of this French legal priority set on agency problems between bankrupt firms and their debtholders. Weber argues that French firms have little incentives to file for bankruptcy, due to the court administered process and the civil and criminal sanctions associated with bankruptcy.

[126] (see the Finish case studied by Bergtröm, Eisenberg, and Sundgren (2002)

[127] Since 2006, the sale as a going concern is viewed more than a liquidation procedure. However, in our views, sales protect more employment than pure liquidations, as a part of the job positions is saved through sales.

In addition, UK was among the first countries to incorporate rescue mechanisms (administrations and CVA) in its insolvency system. However, over the past few years it has become more inclined towards the debtors. With the Enterprise Act of 2002, receivership (a mechanism where secured creditors benefitted the most out of their exclusive rights and positioning) was abolished. Reforms were made to increase the likelihood of continuation and to provide a level playing field to all the creditors including the unsecured ones.

Presence of both types of features (creditor friendly and rescue mechanisms) makes UK unmistakably an optimum country for research. Often seen as the pioneer in the field of efficiency of bankruptcy laws and as a benchmark country for many nations adopting or reforming their bankruptcy laws[128].

So, the legislations of both UK and France have features that are of interest for research. We start by studying in detail the bankruptcy procedures of France, provide national statistics on the procedures and explain their general functioning and specificities. Then, we will apply the same approach to UK.

[128] South Africa, Italy, Australia, Hong Kong (China), New Zealand and so on. For more details, see the P Lewis, "Corporate Rescue Law in the United States", in K Gromek Broc and R Parry (eds), Corporate Rescue: An Overview of Recent Developments from Selected countries (2nd edition, Kluwer Law International, 2006)

4.2. Overview of Corporate Bankruptcy in France

The bankruptcy law in France has gradually evolved from a law penalizing the debtor who has failed to honor its commitments to a legislation that promotes survival and provides opportunities to the debtor to reorganize his debts and start afresh. This change was initially settled by a set of two reforms in 1984 (1st March) and 1985 (25th January).

In France the main objective as defined explicitly by laws of 1985 (and afterwards) is to maintain the firm and preserve employment. To attain these objectives court can even sell the firm to a lower bid if it promises to keep employment contracts intact. The creditors have no rights to vote for a reorganization plan and their approval is not required by the court to initiate reorganization proceedings.

It is often believed that in a debtor friendly country, where debtor has increasingly higher control over bankruptcy proceedings, the creditor recovery may be low[129] and in countries where creditor's rights are well protected during the proceedings, creditor recovery may be high. France is characterized by a highly debtor oriented bankruptcy law system where social claims often outrank the secured ones.

France is unique in the sense that it has an alert procedure ("*procédure d'alerte*") introduced by the Act of 1st March 1984 (art. L.611-2). The French legislator defined a set of preventive mechanisms aiming at early detection of financial distress. Practically, this warning system was created at the initiative of various stakeholders. The main objective of this procedure was to draw the attention of the directors towards the difficulties faced by the company and to encourage them to take preventive measures to avoid risk of failure. This procedure was further strengthened by the reforms of 1994 making it more effective by delegating more powers to the chairperson of commerce.

[129] Davydenko and Franks (2007) exhibit undiscounted median recovery rate for banks- 92% in UK, 67% in Germany and 56% in France.

Article L611-2[130] (translated in English) states that: *"Where any deed, document or proceedings show that a commercial company, an economic interest grouping or a sole ownership, running a trading or a craftsman's business, encounters difficulties that may undermine the continuation of its business operations, its managers may be summoned by the president of the Tribunal de commerce (commercial court) to determine the appropriate steps necessary to remedy the situation".*

Alert procedures allow a limited set of persons (auditors, shareholders, president of the court and the staff representative) to warn the directors about the foreseen difficulties of the business so that they have enough time to take appropriate measures to prevent such difficulties. These persons do not have the duty to inform, except for the statutory auditor[131]. This proceeding can also be launched by the worker's representatives,[132] if the worker's representatives note that the continuity of the business is likely to be compromised. Please note that, cessation of payments is not the criteria for its initiation.

The French legislator completed the alert procedure by a general framework for workouts taking place under the protection of the Court: it is the "*règlement amiable*"; it was established by the French legislation on 1st March, 1984.

This procedure was confidential in nature and under the supervision of the commercial court, aimed at facilitating a harmonious resolution to the current conflicts between debtors and creditors. Any firm facing imminent danger of bankruptcy can apply under such procedure and the creditors do not participate in the proceedings.

In 1985, the French legislation completed the 1984 preventive framework with the inception of formal bankruptcy mechanism (which replaced the previous 1967 bankruptcy

[130] « *Lorsqu'il résulte de tout acte, document ou procédure qu'une société commerciale, un groupement d'intérêt économique, ou une entreprise individuelle, commerciale ou artisanale connaît des difficultés de nature à compromettre la continuité de l'exploitation, ses dirigeants peuvent être convoqués par le président du tribunal de commerce pour que soient envisagées les mesures propres à redresser la situation* ».

[131] The statutory auditor has the duty (art. L.234-1 ff. C.com.) to inform: 1) the chairman of the board; 2) board of directors (if chairman does not provide sufficient answer); 3) in the general meeting of shareholders (if the board fails to provide sufficient answer); 4) and finally the president of the court (if all the others fail to provide sufficient answers). If the auditor does not receive any reply within 15 days of his notification from the responsible authority, he shall convene a general meeting and lay down his report at this meeting. Still, if he does not receive any substantial result, he will directly communicate it to the president of the commercial court and to the representatives.

[132] article L.432-5 and 422-4 of the Labour code

law). The resulting legislation of 25th January, 1985 established a new legal procedure whose outcomes are either the debtor's continuation ("*redressement judiciaire*") or its liquidation ("*liquidation judiciaire*"). Implicitly, the French Law thus established a hierarchy between the various objectives.

The 1984/85 French bankruptcy code was duly reformed on 10th June, 1994 and 26th July, 2005 (the law for protection of business named "sauvegarde"). The 1994 reform involved minor changes within the legislation but maintained the general framework of the 1984 and 1985 legislations. The 2005 reform (modified in 2008) involved three major changes. First, it encompassed the previous procedures, i.e. "*règlement amiable*" (renamed "*conciliation*"[133]), "*redressement judiciaire*" and "*liquidation judiciaire*". Second it introduced a brand new procedure "*sauvegarde*", similar to "redressement judiciaire", but aimed at companies that are not in default but close to it (yet, contrary to "*règlement amiable*", the procedure is not confidential and involves a stay of claims). Last, the 2005 reform established another confidential procedure "mandate ad hoc" whose main purpose is to prepare an arrangement between the debtor and some creditor. This last procedure is confidential and even softer in approach than "*conciliation*".

Graph 4.1 provides the evolution of the monthly number of corporate bankruptcies for the period between 2004 and 2010. The 2008 crisis may explain why the trend has been increasing drastically for the last two years. This increase may also be attributed to the creation of a new legal form "*autoentrepreneur*" [134]dedicated to individuals who want to quit the employee's status to create a small business. Also, notice that the annual number of French bankruptcies is varying around 50 000[135].

[133] Yet, a major difference with "*règlement amiable*" is that "*conciliation*" is not restricted to solvent companies, but is also opened to distressed companies.
[134] It is a single person starting a business. The chances of default are high as being single he has the whole liability of the firm and he is the sole person to carry the entire management of the firm and at times it can be difficult or impossible to manage.
[135] The figure shows monthly evaluation to get annual number of bankruptcies it needs to be multiplied by 12.

Graph 4.1: Monthly evolution of the number of bankruptcies in France

Source: INSEE Conjoncture, BODACC.

4.2.1. The Bankruptcy Procedures Prevailing in France

Since the end of the 20th century, two bankruptcy legislations have prevailed in France: the 1984/85 legislation (slightly reformed in 1994) and the 2005 legislation (slightly reformed in 2008). We make an attempt to present both the reforms as they reflect a historical change from a debtor-friendly system (since 1985) towards the introduction of few creditor-friendly rules (since 2005). The resulting system should lead to a continuation bias, but still keep in mind the creditors' interests.

Section 4.2.1.1 presents the main procedures prevailing under the 1984/85 legislation before 2005. Section 4.2.2.2 describes the main changes that were implemented in 2005 and section 4.2.3 analyses the specificities of French bankruptcy framework.

4.2.1.1. The French Bankruptcy System before 2005 Reforms

Two types of procedure are prevalent in France ever since 1984. First, the preventive procedure ("*règlement amiable*") that aims at assisting the companies at the early stage of their difficulties. Second, the bankruptcy procedure that either consummates to reorganization ("*redressement judiciaire*") or the liquidation of financially distressed firms

(that are said to be in "*cessation des paiements*", i.e. when the liquid assets are not sufficient to meet the short term liabilities).

A. Règlement amiable (1st March, 1984)

In 1984, the French legislation pioneered a preventive framework dedicated to solvent companies that may encounter difficulties during the course of their business operations.
Règlement amiable was unique in the sense that it had hybrid features. By facilitating an agreement between the debtor and the principal creditors it aimed at amicably resolving distress. But on one hand, to prevent any arising conflicts of interests among the parties concerned, it appointed a conciliator (court appointed official), whose duty was to enable a coordination mechanism. Thus, it had features of both private solution and court solution. Indeed, presence of both these features facilitates in a harmonious solution to situations where it is impossible to reach an agreement without court intervention.
A solvent firm facing imminent danger of insolvency can seek protection under such a regime. The process can be initiated exclusively by the debtor and insolvency is not the criteria for initiation of the procedure. The process is carried out in high secrecy and all the parties involved are sworn to confidentiality. There is no provision of automatic stay during such proceedings and debtors in general remain in operation of their business. The principal creditors participate actively in the process of restructuring of debts.

The appointed conciliator enables negotiation process by reducing asymmetries of information between the concerned parties and managing the arising conflicts of interests. The conciliator does not have power to impose upon any decision however; the agreements reached during the negotiation process are binding upon the creditors and debtors.

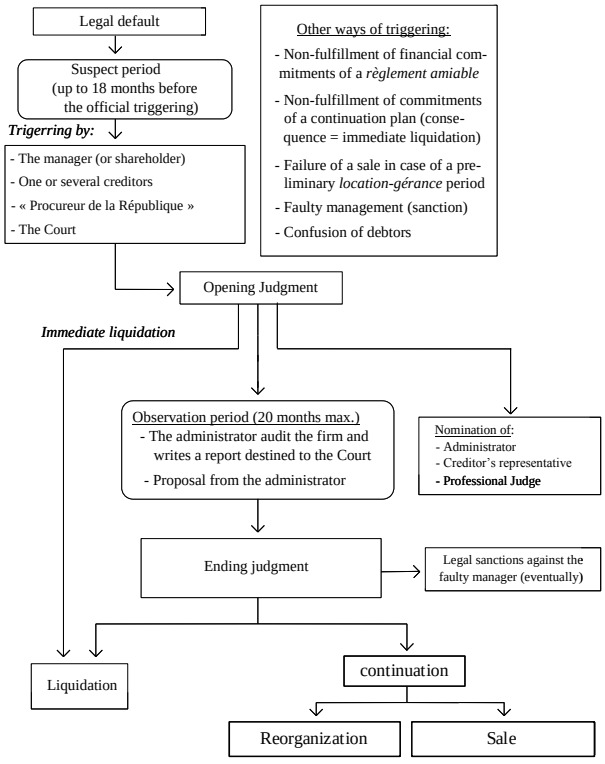
Even though this procedure provides a chance for survival, it is hardly used in practice. The participating creditors write down their claims to enter the terms of negotiation, but if the firms still fail to survive, then these creditors, who have earlier participated in the

negotiation process, have to enter with reduced amounts in the judicial process. This can be contributed as the major reason for the low usage of this procedure.

B. Redressement judiciaire and liquidation judiciaire (25th January, 1985)

The bankruptcy law reforms of 25th January 1985 and of 10th June, 1994[136] enabled the French Collective System to involve two complementary court administered procedures (see Figure 4.1). The first procedure known as *redressement judiciaire*, aims at the continuation of business, either through a reorganization plan or sale as a going concern. The second procedure is known as *liquidation judiciaire*[137] and is a liquidation procedure of a firm's assets.

Figure 4.1: The French bankruptcy code before the 2005 reform



Source: Blazy, Chopard, Fimayer, Guigou (2008).

[136] The 1994 reform is very similar to the previous 1985 law. The main innovations in 1994 are: (1) a change in the absolute priority rule in case of liquidation (secured creditors are now paid before those creditors who offer credit after firms file for bankruptcy), (2) the judge may pursue agents who buy bankrupt firms in order to sell them piecemeal once bankruptcy process is closed; and (3) the judge can immediately liquidate financially distressed firms if he considers it impossible for them to continue their operations under the protection of the law (this procedure was in practice before 1994 but was not written in the law). These changes in the law did not crucially modify the practice of commercial courts.

[137] Remind that in the shadow of this process, there is also the out-of-court settlement ("*règlement amiable*"): the manager, with the help of an appointed officer, negotiates with some of the claimants the payment of outstanding debts.

The petition for initiating these procedures can be filed either by a debtor, or the creditor or the court if the inability of the firm to pay its dues comes to the notice of the court. In such a case, the firm must not delay and should initiate the process within 15-45 days after the cessation of payments.

During the first stage of the process, which is known as observation period ("*période d'observation*"), a series of steps are undertaken by the court, which begins with the appointment of an administrator who verifies the viability of the company. A creditors' representative is appointed to check the value of the due claims. There is an automatic stay on creditors' enforcement proceedings. Consequently, the creditors cannot enforce upon their collaterals.

Primarily, the debtor continues to run the business but could be assisted or replaced by an administrator. As this period implies an extension of the firm's activity, it should be financed by new creditors ("new money"). To encourage them to lend money to the debtor, the post petition financing (new money) gets priority over the other claims. At the end of the observation period, the court decides whether the firm should be allowed to reorganize (continuation or sale as a going concern) or liquidated. This period may last up to 20 months.

We present below the main characteristics of liquidation judiciaire (section A) and of "*redressement judiciaire*" through continuation or sale as a going concern (section B).

A. Liquidation

The liquidation process ("*liquidation judiciaire*") occurs after the observation period (but, if the company has no assets or the chances of recovery are too low, the company can be directly placed under liquidation proceedings without any observation period). If the court finally orders liquidation, the creditors' representative becomes the liquidator who is mandated to piecemeal liquidate all the firm's assets to clear debt in an orderly manner. The proceeds are distributed in the following order: the most recent (2 months) salaries are paid first (superprivilege), followed by bankruptcy costs, other salaries and claims of tax

authorities (privileged claims). Then the liquidator disburses secured debts, which are ranked above the new money[138] (protected by "article 40" of French bankruptcy law). Then, any residual amount goes to junior claimants.

B. Continuation and Sale as a Going Concern

Continuation ("*redressement judiciaire*") prevails when the commercial court estimates that a firm might be able to reorganize or to be sold as a going concern. The court specifies whether the company should be reorganized according to the continuation plan elaborated by the administrator (solution 1), or whether assets should be sold to a third party (solution 2). Under solution 1 (continuation plan), the administration is responsible for drawing up the reorganization plan. Whatever be the proposed plan, he must ensure that the purposes of law are met: to safeguard business, ensure continuation of operations and preserve employment and to satisfy creditor claims. Debts are restructured and redefined in the best interest of the business survival and protection of employees. Most of the time, the plan extends the delays of repayment up to 10 years. However, under solution 2 (sale), rival buyers can compete together and propose buyout offers which are then assessed by the court and finally one of them is selected. Thus, under sale as a going concern, the company does not disappear as most of the contracts are preserved. The administrator has to check the content of each proposal and forward such information to the court. The winning offer defines a sale price and the expected effects of the sale (employment preservation, contracts, economic restructuring…). The sale price is the basis for the repayment of the creditors. Here, we would like to emphasize that since 2005, the sale as a going concern is not considered as a way of continuation. On the contrary, it is considered as a liquidation outcome.

* *

*

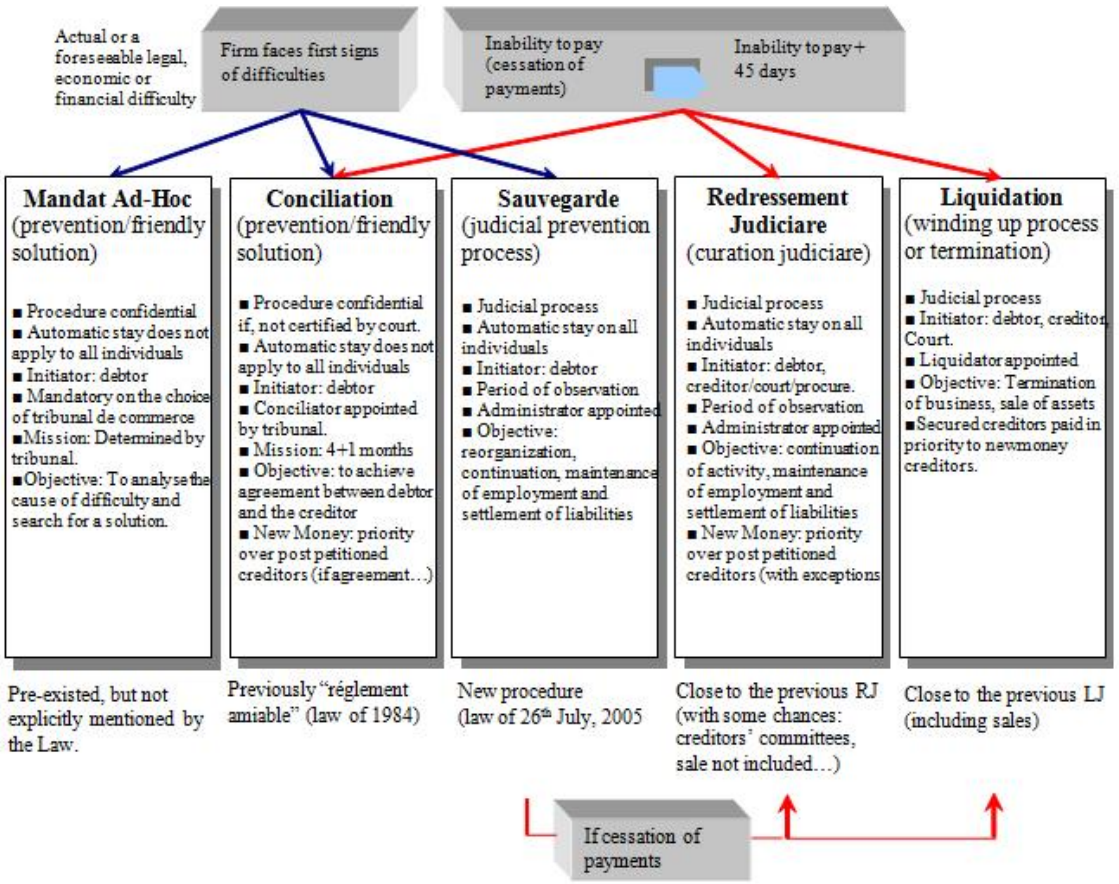
[138] The reform of bankruptcy law in 1994 changed this absolute priority order; before 1994, creditors protected by article 40 were paid before the secured creditors in all bankruptcy cases. The French legislators aimed, with the reform of 1994, to improve secured creditor's rights.

4.2.1.2. The 2005/2008 Legislation

The Business Safeguard Act of 26th July 2005, n°2005-845 (*Loi de sauvegarde des enterprises*, LSE) and the Distressed Business Reform Act of 18th December 2008, n°2008-1345 (*Ordonnance portant reforme du droit des entreprises en difficultés*) ensures the reinforcement of prevention mechanism, thus making France the most debtor friendly country of Europe.

Since the 2005/2008 reform, France offers its firms a menu of procedures to choose from (see figure 4.2). Some of these procedures are judicial: safeguard ("*sauvegarde*"), reorganization ("*redressement judiciaire*"), and liquidation ("*liquidation judiciaire*"). While others are non-judicial: alert ("*procedure d'alerte*"), ad hoc commission ("*mandat ad hoc*"), composition procedures ("*conciliation*", which is the reformed form of the previous "*règlement amiable*")).

Figure 4.2: Main features of French Bankruptcy procedures



In the subsequent text we describe the procedures mentioned in figure 4.2 above. We start by exploring the mechanism of preventive procedures and later describe the collective procedures provided in the new legal framework.

A. Ad hoc Commission (mandat ad hoc)

The ad-hoc procedure used to exist before the 2005-2008 reform, but it was not inscribed in the law. Its aim was to provide a convenient and light way of resolving financial distress, without warning all the parties. The concerned firms were those that were solvent but may face the threat of future difficulties. Thus, it was a pre-insolvency procedure. At the request of the debtor, the president of the commercial court appoints a special commissioner. This is exemplified by the Article L.611-3[139] (translated in English) of the commercial code which states that: *"The president of the court may, at the request of the debtor, appoint a special commissioner ("mandataire ad hoc") whose duties he shall set out. The debtor may suggest the name of a special commissioner".* The appointed commissioner is responsible for bringing out an amicable solution between the debtor and its principle creditors (usually the contracting partners of the debtors) in order to promote continuation of the business and the firm. In this respect he can make proposals for safeguarding the business and also for preserving the employment contracts. It is a non judicial process and financial distress is not the requirement for its initiation. The commissioner's mission ends if the parties reach an agreement or else if the agreement between the parties is not feasible. The length should not be too long.

B. Composition Procedure (conciliation)

The composition procedure ("conciliation") derives from the previous "règlement amiable"[140]. This procedure is applicable to all the firms facing short term cash flow insolvency and also to firms that face imminent danger of insolvency. The main purpose

[139] « *Le président du tribunal peut, à la demande d'un débiteur, désigner un mandataire ad hoc dont il détermine la mission. Le débiteur peut proposer le nom d'un mandataire ad hoc* ».

[140] Article L611-4 (translated in English) of the commercial code states that: "A composition procedure is instituted before the Tribunal de Commerce (Commercial court) for the persons who carry out a commercial or craftsman's activity, who encounter an actual, or a foreseeable legal, economic or financial difficulty, and who have not been in a state of cessation of payments for more than forty-five days"

of this procedure is to allow restructuring of debts by reaching an agreement with its main creditors. As the procedure is confidential, there is no provision for moratorium or cram downs as such there is danger of creditor enforcement. The duration of the procedure cannot exceed more than 4-5 months: the idea being that a solution should be found rapidly.

Interestingly enough, the composition procedure differs from the previous *règlement amiable* in the sense that it can be triggered both by the solvent and insolvent firms. The current financial distress and/or foreseeable legal, economic or financial difficulties are enough for triggering this process. This procedure can be kept confidential or can be made public depending on certain criteria. In practice, the debtor could decide to confidentially renegotiate with the crucial creditors leaving other creditors' money at stake. In fact, this reflects the legislator's willingness to provide a mixed and court-supervised way of resolving past, present and/or future difficulties.

The debtor is responsible for the initiation of the process. He files a petition to the president of the commercial court (art. L.611-6 of the commercial code). The president of the court then appoints a conciliator. Conciliator is responsible to assess the condition of the company. Article L611-7[141] (as translated in English) states the duties of the appointed conciliator: *"The conciliator's duty is to promote the conclusion of an amicable agreement between the debtor and its main creditors as well as, as the case may be, its usual contracting partners, which is intended to put an end to the business's difficulties. He may also make any proposals for the safeguarding of the business, the continuation of the economic activity and the maintenance of the employment".* During the performance of his duties he can gather any information from the debtor which can serve the purposes of the act. The negotiation process can result in the reduction or cancellation of the debt due towards financial authorities, social security bodies, unemployment insurance system etc.

[141] Le conciliateur a pour mission de favoriser la conclusion entre le débiteur et ses principaux créanciers ainsi que, le cas échéant, ses cocontractants habituels, d'un accord amiable destiné à mettre fin aux difficultés de l'entreprise. Il peut également présenter toute proposition se rapportant à la sauvegarde de l'entreprise, à la poursuite de l'activité économique et au maintien de l'emploi.

If the agreement is approved by the parties it can be either certified by the court or not. In case, the agreement is not certified by the court, it means that it has contractual value and remains confidential among the concerned parties. This means parties who have not signed the agreement cannot be enforced upon. Moreover, the agreement is considered to be concluded on the declaration of the debtor stating that he is not any more in state of "*cessation of payments*". In case the agreement is certified by the court, it no longer remains confidential. The court checks[142] that the terms of the agreement ensure the continuity of the business' activity and that the agreement does not harm the interests of non-signatory creditors. The court must ensure that the debtor is no more in a state of cessation of payments. The creditors who have agreed to the terms of agreement and provide new financing are paid in priority before the rest of the claims.

The proceedings of the composition procedure end under the following circumstances: 1) the agreement is certified by the court 2) the agreement fails 3) the agreement is not executed 4) if the debtor wants the agreement to terminate 5) a procedure of safeguard, reorganization or winding up is commenced.

C. Safeguard Proceedings (sauvegarde)

The provisions of safeguard procedures are governed by Article L.620-1[143] of the commercial code. One of the objectives of its introduction in the French code was mainly to mimic the US Chapter 11: i.e. to provide solvent companies that may have future difficulties with a collective way of favouring reorganization validated by the pool of creditors through vote. It states that: "*A safeguard procedure is instituted to be commenced*

[142] Article L611-8142 states the duties of the president: "I-Upon the join petition of the parties, the president of the court shall record their agreement and make it enforceable. He shall rule upon the case based on the debtor's certified statement attesting that he was not in a state of cessation of payments at the time the agreement was entered into or that the agreement has put an end to the state of cessation of payments. The decision recording the agreement shall not be subject to publication formalities and shall not be appealed against. The agreement shall terminate the composition proceedings.
II- However, at the debtor's request, the court shall approve the agreement obtained if the following conditions are met:
1. The debtor is not in a state of cessation of payments of the agreement puts an end to it;
2. The terms of the agreement should normally ensure the continuity of the business's activity;
3. The agreement does not harm the interests of non-signatory creditors."

[143] « Il est institué une procédure de sauvegarde ouverte sur demande d'un débiteur mentionné à l'article L. 620-2 qui, sans être en cessation des paiements, justifie de difficultés qu'il n'est pas en mesure de surmonter. Cette procédure est destinée à faciliter la réorganisation de l'entreprise afin de permettre la poursuite de l'activité économique, le maintien de l'emploi et l'apurement du passif. La procédure de sauvegarde donne lieu à un plan arrêté par jugement à l'issue d'une période d'observation et, le cas échéant, à la constitution de deux comités de créanciers, conformément aux dispositions des articles L. 626-29 et L. 626-30 ».

on the petition of the debtor mentioned in Article L620-2 who, without being in cessation of payments, shows difficulties that he or she is unable to overcome on his or her own. The purpose of this procedure is to facilitate the reorganization of the business in order to allow the continuation of the economic activity, the maintenance of the employment and the settlement of liabilities. The safeguard proceedings shall give rise to a plan to be confirmed by a court order at the end of an observation period and, where appropriate, to the formation of two committees of creditors, in compliance with the provisions of Articles L626-29 and L626-30".

Thus, the main goals of safeguard proceedings are the promotion of continuation of the economic activity, preservation of employment and settlement of liabilities. In this sense, it is quite close to "*redressement judiciaire*" and follows similar mechanisms ("observation period", "stay of claims", new money). The procedure can only be initiated by the debtor.[144] The debtor continues to carry on the business under the supervision of insolvency practitioner. As the procedure is not confidential, there is automatic freezing of assets upon the commencement of the proceedings (art. L. 622-21, I).

Before commencing the proceedings, the judge gathers all the critical information related to the company's financial, economic and employment situation. He may be assisted by an expert of his choice (commercial code, art. L.621-1). If the judge thinks that the company may survive then it can commence the proceedings. He appoints an administrator who supervises the debtors business and might help him with management of his operations. Upon commencement, there is an observation period which can last from 6-12 months (art. L.621-3) and during this period, the court can anytime on the motion of the debtor, order for partial cessation of business's operations. Similarly, the court[145] on the motion of the debtor, administrator, court nominee, the public prosecutor or on its own motion converts the safeguard proceedings into reorganization proceedings[146] or liquidation

[144] Article L620-2, §1er states that: *"The safeguard procedure shall apply to any person who carries out a commercial or craftsman's activity, to any farmer, to any other individual running an independent professional activity, including an independent professional person with a statutory or regulated status or whose designation is protected, as well as private law entities".*
[145] Commercial code, article L. 622-10.
[146] If the conditions stated in Article L631-1 are satisfied or will be satisfied.

proceedings[147]. The debtor draws up a reorganization plan with the assistance of the appointed administrator. This plan is either ordered or approved by the court.

In case the plan is ordered by the court, (1) the creditors' tradeoff between debt restructuring terms (postponing the date of maturity and reduction of debts, reduction in interest rates and so on) (2) the Court may order prolongation up to the period of 10 years for dissenting creditors and even the secured ones[148]. In case the plan is approved by the court, three creditors' committees are created (one for financial creditors, one for main suppliers and one for bondholders) in order to vote on the plan. If the plan is voted and approved, it is binding on all the committees' members and there is no time limit for their payment dues. Let us note that the Court agrees to approve the plan if it is voted upon by the committee members and if the plan protects the interests of all the creditors.

The safeguard procedure comes to an end once the plan is approved or ordered by the court. The procedure may also end if the company becomes insolvent during the "observation period": the safeguard procedure is then converted into judicial reorganization ("*redressement judiciaire*") or winding up ("*liquidation judiciaire*") (L622-10, §3).

D. Judicial Procedures (reorganization and liquidation)

Besides the above mentioned preventive procedures (pure or mixed[149]), the French legislation reinvigorated the former formal procedures of bankruptcy. The reorganization procedure is known by the same name that existed previously as "*redressement judiciaire*" and same is the case for liquidation procedure previously known as "*liquidation judiciaire*". However, there is now one noticeable difference: sales are no longer part of reorganization procedure but fall into the liquidation procedure.

[147] If the conditions stated in Article L640-1 are satisfied.
[148] Minimum payment of 5% each year.
[149] Pure means complete private solution whereas mixed means having features of both private and court solution.

A. Reorganization Plan (*redressement judiciaire*)

The reorganization procedure is the reformed representation of the 1994 previous "*redressement judiciaire*". In addition, it is quite similar to the safeguard procedure, except the facts that (1) it is compulsory as it takes place when the debtor is insolvent (i.e. "*cessation des paiements*"), and (2) within this procedure, the directors/managers can be replaced by the administrator.

The reorganization procedure is initiated by the court at the debtor's request. Article L622-10, al. 3[150] states that: *"At the debtor's request, [the court] shall also decide the conversion [of the safeguard procedure] in a reorganization procedure if the drawing up of a safeguard plan is obviously impossible and if the closing of the procedure would, quite certainly and within a short time, lead to cessation of payments".* It can be triggered if the debtor in unable to pay its mature debts with his current assets. This means that cessation of payments is the criteria for the initiation of this process. Article L631-1[151] provides clauses for the conditions under which this procedure can be triggered and its objectives. It states that: *"A reorganization procedure is instituted to apply to any debtor referred to under Articles L631-2 or L631-3 which, being unable to pay his or her accrued liabilities with his or her current assets, is in a state of cessation of payments. The debtor shows that the credits still available or the moratorium granted by the creditors allow him or her to meet his or her accrued liabilities with his or her current assets, is not in a state of cessation of payments. The purpose of reorganization procedure is to allow the continuation of the businesses operations, the maintenance of employment and the settlement of liabilities. It shall give rise to a plan to be confirmed by a court ruling at the end of an observation period and, as the case may be, to the formation of two committees of creditors according to the provisions of Articles L626-29 and L626-30".*

[150] A la demande du débiteur, il décide également la conversion en redressement judiciaire si l'adoption d'un plan de sauvegarde est manifestement impossible et si la clôture de la procédure conduirait, de manière certaine et à bref délai, à la cessation des paiements.

[151] Il est institué une procédure de redressement judiciaire ouverte à tout débiteur mentionné aux articles L. 631-2 ou L. 631-3 qui, dans l'impossibilité de faire face au passif exigible avec son actif disponible, est en cessation des paiements.
La procédure de redressement judiciaire est destinée à permettre la poursuite de l'activité de l'entreprise, le maintien de l'emploi et l'apurement du passif. Elle donne lieu à un plan arrêté par jugement à l'issue d'une période d'observation et, le cas échéant, à la constitution de deux comités de créanciers, conformément aux dispositions des articles L. 626-29 et L. 626-30.

Overall, this procedure follows similar mechanisms like the safeguard procedure. There is an observation period that generates new money claims. The company is audited by the administrator, the claims are verified and a reorganization plan is formulated taking into consideration the interests of the creditors. Contrary to the safeguard procedure, the creditors are not allowed to vote on such reorganization plan. The court has the sole authority to decide the fate of the plan. The plan cannot impose debt forgiveness but may extend the delays of repayment (until 10 years). It is to recall that, contrary to the previous legislation, sale as a going concern is not part of reorganization, but considered as an alternative way of liquidation.

B. Liquidation and Sale (*liquidation judiciaire*)

Although, the post 2005/2008 liquidation procedure is close to the previous "*liquidation judiciaire*", it also encompasses sales as going concern. Article L-640-1[152] of the commercial code states that: *"A liquidation procedure is instituted to apply to any debtor mentioned in Article L640-2 who is in a state of cessation of payments and whose reorganization is manifestly impossible. The purpose of the liquidation procedure is to end the business activity or to sell the debtor's assets through a general or separate sale of its interests and property"*. It is clear from the article that (1) "*cessation des paiements*" and (2) the impossibility of reorganization are the criteria for the initiation of the process.
It is a compulsory process (except when composition is asked) and a collective procedure. Upon commencement of the procedure, directors partially lose their control over the firm and business comes to an end immediately. Liquidators take control of all the assets of the firm and are responsible for selling the assets and distributing the proceeds according to the ranking, if any, and *pari passu* to unsecured creditors.

* *

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[152] "Il est institué une procédure de liquidation judiciaire ouverte à tout débiteur mentionné à l'article L. 640-2 en cessation des paiements et dont le redressement est manifestement impossible. La procédure de liquidation judiciaire est destinée à mettre fin à l'activité de l'entreprise ou à réaliser le patrimoine du débiteur par une cession globale ou séparée de ses droits et de ses biens."

4.2.2. Analyzing the Specificities of the French Legal Framework

The French bankruptcy law specificities may have both *ex-ante* and *ex-post* effects.
The first specificity is designated to the decision making process which is fully transferred to a Court. Indeed in France, it is the court which decides (1) whether the company should be liquidated or not, (2) whether the reorganization plan should be approved or not, (3) whether any buyout proposal should be selected or not. Thus, creditors do not enjoy the right to disapprove the plan. Neither their confirmation to the plan nor the sale of their collateral requires secured creditor's approval. In addition, new financing can be raised by the court appointed administrator without the approval of the creditors. On one hand such forceful court administered process may be useful to overcome the coordination issues (common pool problem) while on the other hand it may create bad incentives prior to bankruptcy (*ex-ante* inefficiency) because the various stakeholders anticipate that they will lose the power to decide under bankruptcy and may become hesitant to lend or ask for more collaterals to mitigate the risk of dilution in bankruptcy (Davydenko and Franks, 2007). This may lead to inefficient credit renewals, overinvestment, and/or delays to trigger the procedure.

Second, the Act of 1985 establishes a hierarchy between the various objectives and safeguarding the business as a support for economic activity outweighs the objectives of the creditors. This continuation bias may reduce the ex-post efficiency of the law, as firms may be reorganized even if their continuation value is less than their liquidation value. This bias in favor of continuation explains why half of the opened procedures are *redressements judiciaires* (see table 4.1 below).

Table 4.1: Number of applications for bankruptcy procedures (France, 2010)

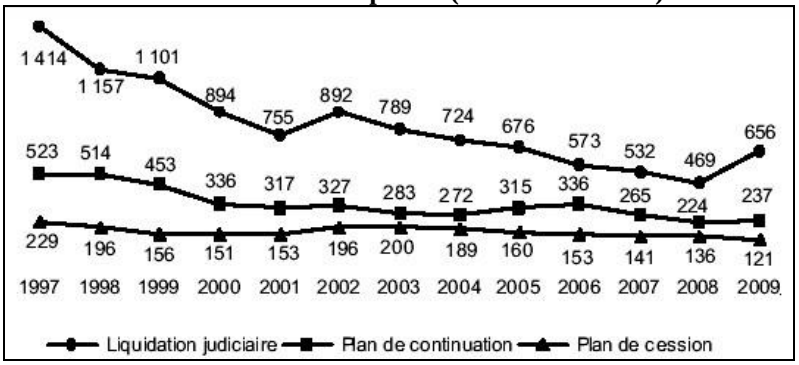
	Jan.	Feb.	March	April	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Year 2010
Opening of "Sauvergarde"	81	100	119	81	63	81	125	44	85	90	111	45	**1025**
Opening of "Redressement judiciaire"	1377	1436	1780	1322	1338	1505	1348	449	1519	1518	1450	780	**15822**
Opening of "Liquidation judiciaire"	3004	2958	3317	2500	2488	2973	2503	1204	3321	2776	2760	1549	**31353**
Total of openings	*4462*	*4494*	*5216*	*3903*	*3889*	*4559*	*3976*	*1697*	*4925*	*4384*	*4321*	*2374*	***48200***

Source: Conseil National des Greffiers des Tribunaux de Commerce.

It is worth mentioning that the procedure that gave its name to the reform (sauvegarde) is still insignificant and very rarely opted for (and probably dedicated to the biggest companies) and *redressements judiciaires* remains the dominant continuation procedure. Nevertheless, choosing *redressements judiciaires* does not mean that firm is successfully continued. The firm has to pass the observation stage. After which its fate is decided.

Graph 4.2 provides an insight into the results obtained after observation stage. First, we have to mention that most of the companies do not have enough assets to justify the opening of an observation period. Under this situation, immediate liquidation is the most common outcome. Second, for the remaining cases, for which an observation period could be implemented, most of the final outcomes are liquidations. This is reflected by the graph 4.2: *redressements judiciaires* that involve an observation period lead respectively to (1) liquidation in 65% of the cases, (2) sale in 11% of the cases, and (3) reorganization in 23% of the cases. However, it is worth mentioning that these results are restricted to Paris and suburbs only.

Graph 4.2: Outcomes of the "redressements judiciaires" after an observation period (Paris and suburb)



Source: Observatoire Consulaire des Entreprises en Difficultés : Paris, Nanterre, Bobigny, Créteil.

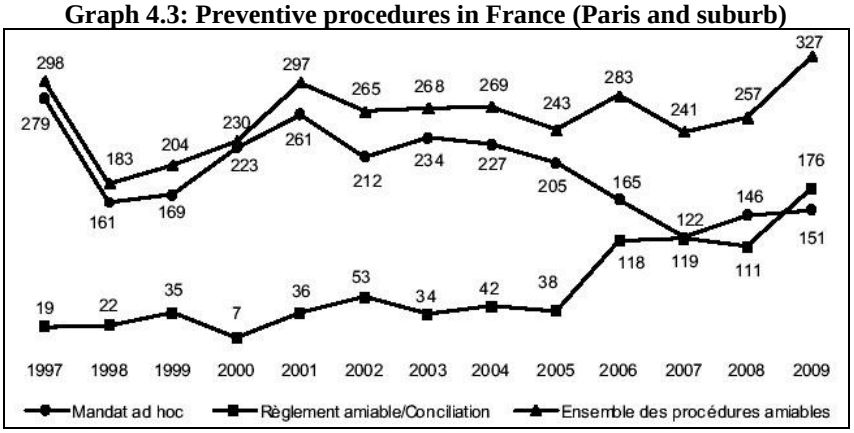
At a country level, continuation via reorganization plans and sales as a going concern accounts for nearly 5% (Blazy et al. (2008)) of the total population. Thus, despite offering such a strong reorganization procedure (either through continuation plans or sales) evidence suggests that only very few firms survive bankruptcy in France. Most of the French firms are liquidated piecemeal (in 90 percent of the cases[153]) and most of these bankruptcies are for small and medium sized enterprises as the listed firms are provided protection by the State (Pochet, 2002).

Kaiser (1996) exhibits that only 15% of the firms survive after filing for reorganization. He provides a reason for such a low survival rate in reorganization that formal reorganization proceedings are restricted by the fact that new owner is required to assume all employment contracts. These pre-conditions often make the sale impossible.
Yet, we have to moderate such analysis of the French statistics. Despite the strong imbalance between liquidations and continuations, it is still not as pronounced as in other European countries. France still exhibits a much better survival rate for distressed firms (5%) as compared to other European countries[154] (where liquidation is supposed to be close to 99%). Thus, continuation plays a minor *but not marginal* role in France.

Besides as previously mentioned, the French Law offers a set of preventive[155] procedures that aim at solving financial distress in a confidential way. These are "règlement amiable" / "conciliation", and the "mandat ad hoc". The graph 4.3 shows the evolution (Paris and suburb) of these procedures.

[153] See Blazy, Delannay, Petey, and Weill (2008).
[154] See Brouwer (2006)
[155] To be precise, the "sauvegarde" procedure is also a preventive procedure, but it is not confidential. Regarding "conciliation", this procedure is not a pure preventive procedure as it is also opened to bankrupt firms.

Graph 4.3: Preventive procedures in France (Paris and suburb)

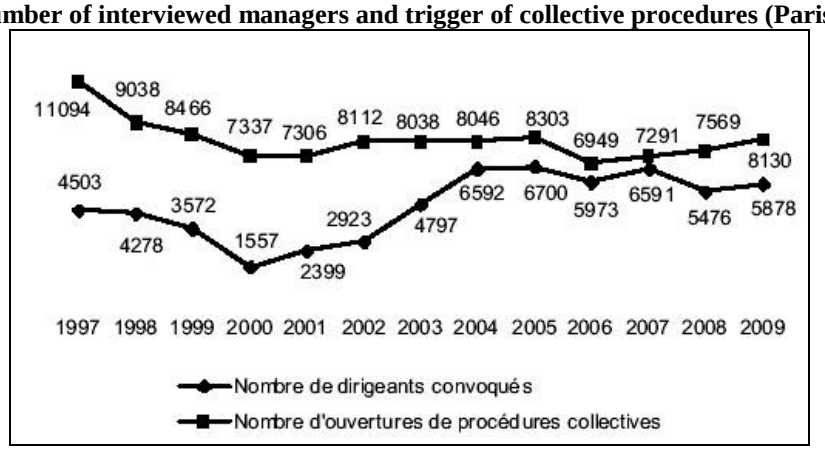


Source: Observatoire Consulaire des Entreprises en Difficultés : Paris, Nanterre, Bobigny, Créteil.

Since the 2005 reform, we observe an upward trend for conciliation, whereas "mandats ad hoc" show a reverse trend. Today, both procedures have the same importance (in number), but we can expect the number of "conciliations" to rise over the "mandat ad hoc".

The importance of prevention is a key feature of the French bankruptcy framework. Veritably, for many years, the courts (especially the Parision ones) have engaged an active policy promoting early warning tools (for instance, some departments are fully dedicated to prevention ("*cellules de prevention-détection*")), their role is to detect the first signs of difficulties and to interview the managers prior to bankruptcy. Graph 4.4 shows the evolution of such interviews for the period in between 1997-2009. More managers were being interviewed, while during the same period, the number of collective procedures showed a decline (yet, these co-movements may be due to other external factors).

Graph 4.4: Number of interviewed managers and trigger of collective procedures (Paris and suburb)



Source: Observatoire Consulaire des Entreprises en Difficultés : Paris, Nanterre, Bobigny, Créteil.

Having explored the French bankruptcy procedures in detail, in the next section of the thesis we attempt to explore the Insolvency procedures of UK.

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4.3. A Panorama of UK Insolvency procedures

4.3.1. Overview of Corporate Insolvency in U.K.

Among the various European countries, England has enjoyed a prolonged history of insolvency law tradition. England's first official insolvency procedure was enacted by the statute of Henry VIII in 1542. In addition, the first rescue-oriented regime was introduced by the Victorian Legislation 1870 called as "Schemes of Arrangement". This regime by Victorian Legislation facilitated the debtors and the creditors to find an amicable solution to their problems through a renegotiation process. With this the first seeds of rescue mechanism were already planted within the English corporate insolvency system.

In 1977, government organized the Cork Committee under the appointment of Secretary of State for trade. Based on the recommendations of the Cork Committee in 1982, two new bankruptcy procedures were introduced by the Insolvency Act of 1986. Prior to these procedures, United Kingdom was supposed to have a very high creditor oriented bankruptcy system. The introduction of "Company Voluntary Arrangement" (CVA) and Administration marked the beginning of a new era of corporate rescue culture in English corporate insolvency legal framework. The primary objective was to provide an opportunity to all the concerned parties to get involved in the rescue operation, to get a chance to formulate reorganization plans and vote to confirm them. This in turn encouraged them to prolong their support to the distressed debtor.

Prior to this act, there existed three bankruptcy procedures namely: Liquidation, Receivership and Voluntary Reconstruction or Schemes of Arrangement. Administration was subsequently streamlined by the Enterprise Act of 2002 to make it faster, easier and better whereas receivership procedure was abolished.

These procedures are further classified into two categories:

1) Formal and Collective procedures:

- Administration

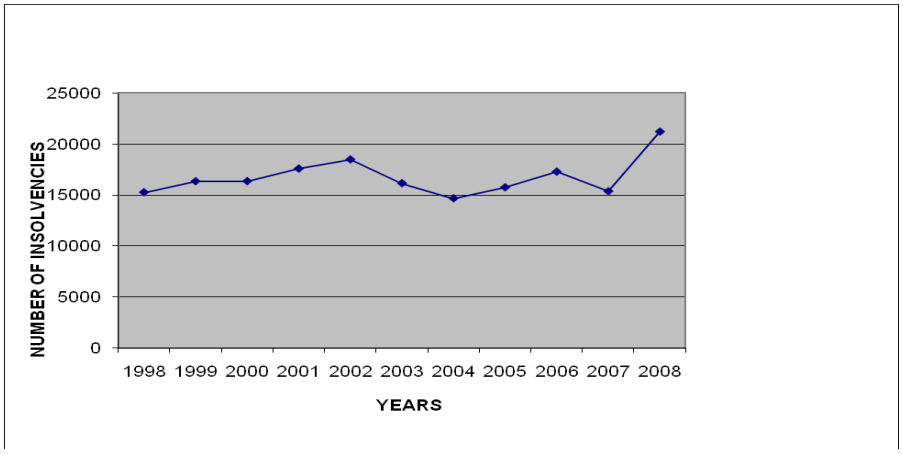
- Liquidation (Members Voluntary liquidation, Creditor Voluntary liquidation and Compulsory liquidation)

2) Formal but not collective procedures:

- Schemes of Arrangement
- Company Voluntary Arrangement
- Administrative Receivership Informal
- Contractual Arrangements (London Approach, Pre-packs)

Overall, the total number of insolvencies remains quite stable between the years 1998 till 2001 (graph 4.5). However it shows a slight peak in the year 2002 and then a sudden drop in trough during the period 2003 - 2004. It again shows a peak in 2006 followed by a sharp fall in 2007 and sharp rise in 2008. This can be due to the current financial crisis, whose effects were felt in UK as well. Thus, we notice that the total number of companies entering insolvency procedures has increased over the period of time. The years 2002, 2006 and 2008 show high peaks in number of corporate insolvencies.

Graph 4.5: Evolution of Insolvencies in UK



Source: Insolvency Service, UK

4.3.2. The Insolvency Procedures Prevailing in UK

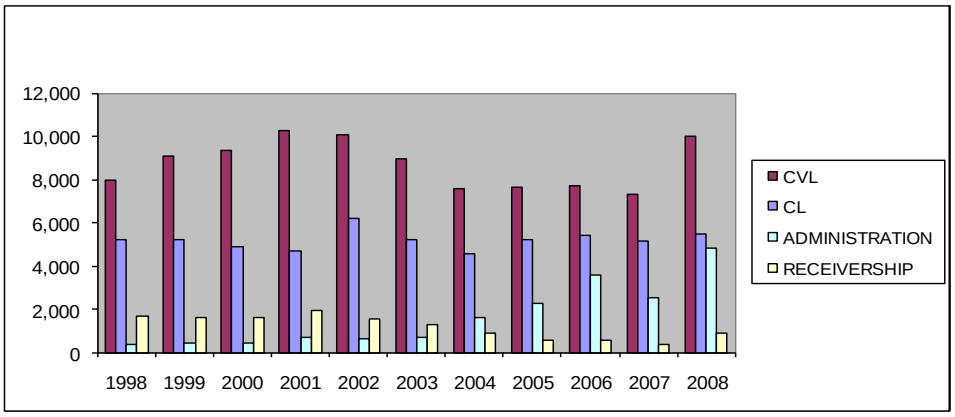
We first consider the general evolution of the various UK procedures. Over the period of time, the number of corporate insolvency procedures has increased. Table 4.2 and Graph 4.6 show the total number of UK companies entering insolvency procedures in England and Wales over the period of 10 years (1998-2008). Liquidation is the most extensively used procedure accounting for more than 85% of all bankruptcy filings; administration accounts to nearly 5% of all cases and receivership amounted to 10% of all cases. Among liquidations, creditor voluntary liquidation is the most extensively used procedure followed by compulsory liquidations. Creditor voluntary liquidation accounted for almost more than 50% of all corporate insolvency procedures till the year 2004 after which it showed a slight decrease over subsequent years falling slightly below 50%. Compulsory liquidation on the other hand accounted for near about 30% of all corporate insolvency procedures.

Table 4.2: Insolvency Procedures in UK

YEAR	CL	CVL	RECEIVERSHIP	ADMINISTRATION	TOTAL
1998	5216 *(34.2)%*	7987 *(52.4)%*	1713 *(11.2)%*	338 *(2.2)%*	15254
1999	5209 *(31.9)%*	9071 *(55.5)%*	1618 *(9.9)%*	440 *(2.7)%*	16338
2000	4925 *(30.1)%*	9392 *(57.4)%*	1595 *(9.8)%*	438 *(2.7)%*	16350
2001	4675 *(26.6)%*	10297 *(58.6)%*	1914 *(10.9)%*	698 *(4.0)%*	17584
2002	6231 *(33.7)%*	10075 *(54.5)%*	1541 *(8.3)%*	643 *(3.5)%*	18490
2003	5234 *(32.4)%*	8950 *(55.4)%*	1261 *(7.8)%*	700 *(4.3)%*	16145
2004	4584 *(31.3)%*	7608 *(51.9)%*	864 *(5.9)%*	1601 *(10.9)%*	14657
2005	5233 *(33.2)%*	7660 *(48.7)%*	590 *(3.7)%*	2257 *(14.3)%*	15740
2006	5418 *(31.3)%*	7719 *(44.7)%*	588 *(3.4)%*	3560 *(20.6)%*	17285
2007	5165 *(33.6)%*	7342 *(47.8)%*	337 *(2.2)%*	2509 *(16.3)%*	15353
2008	5494 *(25.9)%*	10041 *(47.3)%*	867 *(4.1)%*	4820 *(22.7)%*	21222

Source: Insolvency Service, UK

Graph 4.6: Insolvency Procedures in UK



Source: Insolvency Service

During the period 1998-2001, receiverships show an increase and then start declining gradually. Indeed, receivership is no more pervasive and was abandoned by Enterprise Act of 2002, which came into force on 15th September, 2003. It was viewed as a biased procedure, imparting too many rights to secured creditors and often leading to immature liquidations[156] as the appointed receiver was only concerned with seeking repayment for his appointees (Benveniste, 1986; Aghion et al, 1992). It was also suspected as the longest and the most expensive procedure which in return undermined the ex-post efficiency of the outcome and also as the procedure that was biased in favour of secured creditors' interests and did not consider the interests of unsecured creditors (Armour, Hsu, Walters, 2008, Insolvency Service, 2001). European Insolvency Regulation that came into effect from 31st May, 2002 provides for collective proceedings to being in all EU member states. Receivership failed to meet this international criteria as it was not a collective procedure (Insolvency Service, 2001). Thus, it was considered appropriate to abandon it. Several other criticisms have been reported against the functioning of receivership.[157]

Administration on the other hand shows a gradual increase since the time of its inception. Indeed, the Enterprise Act of 2002 streamlined the old administration procedure and abolished the receivership procedure. The primary objective of the new streamlined procedure was to enable more companies to survive insolvency and provide level playing

[156] Aghion, Hart, and Moore, 1992, Armour and Mokal, 2005, Insolvency Service, 2001
[157] Benveniste, 1986; Aghion, Hart and Moore, 1992; Milman and Mond, 1999; Finch, 2002; Mokal, 2004

field to all creditors With regard to this Crown's preferential status was abolished[158] and ring fence fund[159] was established to allow more assets to be available to the unsecured creditors. This enhanced their positioning since the previous law. The purpose of administration, as defined by paragraph 3(1) of Schedule B1 of the Act, is to achieve one of the following objectives for the company: rescuing the company as a going concern, achieving a better result for company's creditors as a whole than would be likely if the company were wound up (without first being in administration), realizing property in order to make a distribution to one or more secured or preferential creditors. Thus, the main objective is to rescue the company and to achieve better results for its creditors. However, there is hierarchy in the objectives. If the first cannot be achieved only then can the second objective be pursued and so on so forth. The administrator is required to work within a particular time frame not exceeding more than a year and provide efficient and quick solutions. New administration procedure was suspected to be faster, flexible, more transparent in terms of accountability (Frisby, 2004; Armour and Mokal, 2005; Finch 2005). Administrator had fiduciary duties towards all the creditors and was also responsible for minimizing the length of bankruptcy proceedings. In order to study the impact of Enterprise Act of 2002, Insolvency Service funded several empirical studies (Frisby, 2006; Katz and Mumford, 2006). While Frisby (2006) found no significant impact on the recoveries for creditors between receivership and the new procedure, Katz and Mumford (2006) found that administrations not only substituted receiverships but also resulted in liquidations. There was a significant decline in both receiverships and liquidations after September, 2003. One of the reasons for substitution of liquidations by administrations was supposed to be the decision of House of Lords' in Re Leyland DAF Ltd, Buchler v Talbot. In this case it was held that general expenses of liquidation[160] are not to be paid by the floating charge assets but have to be paid only out of company's free assets. Unlike the liquidator, administrator had an incentive, as he was certain that his expenses and remuneration will be recovered from floating charge assets. Thus, it led them to favour administration over liquidation.

[158] EA 2002, s 251 (1) states that the Crown preference shall cease to exist.

[159] The EA 2002, s 252 introduces a new s 176A into the IA 1986 which fully stipulates the new creation of ring fence fund.

[160] as distinct from the costs incurred in the realization of floating charge assets

The new changes were introduced in the law to make bankruptcy procedures more efficient and to provide greater accountability to unsecured creditors and to increase the overall efficiency. Even after all such alterations it was found that the net recoveries remain unchanged[161] (Armour, Hsu, Walters, 2008). Though, the gross realizations seem to have increased but it has been compensated by the increasing bankruptcy costs. Frisby (2006) found no significant differences in post and prior Enterprise Act cases in terms of recoveries.

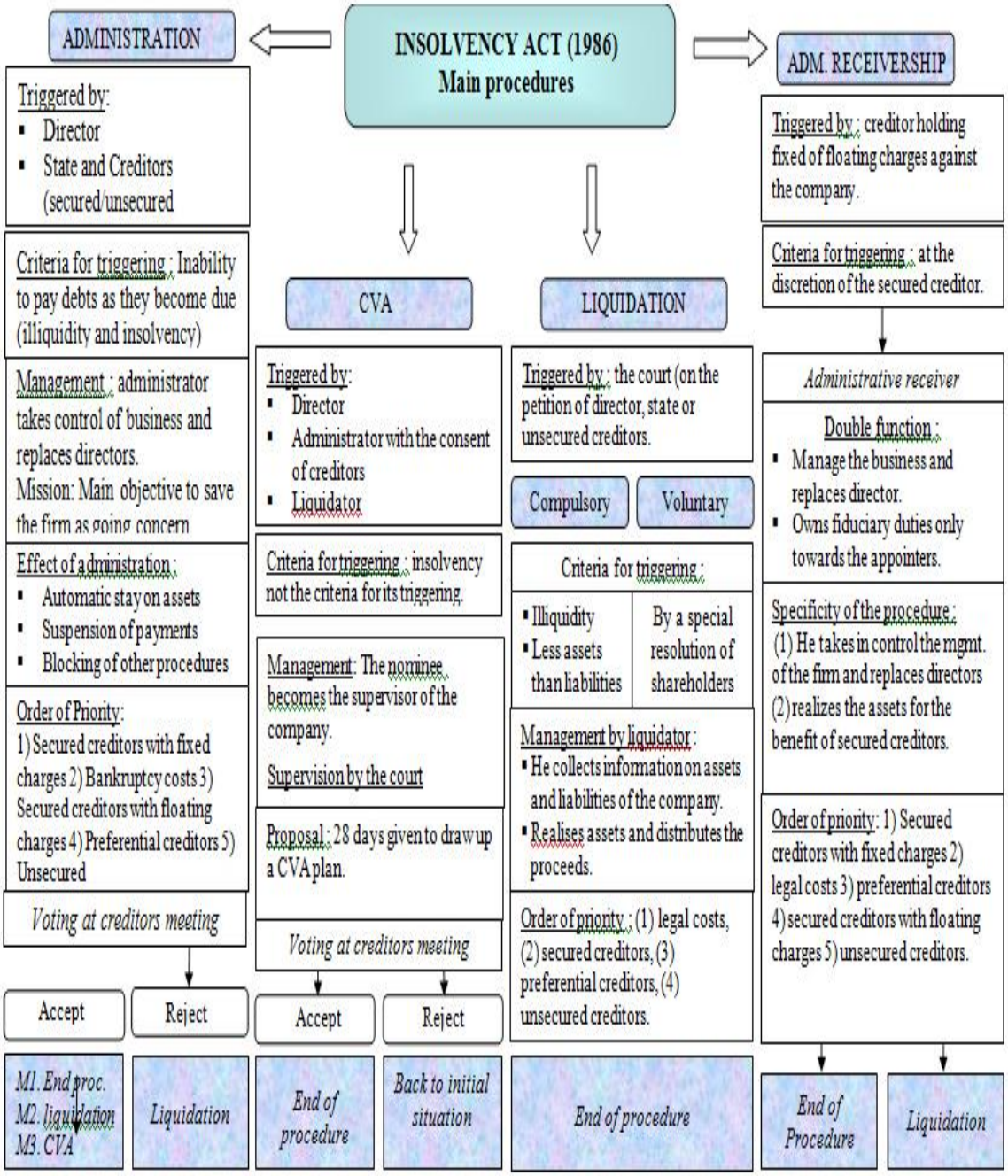
The above figures have shown the incidence of corporate insolvencies and the most extensively used insolvency procedures. Now it is imperative to consider the functioning of these procedures. Figure 4.3 presents their general structure. Let us stress that the UK legislation interestingly provides its creditors with a menu of procedures to choose from. One likely effect of such "menu" is that the various stakeholders (debtor and creditors) can use such procedures strategically, in the sense that they are expected to select the procedure that fits in their best interest.

In the following sections, we present in more detail the content of each procedure: How are they triggered? What are their effects? What is the order of priority?

We first start with liquidation (section 4.3.2.1), which is split between voluntary liquidation (section A) and involuntary liquidation (section B). Then, we present receivership (section 4.3.2.2) and administration (section 4.3.2.3). Last, we describe the CVA (section 4.3.2.4), which is closer to workout than formal bankruptcy (even if CVA is a part of the insolvency law act, 1986) and some other prevalent but rarely used procedures (section 4.3.2.5) and finally conclude the chapter with section 4.4.

[161] Most of these researchers were able to study administrations and receiverships, which constitutes roughly to 15% of all the bankruptcies filed in UK. In our thesis we not only take into consideration the administration cases and receivership cases, but also includes liquidation cases which constitute 85% of all bankruptcy filings. We find the bankruptcy costs, duration of the procedure, amount due to all creditor classes, amount recovered by all creditors classes and find the overall efficiency of each procedure my calculated the global recovery rate (total recovery rate) for all creditors. We also notice that outcomes for unsecured creditors remain very futile even after all the favorable reforms. Based on these parameters it will be interesting to have a detailed insight into the UK insolvency law.

Fig 4.3 Insolvency Procedures of UK



4.3.2.1 Liquidation

Liquidations are the most widely used insolvency procedures, accounting for 75-85% of all corporate insolvency procedures in United Kingdom. Liquidation of a company is a legal process where the assets of the company are sold in whole or piecemeal and the proceeds so realized are distributed among the creditors in the order of priority. A liquidator is appointed to manage the winding up of the company. The liquidator is not only responsible for making distributions to creditors but also ensures that company's affairs have been carried out in a just manner. He is also responsible for verifying whether all company contracts (including employee contracts) are completed, closing all the businesses of the company, settling any legal disputes, selling the assets of the company, collecting receivables due to the company and making payments to creditors in the order of priority and any residual payments to shareholders. At the end of the process the company ceases to exit.

Liquidation is often called as winding up or dissolution, though the latter indicates the last stage of winding up. Liquidation can be voluntary or driven by the court.

INVOLUNTARY LIQUIDATION (DRIVEN BY COURT):
- Compulsory Liquidation (or equivalently, winding up by court[162])

VOLUNTARY LIQUIDATION:
- Members Voluntary Liquidation
- Creditors Voluntary Liquidation

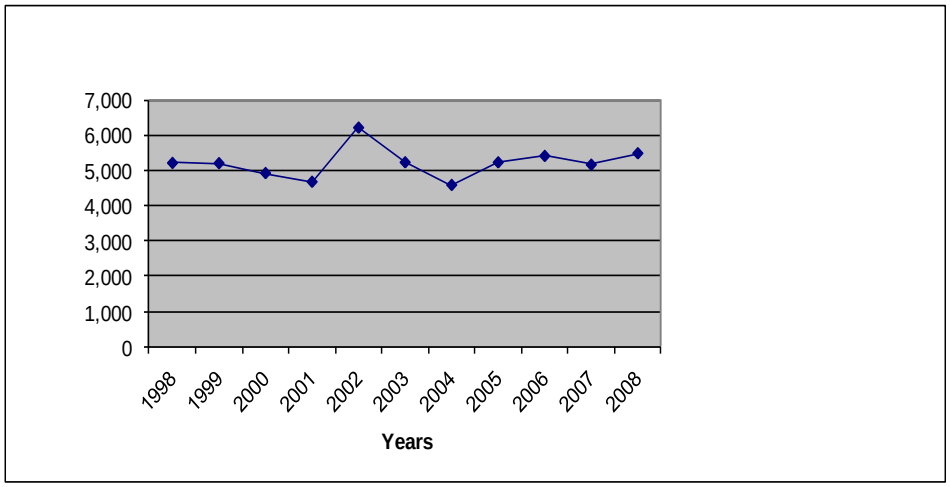
A. Involuntary Liquidation: Compulsory Liquidation (or winding up)

Compulsory Liquidation is the second most used insolvency procedure accounting for 30% of all insolvency procedures. The compulsory liquidation cases showed a general decline between the period 1998 to 2001 falling from 34.2% to 26.6% with respect to total

[162] Modes of winding up are provided in Part IV, Chapter 1 of the Insolvency Act 1986.

number of insolvency filings (graph 4.7). Then in 2002, we observe a steep rise in the number of compulsory liquidation filings and again surging down till 2004 and then showing quite a stable trend of rise. On the whole it shows quite a stable trend. As it is extensively used by companies, it is imperative to understand what compulsory liquidation is, who triggers it, and how the process is followed and so on.

Graph 4.7: Evolution of Compulsory Liquidation cases



Source: Insolvency Service

A1. The Triggering

Compulsory liquidation is mostly dedicated to insolvent companies. This is the case when a company is unable to pay its debts as they become due and no other alternative insolvency procedure can be enforced. Then in such case the company can be wound up under the supervision of the court. Interestingly enough, the insolvency criteria in UK is broader than that in France, as it considers both short term illiquidity situations and long term prospective financial difficulties. The procedure can be triggered under both situations. Regarding illiquidity, section 123 (1a) of Insolvency Act of 1986 states that a company is unable to pay its debts "if a creditor (by assignment or otherwise) to whom the company is indebted on a sum exceeding £ 750 then due has served on the company, by leaving it at the company's registered office, a written demand (in the prescribed form)

requiring the company to pay sum so due and the company has for 3 weeks thereafter neglected to pay the sum or to secure or compound for it to the reasonable satisfaction of the creditor". Regarding long term prospective financial difficulties, section 123 (2) states that: "A company is also deemed unable to pay its debts if it is proved to the satisfaction of the court that the value of the company's assets is less than the amount of its liabilities, taking into account its contingent and prospective liabilities". Here we would like to emphasize that there can be more criteria's leading a company to compulsory liquidation, but these are of minor importance as compared to the debtor's inability to pay its debts[163]. The petition[164] is usually presented by the creditors or by the company itself or the directors or the shareholders[165]. In special circumstances the petition can also be filed by the Secretary of State or an official receiver[166].

A2. The Winding Up Process

As soon as the winding up order has been issued, a copy of it should be forwarded to the company and the registrar of the companies who will duly file them in records[167]. If an official liquidator has been appointed, then a statement of affairs should be submitted[168] to him in the prescribed format by the management authorities of the company such as directors or managers. Such statement of affairs should contain details[169] about the company's assets, debts and liabilities, names and addresses of creditors, the securities held by them and the dates when the securities were issued. Besides, he should also be

[163] Section 122 of the Insolvency Act 1986 outlines the circumstances under which the company may be wound up by the court:
a) the company has by special resolution resolved that the company be wound up by the court,
b) despite being a public company by virtue of incorporation, it has not been issued a certificate under section 117 of the Companies Act (public company share capital requirements) and more than a year has expired since it was so registered,
c) it is an old public company within the context of the Consequential Provisions Act
d) the company does not commence its business within a year from its incorporation or suspends its business for a whole year,
e) the number of members is reduced below 2,
f) the company is unable to pay its debts,
g) the court is of the opinion that winding up of the company is a just and equitable measure.
h) However, in practice, the majority of the compulsory liquidations are made on the last two grounds.

[164] The petition for winding up should be made in the High Court or the District Registry of the High Court that covers the jurisdiction of company's trading address or where the registered office is situated (see IA 1986 Sec 117). If the company's share capital, paid up or credited as paid up, is not more than £120,000 , the petition can be presented in a county court that deals with insolvency matters and has jurisdiction authority over the area where the company's trading address or registered office is situated.

[165] See section 124 of Insolvency acts 1986 provides provisions for an application of winding up.

[166] An official receiver is a court appointed official who carries on the winding up of the company. For details see IA 1986 Sec 399 and Sec 400.

[167] IA, 1986 Sec 130(1)

[168] IA, 1986 Sec 131(1)

[169] IA, 1986 Sec 131(2) and Sec 131(3)

provided with the information on the officers and employees of the company who have joined within one year of his appointment. All this information should be provided, in a prescribed manner, within 21 days of notification given to them by the liquidator. The official receiver should also submit a report to the court[170], specifying the reasons for the company's failure and general information like formation, trading, partners, suppliers and affairs of the company.

The liquidator[171] is mainly responsible for making an account of the company's assets, realizing them[172] and distributing the proceeds to the company creditors adhering to the absolute priority rule and making residual payments to the shareholders. As such winding up process takes time, it involves several managerial and financial specificities that change the way the company is managed. First, the liquidator takes control of entire property and assets of the company. He is solely responsible for managing the affairs of the company and acts as an agent of the company. Within the liquidation process, he terminates (1) the business of the company to the extent he believes is feasible for the beneficial disposal of the business or the company assets, and (2) the existing contracts of employees upon receiving notice of liquidation. Second, in counterpart, the directors' existing powers cease upon the notice of liquidation. During the winding up process, they are required (1) to provide all financial information to the liquidator or official receiver, (2) to deliver all property including financial books and records to the liquidator or official receiver, (3) to assist the liquidator if needed, and (4) to attend any meetings or proceedings if required.

As the compulsory liquidation process is a collective procedure, most creditors have an automatic stay of claims. However, secured creditors may be exempt from this. Once the liquidation process has ended[173], a priority order of repayment applies. Bankruptcy costs benefit from a higher rank[174]. The proceeds from secured assets are used to pay the

[170] IA 1986 Sec 132

[171] See IA 1986 Sec (163-170) for the details of liquidators, their appointment and their powers and duties.

[172] See IA 1986 Sec 143 for the general functions of the liquidator with respect to the winding up of the company.

[173] The Liquidator should duly summon a final meeting of creditors to inform them about the outcome of liquidation and his release date from his duties, as a liquidator. The report is also sent to the registrar of the companies and upon receiving the final documents from the liquidator and on the expiration of 3 months the company is deemed to be dissolved (IA 1986 Sec 201). The company can also request their name to be struck off the registrar by sending an application to the registrar of the companies.

[174] Fixed costs include petition deposit of £1,000 towards the costs of administration of the liquidation process and a court fee of £190. Variable costs include costs involved in advertising the petition in the London Gazette and the solicitor's fees. As defined by the law

secured creditors and residual amount, if any, goes towards paying liquidator fees followed by preferential creditors[175] and unsecured creditors. The proceeds from unsecured assets are first utilized in paying the liquidators fees, followed by preferential creditors and unsecured creditors.

B. Voluntary Liquidation: CVL and MVL[176]

B1. Creditor Voluntary Liquidation

Creditor Voluntary Liquidation (CVL) accounted for almost more than 50% of all corporate insolvency procedures until the period 2004, after which it showed a slight decrease falling slightly below 50% during subsequent years. The decrease can be attributed to the increased usage of administration[177].

CVL[178] shows a constant rise between the periods 1998 - 2001 and then a sudden dip in the trough from 2002 onwards till 2004 after which a quite stable trend is observed before a sudden peak in 2008 (graph 4.8). Hence the following questions arise: What constitutes CVL as the most extensively used procedure? How is it initiated? What are the criteria for initiation and how does the whole process work? The answers to these questions should provide for a better understanding of the process.

(IA 1986 rules 4.127), liquidator's remuneration shall be fixed as either a percentage of the value of assets realized and distributed or in reference to the time spent by the liquidator and his staff on the proceedings.

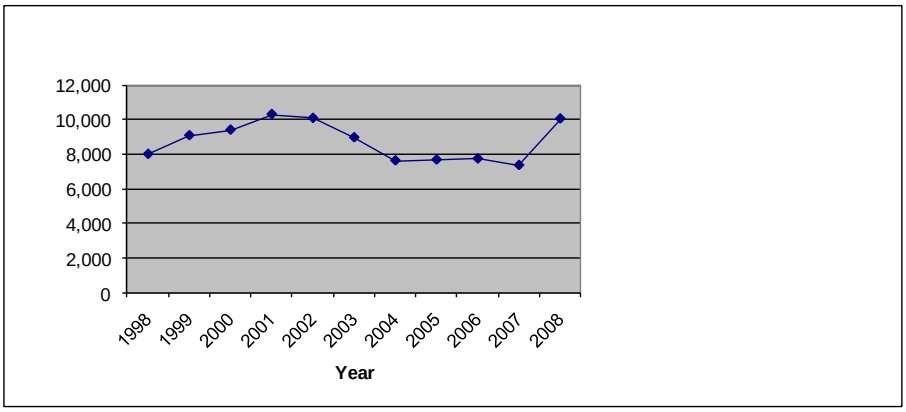
[175] Preferential debts are debts due to Inland Revenue, customs and excise, value added tax, social security contributions, contributions to occupational pension schemes, remuneration of employees. For further details see IA 1986, Sch 6.

[176] Both members' voluntary liquidation and creditor voluntary liquidation are voluntary proceedings. The difference between the two is that in case of members' voluntary liquidation, the directors are required to make a statutory declaration under IA 1986 sec 89 while in the case of creditors voluntary liquidation they do not require doing that. For details see IA 1989 sec 90.

[177] See, a report on administration cases prepared by Alan Katz and Michael Mumford, submitted to Insolvency service 2006.

[178] The source of all above tables is Insolvency Service, United Kingdom.

Graph 4.8: Evolution of Creditor Voluntary Liquidation cases



Source: Insolvency Service

B1a. The Triggering

Creditor Voluntary Liquidation is also known as creditor voluntary winding up which takes place when the shareholders, usually at the directors' request, decide to put the company into liquidation realizing the fact that the company is unable to pay its debts as they become due or company's assets are less than the amount of its liabilities[179]. It is interesting to note that despite its misleading name, creditor voluntary liquidation can never be initiated by the creditors. It is only the directors which can initiate this process. The circumstances under which the company may be wound up voluntarily are provided by section 84 (1) of Insolvency Act of 1986 which states that: "a company may be wound up voluntarily (a) when the period (if any) fixed for the duration of the company by the articles expires, or the event (if any) occurs, on the occurrence of which the articles provide that the company is to be dissolved, and the company in general meeting has passed a resolution requiring it to be wound up voluntarily; (b) if the company resolves by special resolution that it be wound up voluntarily; (c) if the company resolves by extraordinary resolution to the effect that it cannot by reason of its liabilities continue its business, and that it is advisable to wind up." Thus, we notice that the directors voluntarily

[179] Here also we notice that the insolvency criteria is broader than in France, as it considers both short term illiquidity situations and long term prospective financial difficulties. The procedure can be triggered under both situations.

initiate the process realizing the fact that there is no other means (other insolvency procedure like administration) left to rescue the company than to opt for liquidation.

B1b. The Winding Up Process

A meeting of creditors is summoned within 14 days of passing of such resolution by the shareholders. The notice of such meeting should be duly sent to all creditors at least 7 days before the meeting takes place. Within such a notice, the creditors are informed about the time, date and venue where the meeting is to be held. They are also informed about the name and the address of the person who acts as the insolvency practitioner of the company. The insolvency practitioner provides the creditors with the information about company's affairs and a list of company's creditors before the meeting itself. The notice of the meeting is also published in newspapers and in London Gazette[180]. During this meeting, the directors should present to the creditors[181], the statement of affairs of the company in its prescribed format which contains details of company's assets, debts and liabilities, names and addresses of the company's creditors, securities held by them respectively and any other information considered important from the point of view of disclosure. The insolvency practitioner who is nominated as the liquidator by the shareholders assists the directors in carrying on the meeting. The creditors are given the right to choose the liquidator and their choice can override the choice of shareholders. A report of the meeting is duly sent to all known creditors within 28 days.

The winding up process has several implications. First, the liquidator takes control of the entire property and assets of the company. He is solely responsible for managing the affairs of the company and acts as an agent of the company. Within the liquidation process, he terminates (1) the business of the company to the extent he believes is feasible for the beneficial disposal of the business or the company assets, and (2) the existing contracts of employees upon receiving notice of liquidation.[182] Second, in counterpart, the

[180] Section 98 (1)(2) of Insolvency Act 1986.
[181] Section 99 (1)(2) of Insolvency Act 1986.
[182] Most of these decisions require agreement of liquidation committee if constituted. Section 101 of Insolvency Act 1986 lays down the process of appointment of the members of the liquidation committee. Such committee is formed at a creditors meeting and comprises of

directors' existing powers cease upon the notice of liquidation. During the winding up process, they are required (1) to provide all financial information to the liquidator or official receiver, (2) to deliver all property including financial books and records to the liquidator or official receiver, (3) to assist the liquidator if needed, and (4) to attend any meetings or proceedings if required.

As the creditor voluntary liquidation process is a collective procedure, most creditors have an automatic stay of claims. Once the liquidation process has ended[183], a priority order of repayment applies. Bankruptcy costs benefit from a higher rank[184]. The proceeds from secured assets are used to pay the secured creditors and residual amount, if any, goes towards paying liquidator fees, followed by preferential creditors[185] and unsecured creditors. The proceeds from unsecured assets are first utilized in paying the liquidators fees, followed by preferential creditors and unsecured creditors.

B2. Member Voluntary Liquidation

B2a. The Triggering

In Members Voluntary Liquidation the shareholders of the company convene a general meeting and voluntarily decide to appoint the liquidator and put the company into liquidation. The difference between other liquidation processes and MVL is that it is triggered only for solvent companies. Thus, this specific procedure is out of the scope of our studies as the considered population is not in financial distress. Anyway, as MVL involves the liquidation of the debtor, the creditors are paid on a collective basis. This means that the company possesses enough assets for paying off all its debts and liabilities.

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at least three creditors of the company. Such committee receives report from the liquidator and may meet periodically. It approves the remuneration of the liquidator and restrains him from exercising certain powers.

[183] The Liquidator should duly summon a final meeting of creditors to inform them about the outcome of liquidation and his release date from his duties, as a liquidator. The report is also sent to the registrar of the companies and upon receiving the final documents from the liquidator and on the expiration of 3 months the company is deemed to be dissolved (IA 1986 Sec 201). The company can also request their name to be struck off the registrar by sending an application to the registrar of the companies.

[184] It is the creditors who decide upon the liquidators fees, failing which it is determined in accordance with a statutory scale fixed by the court (IA 1986 rules 4.127: fixing of remuneration). It can also be fixed as a percentage of assets realized or distributed. It usually depends on the time spent by the liquidator, complexity of the case, the value and nature of company's asset and with how much effectiveness the process is carried out.

[185] Preferential debts are debts due to inland revenue, customs and excise, value added tax, social security contributions, contributions to occupational pension schemes, remuneration of employees. For further details see IA 1986, Sch 6.

The directors then issue a statutory declaration under sec. 89 of Insolvency Act of 1986 that the company is solvent[186]. After this it is mandatory for the company to pay off all its debts within a period of 12 months.

B2b. The Winding Up Process

The liquidator is responsible for managing the winding up affairs of the company and distribution of the assets[187]. As soon as he is appointed, the powers of directors cease to exist. The liquidator appointed will be responsible for making an account of the company's property and how it has been realized. He should hold a general meeting of the creditors and submit before them his report. Such a meeting should be advertised in the official Gazette, one month prior to the meeting date. After the meeting, the liquidator should send a report to the registrar of the company within a week, informing him of the meeting's outcome. A final meeting of creditors takes place to inform them of the outcome of liquidation and to decide upon the date of release of the liquidator from his duties. The report is also sent to the registrar of the companies and the company is subsequently dissolved[188]. The company can also submit an application to the registrar of the companies requesting to be struck off from the registrar.

4.3.2.2. Receivership

Receivership[189] accounted for 11.2% of all insolvencies in 1998 while it dropped to 4.1% in 2008. Since the year 2001, we witness a gradual decrease in the number of receiverships (graph 4.9). This is obvious as receivership was abolished by Enterprise Act of 2002, which came into force in September 2003. However, 2007 onwards we observe a sudden rise in receiverships as receivers could still be appointed by Law of Property Act 1925.

[186] If the liquidator is of the opinion that the company is unable to pay its debts in full as declared by the director under section 89 then in that case, the liquidator shall summon a meeting of creditors within 28 days of such opinion formed and send notices to all creditors at least 7 days prior to the date of meeting. He would also be required to submit statement of affairs in the prescribed format. Such statement of affairs should contain details about company's assets, debts and liabilities, names and addresses of creditors, the securities held by them and the dates when the securities were given.

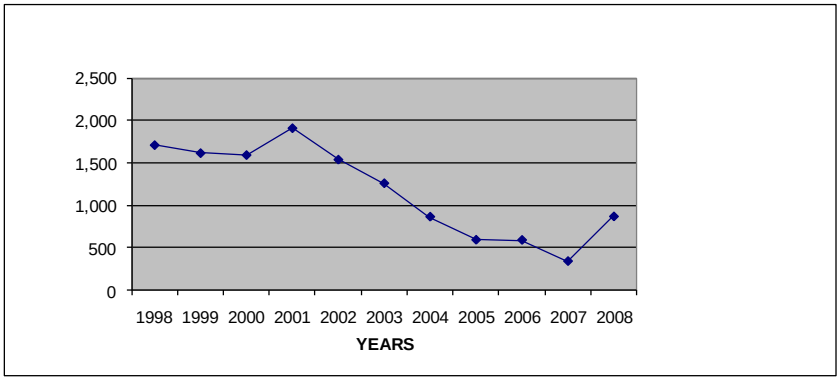
[187] For the details of liquidator's powers and duties see IA 1986 sec 165.

[188] IA 1986 Sec 201.

[189] The source of all above tables is Insolvency Service, United Kingdom.

This seems to be the only reason for the abnormal rise in receiverships in recent years even after abolishment as it no more constitutes a part of Insolvencies Act in UK.

Graph 4.9: Evolution of Receivership cases



Source: Insolvency Service

A. Receivership: A procedure unique to English Insolvency

Receivership was quite often addressed as a 'private liquidation'[190] procedure or 'contractualist' bankruptcy system[191] because a secured creditor holding fixed[192] or floating charges[193] against the company was permitted to enforce upon its collateral in entirety, in out of court proceedings. The security agreements gave them the power to appoint the receiver who then takes control and monetizes the assets for the benefit of the secured creditors (Armour and Frisby, 2001). He owes fiduciary duties only towards the appointee. These bestowed rights gave floating charge creditors undue advantage over other creditors and also provided them with strong bargaining power[194]. This more often than not resulted in premature liquidation of the firms which could have been continued or

[190] See Armour, Hsu, Walters, 'The cost and benefit of secured creditor control in bankruptcy: evidence from UK, Empirical legal studies paper, University of Cambridge for business research working paper no 332, p2.
[191] Franks and Sussman, 'Financial distress and bank restructuring of small to medium size UK companies, (2003) CEPR discussion paper no 3915, p1.
[192] A fixed charge is a security on the specific assets of the company like immovable assets (land and building).
[193] A floating charge is a security that may be extended to encompass the whole pool of company's assets including intangibles and receivables (cash, receivables, inventory and future cash flows).
[194] It should be taken into consideration that with the Enterprise Act 2002, the economic interests with respect to an insolvent company have been transferred from floating charge creditors to the creditors as a whole. See J Armour and R Mokal, 'Reforming the Governance of Corporate Rescue: Enterprise Act 2002', (2005) LMCLQ 28, 2830; V Finch, 'Reinvigorating Corporate Rescue' (2003) J.B.L. 527, 531533.

saved (Benveniste, 1986; Aghion et al., 1982). It was severely criticized on this ground (Benveniste, 1986; Aghion, Hart and Moore, 1992; Milman and Mond, 1999; Mokal, 2004) and was abolished by the Enterprise Act of 2002.[195]It was also commented that receivership procedure hindered the rescue mechanism by involving sale of assets critical to the working of business operations (Insolvency Service, 2001; Mokal, 2004). Further, it received criticism for the lack of accountability to the concerned parties (Insolvency Service, 2001) and also on the inflated bankruptcy costs involved in the process (Mokal, 2004). Despite these criticisms, this system had some proponents who believed that this type of concentrated ownership can benefit the governance of the firm and also encourage private renegotiation between the concerned parties. This could also result in the avoidance of legal costs involved in formal bankruptcy process. It can shrink the monitoring costs of the investors[196] and provide them with the control of management.[197] Having observed both the criticisms and supporting views, it will be interesting to review this procedure in detail as it was peculiar to English insolvency law only.

B. The Triggering

A receiver is generally an insolvency practitioner, appointed by a creditor holding fixed[198] or floating charges on the assets of the company. These securities gave creditors the right to appoint a receiver out of court[199]. The receiver so appointed held fiduciary duties only towards the appointee. He was generally responsible for selling of the assets and repaying the appointee. The provisions related to receivership are governed by Insolvency Act of 1986. The term administrative receiver means[200]: "*a receiver or manager of the whole (or substantially the whole) of a company's property appointed by or on the behalf of the*

[195] See V Finch, Corporate Insolvency Law: Perspectives and Principles (CUP, Cambridge, 2002), P294; S Leinster, "Policy Aims of the Enterprise Act" (2003) Recovery (Autumn) 27, 28.
[196] Scott, 1986; Franks and Sussman, 2005; Baird and Russman, 2006; Armour, 2006
[197] Triantis, 1995; Baird and Russman, 2002
[198] The advantages of having fixed charge over the floating charge are that its ranking is not affected by the preferential creditors (Ss.175, 45, Schedule B1 paragraph 65(2) Insolvency Act 1986). or by the prescribed part (S.176A Insolvency Act 1986.). Neither can the bankruptcy or administering costs be paid out of its proceeds. The assets cannot be freely disposed of by the receiver without seeking permission from the court. Thus, creditors have incentives to have fixed charge assets as security to increase their positioning.
[199] IA, 1986 Sec 33(1).
[200] IA, 1986 Sec 29 (2).

holders of any debentures of the company secured by a charge which, as created, was a floating charge, or by such a charge and one or more securities"

C. The Receivership Process

Upon appointment, the receiver acts as an agent of the company. He will decide whether the company should be maintained as going concern or the assets should be sold off[201]. His appointment cannot be challenged in principle except on technical grounds. If the firm is continued, he acts as a manager of the company carrying out the daily operations of the company. He has the power to enter into contracts[202] and employ experts to carry out the functions of his duties[203]. Upon appointment he should send a notice to the company in a prescribed manner of his appointment. And within 28 days of his appointment such a notice should be sent to all creditors to the extent he knows their addresses[204]. Within three months of his appointment as the receiver of the company, the receiver should send a report to the following: 1) the registrar, 2) the company's creditors, 3) the floating charge holders and 4) any trustees for secured creditors of the company. Administrative receiver's report[205] contains the following information:

- statutory information about the company like name of the company, registration number, registered address of the company, name of directors, name of shareholders, year of incorporation and name of company secretary;
- history of events leading to the appointment of administrative receiver;
- actions taken after appointment;
- details of all creditors (secured creditors, preferential creditors, unsecured creditors);
- statement of affairs of the company which is generally provided by the directors to the receiver[206].

[201] IA 1986 Sec 43.
[202] Sec. 37 of Insolvency act 1986 outlines the provisions for the liability of receiver's in relation to any contracts made by him during the performance of his functions. He is personally liable for any post-appointment liabilities. Any contracts entered by him while performing his duties or any employment contracts made during the process, will be paid out in priority, out of the proceeds of the assets.
[203] IA 1986 Sec 44.
[204] IA 1986 Sec 46.
[205] IA 1986 Sec 48.
[206] IA 1986 Sec 47.

Besides this, receiver should also send to the registrar an abstract of receipts and payments of the company while in receivership process. This report should be sent to the registrar on every 6 months basis[207]. At the end of the process[208], the receiver should make distributions according to the order or priority[209]: (1) receiver's fees[210] and all post-appointment liabilities, (2) preferential debts, (3) floating charge holders debts, (4) residual if any goes to unsecured creditors (usually they get nothing).

4.3.2.3. Administration

Administration was introduced by the Insolvency Act of 1986. In the year 1998, it accounted for 2.2% with respect to total number of insolvencies filed and in the year 2008 it accounted for 22.7% of all corporate insolvencies filed (see table 4.2 above). The sudden increase starting from the year 2003 onwards is obvious, as receivership was abolished and secured creditors lost their right to appoint a receiver (graph 4.10). In absence of receivership, appointing administrators was the only formal rescue option left with secured creditors. We will be studying both the old and new administrative procedures in detail to understand the reasons behind the changes made by law and comprehend the whole process.

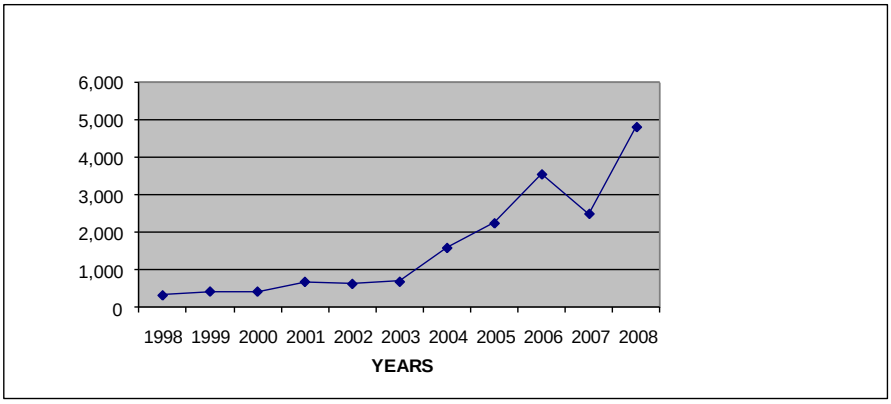
[207] IA 1986 Sec 38.

[208] The process ends when the distribution has been made to the secured creditors and notice for the release as receiver of the company is send to the registrar. A new process can be triggered if the receiver has some balance left and in such a situation, a liquidator can be appointed to carry out further proceedings (IA 1986 Sec 48(4)).

[209] IA 1986 Sec 40.

[210] The receiver is remunerated either with a fixed commission as a proportion of the value of the assets or with a time-based fee. In some circumstances (where an application is submitted to the court by the liquidator) the court can decide the remuneration of the receiver210. He is generally paid out of the sale of the secured assets of the company.

Graph 4.10: Evolution of Administration cases



Source: Insolvency Service

A. Administration (Old law before 15th September, 2003)

The provisions of administration are provided in part II of the Insolvency Act of 1986. In 1977 a commission was appointed with a view to provide a new era of rescue culture to the existing insolvency regime framework. The commission's work is documented in a report titled: "Cork Report". Thus, on the recommendations of Cork committee[211], administration came into existence. It is a court administered procedure that was constituted with the main intention of serving the interests of all the creditors. The objective of this procedure was to make bankruptcy code more debtors friendly and to provide an opportunity to the businesses to survive default. It was considered to be the reorganization procedure of United Kingdom. The main feature of the administration procedure was the effect of statutory moratorium which provided the debtor with breathing space and allowed an automatic stay on the assets of the company (which means creditors could not enforce their collaterals during this period).

[211] The full reference of this committee's work can be found in 'Insolvency law and practice, report of the review committee (Cmnd 8558) 1982

B. The Triggering

The application for an administration order can be filed in the court by either of the following[212]: a) the company, b) the directors and c) the creditors (both secured and unsecured). An administration order[213] is an order issued by the court[214], which appoints[215] a person for managing the business affairs and property of the company as long as the order is in effect. This person is referred to as the "Administrator" and is generally an insolvency practitioner. The main purpose of administration order is to achieve one of the purposes as laid down by the provisions[216] of Insolvency Act of 1986. These are:

1) The survival of the company and the whole or any part of its undertaking as a going concern

2) The approval of a voluntary arrangement under Part 1

3) The sanctioning under section 425 of the Companies Act of a compromise or arrangement between the company and any such persons as are mentioned in that section;

4) A more advantageous realisation of company's assets that would be effected in a winding up. The order thus issued should specify which purposes it wants to achieve. When an administration order is issued, the following effects can be observed[217]:

- any petition for the winding of the company will be dismissed
- any administrative receiver of the company shall vacate the office
- there will be an automatic stay on all the assets of the company and no security can be enforced to repossess goods
- no legal proceedings can be executed
- no administrative receiver can be appointed

[212] IA 1986 Sec 9

[213] IA, 1986 Sec 8(2)

[214] Sec 8(1) of Insolvency act 1986 empowers the court with the ability to issue an administration order. If the court believes that a company can fulfill one or more purposes of administration and is insolvent as defined by Sec 123 of the act, it can be put into administration.

[215] Section 13 lays down the provisions of appointing an administrator. An administrator can be appointed in the following ways: a) by the administration order issued by the court;
by any continuing administrator of the company; c) by creditors' committee established under section 26 in the absence of any continuing administrator d) and in the absence of such a committee, it is carried out by the company or the directors or by any creditors of the company.

[216] IA 1986 Sec 8(3)

[217] IA 1986 Sec 10

C. The Administration Process

Once the administrator has been appointed, he should send the notice of his appointment to the company and its creditors in the manner prescribed by the law[218]. He should also publish his appointment in a circulating local newspaper or in the London Gazette and duly send a copy of the appointment order to the registrar within 14 days of his appointment. The failure to perform such actions in time can make him liable for fine. Upon appointment as the administrator, he is solely responsible for managing the affairs of the company[219] and takes control of all the assets, business and property of the company[220]. He is responsible for drawing up a reorganization plan for the company. Soon after his appointment, the director's of the company should duly provide to the administrator a statement verified by an affidavit containing the following particulars[221]: 1) particulars of the company's assets, debts and liabilities; 2) the names and addresses of its creditors; 3) the securities held by them respectively; 4) the dates when the securities were respectively given and any other information as considered necessary to disclose. Based on this, within 3 months[222] of his appointment (or longer if allowed by the court) as the administrator, he sends a statement of his proposals for achieving the objectives specified in the administration order to the registrar of companies and to those creditors whose addresses are known to him or provided by the directors. A creditors meeting is summoned and the administrator's proposal is laid before them. At the creditors' meeting it is decided whether the administrator's proposal should be approved or not. Administrator's proposal contains the following information[223]:

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[218] IA 1986 Sec 21

[219] The administrator of the company shall have following powers as conferred by Section 14 and Schedule 1 of the Insolvency Act 1986. Some of these are mentioned below:

- he acts as an agent of the company
- he can perform any acts which are necessary for managing the affairs of the business and property of the company
- he can remove the directors of the company and appoint a new one
- to summon meeting of members and creditors of the company
- the administrator can dispose off any property of a company which is subject to security or any goods in the possession of the company under a hire purchase agreement if it would promote one or more of the purposes specified in administration order. It includes floating charge security as well

[220] See, IA 1986 Sec 17 for general duties of the administrator

[221] Pursuant to section 22 of the Insolvency act 1986.

[222] IA 1986 Sec 23

[223] Besides, in accordance to the rule 2.19 of the Insolvency Act, the following documents are also enclosed and presented to creditors:

- A copy of rule 2.22 of Insolvency act 1986
- A form of proxy
- A proof of debt form

- Statutory information about the company
- Background of events leading to the granting of administration order
- Events subsequent to administration order
- Financial information about the company as provided by the directors (statement of affairs)
- The proposals of the administrator

The creditors enjoy certain power during the administration process[224]. If they do not agree to all the terms of proposals they can suggest modifications. The administrator then reports the results of the meeting to the registrar of companies and to such other persons as may be prescribed. Every 6 months, he is also required to send a progress report of the proceedings containing abstracts of receipt and payments to the creditors and the registrar of companies. At the end of the administration process[225], the administrator is required to distribute the proceedings in the order of priority. Secured creditors are paid first, followed by the employee's unpaid wages, the legal fees of administration and the preferential debts. Any residual amount goes to the unsecured creditors.

D. Flaws of Old Administration Regime

The creation of administration procedure was aimed at providing a level playing ground to all the stakeholders and to promote a collective rescue oriented approach to deal with distress. It was supposed to be the Chapter 11 of UK. It provided statutory moratorium, it

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A creditor's guide to administrator's fees (Administrator's remuneration is decided in accordance to the Insolvency rules 2.106; it is subject to the approval of creditors committee or in the absence of it, by creditors' resolution. He is remunerated either with a fixed commission as a proportion of the value of the assets or with a time-based fee. His remuneration and any expenses incurred by him after his appointment or any debts and liabilities incurred in relation to employment contracts shall be paid in priority to any security out of the assets in his custody).

[224] Some of the powers of creditors during the administration procedure are:
- Creditors can apply to the court for the issuance of administration order
- Creditors can decide upon the name of the administrator
- Creditors committee can be formulated pursuant to Sec 26 of the act
- Creditors are required to approve the administrator's proposal
- Creditors consent is necessary for deciding upon the fees of the administrator
- Administrator is required to furnish all information relating to carrying out of his functions before such committee if formulated
- If at any time during the proceedings the creditors think that the administration is carried out in an unfair manner then they can file an appeal in court, which can give some relief to them;
- The creditors can vote either in person or proxy
- A creditor can give proxy to any person

[225] The administrator can apply to the court for the discharge of administration order if it appears to him that the purpose of the administration has been achieved or is unlikely to be achieved. He is required to send a notice of discharge, in the prescribed format, to the registrar of companies and to any other parties as prescribed by the act.

appointed an administrator who represented the interests of all the creditors, creditors were given the right to vote on the reorganization plan, at the same time it aimed for the rescue of firm as going concern (yet, it is well-known that the creditors – especially the secured ones – might have pro-liquidation bias, that might reduce the probability that a continuation plan is accepted (Blazy and Chopard 2011). Despite all this, it was not free from flaws. Its shortcomings became apparent during the implementation stage. Even though the directors, shareholders and the creditors had the right to appoint the administrator, it was more often than not easily impeded by the veto of floating charge creditors by appointing an administrative receiver. In addition, the bankruptcy costs[226] related to legal fees and expert fees were more of a burden to the debtor's company. The company was obliged to seek professional consultation with regards to fulfilling entry criteria's and was under obligation to prove that the company is likely to achieve one of the four mentioned statutory objectives.[227] All this made administration a very lengthy and expensive procedure.[228]Also some creditors could avoid the legal effect of statutory moratorium[229]. Further, there was a confusion related to exit routes[230] out of the administrative procedure. It could lead to liquidation, CVA's or dissolution of the firm. Amidst the presence of all such flaws, it was considered imperative to introduce a procedure that reformed the existing administration procedure for making it more attractive and convenient for the company and its debtors and hence facilitating more of its usage.

[226] See, Fletcher, "UK Corporate Rescue: Recent Developments—Changes to Administrative Receiverships, Administration, and Company Voluntary Arrangements - The Insolvency Act 2000, The White Paper 2001, and the Enterprise Act 2002" (2004) 5 EBOR 119, 125.
[227] IA, 1986 Sec 8(3).
[228] "Figures as high as 20, 000 GBP have been cited as minimum starting cost with the money being deposited in advance in order to secure the services of necessary IPs." See Finch, p283; D Milman and C Durrant, Corporate Insolvency: Law and Practice (3rd edn, Sweet & Maxwell, London, 1999), p51.
[229] See, Fletcher, "UK Corporate Rescue: Recent Developments—Changes to Administrative Receiverships, Administration, and Company Voluntary Arrangements - The Insolvency Act 2000, The White Paper 2001, and the Enterprise Act 2002" (2004) 5 EBOR 119, 126.
[230] S Frieze, "Exit from Administration" (2001) 14 Insolvency Intelligence 41.

E. New Streamlined Administration (after 15th September, 2003)

Enterprise Act of 2002 streamlined the old administration procedure and brought some major changes in its provisions. Schedule B1 was inserted in the Insolvency Act of 1986 with effect from 15th September, 2003. The primary aim of the new streamlined procedure was to enable more and more companies to survive and provide level playing field to all creditors especially the unsecured creditors who were devoid of it in previous proceedings. With regards to this, Crown's preferential status was abolished[231] and ring fence fund[232] was established to allow more assets to be available to the unsecured creditors. This enhanced their positioning from the previous law. Administrative receivership was abolished and since floating charge holders lost their right to appoint a receiver; they were obliged to appoint an administrator to apply for rescue operations. The new procedure also facilitated easy entry and easy exit routes by providing the procedure to take place in out of court proceedings. Besides, new time deadlines were added in order to make the process fast and less expensive[233]. All these reforms were injected into the system by the Government to provide an opportunity to the firms to survive default and preserve employment. It also aimed at encouraging innovation and risk taking activities[234] by providing a favorable atmosphere. In the following text we discuss some of the major changes brought about by the Enterprise Act of 2002.

F. Major changes brought down by the Enterprise Act of 2002

The purpose of administration, as defined by paragraph 3(1) of Schedule B1 of the Enterprise Act, is to achieve one of the following objectives for the company:

a) rescuing the company as a going concern;
b) achieving a better result for company's creditors on the whole than would be likely if the company were wound up (without first being in administration);

[231] EA 2002, s 251 (1) states that the Crown preference shall cease to exist.
[232] The EA 2002, s 252 introduces a new s 176A into the IA 1986 which fully stipulates the new creation of ring fence fund.
[233] S Davies QC (ed), Insolvency and the Enterprise Act 2002 (Jordans, Bristol, 2003), p171.
[234] V Finch, 'Re-invigorating Corporate Rescue', (2003) J.B.L. 527, 529

c) realising property in order to make a distribution to one or more secured or preferential creditors

Thus, the new bankruptcy regime established a hierarchy in objectives. The main objective is to rescue the company and to achieve better results for its creditors. Failing to achieve the first objective, the company can aim for next objective and so on so forth.

The accessibility of the procedure was increased by allowing out of court appointment of the administrator. In addition to the appointment of administrators by the court, they can also be appointed out of court by the holders of floating charges or the company and its directors. Interestingly, the holders of floating charges can appoint the administrator out of court without having to demonstrate that the company is unable to pay its debts. While, the directors of the company need to demonstrate that the company is unable to pay its debts[235] to make out of court appointment. This allowed for the stakeholders to have an easy and more flexible access to the procedure. Previously, administrators could only be appointed on the order of court.

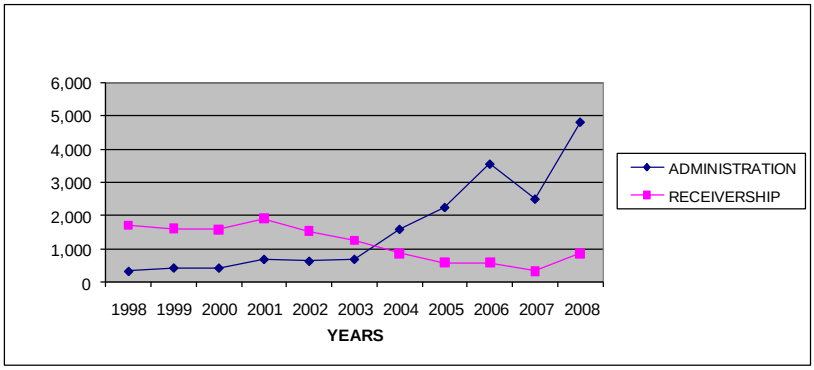
Old administration procedure was criticized on the basis that it was too lengthy and cumbersome. With the new reforms, the length of administration was restricted to one year except under few conditions when it could be extended by the consent of creditors or by the order of court for a period of six months[236]. This automatic termination of administration procedure was introduced by the new regime with the purpose of making the process speedy and effective.

One of the major changes brought about by Enterprise Act of 2002 was the abolition of receivership. Section 72A of Schedule B1 restricts the right of the floating charge holders of the company to appoint an administrative receiver. However, this restriction is applicable only to the charges created after 15th September, 2003. The main purpose was to provide a level playing field to all creditors. In case of receiverships, it was observed

[235] Paragraph 27(2) Schedule B1 Insolvency Act.
[236] IA 1986, Sch B1, 76-78

that secured creditors could have an advantage over other creditors and can often result in immature liquidation of viable firms (Benveniste, 1986; Aghion et al., 1982). Abolishing of receivership meant an alarming increase in the number of administrations. We can see the substitution of receiverships by administration cases[237]. This is verified by the graph 4.11 below:

Graph 4:11: Substitution of Receiverships by Administrations after EA 2002



Source: Insolvency Service

Section 251 of Enterprise Act of 2002, abolished the preferential status of debts due to Inland Revenue, Customs and Excise and Social Security Contributions from the categories of preferential debts in schedule 6 of Insolvency Act of 1986. The main idea behind such abolition was to provide benefits to unsecured creditors. In addition, a new section 176A was inserted in the Insolvency Act of 1986. It was also inserted with the intent of benefiting the unsecured creditors. In case of companies having no floating charge holders, the benefit would directly go to unsecured creditors. However, in case there is a floating charge holder and the charges have been created after 15th September, 2003, the act requires that prescribed part of funds available to floating charge holders should be set aside for the benefit of unsecured creditors. The calculations of prescribed part have been provided in article 3 of the Insolvency Act of 1986 (prescribed part) order 2003 (SI 2003/2097). These are as follows:

[237] See some studies sponsored by the Insolvency Service "Report on Insolvency Outcomes" presented to the Insolvency Service in August 2006 by Sandra Frisby, University of Nottingham, and "Evaluating the Impact of the Enterprise Act on Corporate Rescue" by Adrian Walters of Nottingham Trent University and John Armour of Cambridge University

a) where the company's net property does not exceed £10,000 in value which is 50% of that property
b) subject to paragraph (2), where the company's net property exceeds £10,000 in value the sum of:

- *50% of the first £10,000 in value; and*
- *20% of that part of the company's net property which exceeds £10,000 in value.*

The value of prescribed part of the company's net property to be made available for the satisfaction of unsecured creditors of the company pursuant to section 176A shall not exceed £600,000.

Under the new administration regime, administration procedure automatically terminates at the end of one year period since its inception, with the exception of few conditions.[238] Besides, it can also be terminated by the application of an administrator submitted in court.[239] The new regime tried to overcome the shortcoming of previous regime by providing more flexible, faster and less expensive exit routes. The previous regime was criticized due to its failure of providing links between administration and voluntary liquidations or dissolution which lead to unnecessary waste of time and money[240]. It overcame this problem by providing good linking between the procedures and faster exit routes. Administration can end in the following procedures: company can enter into CVA, it can opt for voluntary liquidations and it can be dissolved. A company can enter voluntary winding up if the administrator thinks: "(a) that the total amount which each secured creditor of the company is likely to receive has been paid to him or set aside for him, and (b) that a distribution will be made to unsecured creditors of the company (if there are any)."[241] On the other hand if the administrator believes that the entire distribution has been made and company does not have any more assets left for distribution, it can put the company into dissolution. The notice of dissolution is sent to the registrar following which the company is dissolved within 3 months.[242]

[238] IA, 1986, Sch B1, para.76
[239] IA 1986, Sch B1, para 79
[240] S Davies QC (ed), Insolvency and the Enterprise Act 2002 (Jordans, Bristol, 2003), p171 - 172
[241] IA, 1986, Sch B1, para.83
[242] IA 1986, Sch B1, para.84.

4.3.2.4. Company Voluntary Arrangement (CVA)

Company Voluntary Arrangement (CVA) is a rescue procedure provided in Part I of the Insolvency Act of 1986 (sec 1-7). Its primary objective was to provide a confidential, inexpensive and amicable private solution to the concerned parties. This procedure allows a distressed company to renegotiate its debts payments and reach a binding agreement with its creditors through out of court proceedings[243]. It is not collective in nature. It does not bind secured creditors (unless they agree). There is no requirement for the company to be insolvent. The directors remain in control of the proceedings subject to supervision of the insolvency practitioner. In this view, the mechanism of CVA is close to the working of Chapter 11 of US Bankruptcy Code[244] and to the French *règlement amiable* (or *conciliation* since 2005). It is interesting to notice the prevalence of intermediate resolutions of default in both countries (UK and France) even though they belong to distinct legal families. These procedures can be regarded as mixed solutions (private and legal) to financial distress. Even though CVA is an out of court proceeding, yet the court plays a supervisory role to ensure justice in a timely manner[245]. It is the same case for French *règlement amiable*.

Graph 4.12 shows constant increase in the number of CVA filings, yet it constitutes only 2-3% of all corporate insolvencies in UK. The lack of its usage can be attributed to the fact that it was unable to provide the intended rescue mechanism to the financially distressed firms, which is evident by its statistics. It was reported to have a series of flaws.[246] And the biggest weakness noticed in this procedure was the lack of statutory moratorium. The secured creditors were free to enforce upon their collateral[247]. This makes it extra difficult for the debtor to reach an agreement with its creditors in the absence of critical assets.

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[243] A Smith and M Neill, "The Insolvency Act 2000" (2001) 17 Insolvency Law & Practice 84; Cork Report, para, 428 – 430.

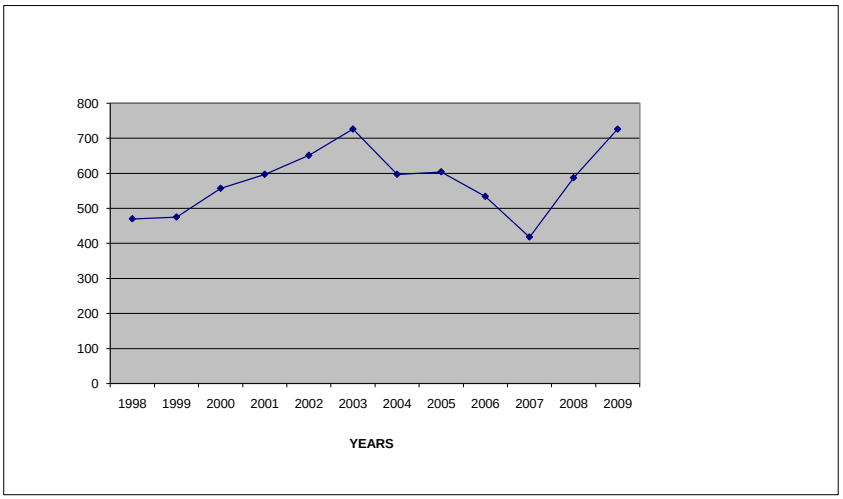
[244] IF Fletcher, "UK Corporate Rescue: Recent Developments - Changes to Administrative Receiverships, Administration, and Company Voluntary Arrangements - The Insolvency Act 2000, The White Paper 2001, and the Enterprise Act 2002" (2004) 5 EBOR 119- 127.

[245] K Gromek Broc, "England and Wales: The Impact of the Revised Company Voluntary Arrangement Procedure", in K Gromek Broc and R Parry (eds) Corporate Rescue: an overview of recent developments from selected countries (2 nd edn, Kluwer Law International, Hague, 2006), p98-99.

[246] Company Voluntary Arrangements and Administration Orders: A Consultative Document, The Insolvency Service, October 1993. (here after "DTI 1993").

[247] For more discussion, see M Davey and D Milman, "Debtor rehabilitation: implications for the landlord tenant relationship" [1996] J.B.L. 541; K Pranai and R Miller, "Company Voluntary Arrangements: the landlord position" (2003) 19 I.L. & P. 87.

Graph 4.12: Evolution of Company Voluntary Arrangement



Source: Insolvency Service

A. The CVA process

CVA can be initiated[248] by either of the following: 1) the administrator, where the company is in administration; 2) the liquidator, where the company is in liquidation; 3) the directors, in all the other circumstances. CVA cannot be initiated by the creditors or shareholders[249] of the company.

Once the proposal is made by the directors, a nominee is appointed who should be a qualified insolvency practitioner. The director should provide the nominee with a document stating the terms of arrangement and statement of company's affairs containing list of creditors, payments due and other liabilities and assets[250]. These proposals are sent to the creditors and the shareholders serving them a 14 days notice for the creditors meeting. The nominee then reports to the court within 28 days whether a meeting of creditors and shareholders was held to consider the proposal[251]. During this meeting, it is decided whether the proposal is accepted or not[252]. If 75% in value of the creditors present

[248] IA 1986 Sec 1.
[249] Yet, in practice, one can expect the shareholders are able to convince the directors to initiate the CVA.
[250] IA, 1986 Sec 2(3)
[251] IA, 1986 Sec 2(2)
[252] IA, 1986 Sec 4(1)

in person or by proxy, to whom the notice of meeting was sent, vote in favour of the proposal, then it is deemed to be accepted. The proposal is binding on all creditors who were entitled to vote at the meeting. The nominee becomes the supervisor of the company during the period of arrangement[253]. The creditors who agree are bound by the terms of arrangement and the company continues to trade during the period.

D. Reforms incorporated in CVA by Insolvency Act of 2000

A new schedule A1 was infused into the Insolvency Act of 1986, by the Schedule 1 of Insolvency Act of 2000. The biggest task was to resolve the problem of moratorium. This was achieved by proposing a statutory moratorium for small firms[254]. The moratorium provided the company with 28 days of relief from the creditors' actions. The main aim of the new CVA reforms was to make it a cost efficient procedure for the small financially troubled firms and provide them with a rescue mechanism out of court thereby avoiding heavy bankruptcy costs.

With the recent reforms of 2005, French bankruptcy law added a series of preventive procedures to the resolution of default. In the subsequent paragraphs we will notice that UK also provides preventive out of court debt restructuring mechanisms, even if scarcely practiced. Thus, both the countries can be seen to provide a menu of rescue mechanisms to a distressed debtor. Because of which it appears that the arbitration (choice between private and formal solution) described in chapter 3 of the thesis becomes more complex as there exists hybrid solutions for default resolution.

4.3.2.5. Some other prevalent procedures

'Schemes of Arrangement' is the oldest form of restructuring mechanism present in UK, whereas 'London Approach' was conceived in mid 1970's by an initiative of Bank of England. It is a private solution that is implemented only with the help of major bank or major lender.

[253] IA, 1986 Sec 7(2)
[254] A company was should fulfill at least two or more conditions provided in the Sec 382(2) of the Companies Act 2006

A. Schemes of Arrangement

'Schemes of arrangement' or voluntary reconstruction is a formal rescue procedure in place since the 19th century.[255] The provisions are provided in Part 26 of the Companies Act of 2006. It is a confidential arrangement between the company and its creditors. The directors and their advisors are responsible for drawing up the scheme. It is not collective in nature and insolvency is not the criteria for initiating this process. It can be initiated as a rescue mechanism for early corporate rescue or within insolvency as an alternative to liquidation or following on from administration. It binds all creditors and even the dissenting creditors if approved and sanctioned by the court. [256] It has been successful in the rehabilitation of some notably large companies[257] of the UK. However, Cork committee remarked it to be inexpedient and impracticable for small companies as it involved processes which were tedious, lengthy and too expensive for them. The lack of moratorium is the biggest flaw of this proceeding.

The directors and their advisors prepare a scheme of arrangement and send this information to the court along with information of the schedules of the meetings to be held. The notice of meeting is also sent to all creditors and shareholders of the company. During the meeting it is decided whether the scheme is approved or not. If 75% in value[258] of the creditors present in person or by proxy, to whom the notice of meeting was sent, vote in favour of the scheme then the scheme is approved and an application is sent to the court requesting the approval of the scheme. If the court approves the scheme, then it is binding on all the creditors (even the dissenting ones). This is one of the main differences between CVA and the schemes of arrangement, whose effects are restricted to the creditors who have voted in favour of the plan. Once approved, the directors retain the

[255] The provisions of schemes of arrangement can date back to the Joint Stock Companies Act 1870. The current procedure of schemes of arrangement comes from the successive legislation in company law: respectively s 24 of the Companies Act 1900, s 38 of the Companies Act 1907, s 120 of the Companies (Consolidation) Act 1908, s 53 of the Companies Act 1928, s 153 of the Companies Act 1929, s 206 of Companies Act 1948 and s 425 of the Companies Act 1985. For more details, see R Parry, Corporate Rescue (Sweet & Maxwell, London, 2008), Chap 17

[256] Section 899, Companies Act 2006

[257] Re Cape plc [2007] Bus LR 109; J Townsend, "Schemes of Arrangement and Asbestos Litigation: In Re Cape plc" (2007) 70 MLR 837; S. Phillips, "Shareholders Rights in the UK Public Companies Restructurings - The Case of British Energy Plc" (2006) 3 International Corporate Rescue 22

[258] CA 2006 Sec 899(1)

control and carry out the affairs as mentioned in the scheme. It can be used as a process for early corporate rescue.

Indeed, it was the failure of schemes of arrangement that led the Government to introduce new insolvency procedures into the legal framework of English insolvency regime.

B. London Approach: A Private Way to Resolve Distress

London Approach is an informal arrangement between the creditors, to allow a distressed firm to continue if it demonstrates the potential of being viable. Bank of England advocated[259] the use of London approach to achieve co-ordination and co-operation among the creditors to arrive at healthy rehabilitation for the already distressed firm[260]. It has no status in law and is carried out in a very private manner with no publicity at all. It is a voluntary mechanism initiated by the debtors who approach the banks for seeking assistance and fair treatment.

London approach came into existence in mid 1970's. This was the time when UK was facing industrial recession, high inflation and rising unemployment. In the absence of adequate rescue mechanisms at that time, a need was generated to save the firms from getting into financial troubles (Slatter, 1984:254). Bank of England initiated a series of discussions with the other banks to promote this approach. The main aim of the bank was to ensure that a potentially viable firm should not get terminated just because of conflicts between creditors. "Our aim is to break log-jams and to seek a solution which represents an acceptable promise for those concerned. In other words, we act as an 'honest broker'.[261]It has been defined by British Banker Association (1996:1) as, "[a] non statutory and informal framework introduced with the support of the Bank of England for dealing with temporary support operations mounted by banks and other lenders to a company or group in financial difficulties, pending a possible restructuring".

[259] See Kent, 1993, 1994 and 1997.
[260] C. Bird, 'The London Approach', (1996) 12 Insolvency Law & Practice 87.
[261] Mr. Pen Kent, Executive director of the Bank of England, In a speech in Euroforum conference, 'The London approach: distressed debt trading'

B1. The Motives behind London Approach

The bank's motives in initiating and advocating its usage have been described as threefold by Kent:[262] First, London approach might minimise the losses to banks and other interested parties from unavoidable company failures by employing patient and coordinated workouts. Second, it avoids companies from being subjected unnecessarily to receivership or liquidation and preserves viable jobs and productive capacity wherever possible. The underlying objective was to create a means to support companies whose problems were generally thought to be curable through a period of financial rehabilitation. Third, London approach might prevent failure of attempts in providing financial support for companies because their bankers could not agree to the terms on which it would be provided. As the central bank, the Bank of England was concerned with the reputation of the financial community which suffered from time to time from accusations that it was not supporting the real economy.

These were the reasons behind Bank of England's vast support to this mission of corporate rescue. Since its inception it is believed to have successfully resolved over 150 cases. It is supposedly considered successful for large firms owing a large debt and having numerous banks as creditors where the number of banks varied from 6 to 106.[263]

There were many reasons which motivated the companies to opt for London Approach as compared to other insolvency processes. The first and foremost important reason for applying assistance under this approach was that the company trusted its banks and felt free to seek consultancy from its own bank rather than seeking help from a stranger. The second reason could be attributed to the fact that this procedure was kept very secret and confidential and apart from the creditors, the general public did not come to know about it. This in return preserved a company's goodwill and did not result in the loss of clients or in creation of bad reputation (Cutlers and Summers, 1988). Third reason can be the costs

[262] P. Kent, 'Corporate workouts- A UK Perspective', (1997) International Insolvency Review and Italian journal of Fondazione Rosseli, p3

[263] J Flood, R Abbey, E Skordaki and P Aber, The Professional Restructuring of Corporate Rescue: Company Voluntary Arrangements and the London Approach, ACCA Research Report No.45 (1995), p28

involved in the process. The firms are supposed to be already distressed and hardly have any money to spare for the huge consultancy fees of the insolvency practitioners or other consultants. In London approach no fees was ever requisitioned or even expected as the Bank was glad to offer assistance to such firms. Moreover, problems related to information asymmetry and hold outs[264] are also dealt with. All creditors share the pain on equitable basis. The secured creditors do not enforce upon their collaterals and participate in the 'standstill'[265] process to avoid the collapse of the viable company. Also this mechanism makes extra financing available which meets the company's demands for capital influx.

B2. The Mechanisms behind London Approach

The whole process involves two major stages. During the first stage the distressed debtor approaches his main bank and expresses his willingness to initiate a workout. This approach can be regarded as the know-how stage in which the knowledge about a firm is circulated among the main creditors and they are not allowed to enforce upon their collaterals against the debtor company. There is a provision of 'standstill' where all the banks participate. The inflow of finances is maintained during the period and they enjoy priority over the existing loans. At this stage proper scrutiny of debtor's company takes place. Accountants and auditors are appointed to investigate the financial viability of the firm. Critical information is shared among the creditors which help them in arriving at important decisions. Based on this investigation it is decided whether the firm is viable for workout or not. The losses that have accrued during this phase are shared on pro rata basis among the creditors.

Second stage is the stage of negotiation during which, the main banker[266] attempts to restructure the debts of the company in a manner which is in the interest of the majority of bankers. These negotiations may involve debt-equity swap or reduction of certain claims

[264] For detailed analysis see, J Armour and S Deakin, "Norms in Private Insolvency: the 'London Approach' to the Resolution of Financial Distress" (2001) 1 JCLS 23
[265] Ibid
[266] The main bank or lead bank is the principal lender of the company

on pro rata basis or prolongation of maturity terms. All the incurring costs and negotiation expenses are shared on equitable basis among the creditors.
It has been noted that the 'London Approach' has been instrumental for large firms having multiple banks as lenders internationally or domestically. This approach has been imitated by many countries despite legal and cultural differences.[267]

4.4. Conclusion

This chapter is descriptive in its contents. It intends to provide a macro view of the bankruptcy procedures existent in both the countries and also provide the readers with national statistics and figures.

Within this chapter the detailed mechanism of corporate bankruptcy procedures (UK and France) is laid out. This will be the basis for the forthcoming chapters of the thesis. The chapter discusses the various kinds of bankruptcy procedures (both formal and informal) that existed in both the countries. In addition, we mention the recent reforms and the reasons behind such reforms and how these reforms were able to mitigate the shortcomings of previous procedures. Based on this, in the forthcoming chapters we will be able to test how does legal environment affects bankruptcy code.

[267] RE Floyd, "Corporate Recovery: 'The London Approach'" (1995) 11 Insolvency Law & Practice 82

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CHAPTER 5

France and United Kingdom:

A Microeconomic View based on Real Bankruptcy Cases

5. FRANCE AND THE UNITED KINGDOM: AN EMPIRICAL PANORAMA

5.1. Introduction

In Chapter 5, the focus returns to the level of micro economic analysis. We explore two of our unique hand coded databases, compiled through different reliable sources. These databases contain data of 264 small and medium sized enterprises representing France and 564 small and medium sized enterprises representing UK. These countries represent two major legal systems prevailing in Europe: Common Law and Civil Law. And both legislations have features that are interesting from the point of view of research. Based on our datasets we provide summary statistics on both the countries. Our descriptive statistics explains the average profile of our sample company provides us with the reasons that lead the company into bankruptcy and analyses the detailed asset and liability structures of the firms along with estimation of recovery rates and the structure of claims. In addition, we also calculate the duration of the procedure and related costs. We also perform multivariate analysis to test the choice between continuations against liquidation for France and to test the factors that increase or decrease the chances of receivership and administration against liquidations in UK.

5.2. Microeconomic Features using Original Dataset on France

As shown previously, France is characterized by a debtor oriented bankruptcy law system where social objectives honored prior to secured ones. This facilitates in an engaging study of its details like (1) the content of such legal system, (2) the criteria explaining the final choice between liquidation and continuation. Additionally, in this section, we compute recovery rate for all classes of creditors (which shall be explored in further detail in the last chapter).

In France the main objective, as defined explicitly by laws of 1985, is to maintain the firm and preserve employment[268]. To attain these objectives court can even sell the firm to a lower bid if it promises to keep employment contracts intact (Blazy *et al.* (2009)). In

[268] See, Kaiser (1996) for more detailed analysis of French bankruptcy law.

addition, the creditors have no rights to vote on a reorganization plan and neither is their approval required by the court to initiate reorganization proceedings. As a consequence, one can expect sub-optimal continuations to be decided at the cost of stakeholders. Thus, delegating the decision making power to the court may be the most effective way of implementing the legal orientation, as defined by the legislator. Interestingly, France and UK often demonstrate an inclination towards avoiding piecemeal liquidations. In recent time, we have witnessed an increasing affinity of both countries towards the rescue culture. However, we assume that allowing the vote of creditors for the approval of reorganization plan (as in the UK) may render this objective rather difficult to attain. This may explain the reason why in France, the final decision to save the debtor (or not) lies with the court and not with the creditor.

A lot of studies have been conducted in US and UK. (Table 5.1 provides an overview of some empirical studies performed on the costs and recovery rates in different countries). Very few studies have been conducted on France and hence only an incomplete view of the French bankruptcy panorama is available research purposes.

Table 5.1: Previous literature on Bankruptcy costs and Recovery rates

Authors	Country	Procedure	Period	Observations	Size (millions)	Direct Costs	Time	Firms RR	Secured RR	Unsecured RR
Baird et al (2005)	US	Reorganization	1995-2001	139	$ 20	-	-	-	92%	52%
Betkar (1997)	US	Reorganization	1986-1993	75	$ 889	3.90%	-	-	-	-
Betkar (1995)	US	Reorganization	1986-1993	44	$ 476	2.90%	2.5	-	-	-
Bris et al. (2005)	US	Reorganization	1995-2001	225	$ 20	16.90%	28	69%	90%	52%
Bris et al. (2005)	US	Liquidation	1995-2001	61	$ 1	8.10%	24	27%	51%	1%
Ferris and Lawless (2000)	US	Reorganization	1986-1993	118	$ 4.2	17.60%	15	-	-	-
Franks and Torous (1994)	US	Reorganization	1985-1990	37	-	-	27	51%	80%	29%
Lopucki and Doherty (2004)	US	Reorganization	1998-2002	48	$ 882	1.40%	-	-	-	-
Lubben (2000)	US	Reorganization	1994	22	$ 139	2.50%	-	-	-	-
Tashijan et al. (1996)	US	Reorganization	1986-1993	49	$ 570	1.90%	3.3	73%	99%	64%
Weiss (1990)	US	Reorganization	1980-1986	31	$ 228	2.80%	30	-	-	-
Armour et al. (2006)	UK	Administration	2003-2004	195	£2.20	49%	12	21%	61%	0%
Armour et al. (2006)	UK	Receivership	2003-2004	153	£3.30	28%	21	21%	55%	0%
Citron et al. (2003)	UK	Receivership	1992-1999	42	-	-	28	-	62%	-
Davydenko and Franks (2005)	UK	Receivership	1984-2003	1418	-	-	-	-	76%	-
Franks and Sussman (2005)	UK	Receivership	1997-1998	542	-	-	7.5	-	74-77%	0%
Franks and et al. (1996)	UK	Receivership	1987-1995	61	-	-	-	34%	53%	3%
Davydenko and Franks (2005)	France	Combined	1984-2003	586	-	-	-	-	54%	-
Davydenko and Franks (2005)	Germany	Combined	1984-2003	276	-	-	-	-	64%	-
Raviv and Sundgren (1998)	Finland	Combined	1982-1992	72	$ 1.3	7.0/8.9%	-	34%	-	-
Sundgren (1998)	Finland	Reorganization	1993-1994	63	FIM 11	5.30%	-	43%	-	-
Thorburn (2000)	Sweden	Liquidation	1988-1991	210	$ 2.4	6.90%	-	35%	69%	2%

Source: Couwenberg (2007)

This table has been taken from the works of Couwenberg (2007) but has been duly edited by the author for UK cases. It provides us with the information related to empirical studies conducted in different countries. It also provides insights into the recovery rates for different creditors in different countries. The table consists of the name of the authors, the country on which the study was conducted, the name of the bankruptcy procedure which was studied, the time period, number of observations recorded, the average size of the firms, average direct costs involved in the process and average time it took to resolve bankruptcy proceedings.

To add substantial inputs to the existing limited empirical literature, our work explores a comprehensive sample of 264 small and medium sized French enterprises from 1993-

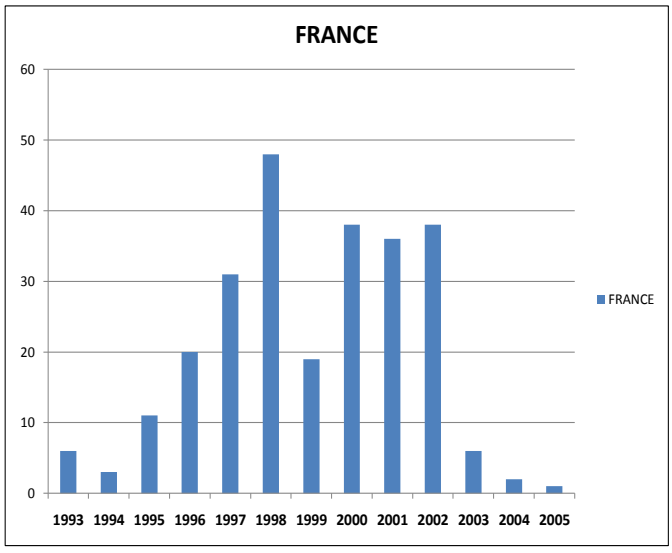
2005. The data was hand collected from the French commercial court (Paris). Using this, we gathered crucial information related to characteristics of the firms, industry specifications, length of resolution process, debt claims and amount of recovery made. We find evidence that recovery rates are significantly higher when the firms were allowed to continue business. Our study contributes an in depth knowledge about the different French bankruptcy procedures and also points out similarities and differences between various rival procedures.

5.2.1. Data Sample and Methodology

Our sample covers those companies which went bankrupt after the 1993 reform but before the 2005 new bankruptcy code. We employed a unique database of 264 bankruptcy appeals filed in French commercial court (259 of which are used for analysis purposes as some files had missing crucial data). Graph 5.1 provides the time structure of our sample.

Graph 5.1: Structure of sample over the period of 12 years

YEAR	FRANCE
1993	6
1994	3
1995	11
1996	20
1997	31
1998	48
1999	19
2000	38
2001	36
2002	38
2003	6
2004	2
2005	1
TOTAL	259



Source: Parisian courts (*greffe du tribunal de commerce de Paris*).

As a primary step towards the construction of the database, we manually extracted the required information from these following documents: the bankruptcy declaration form,

documents related to Court's decision and motivations, the list of claims and the financial-economic administrator's report on the bankrupt firm[269]**.** Thereafter, this information was entered in an excel template for further analysis. You may view the general structure of the template in appendix B1. In this case, our focus of study revolved around banks in Paris and its suburbs because their data was of high quality and was readily available. In addition, these courts possessed a greater capacity for facilitating out-of-court settlements[270]. Further, to maintain a neutral perspective and avoid a bias towards selection, we ensured that, in many ways, there is no variation between characteristics of our sample and that of national figures (appendix B3). First, the percentage of outcomes in bankruptcy is quite similar to the national averages (liquidations are about 90%). Second, the sectors to which these firms belong to are also similar to the national figures. The only difference is relative to the legal form of the firms[271]. Paris is identified to have higher incidences of limited liability firms.

An important consideration towards the facilitation of an accurate design required the exclusion of data on agricultural and financial firms.[272] Further, in our analysis, we included only those firms which were not in an active state of bankruptcy proceedings or whose bankruptcy procedures had been completed and outcome published. For each bankruptcy filing, we collected data on the firm's economic and financial difficulties, origin of default,[273] the outcome of the financial distress,[274] and the amounts recovered by each class of claimants according to the legal priority order: employee's 'superprivilège', new money, preferential claims,[275] secured claims,[276] and unsecured claims.

[269] Namely, these documents are: "*déclaration de cessation des paiements, extrait Kbis, jugement d'ouverture de la procédure de redressement judiciaire, extraits des jugements modificatifs et jugement définitif sur le sort de l'entreprise, bilan économique et social (rédigé par l'administrateur judiciaire), requêtes auprès du juge commissaire ainsi que les réponses de celui-ci (ordonnances), états des créances, rapports L13".*

[270] The court in Paris have set up several prevention units ("*cellules de prévention-détection*" and "*cellules de prévention-traitement*") which aim to audit the firm's managers when the court receives clear signals of economic and/or financial difficulties.

[271] Paris is identified to have higher incidences of limited liability firms.

[272] Which depend on a specific bankruptcy code

[273] 51 codes; see appendix B2

[274] Whether they are liquidated or reorganized

[275] State and social claims

[276] mostly put forward by banks

5.2.2. Descriptive Statistics on France

5.2.2.1. What is the Average Profile of French Bankrupt Firms?

To answer this question, let us look at the individual subcomponents that collectively conglomerate to construct an average profile of a French Bankrupt firm. We have listed these from A – D:

A. Limited Liability- Table 5.2 highlights the main characteristics of our sample firms. If you notice, the bulk of the companies (around 90% and even more) belong to the limited liability legal form. It is observed that the firms have more incentives for risk undertaking under this legal form. Is this an issue? We presume that it is not. Limited liability of the firms encourages the creation of businesses thereby contributing to the economy. Even Governments increasingly promote such undertaking of risks. "*Europe must re-examine its attitude to risk, reward and failure. Thus, enterprise policy must encourage policy initiatives that reward those who take risks. Europe is often reluctant to give another chance to entrepreneurs who failed. Enterprise policy will examine the conditions under which failure could acquire a less negative connotation and it could be acceptable to try again. It will encourage Member States to review bankruptcy legislation to encourage risk-taking*"[277]. Thus, being in bankruptcy due to risk undertaking is not abnormal for limited liability firms. However, reckless risk taking or inviting moral hazard through asset substitution must not be encouraged and hence French law issues sanctions against the directors/managers of the firm found guilty of such activities. Unsurprisingly, even for our UK data sample, the majority of firms belong to this legal form. This exemplifies the popularity of this legal form in both the countries.

[277] Commission of the European Communities (2000) Challenges for enterprise policy in the knowledge-driven economy. Proposal for a Council decision on a Multiannual Programme for Enterprise and Entrepreneurship (2001-2005).

Table 5.2: Descriptive statistics on France (main characteristics of firms)

Frequencies & averages	Liquidation judiciaire	Redressement judiciaire	ANOVA Prob. > F Stat
Nb. of observations	*100*	*164*	
Limited liability***	97%	87%	0.0071
Age (years)***	9.9	17.2	0.0007
Trade	19%	21%	0.7345
Manufacturing	26%	26%	0.9442
Services	55%	54%	0.8327
Reason for default: strategy	15%	15%	0.9355
Reason for default: production	19%	27%	0.1216
Reason for default: finance	24%	25%	0.8555
Reason for default: management	12%	13%	0.7404
Reason for default: accident	20%	28%	0.1177
Reason for default: outlets	59%	51%	0.2199
Reason for default: macro. environment***	21%	43%	0.0002

Source: The Authors calculations (Tribunal de commerce de Paris).

*The number of stars (from * to ***) refers to the significance of the ANOVA test (respectively 10%, 5%, 1% levels).*

B) Age: The average age of the companies in our sample is between 10 and 17 years. This clearly indicates that these companies are not young or startup companies. The interesting question that arises here is: Why most of the sample companies are mature companies and not the young ones? The answer can be derived from these pointers: Certain privileges like tax shields and subsidies are conferred over young and freshly incorporated firms by the Government. Moreover it takes some time for young companies to accumulate debts and hence their chances of falling into bankruptcy are substantially low[278]. Also, classical banking system is often apprehensive in lending to newly incorporated firms and to

[278] Bordes et Mélitz (1992), Combier (1994)

remedy this, a specialized organization exists (OSEO) which is dedicated to the financing of young companies in France and acts as a substitute to classical bank lending.

Moreover, the average age of a firm is significantly higher in '*redressement judiciare*' (17.2 years) than in Liquidation (9.9 years). This validates that the older firms have more chances of survival through reorganisation. This may be also attributed to the fact that financial relations and goodwill are developed over the period of time and such accumulated value can enhance their chances of avoiding liquidation.

C. Sectors: The test of difference in means (Fisher stat (ANOVA)) concludes that there is no significant difference between LJ and RJ with respect to 'sectors'. Yet, a quick observation confirms that for both outcomes, majority of the companies belong to the service sector. This could be attributed to a geographical bias as our data was collected in Paris which has a higher proportion of service based companies.

D. Cause of Default: The information related to the causes of default is not readily available and was hand collected from the administrators report filed in the commercial courts. To facilitate analysis, we formulate 7 major categories of default (for details see appendix B2) and whenever we encounter a cause of default, we assign it to our sample firms. Based on this we derive the most dominant reasons for default. We came to conclude that 'Outlets' are the most dominant reason for default for both the procedures in France. This signifies the fact that revival of a company which loses its customer base is hard to accomplish as it is a prerequisite for continuation of any business. Blazy and Combier (1997[279]) suggested that one reason may not be sufficient to generate the risk of default and often involves a combination of causes. Although we do not include these combinations in our study, we do notice that subsequent dominant causes for default strongly differ between RJ and LJ. For LJ, the second most common cause is linked to the internal financial policy of the company (finance), whereas for RJ it is external to the company. It may signify that external problems are more likely to lead the firm towards

[279] Blazy R., J. Combier (1997). « La défaillance d'entreprise : causes économiques, traitement judiciaire et impact financier », Economica, INSEE Méthodes, n°72-73.

reorganizations than internal ones. However, validation of this requires further econometric analysis.[280]

5.2.2.2. Description of the Structure of Assets

Table 5.3 displays the asset structure of defaulted companies which was estimated at the time of default. Based on these computations, we can derive some intriguing results. First, total estimated assets are significantly higher under RJ than under LJ. This proves that the continuation perspective strongly depends on the size of assets that are available to the company for the continuation of its business operations. In the absence of critical assets, liquidation is the most observed choice. Second, interestingly, the assets (fixed or current) that are attached to the economic activity (that is excluding cash and financial assets) are also significantly higher under RJ than for LJ. Again, the explanation is identical: these economic assets are the ones needed to support continuation of the firm. Third, regarding cash, even if the average is higher for RJ, the Fisher Stat (ANOVA test) is not significant. We need to use econometrics to deduce any definitive answer.[281]

[280] We will see such effect is confirmed on macro causes that increase the probability of being continued against liquidation

[281] In our results, we will observe that the value of cash increases the chances for continuation. Thus, under LJ, cash will provide recoveries whereas under continuation, the current cash may be destroyed due to the continuation of the business activity

Table 5.3 : Descriptive on France (assets)

Frequencies & averages	Liquidation judiciaire	Redressement judiciaire	ANOVA Prob. > F Stat
Nb. of observations	*100*	*164*	
Total assets: estimated market value (K€)***	227.0	1040.1	0.0003
Intangible assets: estimated market value (K€)***	28.8	115.5	0.012
Tangible assets: estimated market value (K€)***	42.5	225.1	0.001
Financial assets: estimated market value (K€)	24.5	32.9	0.625
Inventory: estimated market value (K€)***	22.8	255.9	0.016
Receivables: estimated market value (K€)***	76.2	264.5	0.005
Mark. securities: estimated market value (K€)	0.6	5.0	0.168
Cash: estimated market value (K€)	4.8	40.5	0.136
Other assets: estimated market value (K€)***	26.7	100.7	0.012

Source: The Authors calculations (Tribunal de

*The number of stars (from * to ***) refers to the significance of the ANOVA test (respectively 10%, 5%, 1% levels)*

5.2.2.3. The Structure of Claims

Table 5.4 provides information on the structure of claims for French companies. We notice that there is a significant difference between LJ and RJ across many important variables. The amount due for secured creditors is significantly higher for RJ than for LJ. A possible explanation for this difference may stem from the fact that the banks have lent a huge amount to the companies that opted for reorgansation and hence the banks are motivated to support the continuation of business operations of such firms. It is not disconcerting that the value of a new money creditor is almost insignificant in case of liquidation. New money creditors provide additional financing to the firm after it defaults and this financing is the foundation stone for implementing the reorganisation plan. In case of liquidation, it is minimal as the need for post petition financing arises only if the company is continued. One may also notice that there are huge amounts due for unsecured creditors for both the procedures however it is significantly high for RJ's. In the event of bankruptcy it is

observed that these creditors suffer huge from huge monetary losses. In order to avoid such losses, these creditors should be naturally inclined towards gaining information on the distressed firm (Fama (1990), Milwa and Ramseyer (2005)). However, it is a notable observation that these creditors fail to monitor the financial health of the company and continue to supply credit even if the company is no longer meet its financial commitments. This further highlights the severity of the problem of information asymmetry, which is further aggravated between small firms and small creditors as the number of small creditors is large and difficult to monitor. Thus, an appropriate mechanism should be deployed with the objective of reducing information asymmetry between concerned parties.

Table 5.4: Structure of claims

Frequencies & averages	Liquidation judiciaire	Redressement judiciaire	ANOVA Prob. > F Stat
Nb. of observations	*100*	*164*	
Due total claims (K€)**	760.2	1743.3	0.0259
Due claims (K€): secured***	26.3	184.7	0.0086
Due claims (K€): preferential (State + employees, including "superprivilège" on recent unpaid wages)	518.1	421.3	0.6419
Due claims (K€): New Money*	5.6	28.5	0.0653
Due claims (K€): unsecured***	205.2	1098.6	0.0037

Source: The Authors calculations (Tribunal de commerce de Paris)

*The number of stars (from * to ***) refers to the significance of the ANOVA test (respectively 10%, 5%, 1% levels)*

5.2.2.4. The Creditors' Recoveries in France

In this section, we first analyze the overall recovery rate, defined as the ratio between the total recovered amounts out of the total due claims. Second, we distinguish between three types of creditors: secured creditors, new money, and unsecured creditors.

The overall recovery rate is found to be quite high in France (between 20% and 46%) as compared to UK. [282] This undermines the previous studies claiming that the French system leads to inefficiencies, especially ex-post efficiencies. In fact, the French bankruptcy system does not destroy value (or reversely preserves value). What are the reasons for this? First, it may be derived from higher coverage rate.[283] Indeed, such coverage rate is found to be quite high in France (between 46% and 66%) as compared to UK[284] (between 15% and 35%). This indicates that most of the time in France, bankruptcy is triggered when there are still sufficient assets remaining in the debtor's patrimony. This can be attributed to the proactive prevention policy of France. On the other hand, it may be an artifact, as it could be that the companies in France are propelled towards legal outcomes in absence of private workouts (cf. our previous chapter 3). However, the case may be different in other countries like UK, where private solutions may be more frequent and employed as a measure to resolve default.[285]

The higher recovery rate may reflect that there are more senior claims[286] in France.[287] Indeed, in France, the percentage of senior claims is mainly due to the weight of preferential claims (much more than secured claims). In other words, the weight of employees and the State is much higher than the banks.[288]

Let us now analyze the recovery rates for different classes of creditors (table 5.5). It appears that there is a significant difference between the recovery rates for preferential, new money and unsecured creditors under LJ and RJ. While, the condition of unsecured creditors remains futile under liquidation. They hardly receive anything under liquidation process (this is true for UK as well). New money creditors show an overall recovery rate of 27% for LJ and 62% for RJ. As expected, this is quite low and means that they are not

[282] In the UK section, you will be able to find results of the overall recovery rate for UK.
[283] Coverage rate is the ratio of assets at the time of default against the liabilities at the time of default. The value is converted to percents.
[284] For more details see UK section.
[285] Besides it is impossible to figuratively prove such idea and hence this is only a hypothetical explanation
[286] secured and preferential
[287] it is noteworthy that senior claims may be more informed than the junior ones, and/or exert more control on the debtor
[288] in contrast, the situation is reversed in UK where the banks have more weight in the claims of dues

rewarded well in France.[289] This mainly reflects that in France, banks are paid before new money creditors[290] in case of liquidation as banks were granted priority over article 40 claims (1994 reforms). In addition, it is observed that irrespective of the outcome, new money creditors have low priority as compared to the employees (*superprivilège*). The recovery rate for preferential creditors is found to be 30.8% in case of LJ and 56.8% in case of RJ (this is more than the recovery rate for preferential creditors in UK).[291] On the basis of this we can deduce that preferential creditors which comprise of state and employees are more protected in France than in UK. Indeed, French Bankruptcy Law explicitly provides clauses for the protection of employment. Further, the court may even show willingness to sell the firm to a lower bid if the employment contracts are kept intact. We also observe that the recovery rate of secured creditors for LJ is quite high as compared to UK.[292] This means that banks recover more through the French liquidation procedure than UK liquidation procedures. Secured creditors under RJ also exhibit a substantial recovery (51.9%). Even receivership procedure which was made for the benefit of secured creditors shows less recovery rate for secured creditors (44.7%) in comparison to French RJ. The reason for higher recovery rate for French banks could be that they ask for more collateral[293] because they fear the risk of dilution in case of bankruptcy. Lastly, the overall recovery rate for the firms in liquidation is found to be 19.6% while it is found to be 45.7% under RJ. This clearly shows that continuation yields a better result than liquidation.

[289] On the contrary, in UK, newmoney creditors show nearly 100% recovery rate for administration and receiverships procedures
[290] Also called as Article 40 Claims
[291] See section 5.3 on UK
[292] The recovery rate for secured creditors for CVL is 27.7% and or CL is 16.2%.
[293] Davydenko and Franks, 2008

Table 5.5: Descriptive on France (recovery rates)

Frequencies & averages	Liquidation judiciaire	Redressement judiciaire	ANOVA Prob. > F Stat
Nb. of observations	*100*	*164*	
Overall recovery rate (%)***	19.6%	45.7%	<.0001
Recovery rate (%): secured	40.2%	51.9%	0.1090
Recovery rate (%): preferential (State + employees, including "superprivilège"*** on recent unpaid wages)	30.8%	56.8%	<.0001
Recovery rate (%): New Money***	27.3%	62.5%	0.0177
Recovery rate (%): unsecured***	3.1%	38.1%	<.0001
Coverage rate (%) (assets/debts)***	46.4%	66.7%	0.017

Source: the author (Tribunal de commerce de Paris)

*The number of stars (from * to ***) refers to the significancy of the ANOVA test (respectively 10%, 5%, 1% levels)*

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5.2.2.5. The Costs of the French Procedures

Table 5.6 provides us with the direct bankruptcy costs and length of the procedures of sample firms. Regarding the direct bankruptcy costs, the legal fees are rather moderate (less than 10 thousand Euros, which is very low relatively to the total due claims: between 760 and 1740 thousands of Euros on average). Thus one can observe that the cost of the legal solution is quite low in France and is coherent with the orientation of the French code that promotes an early triggering (which is not the case in UK, as shown later).

The indirect bankruptcy costs are computed by analyzing the duration of the procedure (as a proxy). Usually for France, a procedure lasts for less than a year (which is strikingly low as compared to UK, as discussed in section 5.3)

Table 5.6: Descriptive Statistics on France (bankruptcy costs)

Frequencies & averages	Liquidation judiciaire	Redressement judiciaire	ANOVA Prob. > F Stat
Nb. of observations	*100*	*164*	
Length of the procedure (months)*** (duration excludes the liquidation process)	3.1	11.5	<.0001
Direct bankruptcy costs (K€)***	5.2	10.3	<.0001

Source: the author (Tribunal de commerce de Paris)

*The number of stars (from * to ***) refers to the significancy of the ANOVA test (respectively 10%, 5%, 1% levels).*

In the above text we have provided summary statistics of various relevant variables. Yet, adopting univariate analysis is insufficient to draw definitive conclusions, as this approach does not allow for controlling additional variables that may impact the outcome may interact with the test variables. From the perspective of comprehending the way RJ and LJ differ, we thus have to employ multivariate approach and econometrics. Precisely, *we now aim at understanding (and testing) the determinants of the final choice between both outcomes (RJ versus LJ)*. Based on this, we develop our hypothesis and perform multivariate analysis and derive our main conclusions from it.

5.2.3. Multivariate Analysis: What are the Determinants of Choice between Continuation and Liquidation?

Our multivariate analysis aims at testing the determinants of the choice between continuation and liquidation. Indeed, such choice may stem from several factors. First, the choice may be derived from the orientation of the Law and the duty for the court to adhere to such orientation within a Civil law context. Second, it may reflect the initial situation of the debtor at the time of triggering of default (coverage rate, structure of claims…). Third, it may reflect the external macroeconomic environment in which the firm carries out its business activities.

We have the data of a total of 259 bankrupt firms and Table 5.7 provides the results of our multivariate analysis. Based on our expectations, we try to find the factors that increase the chances of continuation over liquidation.

We created dummy variables which are assigned the value of one whenever we indentify a cause of default zero otherwise. We also include certain variables that determine certain characteristics of the firm like age and limited liability. In addition, we include other explanatory variables are related to the assets and liabilities structure.

Table 5.7: Multivariate analysis of the determinants of choice between RJ and LJ

Variable explained	**Endogenous variable: bankruptcy's output (259 bankrupt firms)**	
	Output = *redressement judiciaire* (ref. *liquidation judiciaire*)	
	Estimation	*Prob. > c²*
Intercept	*2.0165****	*0.009*
Coverage rate (Assets/liabilities)	*0.621***	*0.033*
Weight of amount due to preferential creditors	*-2.8181****	*0.0002*
Weight of amount due to secured creditors	*-0.264*	*0.789*
Weight of amount due to newmoney creditors	*7.9196**	*0.097*
Weight of inventory in estimated assets	*2.9466****	*0.007*
Weight of receivables in estimated assets	*0.1433*	*0.812*
Weight of cash in estimated assets	*3.1089**	*0.02*
Age of the firm	*0.001*	*0.199*
GDP growth	*41.0676****	*0.002*
Sector: trade	*-1.5171****	*0.002*
Sector: manufacturing	*-0.669*	*0.117*
Limited liability	*-0.8832***	*0.019*
Reason for default: strategy	*0.3131*	*0.18*
Reason for default: production	*0.2101*	*0.299*
Reason for default: finance	*0.0507*	*0.8004*
Reason for default: management	*0.1661*	*0.487*
Reason for default: accident	*0.4063**	*0.054*
Reason for default: outlets	*-0.0706*	*0.69*
Reason for default: macro	*0.6483****	*0.0009*
The model is: LOGIT regression	**Test**	**Khi 2**
	Likelihood Ratio	99.26
	Score	81.49
	Wald	56.97
	Condition Index (Belsley *et al*. (1980)):	18.5

Source: the author (Tribunal de commerce de Paris)
*The number of stars (from * to ***) refers to the significancy of the ANOVA test (respectively 10%, 5%, 1% levels).*

The result of our multivariate analysis highlights the following points. First, having controlled for other variables, we confirm that the coverage rate variable has a positive impact on the continuation probability. The higher the coverage rate, the more are the chances of rescue. Certainly, a low coverage rate signifies that assets are so disproportionate compared to the due claims that continuation would be possible only at the expense of creditors. As the creditors are not willing to lose more in continuation, they prefer to opt for a quick liquidation procedure if the coverage rate is very low. Moreover, results of our summary statistics on coverage rate proved that French firms are more liquid than UK firms at the time of onset of default. Indeed this higher coverage rate in France could be attributed to the proactive prevention policy in France.

Second, the probability of continuation (through RJ) is not totally independent of the structure of the debts. We observe following significant results. First, weight of preferential claims has a negative impact on the chances of continuation. This implies that higher the proportion of these claims, less are the chances of rescue. This can be explained by the fact that in France, preferential creditors are mainly the employees (benefitting from superprivilege rights that now include recent unpaid claims for last two months). A company which fails to pay them is considered a virtually dead company with no possible chances for continuation. Second, on the contrary, new money claims increase the probability of continuation. Thus, new money can be viewed in France as a tool that effectively helps in preparing continuation plan and is a necessary prerequisite for implementation of continuation plans. Third, the outcome seems to be independent of the secured claims. As shown by (Blazy and Chopard, 2011), the pro-liquidation bias of secured claims is reduced in France as the final choice depends on the Court and not on secured creditors (who do not vote in France). Therefore we summarize that the presence of secured claims is not sufficient to significantly decrease the probability of continuation in France.

Third, the assets' structure indicates that liquid assets (inventory and cash) positively impact the chances of continuation. This is true as inventory generates future turnover and cash is considered a requisite in supporting the early stages of continuation and it takes

time for the company to convince the creditors to inject additional money in the temporary absence of such financing cash serves the purpose. Availability of cash at this critical juncture increases the chances for rescue. In the absence of cash and inventories, the court is left with no other choice than to put the company into liquidation or allow going concern sales.

Fourth and finally, we consider the other determinants that are control variables. First, limited liability of the company negatively affects the continuation probabilities. As previously mentioned, managers enjoy protection under this legal form. This encourages them to indulge in excessive risk taking activities that can be harmful to the interest of the creditors.

Second, recalling the results of our summary statistics (see previous section) that suggested that subsequent dominant cause for default strongly differ between RJ and LJ. We found that for LJ, the second most common cause was linked to the internal financial policy of the company (finance), whereas for RJ it was external to the company. Thus, our descriptive statistics suggested that external problems were more likely to lead the firm towards reorganizations than internal ones. Indeed, we find that the chances of continuation increase if the cause of default is external to the company (macro) and/or structural on the long run (accident). The other reasons do not show any significance on the choice of the procedure.

The next section provides our empirical results on UK bankrupt firms.

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5.3. Microeconomic Features Using Original Dataset on the UK

During the nineteenth century, the English insolvency law also witnessed a series of reforms[294] which made it a creditor friendly system. It was not until 1977 that the government realized a need for a more debtor friendly rescue oriented mechanism. Consequently a commission was appointed keeping this objective in mind. Its work is documented in the 'Cork Report'[295]. Administration procedure was promulgated as a result of this report, which eventually effectuated by the Insolvency Act of 1986. Before the enactment of the Insolvency Act of 1986, UK insolvency regime already had two procedures called Receivership and Liquidation. Receivership was the peculiarity of the English law. It conferred exclusive rights of appointing the receiver to a creditor holding fixed and floating charges (Armour and Frisby 2001). Whereas liquidation comprised of voluntary and involuntary liquidation procedures: Voluntary liquidation procedure called as 'Creditor Voluntary Liquidation' and involuntary liquidation procedure known as 'Compulsory Liquidation'.

In UK, liquidation is the most extensively used procedure amounting to more than 85% of all bankruptcy filings whereas administration amounts to nearly 5% of all cases and receivership accounted for 10% of all cases. However, receivership is no more pervasive and was abandoned by Enterprise Act of 2002[296], which came into force on 15th September, 2003. It was viewed as a biased procedure, conferring too many rights to secured creditors and often leading to immature liquidations[297] as the appointed receiver was only concerned with seeking repayment for his appointees.[298]

Enterprise Act of 2002 was introduced in the law to make bankruptcy procedures more efficient and to provide greater accountability to unsecured creditors. The main aim of the new streamlined procedure was to enable more companies to survive insolvency while

[294] Rose Lewis, 'Australian Bankruptcy law 11th edition (1999), 8-16.
[295] For full reference of Committee's work see, 'Insolvency Law and Practice: Report of the Review Committee', (Cmnd 8558, 1982) (hereinafter referred to as "Cork Report").
[296] See V Finch, Corporate Insolvency Law: Perspectives and Principles (CUP, Cambridge, 2002), P294; S Leinster, "Policy Aims of the Enterprise Act" (2003) Recovery (Autumn) 27, 28.
[297] See., Aghion, Hart, and Moore, 1992, Armour and Mokal, 2005, Insolvency Service, 2001.
[298] See., Benveniste, 1986; Aghion et al, 1992.

providing level playing field to all creditors. With regard to this Crown's preferential status was abolished[299] and ring fence fund[300] was established to allow more assets to be made available to the unsecured creditors. The appointed administrator had fiduciary duties towards all the creditors of the firm and was required to work within a particular time frame not exceeding more than a year.

Most of the previous studies conducted on Bankruptcy procedures of UK generally concentrated on administrations and receiverships, which constitutes roughly about 15% of all the bankruptcies filed in UK. In our sample we not only take into consideration the administration cases and receivership cases, but also includes liquidation cases which constitute 85% of all bankruptcy filings in UK.

In this chapter we look at in detail, the four major formal bankruptcy procedures of UK (Administration, Receivership, Creditor Voluntary Liquidation and Compulsory Liquidation). We have built an original dataset comprising of 574 bankrupt companies of UK. Out of which 200 companies filed for administration, 199 companies filed for receiverships, 100 companies filed for compulsory liquidation and 75 companies filed for creditor voluntary liquidation. We have detailed information about these companies through various trusted sources. Based on this, we developed a unique hand coded database that computes information for the recoveries for all classes of creditors (employees, state, banks, trade creditors, newmoney creditors and the practitioner fees). Consequently, we present first the recovery rates for each type of creditors for each procedure, and second global recovery rates for the entire firm. We also identify the factors that lead a company to distress. In addition, we have information related to the initiators of the process, costs of the process, length of the process, asset and debt structure of the firms, measures taken before and after bankruptcy, general information about the company (sector, age, geographical location, number of directors and so on) and the final outcome of bankruptcy. We also employ multivariate analysis to determine the choice

[299] EA 2002, s 251 (1) states that the Crown preference shall cease to exist.
[300] The EA 2002, s 252 introduces a new s 176A into the IA 1986 which fully stipulates the new creation of ring fence fund.

between administration and receivership against liquidation. This facilitates in explaining if the content of law impacts such choice or not.

Here's a brief summary of our principal findings: we found that most of the companies that filed for bankruptcies had their registered office situated in regions of Greater London or North West regions of United Kingdom. Majority of administration and creditor voluntary liquidation cases were triggered by debtors while receiverships by secured creditors and compulsory liquidation by unsecured creditors. Further, our analysis confirms "Outlets" as the dominant reason for default. Receivership was found to be the lengthiest and the most expensive procedure while yielding the highest recovery rate.

The rest of the chapter is organized into four sections. Section 5.3.1 describes the process of Data Collection and Methodology, section 5.3.2 is devoted to Descriptive Statistics based on our original hand collected data, section 5.3.3 presents the results of our multivariate analysis and Section 5.3.4 finally presents the conclusion.

5.3.1. Data Collection and Methodology

In this chapter, we study 574 small and medium sized enterprises that filed for different bankruptcy procedures in the UK (table 5.8).

Table 5.8: Number of files per bankruptcy procedure

BANKRUPTCY PROCEDURES	Number of files
UK Administration (UKADM)	200
UK Receivership (UKREC)	199
UK Creditor Voluntary liquidation (UKCVL)	75
UK Compulsory liquidation (UK_CL)	100
TOTAL	574

Source: Authors database

The empirical study reported in this chapter includes both qualitative and quantitative variables. The template[301] built for the survey contains information on 299 variables ranging from general characteristics of the firm, amount recovered by the respective creditors, information on asset and debt structure of the firm and many other variables considered important for the study.

We only concentrated on those firms which were not currently placed under any procedure. This means that the procedure has been terminated and the company has been dissolved. This was an important prerequisite for choosing any firm. To find such information, we referred to the London Gazette online services.[302] This website provided us with the information on appointment notifications of administrators, receivers and liquidators. We then randomly made a huge list of companies and recorded their names and registration numbers. In order to be certain that this was a closed case and contained information on most of our template variables, we officially registered with the Companies online house database.[303]The company name and the registration number enabled us to browse for important information like notices of dissolution (to make sure it is a closed file) and reports of administrators and receivers to access the statement of affairs and other statutory details of the dissolved company. Once all the important criteria were met and we were satisfied with the quality of information available, we then downloaded all the information related to such firms. After all this sampling and selection process, we downloaded information for 200 administration cases, 199 receivership cases and 50 creditor voluntary liquidation cases. Companies' online database successfully provided us information on administrations and receivership cases. However, we realized that the data on creditor liquidation cases was missing information on important variables that we were looking for. These cases were in bulk and often go unrecorded. For our studies we realized the importance of such cases as they constitute more than 40-50% of the total bankruptcies in UK. To achieve our goal, we again resorted to the London gazette and found the registration number of the firms and from companies house we eventually found details of

[301] This template is provided in the appendix for a more in depth view.

[302] London Gazette is highly specialized publication that contains information for public, private, libraries and researchers. For more details check the official website http://www.london-gazette.co.uk

[303] Companies' house is an official website for England and Wales. It contains information on all the companies registered and dissolved. For more information check http://www.companieshouse.gov.uk/

the Insolvency practitioners. Based on this we made a list of 100 such practitioners and sent them a confidential letter inviting them to participate in our studies by providing relevant data ensuring them due acknowledgement if they participate. Unfortunately, as these cases are in themselves very confidential, we did not receive many responses except from the one insolvency firm.[304] This firm provided us with the data for creditor voluntary liquidation cases. This completed one data set for creditor voluntary liquidations. No sooner was this goal achieved, another obstacle surfaced. We came to know that information on compulsory liquidations is very rare and not available through insolvency practitioners. For these cases, courts often appoint an official receiver. Although the only available source seemed like the courts we soon realized that Insolvency service[305] can also have access to such files as most of the cases are officially reported there. We then conducted a series of conferences and meetings with officials working with the Insolvency service and finally managed to obtain information on 100 compulsory voluntary liquidation cases.

Thus, as you can see, the data collection process was not so easy and every step was laced with obstacles. However, once we had our data, we jumpstarted the process of recording it in the excel templates and went on to build the most unique and comprehensive database on bankruptcy procedures in the UK till date.

The data collected from the Companies house online services contained information on various aspects of the firm[306] like:

- Name of the Company and Registration Number,
- Name of the Appointer,
- Name of the Insolvency Practitioner,
- Statement of Administrators/Receivers proposals and expected outcome,
- Administrators/Receivers six months progress report and abstract of receipts/payments

[304] Begbies Traynor is UK's largest and fastest growing independent practice of corporate rescue and recovery specialists. For details see, http://www.begbies-traynorgroup.com

[305] Insolvency Service works under the statutory framework for IA 1986 and 2000, Companies Directors Disqualifications Act 1986 and the Employment Rights Act 1986. For more details on services provided by them see, http://www.insolvency.gov.uk/aboutus/aboutusmenu.htm.

[306] For various forms see appendix.

- Accounting Data of the Company,
- Director's Statement of Affairs,
- Notice of Dissolution.

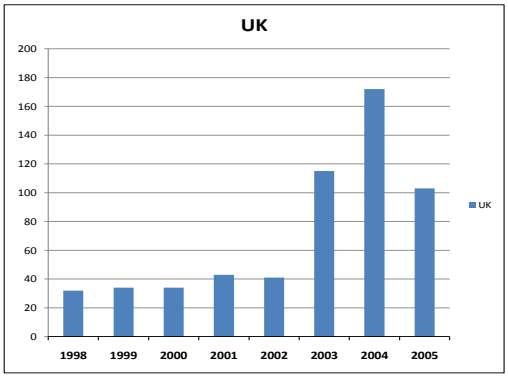
With the help of these documents we were able to identify outcomes to many variables of the template. The administrators/receivers report provided statutory information about the company and crucial information on the events leading to default, the final outcome, the details on recovery made by the creditors and also information on costs of the bankruptcy process including the administrator's fees and expenses. With the statement of affairs we were able to find the real market value of the assets at the time of default and from the balance sheet data we were able to find the financial situation of the company one or two years prior to default.

5.3.1.1. Data Sample

The graph 5.2 shows the distribution of our sample data over a period of eight years ranging from 1998-2005. The year column represents the year in which a particular company defaulted and triggered its bankruptcy proceedings. We can see a clear bias in our distribution sample. The recent years have more incidences, which can be explained by the fact that it was not so easy to trace files of firms which defaulted years back because information related to them was very rarely available. Data of recently defaulted firms was readily available which increased their incidence in our study. Even though, it was simply too complex and time consuming, we tried our best to make the data sample as homogenous as possible.

Graph 5.2: Distribution of UK firms over the period of 8 years

YEARS	UK
1998	32
1999	34
2000	34
2001	43
2002	41
2003	115
2004	172
2005	103
TOTAL	574



Source: Insolvency Service, UK

5.3.1.2. Geographical Distribution of the Sample Data

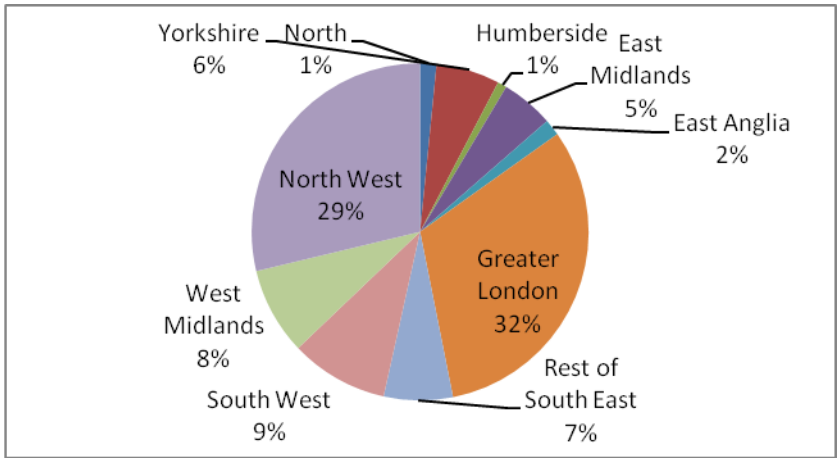
The registered address of each company was identified and recorded from the statutory information about the company obtained from Companies' house. Based on this, each company in the database was further divided into 10 major locations of UK. These are:

1. North
2. Yorkshire
3. Humberside
4. East Midlands
5. East Anglia
6. Greater London
7. Rest of South East
8. South West
9. West Midlands
10. North West

We study the geographical distribution of whole data sample and in the subsequent graphs

we focus on the geographical distribution of the firms according to the procedure they enter into. This will help us in noticing any existing regional biases. Graph 5.3 shows the distribution of whole sample. As is evident, more than half (51%) of the sample firms belong to Greater London and North West regions of UK.

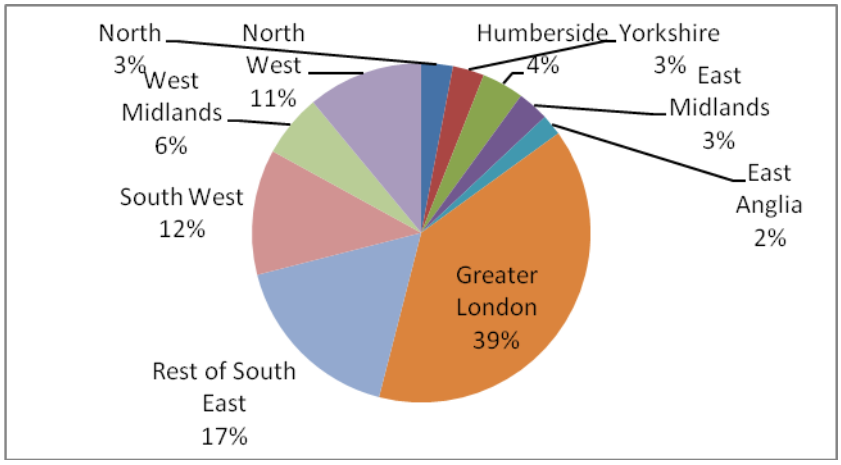
Graph 5.3: Geographical distribution of our sample firms



Source: Authors database

Let us shift our focus to the geographical distribution according to the individual bankruptcy procedures. Graph 5.4 shows that companies that went into compulsory liquidation process were mainly situated in Greater London and Rest of South East regions. 39% of the companies were situated in Greater London and 17% of the companies located in Rest of South East regions of UK.

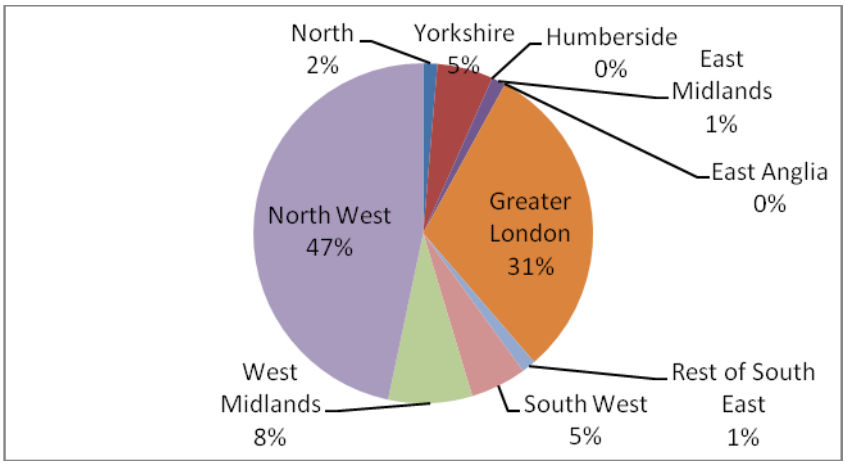
Graph 5.4: Geographical distribution of the Compulsory liquidation cases



Source: Authors database

Graph 5.5 shows that the companies filing for creditor voluntary liquidation were largely concentrated in Greater London and North West regions of UK. North West region accounted for 47% of the companies and Greater London consisted of 31% of the sample companies.

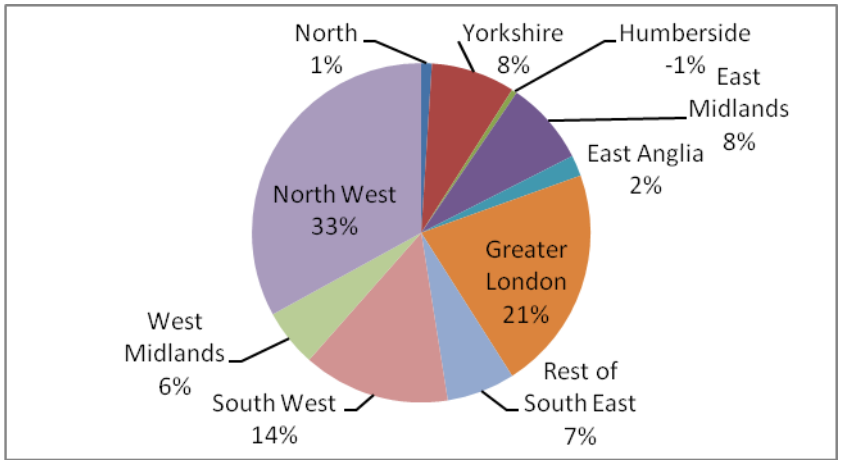
Graph 5.5: Geographical distribution of the Creditor Voluntary liquidation cases



Source: Authors database

Administration procedure showed highest incidence in North West regions. (Graph 5.6). 33 percent of the companies were concentrated in North West region while 21 percent of the companies situated in Greater London area.

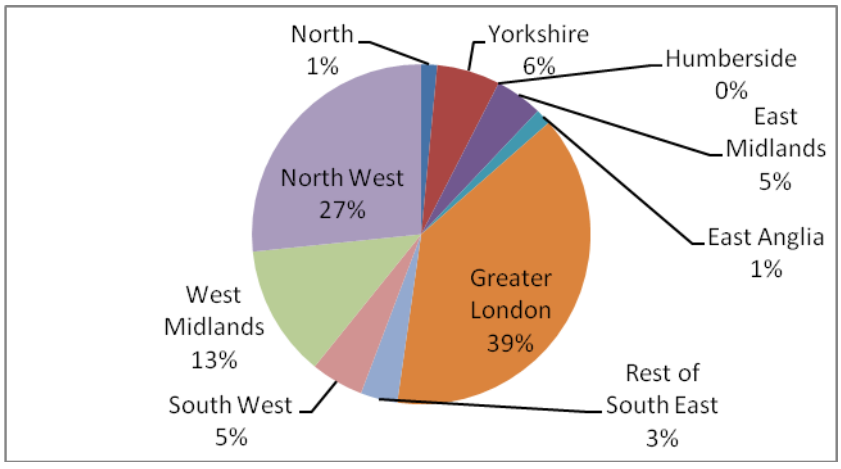
Graph 5.6: Geographical distribution of the Administration cases



Source: Authors database

Receivership shows highest incidence for Greater London area (Graph 5.7). It accounted for 39% of the sample companies. We presume that the Greater London bias (areas in London and Greater London) and North West Region (Manchester and neighboring areas) bias can be attributed to the fact that larger numbers of small and medium sized firms are concentrated in those regions of UK. Frisby (2008) reports London as the main location for both administrations and receiverships in a sample of 2063 sample firms.

Graph 5.7: Geographical distribution of the Receivership cases



Source: Authors database

5.3.2. Descriptive Statistics on UK

5.3.2.1. What is the Average Profile of UK's Bankrupt Firm?

To comprehend this, we need to take a look at the individual components that collectively conglomerate to construct an average profile of UK's bankrupt firms. These components are listed through A – D:

A. Limited Liability- Table 5.8 provides us with the main characteristics of firms in the UK. Most of the firms in the given sample enjoy limited liability. This is not unexpected as limited liability has become one of the most preferred legal forms all over the world. (Armour, 2009). It benefits the shareholders whose liability is limited to the amount of capital invested. In the event of default, unpaid creditors cannot seek contributions from the company's shareholders in excess of their contributions[307], even if the shareholders made huge fortunes when the company was flourishing. This legal form also encourages the managers/directors to get involved in risk taking as they enjoy the benefits of their limited liability.

[307] S Davies QC (ed), Insolvency and the Enterprise Act 2002 (Jordans, Bristol, 2003), p176

Table 5.8: Descriptive statistics on UK (main characteristics of firms)

Frequencies & averages	Compulsory liquidation	Creditors Voluntary Liquidation	Administration	Receivership	ANOVA Prob. > F Stat
Nb. of observations	*100*	*75*	*200*	*199*	
Limited liability	100.0%	100.0% (3)	97.9% (2)	97.4% (1)	0.2487
Age (years)***	8.3	12.3	13.3	15.2	0.0016
Trade	12.0%	13.9%	15.6%	13.1%	0.8342
Manufacturing	48.0%	51.3%	49.2%	58.6%	0.2015
Services*	39.0%	31.9%	31.2%	23.7%	0.0501
Reason for default: strategy***	15%	11% (50)	30%	26%	0.0016
Reason for default: production***	11%	11% (50)	30%	25%	<.0001
Reason for default: finance**	10%	6% (50)	19%	16%	0.0289
Reason for default: management**	18%	8% (50)	9%	8%	0.0422
Reason for default: accident***	57%	9% (50)	32%	23%	<.0001
Reason for default: outlets***	45%	27% (50)	64%	83%	<.0001
Reason for default: macro***	19%	21% (50)	42%	45%	<.0001

*Source: The Authors calculations (Companies house direct and reports from Insolvency service and Insolvency practitioners).The number of stars (from * to ***) refers to the significance of the ANOVA test (respectively 10%, 5%, 1% levels).*

B. Age- The mean age of the sample firms listed under the four different bankruptcy procedures varies between 8-15 years. This highlights the fact that these firms were not young firms or startups which is similar to the summary statistics obtained for French firms where average age was between 9 - 17 years. This amplifies the fact that young firms in both the countries need time to accumulate losses over a period of time. In France, the Government actively supports the creation of firms and helps them with obtaining financing through a specialized organization called (OSEO) and they are also provided subsidies and tax shields during the initial stages of their life cycle. In UK, even though small and medium sized enterprises provide 60% of the UK's jobs and account for half of the country's economic output, still no such specialized organization exists

that ensures that these firms have easy access to sufficient credit. In UK, the need for encouraging creation of firms arose after the current crisis and thousands of job losses. The Government now recognizes the need for supporting the creation of new firms and to ensure that they get sufficient support from the Government[308]. Our summary statistics of age shows that oldest firms that default were under receivership process and the youngest were under compulsory liquidations. Receivership was the procedure designed for the benefit of banks and old age of the firms reflects that they had long relationships with their main banks. It also signifies that banks might have attempted to revive the firms from difficulties for some years failing which; bankruptcy was opted as the last resort measure.

C. Sectors- Majority of the firms in the given sample, irrespective of the procedures, belongs to the manufacturing industry. Service industry turns out to be the second most dominant sector. The firm's choice of industry is considered important for two main reasons. First, it has been found that there is high correlation between the industry structure and a firm's performance (e.g. Scherer, 1980; Ravenscraft, 1983; Schmalensee, 1985) which manifests into the firm's survival likelihood (Drucker, 1970). Second, in order to minimize the chances of failure, reducing industry effects by diversification of firms is often cited as a reason by acclaimed authors (e.g. Weston & Mansinghka 1971; Pfeffer& Salancik, 1978; Amihud & Lev, 1981). It is seen as a measure that dilutes the risk of failures in any given particular environment the firm operates in (Thompson, 1967; Pfeffer & Salancik, 1978; Kotter, 1979) and hence positively impacts the chances of survival (Amihud &Lev, 1981) because such firms do not rely on one particular domain or sector and thus insulate themselves from unforeseen market and industry downturns. In the next point, we get to see that external environment (macro) is one of the major causes for default. Thus, it is very important to consider such factors if we want to increase the life span of a firm.

[308] David Cameron has appointed former Cabinet minister Lord Young as his enterprise tsar with a remit to cut red tape for small business. His review of enterprise policy will aim to: 1) Minimise the "bureaucratic burdens" which increase costs and hassle; 2) Identify ways that government departments can help ensure firms have access to sufficient finance; 3) Encourage people to start businesses rather than seek jobs as employees; 4) Improve the way government listens to the views of small and medium-sized enterprises when designing policy. For more details see http://www.bbc.co.uk/news/uk-politics-11663262. Article published on BBC on 1st November, 2010.

D. Cause of default- It is worth mentioning that one can always find compelling reasons for a company's failure. In our sample, these reasons were identified from the reports of insolvency practitioners or official receivers dealing with a particular firm. These causes were hand coded using a list of 52 codes which were later classified into 7 major categories: Strategy, Production, Finance, Management, Accident, Outlets and Macro. We built 7 dummy variables which take a value of 1 whenever we identify one cause in a given category and zero else wise. For some files, this information was hard to find and we treat them as missing data. Table 5.8 presents the distribution of these causes of default for the four different bankruptcy procedures of UK within our sample firms. Our Fisher tests exhibit significant differences among all categories of default causes for all types of procedures. It is however interesting to note that irrespective of the procedure, outlets remain the most dominant reason for default, particularly showing very high percentages for receiverships (83%) and administrations (64%). Outlets signify the fact that a company has lost its customer base. Reviving such firms proves to be an unprofitable activity as the primary source for generation of income (no customers) has come to an end. Second, most dominant reason for default for administrations, receiverships and creditor voluntary liquidation is external environment (macro). This shows that industry downturn, rise in competition and market factors play a significant role in the survival of UK firms. While in the case of compulsory liquidations, the second most dominant reason for default is accident. This illustrates that the intensity of these accidents is very severe and often causes irreversible damage to the firm with no likelihood of rescue. Blazy and Combier (1997)[309] suggested that one reason may not be sufficient to generate default and involves a combination of causes. Even though we do not include these combinations in our study but we do acknowledge that subsequent dominant causes for default strongly differ from one procedure to the other and are significant as shown by Fisher tests.

[309] Blazy R., J. Combier (1997). « La défaillance d'entreprise : causes économiques, traitement judiciaire et impact financier », Economica, INSEE Méthodes, n°72-73.

5.3.2.2. Description of the Assets Structure

For different bankruptcy procedures in UK, we were able to extract accounting information from the abbreviated balance sheets provided by the director at the time of bankruptcy. In this, the directors provide their best estimates of the current value of the assets of the company at the onset of the procedure and most of the times they also provide the balance sheet a year before default. So this gave us two kinds of estimates. Balance Sheet Value a year before default and Balance Sheet Estimates at the time of commencement of the proceedings assumed to be the last accounting figures. This helped us in analysing the asset structure before and at the time of default. Looking at the values of assets, we observe a significant difference in the asset structure (total assets, tangibles, inventory, receivables and cash) for firms entering different procedures. The value of total assets is increasingly high for the firms entering administration and receivership than compared to CVL and CL. Larger value signifies that these firms have more assets. Thus, more time and effort is needed to assess their market value and find a solution for such firms (Lawless and Ferris, 2000; LoPucki and Doherty, 2004; Bris et al, 2006). We notice that firms entering administration have substantial tangibles, inventory, receivables and cash. Firms entering receivership are identified to have high proportions of long term financial assets. Majority of liquidations are identified to have high proportion of receivables, inventory and cash in their asset structure. Here we notice that a high proportion of fixed assets in the asset structure often lead the firm into administration or receivership rather than liquidations. On the other hand, we notice that the firms entering liquidations are identified to have more current assets (receivables + stock + cash) than fixed assets (intangibles + tangibles + long term financial assets).

Table 5.9: Book value of assets: Balance sheet figures

A year before default					
Frequencies & averages	Compulsory liquidation	Creditors Voluntary Liquidation	Administration	Receivership	ANOVA Prob. > F Stat
Nb. of observations	*87*	*58*	*176*	*176*	
Total assets: (K€)***	368.8	473.6	1629.8	2862.8	<.0001
Intangible assets: (K€)	20.8	19.1	29.8	38.3	0.265
Tangible assets: (K€)***	128.0	172.7	528.4	870.2	<.0001
Financial assets: (K€)	9.7	1.4	52.5	315.52	0.10
Inventory: (K€)*	42.7	70.9	232.2	520.5	0.0 8
Receivables: (K€)***	152.6	172.5	642.1	986.1	<.0001
Mark. securities: (K€)	3.2	17.8	6.1	23.1	0.537
Cash: (K€)***	11.9	19.1	38.8	109.2	0.004
Other assets: (K€)	0.0	0.0	0.0	0.0	0.194
Last accounting figure					
Nb. of observations	*36*	*45*	*155*	*126*	
Total assets: (K€)***	195.8	354.8	1819.3	2313.7	<.0001
Intangible assets: (K€)	12.2	2.9	126.4	50.2	0.429
Tangible assets: (K€)***	43.0	126.3	686.0	743.2	0.015
Financial assets: (K€)	0.0	0.0	74.7	170.40	0.36
Inventory: (K€)***	39.6	40.7	213.3	383.9	0 004
Receivables: (K€)***	95.1	151.6	649.1	872.9	<.0001
Mark. securities: (K€)	0.2	7.2	7.37	24.7	0.794
Cash: (K€)	5.	26.2	63.8	68.4	0.445
Other assets: (K€)	0.0	0.0	0.0	0.0	0.710

*Source: The Authors calculations (Companies house direct and reports from Insolvency service and Insolvency practitioners).The number of stars (from * to ***) refers to the significance of the ANOVA test (respectively 10%, 5%, 1% levels).*

In table 5.9 we analysed the book value of assets extracted from the balance sheet of the companies. In table 5.10, we analyse the value extracted from the statement of affairs of the company prepared by the directors[310] and handed out to the insolvency practitioner at the time of trigger of default. In this they document the estimated market value of the firm's assets. Additionally we also provide the realized market value of the assets. This information was gathered from the abstracts of receipts and payments filed by the administrator/receiver/liquidator at the Registrar of Companies, at six monthly intervals. Comparing the estimated value of total assets with the realized value of total assets, we notice a huge difference for all sample firms. This reflects two facts: First, director's estimations of their patrimony were subject to optimum bias (Armour, 2009). Second, insolvency practitioner is responsible for collecting receivables, sell the tangibles to the highest amount and realize all the assets in a manner so as to achieve the best results for the firm. This demonstrates the effectiveness of the insolvency practitioner in realizing the assets and maximizing the value of the firm. However, here we would like to reinstate that this case of UK is different from France. As in France we only have estimated value of assets which in fact is equivalent to realized value of assets and is calculated by the court appointed official at the time of trigger of default.

[310] The directors are obliged by law to provide such document to the court appointed official.

Table 5.10: Estimated and realized value of assets

Frequencies & averages	Compulsory liquidation	Creditors Voluntary Liquidation	Administration	Receivership	ANOVA Prob. > F Stat
Nb. of observations	*100*	*75*	*200*	*199*	
Total assets:estimated market value (K€)***	35.8	108.8	524.2	925.3	<.0001
Intangible assets:estimated market value (K€)**	0.0	0.0	15.9	27.3	0.0184
Tangible assets:estimated market value (K€)***	1.5	59.0	285.0	485.8	0.0001
Financial assets:estimated market value (K€)	0.0	0.1	1.0	2.6	0.4158
Inventory:estimated market value (K€)**	3.0	2.7	38 1	77.6	0.0288
Receivables:estimated market value (K€)***	22.7	37.9	171.2	312.3	<.0001
Mark. securities:estimated market value (K€)	0.0	0.0	0.0	0.0	n.s
Cash:estimated market value (K€)	7.6	8.1	6.6	15.3	0.3142
Other assets:estimated market value (K€)	1.1	1.0	6.4	4.3	0.2674
Total assets: real market value (K€)***	19.3	88.5	380.7	605.7	<.0001
Intangible assets: real market value (K€)**	0.0	0.1	9.8	2 .2	0.0191
Tangible assets: real market value (K€)***	1.4	56.1	150.8	241.4	0.0040
Financial assets: real market value (K€)	0.0	0.0	0.2	0.5	0.5267
Inventory: real market value (K€)*	0.6	1.7	11.4	28.8	0.0877
Receivables: real market value (K€)***	10.8	16.2	117.9	184.2	<.0001
Mark. securities: real market value (K€)	0.0	0.0	0.0	0.5	0.4997
Cash: real market value (K€)	6.4	7.6	11.6	10.1	0.7382
Other assets: real market value (K€)***	0.0	6.8	68.0	96.7	0.0015

*Source: The Authors calculations (Companies house direct and reports from Insolvency service and Insolvency practitioners).The number of stars (from * to ***) refers to the significance of the ANOVA test (respectively 10%, 5%, 1% levels).*

5.3.2.3. Description of the Debt Structure

The values of the table 5.11 were extracted from the balance sheet provided by the directors. The table shows a detailed debt structure of the companies a year before default and at the time of default. This can help us in analyzing as to what kinds of liabilities are associated with firms entering different bankruptcy procedures. In both the tables, we observe significant differences for long term financial debts, short term financial debts and total debts. We notice that the firms opting for liquidations are characterized to have more short term debts over long term debts. This means that these firms had more amounts due to trade creditors (unsecured) rather than the banks (secured). Similarly, the firms that are put under administration also showed huge proportion of amount due to trade creditors but at the same time they also show reasonable amount due to banks. For receiverships, we notice huge proportions of amount due to banks. This could be the major reason as to why these firms are put under receivership and not under administration. Banks as secured lenders had the right to appoint[311] the receiver in out of court proceedings, who was solely responsible to his appointee. In addition, it gave them the power to control the management of the firm through the appointed receivers. More often than not it was believed that it caused harm to the junior claimants who hardly received anything. Consequently, with the Enterprise Act of 2002, it was abandoned and new streamlined administration procedure was deployed aimed at shifting power from secured creditors to unsecured creditors. However, whether this reform really increased recovery of unsecured creditors is a matter of more research and study.

[311] No one has the right to veto their appointment.

Table 5.11: Debt structure of the firms

Debt structure a year before default					
Frequencies & averages	Compulsory liquidation	Creditors Voluntary Liquidation	Administration	Receivership	ANOVA Prob. > F Stat
Nb. of observations	*87*	*58*	*176*	*176*	
Equity (K€)***	22.7	-250.0	295.4	402.8	0.009
Long term financial debts (K€)***	90.3	342.1	269.8	914.4	0.008
Short term operating debts (K€)***	255.2	379.9	1044.0	1480.0	<.0001
Short term financial debts (K€)	0.0	0.0	0.9	0.2	0.295
Other debts (K€)*	0.6	2.2	20.0	65.1	0.084
Total debts (K€)***	368.9	473.7	1630.0	2862.5	<.0001
Last accounting figures					
Nb. of observations	*36*	*45*	*55*	*126*	
Equity (K€)	-22.5	-246.4	201.8	-59.2	0.554
Long term financial debts (K€)*	43.9	300.2	385.3	872.3	0.090
Short term operating debts (K€)***	174.3	296.8	1205.2	1452.3	<.0001
Short term financial debts (K€)	0.0	3.1	4.1	3.4	0.994
Other debts (K€)	1.1	1.14	22.9	33.6	0.329
Total debts (K€)***	195.8	354.9	1819.3	2302.4	<.0001

*Source: The Authors calculations (Companies house direct and reports from Insolvency service and Insolvency practitioners).The number of stars (from * to ***) refers to the significance of the ANOVA test (respectively 10%, 5%, 1% levels).*

5.3.2.4. The Structure of Claims

Table 5.12 provides the amount due to various categories of creditors. For UK bankruptcy procedures, we identified five major classes of creditors: Secured, Preferential[312], Employees, Newmoney and Unsecured Creditors. Secured creditors are pre-dominantly the banks or financing companies that lend the money to companies on fixed and floating charges. Preferential creditors[313] usually comprise of amounts due to Inland revenue, customs and excise, social security contributions and contributions to pension and occupational schemes. Remuneration of employees is also preferential but in our study we create a separate employee class in order to calculate the entire amount due to employees. Newmoney creditors are the creditors whose dues arise after default (for example salaries of personals appointed after default). Unsecured creditors comprises of trade creditors and suppliers of goods and raw materials. The details about the amounts due to these creditors were obtained from insolvency practitioner's reports, abstract of receipts and payments and statement of affairs. We noticed a significant difference among the sample firms entering different procedures. The firms entering administration and receivership have huge amounts at stake while this is not the case with firms entering liquidations. In case of receivership we observe heavy amounts due to secured lenders which again reflect that secured creditors exercised their exclusive right and put the company into receivership. Surprisingly, for all the procedures, we noticed high value of amounts due to unsecured creditors. This reflects two points: First, trade credit is crucial (see the value of their amounts due for all procedures) for running of the firm as it provides timely supply of raw materials and other goods and services necessary for the functioning of the company and as such should be treated with more respect in case of default by providing them level playing field as compared to other creditor claims. Second, we noticed (table 5.13) that trade creditors are numerous in numbers. This signifies co-ordination failures as they are dispersed. As such they fail to keep themselves informed about the financial position of the company, failing which they keep

[312] For more details on preferential creditors see Schedule 6 of Insolvency Act 1986.

[313] This is to bring to your notice that after Enterprise Act 2002, state lost its preferential status and now falls in unsecured category for administrations.

up their supplies and in the end are left with no recoveries. Indeed, these creditors should have high incentives to monitor the firms as they are the worst affected categories. But in reality this is not the case and it is secured lenders who efficiently monitor the firms despite the fact that they will recover out of the collaterals. Thus we observed that unsecured creditors should have more incentives to monitor the firm than the banks and Governments should introduce such mechanisms that help them serve this purpose.

Table 5.12: Structure of due claims

Frequencies & averages	Compulsory liquidation	Creditors Voluntary Liquidation	Administration	Receivership	ANOVA Prob. > F Stat
Nb. of observations	*100*	*75*	*200*	*199*	
Due total (K€)***	282.6	657.8	1788.1	3390.3	<.0001
Due claims (K€): secured***	16.9	82.1	692.0	1573.3	<.0001
Due claims (K€): preferential (State before 2002; not including employees)***	6.0	32.5	12.1	121.3	<.0001
Due claims (K€): employees	5.4	5.0	24.8	26.7	0.3049
Due claims (K€): New Money*	0.0	11.6	99.7	333.9	0.076
Due claims (K€): unsecured***	254.2	507.8	883.8	1236.5	<.0001

*Source: The Authors calculations (Companies house direct and reports from Insolvency service and Insolvency practitioners).The number of stars (from * to ***) refers to the significance of the ANOVA test (respectively 10%, 5%, 1% levels).*

Table 5.13: Number of Creditors

Number of claims	Compulsory liquidation	Creditors Voluntary Liquidation	Administration	Receivership
Secured	0.22	0.59	1.67	1.6
Preferential	0.12	1.08	0.18	1.18
Employees	0.14	0.01	0.85	0.39
Newmoney	0	7.7	9.76	13.8
Unsecured	4.75	37.8	77.5	49.6
Total	5.68	48.0	89	65.3

Source: Authors' Calculations

5.3.2.5. The Creditors' Recoveries in UK

Bankruptcy procedures should aim at maximizing the value of the bankrupt firm by taking into account interests of all the stakeholders. Creditor recovery rate is often used as a proxy to judge the ex post efficiency of the procedure (Davydenko and Franks, 2008, Grunert and Weber, 2009). Higher recovery rates are associated with increased efficiency of a particular procedure. We managed to obtain information related to recoveries from the abstracts of receipts and payments and from the insolvency practitioners report. Based on which, we calculated the recovery rate for each class of creditors and also overall firms' recovery rate. We noticed a significant difference in the overall recovery rate for the firms entering into different insolvency procedures (Table 5.14). The receivership process shows high bank recovery rate when compared with other procedures. This is not unexpected as this procedure aimed at the benefit of secured lenders. Preferential creditors show highest recoveries under administration procedures. Newmoney creditors show 100 percent recovery for all the procedures whereas recoveries for unsecured creditors remain futile. They hardly receive anything out of any procedure. For administration, secured creditors show a recovery rate of 39.2 percent while for receiverships it is slightly higher at 44.7 percent. This is in coherence with the expectations. Secured creditors benefit more in receivership because of their exclusive rights; however it is worth noting that the difference in recovery rate between administration and receiverships is not so vast. Armour et al. (2008) found contrasting results, where secured creditors recovery was more in administrations (61 percent) than in receiverships (55 percent). However, they found that the overall firm's recovery rate is similar in both the procedures (21 percent). In our sample, we find the highest overall recovery rate for receiverships. Interestingly, this procedure was abolished by the Enterprise Act of 2002 which opens up the debate whether contractualist approach was a feasible way to resolve default in UK or not. Enterprise Act of 2002 was introduced with the objective of providing a level playing field to all the creditors and especially improving the position of unsecured creditors. The main aim of the new streamlined procedure is to enable more and more companies to survive and provide level playing field to all creditors especially the unsecured creditors who were devoid of it in previous

proceedings. With regards to this, Crown's preferential status was abolished[314] and ring fence fund[315] was established to allow more assets to be available to the unsecured creditors. The incentives of Crown were supposed to potentially benefit the unsecured creditors. Even after all these reforms[316] we do not notice any increase in their recoveries (3.5% in administration). It still remains futile.

Thus, on an average, UK procedures do not show a very high global recovery rate than France. This is in contrast to studies conducted by Doing Business Report, World Bank which put UK (9th percentile) a lot higher than France (42nd percentile). However, this study does not take into consideration all the creditors. It focuses more on secured creditor's recovery. Another reason for higher recovery in France could be attributed to the fact that French firms show higher coverage rates than UK firms. This signifies that French firms are more liquid at the commencement of bankruptcy and as such result in higher recoveries. This is surely due to proactive prevention policy of France.

Although, liquidations do not yield good results for both the countries but the case is worse for UK. Liquidations are the most dominant procedures in both the countries (almost 90 percent of the firms liquidate every year). Thus, with such a low recovery rate it is a cause of concern. Here we would like to emphasize the fact that to the best of our knowledge no studies have been conducted on UK liquidation cases and their recovery rates. We are the sole team to have access to such type of information.

[314] EA 2002, s 251 (1) states that the Crown preference shall cease to exist.

[315] The EA 2002, s 252 introduces a new s 176A into the IA 1986 which fully stipulates the new creation of ring fence fund

[316] We can comment on firms as 68 percent of the data sample comes between the years 2003-2005. If they position would have changed it would have reflected on our results as well.

Table 5.14: Recovery rate for creditors

Frequencies & averages	Compulsory liquidation	Creditors Voluntary Liquidation	Administration	Receivership	ANOVA Prob. > F Stat
Nb. of observations	*100*	*75*	*200*	*199*	
Overall recovery rate (%)***	8.6%	12.5%	20.1%	29.4%	<.0001
Recovery rate (%): secured***	16.2%	27.7%	39.2%	44.7%	0.0052
Recovery rate (%): preferential* (State before 2002; not including employees)	17.1%	19.2%	42.2%	33.1%	0.0907
Recovery rate (%): employees	40.0%	22.3%	52.3%	36.8%	0.1847
Recovery rate (%): New Money	n.s.	100.0%	99.5%	100.0%	n.s
Recovery rate (%): unsecured**	7.7%	4.7%	3.5%	1.5%	0.0114
Coverage rate(%) (assets/debts)***	15.4%	20.8%	31.8%	35.7%	<.0001

*Source: The Authors calculations (Companies house direct and reports from Insolvency service and Insolvency practitioners).The number of stars (from * to ***) refers to the significance of the ANOVA test (respectively 10%, 5%, 1% levels).*

5.3.2.6. The Costs of the UK Bankruptcy Procedures

Table 5.15 provides us with the direct bankruptcy costs and length of the procedures. Length of the procedure is often considered as the important criteria for calculating the bankruptcy costs. Thorburn (2000), Franks and Sussman (2005) and Bris et al (2006) find the length of the procedure to be directly proportional to the bankruptcy costs. As these generated costs consume lot of the bankruptcy estate and reduce creditor recovery in the process, it should be kept the minimum. We are able to compute the duration of each bankruptcy procedure in UK through the reports of Insolvency practitioners filed at the Companies House Direct, UK. Within our sample, we notice that receivership process (mean of 38 months) takes twice as long as the time taken for administration process (mean of 19 months). This is not surprising because Enterprise Act of 2002, restricted the administrations to one year statutory limit that can be extended either by the permission of the court or by the majority of creditors[317], taking into consideration that bulk of our sample firms (68%) triggered bankruptcy after 2003. Receiverships on the other hand are often thought to result in speedy outcomes as they often take place in out of court

[317] Insolvency Act 1986, Sch B1, para 76.

settings. However, we do not find them to be a speedy procedure. Citron et al (2004) find evidence that in a sample of 65 receiverships, 37% of them, took more than 3 years and only 3.1% were completed within one year. Armour et al. (2008) also find that receiverships consume twice as many days as compared to administration. Thus, these studies are coherent with the results obtained by us. Liquidations are often considered to be fast processes as nothing much needs to be done. Surprisingly, we noticed long durations for both kinds of liquidation procedures. This led us to believe that a lot of time is consumed in the legalities of the procedure. What else could explain such long durations? Interestingly, France seems to provide much more speedy results (3.1 months for liquidations and 11.2 for continuations).

It is worthwhile to note that in France, the length of liquidation process excludes the time the court takes to liquidate the firm finally. Meaning it only includes the time when the firm enters bankruptcy and time at which the judge decides to liquidate it. It does not include the time when actual selling of assets takes place. As selling assets might also take additional period. But still difference is enormous between France and UK for liquidations.

Formal procedures of bankruptcy involve direct (accruing out of the legal process for instance fees to lawyers, accountants, auditors and other professional fees) and indirect costs (arising out of foregone investment opportunities, lost sales, loss of competitiveness, all the costs arising out of suboptimal use of resources, asymmetric information, conflicts of interests and loss of management time) which eventually have to be borne by the already distressed company and thus can shrink the overall incentives of claimants. While direct costs are easy to be estimated by the records of Insolvency practitioners which contain abstracts of receipts and payments, it is often considered complex to estimate the indirect costs of a process. Many researchers have been able to successfully document the direct costs of the US insolvency procedure (Lawless and Ferris, 1997, Lawless and Ferris, 2000, Bris and et al 2006) for Sweden (Thorburn, 2000) and for UK (Franks and Sussman, 2000, Citron et al, 2004). As efficiency of the procedure is closely related to the costs involved in the procedure, we presume that a

good procedure should be cost effective. Armour et al (2008) found that administrations are more costly than receiverships. However, we found contrasting results. This can be due to the fact that our sample firms for receiverships offer more complexities. Bankruptcy costs are often calculated on the amount of time spent on the case or on the percentage of realized amount. Thus, we notice costs may often vary with size of the firm and complexity of the case. In our sample, receiverships are characterized by huge due amounts and complex liability structure which means it requires more time and more efforts by bankruptcy experts and thus leads to high overall costs in receiverships. Liquidations, no doubt, remain the cheapest process as they are mostly carried out by official receivers who are court appointed officials and have fixed fees. Here also we see a huge difference between France and UK's bankruptcy costs. The legal fees are rather moderate in France (less than 10 thousand Euros, which is very low relatively to the total due claims: between 760 and 1740 thousands of Euros on average). Thus the cost of the legal solution is quite low, which is coherent with the orientation of the French code that promotes an early triggering. However, in English system we do not see such preventive or early detection mechanisms.

Table 5.15: Costs of the bankruptcy procedure

Frequencies & averages	Compulsory liquidation	Creditors Voluntary Liquidation	Administration	Receivership	ANOVA Prob. > F Stat
Nb. of observations	*100*	*75*	*200*	*199*	
Length of the procedure (months)***	26.4	35.4	19.4	38.9	<.0001
Direct bankruptcy costs (KE)***	0.1	18.8	75.7	98.7	<.0001

*Source: The Authors calculations (Companies house direct and reports from Insolvency service and Insolvency practitioners).The number of stars (from * to ***) refers to the significance of the ANOVA test (respectively 10%, 5%, 1% levels).*

5.3.3. Multivariate Analysis

In this section we analyse the determinants of choice for Receivership and Administration procedures against Liquidation (Table 5.16).

Based on our expectations we try to relate the choices with a series of explanatory variables related to the amount due under various categories of claimants, coverage rate and estimated value of certain assets. In addition we add variables that explain characteristics of the firm (age, limited liability, and sector) and the variables related to causes of default. To control for economic conditions we add GDP growth as the control variable. While, most of the variables are quantitative in nature, those related to trade, manufacturing, limited liability and causes of default are binary variables (0 or 1). In total we have 475 bankrupt firms for multivariate analysis.

The first choice explains the factors that increase or decrease a firm's chances of falling into receivership against liquidation. Firstly, we study the impact of the structure of claims on the choice between receivership and liquidation. Here we notice that the amount due for secured creditors positively impacts the chances of receiverships and is highly significant (1%). This is not an unexpected result. Receivership is a unique procedure specific to UK only and was mainly aimed at the benefit of secured lenders (banks). The secured lender has the right to appoint receivers for out of court proceedings and does not need to consult the directors or any other creditors. Thus, a high amount due to secured creditors means that they have the right to appoint receivers whenever they wish to and no one can veto his/her appointment. We do not observe any impact of amount due to preferential creditors and employees. This reflects that in UK choice for bankruptcy procedure is not impacted by the employee and State dues but more by secured claims.

Secondly, we study the impact of asset structure on the choice. On one hand we observe that estimated value of cash and receivables shows a significant negative impact on the chances of receivership, while on the other hand we notice that estimated value of total

assets have a significant positive impact on the chances of receivership. This could be explained by the results of our summary statistics, which demonstrated that certain types of assets were associated with certain types of procedures. Liquation was identified to have more current assets as compared to tangibles and intangibles where as receiverships was identified to huge proportion of tangibles and financial assets. We assume that current assets are the dominant source of recovery for unsecured creditors under Liquidation proceedings. Whereas for receiverships secured assets often form the basis for recover for secured creditors. Thus, asset structure shows an impact on the choice between receivership and liquidation.

The second choice explains the factors that increase or decrease the chances of administration against liquidation. Firstly, we study the impact of the structure of claims on the choice between liquidation and administration. We noticed that the amount due for preferential creditors has a negative impact on chances of administration. This means that the more is the amount due to preferential creditors, the lesser are the chances of administration. Here we would like to recall that administration is believed to be the reorganization procedure of UK, and its major objective is to save the company as going concern. If the company is not able to meet the needs of its employees and at the same time defaults on various state claims, it means that the company is in serious financial situation. Spending time on reorganizing such companies would prove detrimental to the economy and the feasible solution for such companies is to liquidate them as soon as possible. Next, we notice that the amount due for secured creditors increases the likelihood of administration. This might seem a little contrasting to expectations as secured creditors are often interested in the amount due to them and for attaining it they quickly want to liquidate the firm and satisfy their dues. They are not bothered about saving the firm or the recovery of other claimants. The question to address here is: what motivates these creditors to apply for reorganization procedure that aims to provide a level playing field to all creditors? This could be explained by two facts: First, a secured lender in UK has limited powers to initiate certain insolvency procedures. Creditor voluntary liquidation can only be initiated by the directors and in case of compulsory liquidations there is hardly any secured creditor. Receivership is an abandoned procedure

while company voluntary arrangement can only be initiated by the directors. Thus, a secured lender is only left with administration as an option. Second, with the Enterprise Act of 2002, the accessibility of the administration procedure was increased by allowing out of court appointment of the administrator either by the court or the holders of floating charges (secured creditors) or the company and its directors. Interestingly, the holders of floating charge can appoint the administrator out of court without having to demonstrate that the company is unable to pay its debts. On the other hand, directors of the company need to demonstrate that the company is unable to pay its debts[318] to materialize out of court appointment. This facilitated the initiation process. Previously, administrators could only be appointed on the order of court.

Second we study the impact of asset structure on the choice between administration and liquidation procedures. We obtain similar results to the first choice of procedure. We observe that estimated value of cash and receivables shows a significant negative impact on the chances of administration, while on the other hand we notice that estimated value of total assets have a significant positive impact on the chances of administration. The reason could be similar to the one provided for receivership. Also it signifies more is the value of estimated total assets more are the chances for opting for receivership or administration. However, to recall, receivership is no more prevalent. As such, in absence of such a procedures secured creditors have only one formal procedure to resort to and that is Administration.

Analyzing the control variables we observe that chances of administrations are negatively impacted if the cause of default is related to the internal management. The credibility of the management is an essential ingredient for proposing any survival plans for the debtors. If the debtors/directors/managers are found to be fraudulent or found guilty of tricky behavior then court/secured creditors have no intentions to save them as once the trust is broken chances of developing any further relations with such fraudulent debtors is permanently put out of question.

[318] Paragraph 27(2) Schedule B1 Insolvency Act.

Table 5.16: Multivariate analysis for choice between bankruptcy procedures

Variable explained	**Endogenous variable: bankruptcy's output (475 bankrupt firms)**			
	Output = Receivership (ref. *liquidation*)		**Output = Administration (ref. liquidation)**	
	Estimation	*Prob. > c^2*	*Estimation*	*Prob. > c^2*
Intercept	7.29	0.981	11.57	0.97
Coverage rate (Assets/liabilities)	-0.3841	0.5711	0.0154	0.9784
Weight of amount due to preferential creditors	0.0134	0.9982	-23.09***	<.0001
Weight of amount due to secured creditors	8.443***	<.0001	5.989***	<.0001
Weight of amount due to employees	-1.6246	0.683	-1.8398	0.58
Weight of inventory in estimated assets	1.044	0.3759	1.4488	0.1914
Weight of receivables in estimated assets	-1.2969**	0.03	-1.3292**	0.02
Weight of cash in estimated assets	-2.302**	0.049	-1.389*	0.092
Weight of total estimated assets	0.0006***	<.0001	-0.0060***	<.0001
Age of the firm	-0.0011	0.3705	-0.0012	0.3307
GDP growth	-97.19**	0.015	-191.7***	<.0001
Sector: trade	-0.0821	0.8976	-0.5745	0.3347
Sector: manufacturing	0.2618	0.5799	-0.2327	0.6015
Limited liability	-6.996	0.9819	-6.9158	0.982
Reason for default: strategy	0.0792	0.7522	0.1641	0.5045
Reason for default: production	-0.0644	0.7914	0.2193	0.3507
Reason for default: finance	0.1457	0.6035	0.4366	0.0935
Reason for default: management	-0.457	0.141	-0.572**	0.049
Reason for default: accident	-0.4574***	0.059	-0.2786	0.2275
Reason for default: outlets	0.144	0.56	-1.214	0.5896
Reason for default: Macro	0.2275	0.301	0.2447	0.563
The model is: Multinomial LOGIT regression	**Test**	**Khi 2**	**Pr > Khi 2**	
	Likelihood Ratio	433.03	<.0001	
	Score	319.87	<.0001	
	Wald	169.68	<.0001	
	Condition Index (Belsley *et al*. (1980))		34	

Source: The Authors calculations
*The number of stars (from * to ***) refers to the significance of the ANOVA test (respectively 10%, 5%, 1% levels).*

5.3.4. Conclusion

In this chapter, using the data collected from Parisian courts, we built a comprehensive sample of 264 small and medium sized enterprises. The resulting dataset provided summary statistics on several important variables (characteristics of firms, asset structure, due amount structure and recovery rates for different classes of creditors, length and costs of the procedure). Based on this, we conducted multivariate analysis to test the determinants for the choice between liquidation and continuation. This test holds significance as France is identified by a bankruptcy law system which favours continuations over liquidations. Using the similar approach, we also built a comprehensive sample of 574 small and medium sized firms of UK. We perform univariate analysis on important variables (characteristics of firms, asset structure, due amount structure and recovery rates for different classes of creditors, length and costs of the procedure) and also conduct multivariate analysis to test the choice for different bankruptcy procedures (administrations and receiverships against liquidation).

Our results conclude that legal orientation does play an important part in determining the choice for different bankruptcy procedures. The effect of this legal context on the recovery rate will be further explored in detail in the last chapter of the thesis, where we test the effect of legal orientation on the ex-post efficiency of the system (recovery rates).

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Appendixes

B1. The French and the UK templates (data collection from Tribunal de commerce de Paris and Companies House)

1. Template Information		
Template identificator **[AUTOMATIC: do not fill!]** *When saving the template, name it with this ident.*	UK001	
Filling person (student)	UK002	
Filling date	UK003	
Filling location	UK004	
Comments / file's history:	UK005	

2. Firm Identification		
Name of the firm	UK006	
Immatriculation number	UK007	
Sector	UK008	
Legal form	UK009	
Geographical location	UK010	
Creation date	UK011	
Nb. of firms belonging to the same group (put 0 if not : i.e. when there is no holding)	UK012	
Immatriculation name (Holding)	UK013	
Immatriculation number (Holding)	UK014	
Sector (Holding)	UK015	
Legal form (Holding)	UK016	
Geographical localisation (Holding)	UK017	
Manager's age (YY)		
Manager has been in place for... (YY)	UK018	
Board of directors: Nb of administrators (minimum: 0)	UK019	

3. Process of the Financial Distress		
3a. Qualitative information	Codification	Literal description
Cause of financial distress n°1	UK020	
Cause of financial distress n°2	UK021	
Cause of financial distress n°3	UK022	
Cause of financial distress n°4	UK023	
Cause of financial distress n°5	UK024	
Cause of financial distress n°6	UK025	
Measures:	Codification	Literal description
Measure the firm engaged before distress n°1	UK026	
Measure the firm engaged before distress n°2	UK027	
Measure the firm engaged before distress n°3	UK028	
Measure the firm engaged before distress n°4	UK029	
Measure the firm engaged before distress n°5	UK030	
Measure the firm engaged before distress n°6	UK031	
Has the default been delayed? (y/n/unfilled) (based upon legal sanctions, for instance)	○ Yes ○ No UK032	

3b. Financial & Quantitative Information			
Assets (account. book values)	Last info. -2 Before default value 1000x£	Last info. -1 Before default value 1000x£	Last info. Before default value 1000x£
Accounts Date	UK033	UK043	UK053
Intangible fixed assets	UK034	UK044	UK054
Tangible fixed assets	UK035	UK045	UK055
Long term financial assets	UK036	UK046	UK056
Operating assets: stocks	UK037	UK047	UK057
Operating assets: clients	UK038	UK048	UK058
Short term financial assets	UK039	UK049	UK059
Cash	UK040	UK050	UK060
Other assets	UK041	UK051	UK061
Total [AUTOMATIC]	UK042	UK052	UK062
Financial debt structure (book values)	Last info. -2 Before default value 1000x£	Last info. -1 Before default value 1000x£	Last info. Before default value 1000x£
Equity (shares + net Income + retained earnings)	UK063	UK069	UK075
Long term financial debts	UK064	UK070	UK076
Short term operating debts (accounts payable)	UK065	UK071	UK077
Short term financial debts (banks: due cash)	UK066	UK072	UK078
Other debts (ibcl. fiscal & soc.)	UK067	UK073	UK079
Total [AUTOMATIC]	UK068	UK074	UK080
Employement & Income (account. values)	Last info. -2 Before default value 1000x£	Last info. -1 Before default value 1000x£	Last info. Before default value 1000x£
Number of employees	UK081	UK089	UK097
Turnover	UK082	UK090	UK098
Operating income	UK083	UK091	UK099
Financial income	UK084	UK092	UK100
Exceptional income	UK085	UK093	UK101
Other charges (Taxes on benefits…)	UK086	UK094	UK102
Other products	UK087	UK095	UK103
Net income (please, fill it MANUALLY)	UK088	UK096	UK104

4. Insolvency Procedure ***Please, in case the procedure leads to another procedure, open a new template***					
4a. Insolvency procedure(s)	This procedure	⇨	Final outcome of the procedure		
This procedure: type	UK105		The outcome OR new procedure: type	UK110	
Date of triggering	UK106		The new proc. put "template identificator" [IF ANY] **Here, do not fill if there is no new procedure**	UK111	
Origin of this procedure: type	UK107		Date of the decision OR new proc.triggering	UK112	
Origin of this proc: put "template ident." [IF ANY] **Here, do not fill if this is a first procedure**	UK108				
Who trigerred the procedure?	UK109				
4b. Financial and quantitative information					
I) Assets (at default time): ***REAL market values***	Total value (1000x£)		Nb. Of items	Mean value (1000x£)	
Intangible fixed assets	UK113				
Tangible fixed assets	UK114				
Long term financial assets	UK115				
Operating assets: inventory	UK116				
Operating assets: accounts receivable	UK117		UK123	#DIV/0!	UK124
Short term financial assets (except cash: securities)	UK118				
Cash	UK119				
Other assets	UK120				
Total [AUTOMATIC]	UK121				
Realizable total (i.e. total assets that can be sold in the very short term)	UK122				

II) Financial structure by LEGAL PRIORITY (measure of deviations from APO)	General information			Due and future due amounts			Recovered amounts (cf. issue below)		
Remark: group claims of same rank together	Creditor's type	Collateral's type	Number of claims	Due value (1000x£)	Future due value (1000x£)	Total value (1000x£) [AUTO]	Recovered val. (1000x£)	Future recov. value (1000x£)	Total value (1000x£) [AUTO]
Group of similar creditors n°1	UK125	UK135	UK145	UK156	UK167	UK178	UK189	UK200	UK211
Group of similar creditors n°2	UK126	UK136	UK146	UK157	UK168	UK179	UK190	UK201	UK212
Group of similar creditors n°3	UK127	UK137	UK147	UK158	UK169	UK180	UK191	UK202	UK213
Group of similar creditors n°4	UK128	UK138	UK148	UK159	UK170	UK181	UK192	UK203	UK214
Group of similar creditors n°5	UK129	UK139	UK149	UK160	UK171	UK182	UK193	UK204	UK215
Group of similar creditors n°6	UK130	UK140	UK150	UK161	UK172	UK183	UK194	UK205	UK216
Group of similar creditors n°7	UK131	UK141	UK151	UK162	UK173	UK184	UK195	UK206	UK217
Group of similar creditors n°8	UK132	UK142	UK152	UK163	UK174	UK185	UK196	UK207	UK218
Group of similar creditors n°9	UK133	UK143	UK153	UK164	UK175	UK186	UK197	UK208	UK219
Group of similar creditors n°10	UK134	UK144	UK154	UK165	UK176	UK187	UK198	UK209	UK220
Total [AUTOMATIC]			UK155	UK166	UK177	UK188	UK199	UK210	UK221

4c. What happens during the bankruptcy process?		
Measures:	Codification	Literal description
Measure undertaken during the procedure n°1	UK222	
Measure undertaken during the procedure n°2	UK223	
Measure undertaken during the procedure n°3	UK224	
Measure undertaken during the procedure n°4	UK225	
Measure undertaken during the procedure n°5	UK226	
Measure undertaken during the procedure n°6	UK227	
Legal representative n°1	UK228	
Legal representative n°2	UK229	
Legal representative n°3	UK230	
4d. Bankruptcy costs		
Direct bankruptcy costs (total legal fees, 1000x£)	UK240	
Lengh of the bankruptcy process (MM)	UK250	
4e. <u>Alternative possible issues</u> : ("liquidation" and "sale as a going concern" can be mixed together)		
FINAL DECISION / OUTCOME [AUTOMATIC]: must be equal to 'Final Outcome of the Procedure' (see above, point 4a)	UK251	

I) <u>Liquidation</u> ***<u>IMPORTANT</u> : estimated values MUST always be filled (realized value are filled if and only if liquidation is finally decided)***	Estimated value (1000x£) [AUTOMATIC]	Realized value (1000x£): at least, 'Total' must be filled (when detailled values are not here)
Intangible fixed assets	UK252	UK261
Tangible fixed assets	UK253	UK262
Long term financial assets	UK254	UK263
Operating assets: inventory	UK255	UK264
Operating assets: accounts receivable	UK256	UK265
Short term financial assets (except cash: securities)	UK257	UK266
Cash	UK258	UK267
Other assets	UK259	UK268
Total [AUTOMATIC]	UK260	UK269

II) If sale of the firm "as a going concern" ***This section should only be filled if there are offer(s)***	The buyer (if any)	
- Proposed value (1000x£)	UK270	
- Motivation of the buyout: code n°1	UK271	
- Motivation of the buyout: code n°2	UK272	
- Motivation of the buyout: code n°3	UK273	
- Does the buyout preserves employment? (y/n)	○ Yes ○ No UK274	
- Is the buyout price relatively high? (y/n)	○ Yes ○ No UK275	
- Is the buyer financially strong? (y/n)	○ Yes ○ No UK276	
- Does the buyer have a long experience? (y/n)	○ Yes ○ No UK277	
- Does the buyer have a good reputation? (y/n)	○ Yes ○ No UK278	
- Are the synergies attached to the buyout? (y/n)	○ Yes ○ No UK279	

III) Continuation-reorganization of the firm ***IMPORTANT: foreseen values sould always be filled***			
Nb. of years of the reorganization plan (YY)	UK280		
Nb. of years before the firm recovers profitability (YY)	UK281		
Forecasts (should be filled, even if continuation is not finally decided):	Beginning time (of the forecast period)	Middle time (of the forecast period)	Ending time (of the forecast period)
Year (19XX / 20XX)	UK282	UK286	UK290
Turnover (foreseen value, 1000x£)	UK283	UK287	UK291
Operating income (foreseen value, 1000x£)	UK284	UK288	UK292
Net income (foreseen value, 1000x£)	UK285	UK289	UK293

4f. The decision process (non applicable to bankrupt firms in France)		
Is there a vote? (y/n)	UK294	

4g. Legal sanctions to managers (ALL countries)		
Amount of pecuniary legal sanctions (1000x£) (if available)	UK295	
Non pecuniary legal sanctions ? (y/n)	○ Yes ○ No UK296	
Type of faulty behaviour:	Codification	Literal description
Management fault n°1	UK297	
Management fault n°2	UK298	
Management fault n°3	UK299	

B2. The codifications of the causes of default (France and UK)

	Origin of the default (codifications)
Outlets	[1] Brutal disappearance of the customers; [2] Customer(s) in default; [3] Product(s) too expensive (selling price is too high); [4] Bad evaluation of the market; [5] Product(s) too cheap (selling price is too low); [6] Unsuitable products; [7] Obsolete products; [8] Loss of market shares (regular fall of the firm's demand).
Strategy	[1] Youth of the company (inexperience); [2] Voluntary dissolution of the activity;[3] Failure of important projects (partnerships, investments, reorganizations);[4] Voluntary acceptance of less profitable markets (dumping...).
Production	[1] Production capacity was too strong, overinvestment; [2] Depreciation of assets(active persons); [3] Operating costs were too high (other than wages: external expenses, raw materials...); [4] Wages expenses were too high; [5] Brutal disapearance of suppliers; [6] Unsuitable process of production (obsolete); [7] Under-investment.
Finance	[1] Longer delays on accounts receivable; [2] Dominos effect / reported losses from subsidiaries; [3] Shorter delays on accounts payable; [4] Speculation of the company, problems due to exchange rates fluctuation; [5] Stop of the financial support from the head office / holding; [6] Lack of equity (compared to leverage/liabilities); [7] Loan refusal to the company; [8] Stop/reduction of previous State financial subventions to the firm; [9] Contractual interest rates are too high.
Management	[1] Weak accounts reporting / informational system is deficient; [2] Problems of competence; [3] Disagreements among the directors / managers; [4] Excessive risk takings from the managers; [5] Insufficient provisions; [6] Lack of knowledge on the real level of costs of returns (causing too weak selling); [7] Bad evaluation of inventory; [8] Problems of transmission of the company / difficulties in restructuring.
Accident	[1] Swindle / embezzlements affecting the company (whatever its origin); [2] Another insolvency procedure (for other companies) is extended to the firm (same patrimonies); [3] Disputes with public partners (fiscal inquiry); [4] Disputes with private partners; [5] Death / disease / disappearance of the manager; [6] Disaster; [7] Social problems within the company.
External environment	[1] Unfavorable fluctuation of the exchange rates; [2] Increase of the competition; [3] Decreasing demand to the sector; [4] “Force majeure” (war, natural catastrophe, industrial crisis, politics, bad price evolution); [5] Public policy less favorable to the sector; [6] Period of credit crunch; [7] The general level of interest rates is too high; [8] Macroeconomic increase of operating costs (raw materials, GMW…).

B3. Structure comparison between Paris (sample) and France (population)

Corporate bankruptcies	Paris		France	
	1994	2005	1994	2005
Limited responsibility	78.2	84.4	60.8	68.0
Other legal forms	21.8	15.7	39.3	32.0
Commerce	27.3	25.6	28.9	27.0
Industry(1)	31.9	34.0	33.7	35.2
Services(1)	40.9	40.4	37.4	37.8
Continuations (reorganizations and sales)	7.1	5.6	7.0(2)	11.0
Liquidations (immediate or not)	92.9	94.5	93.0(2)	89.0

Sources: France: INSEE; Paris: Paris Commercial Court.
(1) Agriculture, and financial services excluded.
(2) For year 1995: see J. Domens, "Les défaillances d'entreprises entre 1993et 2004", coll°. « PME/TPE en bref » n°23 (May 2007), Ministère de l'Economie, des Finances et de l'Emploi.

CHAPTER 6

France and United Kingdom: Legal Indexes to Explain Recoveries

(Co-written with Prof John Armour and Prof Regis Blazy)

CHAPTER 6: BUILDING LEGAL INDEXES TO EXPLAIN RECOVERY RATES: AN ANALYSIS OF THE FRENCH AND UK BANKRUPTCY CODES

6.1. Introduction

Since the end of the 90's, a widespread literature in law and finance has been investigating how the legal context might impact the behaviors of stakeholders and their decisions and finally on their outcomes. In their seminal work, La Porta et al. (1997, 1998) have notably suggested that the origin of the legal systems (Common Law *vs*. Civil Law), and the resulting differences in protection of the stakeholders' rights, are likely to influence the development of financial markets and the economic growth. So far, the laws that have been investigated by this literature are numerous: mainly credit law, corporate law, commercial law, banking law, financial markets law, and corporate bankruptcy law. The latter is of prime importance as bankruptcy codes help in solving the governance conflicts emerging between the companies' shareholders and their creditors after the occurrence of default. Indeed, governance conflicts arise from default as the previous financial commitments have not been fulfilled and creditors cannot receive their contractual payments. In that context, bankruptcy procedures should be able to preserve as much value as possible in order to increase the creditors' expected recoveries. This issue deals with ex-post efficiency and was pointed out by Bebchuck (1988), White (1989), Longhofer (1998), and more recently, by Blazy and Chopard (2004), Fisher and Martel (2009).

Bankruptcy procedures are ex-post efficient if they promote the reallocation of the debtor's assets towards the most efficient alternative projects (that is those maximizing the market value of the firm). A narrower perspective restricts this reallocation issue to a simpler alternative: should the bankrupt firm be liquidated or continued? As concluded by White (1989), bankruptcy procedures are considered to be ex-post efficient, if they favour the outcome (liquidation *or* continuation) that maximizes the value of the firm which is defined as the sum of all stakeholders' claims. Precisely, a firm should be liquidated as soon as the discounted value of its present and future expected outcomes exceeds under liquidation, when compared to continuation. Empirically, the measure of such trade-off is obviously difficult to compute, as it requires comparison between the rival values which can hardly be ascertained for same debtor.

Consequently, most researchers have suggested recovery rates as a proxy for a measure of each observed outcome. (Armour, Hsu, and Walters (2006), Davydenko and Franks (2007)).

These studies focusing on the recoveries under bankruptcy are useful in drawing a ranking between countries based on their abilities to design ex post efficient bankruptcy procedures thereby creating value for the creditors. Two recent works have followed this path. Using banking data, Davydenko and Franks (2008) find that recovery rates for banks are significantly lower in France than those observed in Germany and in the UK. As a consequence, an observed outcome is that French banks ask for more collateral when they provide credit. In addition, they may rely on special collateral forms which minimize the risk of dilution during the court-administered bankruptcy process. More recently, Blazy, Petey and Weill (2010) find that this ranking is reversed when encompassing all the classes of claimants: Germany and France both outrank the UK which shows the lowest average overall recovery rate (13.8%) as against 20.7% for France and 21.5% for Germany. According to the authors, three elements can explain the differences in recoveries amongst the countries: the quality of assets at the early stage of bankruptcy, the structure of claims by seniority levels, and the intrinsic qualities of national bankruptcy codes.

Despite their valuable contribution, these works do not offer a satisfactory explanation of the legal mechanisms that play a role in explaining the differences in creditors' recoveries. The fact to be taken into consideration is that, without the use of legal indexes accounting for such characteristics, the researchers could only observe differences between various legal environments of bankruptcy but they fail to comprehend the legal characteristics that may impact creditor recoveries. In other words, these studies could answer the following question: "are recoveries higher/lower due to the design of its bankruptcy law or to external factors?". But they fail to address the following ones: "what are the characteristics of bankruptcy procedures that create more recoveries?", "are these characteristics linked to the production of information taking place under bankruptcy or to the protection conferred to assets after the triggering or to the coordination mechanisms that are implemented to make a collective choice?", etc.. The objective of our paper is to directly answer these questions by taking into consideration two countries that are good representatives of the two main legal systems prevailing in Europe:

France (civil law country) and United Kingdom (common law country). We first propose a set of original legal indexes highlighting ten major dimensions of corporate bankruptcy law. In a second step, we use these indexes to explain the recovery rates coming from a database gathering 833 bankruptcy files in France and in UK.

This article is organized as follows. Section 6.2 describes the methodology we use to build legal indexes on corporate bankruptcy law. Section 6.3 presents the French and UK bankruptcy codes. Section 6.4 uses our legal indexes to compare both legislations. Section 6.5 presents our dataset on recoveries in France and in UK. Section 6.6 discusses the results of regression models using legal indexes to explain the total recovery rate in both countries. The last section concludes.

6.2. Building Legal Indexes on Corporate Bankruptcy Law

We begin by addressing a set of questions. How can the differences between various bankruptcy laws be ascertained? How can the most important legal features be identified, when focusing on a particular legislation? Both questions are related to the way bankruptcy law should be designed for managing financial distress. Answering them requires the use of several complementary approaches. Monographs in comparative law (Ringe, Gullifer, and Théry (2009)) are helpful to provide a detailed view of the content of the national bankruptcy procedures (Franks and Torous (1996), White (1996)). Yet, the qualitative nature of such works makes quite difficult, a systematic and direct comparison of the bankruptcy procedures across countries. To draw a parallel comparison of different legal systems, one has to consider the use of legal indexes, and thus to follow the avenue opened by La porta et al. (1997, 1998). Following their work, numerous institutions have been engaged in the production of legal indexes (World Bank, World Economic Forum, INSEE, French *ministère de l'économie*, rating agencies…). These indexes are useful from a Law and Economics perspective as they systematize the comparison of heterogeneous legal environments, making them comparable.

However, some authors (du Marais et al. (2006), Menard and du Marais (2008), Haravon (2009)) have tackled the reliability of such indexes, especially those published in the annual Doing Business reports (World Bank (2009)). According to their views, the reliance on legal indexes suffers from two major drawbacks.

The first issue is related to the fallacious ease of use of rankings: as pointed out by Kerhuel and Fauvarque-Cosson (2009) "*The complexity of the traditional comparative method contrasts starkly with the almost disconcerting simplicity of the mathematical criteria driving an economic analysis. (…) Under these conditions, there could be a strong temptation to substitute the economic analysis of law for the more traditional comparative approach.*". Following Kerhuel and Fauvarque-Cosson (2009), we consider that both approaches should be considered as complements rather than substitutes. Indeed, the approach based on legal indexes cannot ignore the traditional comparative methods: building quantitative tools, such as indexes, requires relying first on some qualitative perspective that only comparative works can provide. The latter approach is by nature, more informative, complete, and balanced than the use of pure quantitative tools. Yet, such qualitative comparative works are insufficient to draw a complete view of numerous legal systems.

The second issue is related to the methodology that is used to build legal indexes on corporate bankruptcy systems. To illustrate this, let us consider the indicators of LLSV (1998) on corporate bankruptcy. The authors build four indexes: (1) "restrictions for going into reorganization"[319], (2) "no automatic stay on secured assets"[320], (3) "secured creditors first"[321], (4) "management does not stay"[322]. The aggregation of these indexes leads to a composite index (ranked between 0 and 4) named "creditor rights". These indicators help in comparing a huge rank of countries as they provide a common basis for comparison. Yet, they suffer from several weaknesses. First, usage of four indicators is clearly insufficient to draw a complete map of corporate bankruptcy law. Staying at a too general level of analysis may lead to spurious interpretations. In France for instance, the rank of secured creditors in the absolute priority order varies with the outcome (liquidation or reorganization). Second, it would be misleading to stay at the country level when we know that several bankruptcy procedures can prevail within the same country. In UK for instance, four insolvency procedures prevail (administration, receivership, compulsory

[319] Equals 1 if the reorganization procedures impose restrictions (for instance, creditors consent).
[320] Equals 1 if the reorganization procedure does not impose an automatic stay of claims on the debtor's assets.
[321] Equals 1 if the secured creditors are ranked first in the absolute priority order (in case of piecemeal liquidation).
[322] Equals 1 if an official is appointed to manage the bankrupt company during reorganization.

liquidation, and creditor voluntary liquidation[323]), each of them being characterized by different features. Third, the aggregation of different binary indexes, even if mathematically feasible, is logically unacceptable as it sums heterogeneous indicators.

In this chapter, we try to augment previous studies which were conducted in the fields of Law and Economics on the topic of the design of corporate bankruptcy law. It is important to stress that our objective is to account for the content of the law and not on the manner in which it is enforced. Most of the previous studies computing legal indexes implicitly relied on the same assumption as they adopted the similar approach. Yet, as we are comparing two developed countries belonging to the same area (Europe), we can consider that some similarities might prevail regarding their economic, financial, and legal practices, even if the behaviours might vary across civil law and common law systems.

We propose here original indexes accounting for corporate bankruptcy law. These results come from legal templates that were sent to 13 national experts of corporate bankruptcy law, being either academics or practitioners in their respective country (three academics and four bankruptcy practitioners in France, two academics and four bankruptcy practitioners in UK). They were involved (1) in the production of the legal indexes (by filling/checking the templates), and/or (2) in the analysis of the bankruptcy files. Additional students were involved in the data collection process. The experts who were in charge of the filling of our legal templates were required to answer a set of "yes-no" questions regarding the content of corporate bankruptcy law, for each procedure. The double checking process was made anonymously. The whole process took place between March 2006 and November 2010. It was financed and supervised by *Fonds National de la Recherche* (Luxembourg) and *OSEO* (France).

Our approach aims at ameliorating some of the methodological issues mentioned previously. Namely, these improvements deal with (1) the country-level analysis, (2) the number of indexes, and (3) the aggregation of heterogeneous binary indexes.

[323] The receivership does not prevail anymore: the UK Enterprise Act 2002 put an end to the secured creditor's right to appoint a receiver.

Firstly, we build one set of indexes per bankruptcy procedure. We thus account for the fact that several procedures might prevail in the same country. In UK, we consider four procedures: (1) administration, (2) receivership, (3) compulsory liquidation, and (4) creditor voluntary liquidation. In France, we split our sample between (1) liquidation procedure ("*liquidation judiciaire*"), and (2) reorganization procedure ("*redressement judiciaire*"). We thus obtain a set of indexes, each of them being built on six procedures. This shift from a country-level analysis towards a procedure-level analysis has two advantages. First, we account for the specificities of procedures whose purposes (and resulting design) might differ. Second, we acknowledge that a ranking of countries is less informative than a comparative analysis of procedures that various stakeholders can use in their country. Indeed, in UK, the choice between receivership and administration is strategic and depends on the owned collateral.

Secondly, we make our analysis sharper by drastically increasing the number of indexes. We consider a set of 158 binary questions, each of them being equal to one or zero. Adding precision has obvious advantages. First, it helps in considering several classes of claimants (and not only the secured ones). Indeed, depending on their respective rights, the various creditors are not equally protected under bankruptcy. We isolate here five classes of creditors: (1) the employees, (2) the State, (3) the fixed secured creditors[324], (4) the floating secured creditors[325], and (5) the unsecured creditors. Second, using more indexes helps in capturing the complexity of the bankruptcy procedures that are, by nature, multidimensional. One can consider bankruptcy law as a set of state-dependant tools aiming at the resolution of governance conflicts after default. Describing such tools requires the use of numerous indicators. However, adding more indexes mechanically increase their heterogeneity and challenges the question of aggregation. This is the third methodological issue we address in this chapter.

Thirdly, our approach aims at reducing the heterogeneity of the legal indexes that are aggregated for the computation of composite indexes. In our view, considering bankruptcy law as a homogenous corpus of legal rules is unsatisfactory, and aggregating these rules altogether to obtain an average rank is even more misleading. Here, one needs a thorough analysis of

[324] i.e. the creditors having collateral(s) on a specific asset of the debtor (fixed charge).
[325] i.e. the creditors having collateral(s) on the total assets of the debtor (floating charge).

bankruptcy procedures to identify several major functional features of the bankruptcy codes. Precisely, we propose to define a finite set of *dimensions* attached to corporate bankruptcy law so that each one can be considered as a linear combination of binary and individual indexes. Thus, their aggregation is acceptable provided it is performed within each identified dimension. Now the question is: how can these dimensions, be identified? The economic literature on corporate bankruptcy provides several arguments that help in answering this question. We now present these arguments that will help us in defining *10 major dimensions of bankruptcy laws*, namely: (1) accessibility of the procedure, (2) exclusivity of the procedure, (3) cost of the procedure, (4) production of public information, (5) protection of the debtors' assets, (6) protection of the creditors (employees, State, secured creditors[326], and unsecured creditors), (7) coordination of the claims, (8) collective decision tools, (9) sanction of faulty managers, (10) orientation favouring liquidation (10a) against reorganization (10b). These dimensions are related to the process of resolving default. Indeed, the debtor and its creditors can resolve default by choosing between two alternatives: either by exploring informal solutions (private agreement), or by delegating this work to a judge (formal bankruptcy). Several arguments and counterarguments have been proposed to describe the advantages and the disadvantages of both ways of resolving default. On one hand, informal agreements are relatively fast, cheap and preserve confidentiality while, on the other hand, formal bankruptcy procedures can solve coordination issues, disclose public information, and preserve the debtor's value.

In the following sections, we detail the 10 dimensions mentioned above. Each of them is related to the role of the Law as an alternative way of resolving financial distress, when compared to private workouts.

6.2.1. Accessibility and Exclusivity of the Procedure (dimensions 1 and 2)

Default stems from the debtor's inability to respect the current charges deriving from previous commitments. Yet, default does not lead always to bankruptcy. To be initiated, a procedure needs the conjunction of two distinct conditions: first, the stakeholders having the power to trigger the procedure must wish to do it. Second, the debtor must be in financial (and/or

[326] Owning either fixed or floating collaterals.

economic) situation that justifies the opening of a legal procedure. In other terms, a bankruptcy procedure is "accessible" to the various stakeholders, provided (1) the legal solution is opened to them (and desired by them), and (2) the required criteria to trigger bankruptcy are met.

The optimal[327] situation is in between two polar cases. On the one side, the procedure should not be triggered too easily and/or too early so that the stakeholders cannot use the bankruptcy environment in their sole interests. From that perspective, such strategic use of bankruptcy is all the more likely to happen when the procedure is too much accessible (Delanney (1999)). On the other side, the triggering criteria should not be too restrictive, so that a wide set of stakeholders can turn to bankruptcy as a credible alternative to private attempts of renegotiation. In addition, inaccessibility of the procedures reduces the chances of bankruptcy being triggered at a time when opportunities of recovery are still present. Thus, an efficient bankruptcy procedure should be accessible *up to a certain level*, so that it can be triggered by those stakeholders having good incentives to turn to the legal solution (Taube (1984)), and at a time when the maximization of the value of assets is still feasible (White, (1989)).

To account for the "accessibility" of the procedure, we use 20 binary indexes (yes/no questions) related to (1) the triggering criteria related to the value of assets, (2) the types of difficulties that justify the opening of a procedure, (3) the stakeholders who are allowed to trigger the procedure, and (4) the creditors' opposition rights to the triggering. Appendix C1 lists all these indexes for the six encompassed procedures (administration, receivership, compulsory liquidation, creditor voluntary liquidation, French "liquidation judiciaire", and French "redressement judiciaire"). Each binary index equals 1 (respectively 0) whenever the answer to the question is "yes" (respectively "no"). Precisely, the "yes/no" questions are labelled so that the binary indexes take a strict positive value provided the answer reflects an *increase* in accessibility. For instance, when answering "*yes*" to the sentence "*unsecured creditor(s) can trigger the procedure*" means that the considered procedure is *more accessible* regarding this criterion. As these 20 questions account for the same dimension (i.e. accessibility), we consider them to be homogenous and aggregate[328] them to obtain an overall composite index reflecting such dimension. This

[327] i.e. maximizing the expected value of the debtors' assets.

[328] The aggregation is not weighted. Thus all the questions are considered to be equivalently important.

composite index, named "ACCESSIBILITY", is initially bounded between 0 and 20, and rescaled into a percentage.

Most of the papers on corporate default consider two main ways of resolving financial distress: private renegotiation and formal bankruptcy (Gilson, John, and Lang (1990), Jensen (1989) (1991)). Yet, once bankruptcy is triggered (i.e. when renegotiation has failed), the most common assumption is that the involved stakeholders cannot abort the procedure and resort to other ways of resolving bankruptcy. For instance, Franks and Nyborg (1996) model the UK bankruptcy procedure as a game with no solution of exit and/or change of procedure. Such approach contrasts with the observed legal practices, as several countries propose a menu of bankruptcy procedures (four in UK[329], two in France[330]) with – sometimes – the ability for the stakeholders to abort them, either by turning back to renegotiation or by switching to another procedure. Under the UK receivership, for instance, the appointing floating charge holder is given the ability to abort the procedure. We thus consider a procedure to be *exclusive* if it cannot be aborted easily so that it remains the sole way of resolving bankruptcy. To account for "exclusivity" of our six procedures, we consider three binary variables (see Appendix C1) that equal one if the stakeholders cannot abort the ongoing procedure to switch to another (private or legal) alternative. The sum of these three indexes leads to the composite index "EXCLUSIVITY" (in percentage).

6.2.2. Bankruptcy Costs and Information Disclosure (dimensions 3 and 4)

The arbitration between private agreement and formal bankruptcy is related to the Coasian approach of litigation. Haugen and Senbet (1978) (1988) studied the various ways to resolve default efficiently in a market solution so that the litigation costs accruing from the legal solution can be avoided. Consequently, the creditors should always turn the solution which increases their recoveries at the lowest cost (Gilson (1997), Wruck (1990)). Yet, such approach relies on the assumption that the legal solution is always more costly than the private one. Indeed, formal procedures involve direct (accruing out of the legal process for instance legal fees) and indirect

[329] Administration, receivership, creditors voluntary liquidation, and compulsory liquidation.

[330] Two bankruptcy procedures prevail under the 1994 French legislation "*redressement judiciaire*" and "*liquidation judiciaire*"). Since 2005, two additional procedures have been introduced: "*conciliation*" and "*sauvegarde*".

costs (arising out of foregone investment opportunities, loss of sales) which eventually have to be borne by the already distressed company and thus can shrink the overall recoveries. Some recent works (Lubben (2010)) questioned such assumptions, mainly for three reasons: first, the empirical measure of the costs incurred to resolve default is a challenging task[331], as private agreements are not always cheaper than formal bankruptcies. Second, it is wrong to consider the payment of bankruptcy costs to be a pure loss of money. On the contrary, the legal fees charged under bankruptcy are often related to audit procedures and verification of claims that produce information for the various stakeholders[332]. As observed by Webb (1987), "*bankruptcy costs are essentially verification costs" (p.286)*. Third, one can consider that the costs which are attached to a particular bankruptcy procedure mainly reflect the complexity and the sophistication of the solution that is offered by the law to reach an efficient solution.

The question of how big the bankruptcy costs are is fundamental as it questions the very existence of collective procedures in bankruptcy. Even if we provide later in the chapter some estimates of these costs in France and in UK, we do not primarily aim to measure them within the scope of building legal indexes. Again, the purpose of such indexes is to account for the content of the law. From that perspective, several elements in the law are related to these costs, and it is possible to identify the rules that are *likely* to increase the costs paid under bankruptcy. For instance, these costs should be higher *ceteris paribus*, if a *numerus clausus* limits the number of bankruptcy practitioners who are allowed to operate in the market. Such a limitation prevails in France so that liquidators and administrators do not work under perfect competition. The resulting effect should be an overpricing of bankruptcy files. This effect is captured by the question "*Do some barriers limit free entrance of the practitioners?*". Overall, we build six binary indexes, which aggregation result in the composite index "COSTLY_PROC" (in percentage).

[331] For instance, the measure of the direct costs of private workouts is a difficult task as this process is carried out with confidentiality. Nevertheless, some researchers have b een able to document these costs. Namely, Gilson, John and Lang (1990) examine the exchange cost for 18 offers which averaged at 0.6 % of the book value of assets.

[332] As quoted by Lubben (2010) : "*The wealth transfer argument depends on the odd belief that professionals would otherwise be sitting at home on the couch, but for chapter 11. But most who work on large chapter 11 cases are very talented, and quite employable, and could otherwise be working on mergers or bond offerings or loan agreements. These alternative tasks have real economic value, and professionals are routinely compensated for their work on such tasks, without much press or academic disparagement.*" (p.4).

Bankruptcy procedures are costly. In counterpart, they are non confidential procedures and disclose information to the creditors. Practically, information disclosure is facilitated through the implementation of audit procedures under the supervision of the Court. In France, for instance, the administrator in charge of the bankrupt company has 20 months to write and forward a report ("*bilan économique et social*") to the Court. This report contains detailed information on (1) the causes of default, (2) the market value of the assets, (3) the number of creditors and the value of their value of the claims, (3) the buyout proposal(s) (if any), (4) an assessment of the chances of recovery (etc.). Such costly state verification process is similar to the one described by Townsend (1979) and Gale and Hellwig (1985) regarding the theoretical justification of standard debt contracts[333].

The breach of confidentiality is justified as the debtor's financial commitments have not been fulfilled and the creditors might not receive their contractual payments. In that context, bankruptcy procedures should preserve as much value as possible in order to increase their expected recoveries (Blazy, Petey and Weill, 2010). One measure of increasing *ex-post* recoveries is to disclose public information to warn the creditors about the debtor's actual situation. From an economic point of view, information disclosure has opposite effects. On one hand, it increases the awareness of the creditors on the debtor's actual situation and might moderate type I and type II errors[334] when choosing between liquidation and reorganization. On the other hand, public procedures might have discrediting effects leading to the disengagement of key partners and/or to losses of investment opportunities (Sutton and Callahan (1987)). The fear of bankruptcy is more likely to take roots when financial markets are imperfect and suffer from lack of information. In that context, the disclosure of any new signals might be misinterpreted by the stakeholders (Campbell (1979)).

To account for the production of public information under our six bankruptcy procedures, we consider 11 binary indexes (yes/no questions, listed in Appendix C1) related to

[333] These contracts are efficient as they limit the occurrence of situations when the creditors have to check the actual value of the debtor's assets (here, the costly state verification process takes place only when the debtor cannot repay its debt anymore, which is the most common triggering criterion of formal bankruptcy).

[334] Creditors might commit type I errors if they liquidate the debtor's assets, whereas they are worth more under reorganization. On the contrary, creditors might commit type II errors if they reorganize bankrupt firms whose liquidation is desirable (see Fisher and Martel (2004) for empirical tests).

(1) confidentiality, (2) information and warning rights of the various creditors, (3) audit procedures, and (4) forecast accounting. The resulting composite index is rescaled in percentage and named "INFORMATION".

6.2.3. Protection of the Debtors' Assets and of the Creditors' Claims (dimensions 5 and 6)

When compared to private workout, bankruptcy provides a specific protective environment for both the debtor and the creditors. An efficient procedure should be able to preserve as much debtor's value as possible before a collective decision is made. As the bankruptcy process takes time, the debtor's assets might loose substantial value due to reputation effects, lost investment opportunities, and/or management failures. *Ceteris paribus*, the more the debtor's assets are protected under bankruptcy, the higher the recovery rates should be, irrespective of the final outcome. There are several ways to protect the debtor's assets. First, some of the assets that were sold prior to default might be recovered by the bankruptcy practitioner if the purpose of such sale was to impoverish the creditors (cf. "*période suspecte*" in France). Second, specific managerial rules may apply during the procedure to protect the assets (forced extension of previous contracts, supervision of the managers…). Third, various preventive rules taking place before default might preserve the value of assets before any bankruptcy (cf. "alert rights", account certification, interview of the managers…). According to Blazy, Petey and Weill (2010), the differences in prevention policies explain the observed differences in coverage rates[335] at the early stage of bankruptcy. To account for the legal rules that increase and/or facilitate the protection of the debtor's assets under bankruptcy, we build 10 binary indexes (see Appendix C1). Their aggregation leads to the composite index named "PROTECT_ASSETS" (in percentage).

The protection of the debtor's assets is related to efficiency (i.e. the maximization of the "size of the cake"). Another complementary question is related to repartition: i.e. how to "share the cake" between the claimants having various rakings in the absolute priority order? In other terms, why do bankruptcy codes define several classes of claimants wherein some enjoy more protection as compared to others? The literature provides two elements of answers (Baird and Jackson

[335] The "coverage rate" is defined as the ratio of the value of assets at triggering divided by the due claims.

(2007)): by granting priority, bankruptcy law acknowledges that (1) some creditors should be protected because they were cautious enough to take guaranties prior to default (White (1989), Davydenko and Franks (2008)), and (2) some other creditors should be protected because they hardly can renegotiate outside of bankruptcy (for instance, the employees: see Korobkin (1996)). Both types of creditors might benefit from seniority. Yet, depending on the procedure, seniority may be more or less protected under bankruptcy[336]. For each class of creditors, we consider 6 binary indexes (see Appendix C1) accounting for the creditors' ability to obtain additional payments outside of bankruptcy and to escape debt reduction and/or extended delays. We additionally take into account the time at which the claim originated, either before or after the procedure. The resulting composite indicators (in percentage) are named "PROTECT_EMPL" (employees), "PROTECT_STATE" (the State), "PROTECT_FIXEDSEC" (fixed secured creditors), "PROTECT_FLOATSEC" (floating secured creditors), and "PROTECT_UNSEC" (unsecured creditors). These indicators take higher value when the considered class of claimant is more protected by the Law.

6.2.4. Creditors' Coordination and Collective Decision Tools (dimensions 7 and 8)

Bankruptcy procedures can be viewed as a tool to coordinate between the creditors' competing interests and to help them in finding a collective solution that maximizes the debtor's overall value. Under the bankruptcy process, the need of coordination and of decision-making arises at two successive stages.

At the time of default, the distressed firm is likely to be dismantled through an anarchic creditors' run, which eventually reduces the value of the debtor's assets. This common pool problem has been widely addressed by Bulow and Shoven (1978), Gertner and Scharfstein (1990), and more recently by Longhofer and Peters (2004). By implementing various legal mechanisms (stay of claims and of individual proceedings, creditors' representation, creditors' consultation…), bankruptcy procedures help in freezing the creditors' individual right to sue the debtor and, more generally, in solving the arising coordination problems among them.

[336] In addition, by granting priority, bankruptcy law acknowledges that some creditors play a key role in the final decision. Such decision-making process needs time. From that perspective, "new money" claims (i.e. the ones that are born during the bankruptcy procedure) should be protected as they provide the required financing resources to prepare the decision. In most countries, new money benefits from a higher priority than other claims.

At the end of bankruptcy, the various procedures differ in the way of collectively making the final decision (voting rules, Court enforced solution, appeal rights…). Indeed, finding an agreement that leads to reorganization is more complex to attain when creditor with conflicting interests are numerous. Without coordination, the creditors might not reach an agreement and consequently select an outcome that does not maximize the overall recoveries. An important question can arise here as to how can this problem, be overcome. The first solution is to give the creditors the right to vote on the final outcome and to approve reorganization (for instance, France since 2005, and UK). Here, the creditors' decision power is maximized, but the final decision might depend on the capital structure. Indeed, as mentioned by Bergström, Eisenberg, and Sundgren (2002) and Morrison (2007), the more secured the creditors are, the lower is the likelihood of reorganization under bankruptcy systems that require secured (and unsecured) creditors to approve the reorganization plan. The second solution is to transfer the decision to a Court (France before 2005). Here, the creditors' decision power is minimized as it relies in the hands of one sole decision maker: on one hand, the final outcome should not depend on conflicting interests anymore, while on the other hand, types I and type II errors may arise if the primary objectives of the judge do align with the maximization of the debtor's assets.

To account for coordination and decision-making issues, we consider several aggregated indicators (in percentage). They are computed for each class of creditors: "COORD_EMPL", "DECISION_EMPL", (employees), "COORD_STATE", "DECISION_STATE", (the State), "COORD_FIXEDSEC", "DECISION_FIXEDSEC" (fixed secured), "COORD_FLOATSEC", "DECISION_FLOATSEC", (floating secured), "COORD_UNSEC", "DECISION_UNSEC" (unsecured). Each indicator is composed of 5 binary indexes on each class of creditors (see the listed questions in Appendix C1). Each index equals one (and zero otherwise) whenever the answer to the corresponding question is "yes", which represents an improvement in either the coordination of creditors or in their decision making power under bankruptcy.

6.2.5. Sanction of Faulty Managers (dimension 9)

The distinction between faulty managers and honest ones is an important and quite recent feature of the modern corporate bankruptcy codes. In the 16th century, in the city of Florence, Italy, a merchant who could not repay the creditors had his bench (*banca*) physically broken (*rotta*) so that (s)he could not sell his (her) wares anymore. Such practice (*la* "*banca rotta"*, which gave its name to "bankruptcy") had a double justification: first, it informed the creditors about the default of their debtor and, second, it was a punishment tool to prevent him from future business. Similarly in France, until the recent reforms, the effects of bankruptcy affected both the firm's and the manager's patrimonies: managers had to be punished whatever the origins of default, even if it was related to bad luck or to times of crisis. Here, the systematic punishment of managers was justified by their inability to fulfill the firm's financial commitments. However, this approach has been evolving over time. Nowadays, most of the contemporary legislations admit that default might derive from unfavorable environment. From that perspective, legal sanctions should apply to faulty managers *only*; whose bad behaviour has worsened the consequences of financial distress. Sanctions should be either criminal and/or pecuniary (the latter makes the manager pay for the firm's debt using his own patrimony). In a nutshell, moral hazard should be punished whereas bad luck should be forgiven: namely, honest and competent managers (and their patrimony) should be preserved from the consequences of bankruptcy. On the contrary, faulty managers should be punished individually.

One can wonder if applying legal sanctions onto the faulty managers is the solitary way of reducing the managers' incentives to moral hazard. Indeed, an adequate design of the debt contracts might be another solution with equivalent effects. For instance, following Bester (1985), one could argue that implementing personal guarantees on the manager's private wealth is an efficient way to reduce bad incentives: here, collateralization can help in discriminating between good and bad managers. Yet, the systematic use of such personal guarantees might lead to underinvestment. From that perspective, by punishing faulty managers only, legal sanctions reduce advantageously the incentives to moral hazard but without frightening the honest – but unlucky – managers (Sen (2007)). Naturally, implementing legal sanctions on faulty managers implies a costly state verification process. We consider such process as a counterpart of the

bankruptcy costs associated to the verification and audit procedures that take place under bankruptcy. For instance, in France, the Court can sanction managers if the administrator's report reveals faulty management. Here, the "fault" covers asset substitution, tricky behavior, and, more generally, any action that have worsened the debtor's financial situation[337].

To capture the importance of the sanctions of faulty management, we consider 5 binary variables accounting for the ways to supplant – or at least to control – the faulty and incompetent managers (see Appendix C1). We also consider the various sanctions that might be pronounced against them (obligation to personally repay the creditors, deprivation of the right to start a new business, fines, jail). The resulting composite indicator (in percentage) is named "SANCTION".

6.2.6. Orientation Favouring Liquidation Against Continuation (dimension 10)

As pointed out by Di Martino (2008), the protection of the debtor against the various creditors should be distinguished from the inclination towards liquidation or continuation. Let us consider first the protection of the debtor vs. the creditors: the bankruptcy procedures are more or less debtor / creditor-friendly depending on (1) the way they protect the various claims, (2) the decision power they grant to the different stakeholders, (3) the way they discharge the debtor, (4) the absolute priority order that prevails under bankruptcy, etc. Such features were captured by the previous dimensions that we discussed previously. Let us turn now the liquidation / continuation bias of corporate bankruptcy law. We need to consider another dimension related to the way the procedure drives the choice between liquidation and continuation. Indeed, even if the various creditors might have different opinions on such a choice, the ultimate decision mainly depends on the legal framework that prioritises one solution over the other. Precisely, some bankruptcy procedures (liquidation procedures in the UK, or immediate "*liquidation judiciaire*" in France) are fully dedicated to liquidation and do not offer any scope for reorganization. Some other procedures are fully dedicated to the elaboration of a continuation plan (cf. French "*redressement judiciaire*"). Last, some other procedures are flexible enough to preserve both

[337] French code n°85-98, 25th of January 1985, Title V, Art. 180 to 182.

solutions (under the UK administration for instance, the administrator is given a mission to either liquidate or reorganize the firm).

Depending on the considered legislation, bankruptcy procedures are more or less inclined to liquidation or reorganization. As mentioned by Berglöf et al. (2007), such inclination mainly depends on the countries. In the emerging market economies, liquidation biases are more common as reorganization procedures are more complex to implement than liquidation ones. Now turning to the developed economies, some profiles have been identified in the literature (Berglöf, Rosenthal and Von Thadden (2001)) wherein the US bankruptcy code if often viewed as a pro reorganisation system (as established by the Bankruptcy Act of 1898 and then, by the Bankruptcy Reform Act of 1978). Likewise, France is also considered to favour reorganization over liquidation. Precisely, the 1st article of the 1985 French bankruptcy law explicitly ranks the various objectives, in declining order: safeguarding the business first, then maintaining the firm's operations, and last discharging liabilities. Contrastingly, the regimes prevailing in UK and in Germany are considered to be more in favour of liquidation, either because they concentrate the power to decide within the hands of some secured creditors (UK receivership[338]), or because reorganization is an exceptional outcome (Germany).

Nevertheless, the recent legal reforms in the European western economies suggest a shifting trend favouring more reorganizations. Namely, UK and Germany engaged several reforms following that direction. In UK, Part 10 of the 2002 Enterprise Act specifies a new objective, "to facilitate company rescue" in addition to "produce better returns for creditors as a whole". Additionally, the former UK Receivership was abolished in 2003 as it was suspected to generate too many liquidations. In Germany, we observe a similar shift since the new bankruptcy code *Insolvenzordnung* (1994)[339]. While the German legislation keeps prioritising the repayment of creditors, the new German code sets an additional derogatory procedure (*Insolvenzplan*), allowing for continuation (provided the value of the debtor's assets exceeds the expected bankruptcy costs). This trend reflects to some extent the legislators' willingness to use

[338] The UK receivership allows a creditor (generally a bank) in possession of a floating charge, to appoint a receiver to protect its own interests.
[339] It was put into practice since the 1st of January 1999.

bankruptcy as a tool to promote reorganization in order to protect businesses and employment (Blazy et al. (2009)).

Our two last composite indexes (in percentage) account for the inclination towards liquidation (EASY_LIQ) and towards continuation (EASY_REORG). The former and the latter indexes are respectively composed of 13 and of 10 binary indexes (see Appendix C1). The indexes reflect (1) the main objectives of the procedure as they are stated by the Law, (2) the ability to force an outcome (liquidation, reorganization), and (3) the measures that are allowed by the procedure in order to achieve one specific outcome.

6.3. The French and UK Bankruptcy Laws

In this section, we present the six main corporate bankruptcy procedures prevailing in France ("*Loi sur le redressement judiciaire des entreprises en difficultés*", 1994) and in United Kingdom (*Insolvency Act*, 1986, and *Enterprise Act*, 2002). Both countries offer a menu of procedures to the stakeholders, depending on the debtor's situation, the types of claims, and the perspectives of recovery. Their analysis shows strong differences that should be reflected in our indexes and that are likely to impact on the creditors' recoveries.

6.3.1. French Bankruptcy Code

Three successive reforms were implemented in France. Initially, on the 25th January 1985, the French bankruptcy code settled two procedures dedicated to reorganization ("*redressement judiciaire*") or to liquidation ("*liquidation judiciaire*")[340]. The 1985 legislation explicitly prioritized reorganization over liquidation. Precisely, the 1st article of the 1985 French code ranks first the continuation of business, second the protection of employment, and third the repayment of creditors[341]. On 10th June 1994, the 1985 legislation was slightly reformed. First, the secured creditors now benefited from a higher rank in the absolute priority order in case of

[340] Before 2005, sales as a going concern were a part of "*redressement judiciaire*". Since then, they are viewed as a particular case of "*liquidation judiciaire*".

[341] The 1st article of the French bankruptcy law 10th of June 1994 explicitly promotes continuation over liquidation. In French, it states that "*la procédure est destinée à permettre la sauvegarde de l'entreprise, le maintien de l'activité et de l'emploi et l'apurement du passif. Le redressement judiciaire est assuré selon un plan arrêté par décision de justice à l'issue d'une période d'observation. Ce plan prévoit, soit la continuation de l'entreprise, soit sa cession. Lorsque aucune de ces solutions n'apparaît possible, il est procédé à la liquidation judiciaire.* ". This is the main justification for the opening of an observation period ("*période d'observation*").

liquidation. Second, prevention was strengthened after 1994. More recently, in 2005, bankruptcy law was reformed ("*loi de sauvegarde*", 26th July 2005): the 1985 original structure (and its hierarchy of objectives) has not changed but a new procedure ("*sauvegarde*") is added to the previously existing ones. This new procedures is close to "*redressement judiciaire*" but is dedicated to solvent firms which face difficulties. This reform is too recent to have reliable information on its macroeconomic impact. We thus restrict our research to the 1994 legal framework. [342]

The triggering of "*redressement judiciaire*" or "*liquidation judiciaire*" relies on the same criterion: when the value of liquid assets is less than due debts, the firm has to enter into the procedure rapidly (within 15 days[343]). Once the debtor enters the procedure, an observation period ("*période d'observation*") begins and lasts up to 20 months in order to assess the chances of recovery. Owing to this specificity, the French procedure provides additional time to elaborate a reorganization plan (if possible). Contrastingly, liquidation is the default solution, most of them being decided immediately[344] by the Court when the chances of recovery are obviously minimal.

During this observation period, there is a stay of claims. The manager of the bankrupt firm might stay in place with the help of an administrator (in the worst cases, (s)he replaces the manager). Meanwhile, a creditors' representative ("*représentant des créanciers*") is appointed to check the claims and the remaining assets. In case of liquidation, (s)he becomes the liquidator ("*mandataire liquidateur*") of the firm. During the observation period, the bankrupt firm has to keep on running the business: first, the maintenance of the previous contracts might be enforced, and, second, the new creditors (i.e. new money claims) are granted a higher position in the absolute priority order in case of liquidation.

The final decision lies in the hands of the commercial Court that decides either to liquidate (i.e. the procedure becomes "*liquidation judiciaire*") or to reorganize the firm (i.e. the procedure

[342] In addition to this set of procedures, several ways of strengthening prevention were introduced. Most of them are private renegotiations under the supervision of the Court. This is the purpose of "*règlements amiables*" (1984) and of "*conciliations*" and "*mandats ad-hoc*" (2005). These procedures do not deal with bankruptcy *stricto sensu*, as (1) the targeted firms are still solvent and (2) the default resolution is confidential and quite informal.

[343] This delay is extended to 45 days since 2005.

[344] I.e. without any observation period.

becomes "*redressement judiciaire*")[345]. Hence, creditors do not vote or play a significant role in the decision-making process. Such court-administered decision process might alleviate coordination problems between the creditors, but it might also generate inefficiencies if the Court's objectives systematically prioritize continuation over liquidation.

The absolute priority order is quite specific in France: especially, the last (2 months) unpaid wages benefit from a "*superprivilège*": whatever the outcome, these should be repaid prior to the other claims[346]. Regarding the other due claims, they are repaid successively following a specific priority order depending on the final outcome. In case of liquidation (and/or sale), the liquidation proceeds (and/or the sale price) is the basis for the creditors' repayment. The priority order is (from the highest to lowest rank): "*superprivilège*" claims, bankruptcy costs, new money claims, preferential and secured claims[347], and last, unsecured claims. In case of reorganization, all the creditors must be repaid equally[348]. The continuation plan states the extended delays (limited to 10 years) and the debt reductions (if any).

6.3.2. UK Insolvency Code

Until 2002, the UK corporate insolvency was ruled by the *Insolvency Act* of 1986. In 2002, it was reformed by the *Enterprise Act* that came into force in September, 2003. Among other important changes, this recent reform incorporated an additional objective: "to facilitate company rescue" (in addition to "produce better returns for creditors") [349].

The UK legislation offers the stakeholders a menu of procedures: liquidation (85% of cases according to *London Gazette*), administration (5%), and receivership (10%). The latter procedure does not prevail anymore since 2003[350]. Indeed, receivership had been increasingly considered as an inefficient procedure favouring too much liquidation (Armour and Mokal, 2005, and formerly, Aghion, Hart, and Moore, 1992,). In addition, a fourth procedure (CVA, for Company

[345] According to the Observatoire Consulaire des Entreprises en Difficultés (OCED), bankrupt firms are piecemeal liquidated in 95% of the cases, sold in 2.5% of the cases, and reorganized in 2.5% of the cases.
[346] The employees benefit from an public insurance system (AGS) if the firm's assets are insufficient to repay them.
[347] Since the 1994 reform, some secured creditors are repaid before new money claims, in case of liquidation.
[348] With two exceptions: "superprivilège" and small claims should be repaid first.
[349] This reform reflects a slight change towards the debtor's interests. However, the creditors are still well protected by the UK insolvency law, which is still considered as "creditor friendly".
[350] Since 2003, one had attended some substitution from receivership to administration procedures, which are more frequent now.

Voluntary Arrangement) exists which aims to ease informal renegotiation under the court's supervision. Yet, this latter procedure is not a bankruptcy procedure: it is closer to a workout and does not require default as a prerequisite for initiation.

Let us begin our discussion in detail, with the first procedure: Liquidation. As in UK, this is the most common outcome (even more frequent). There are 3 types of liquidation procedures: Compulsory Liquidation, Creditor Voluntary Liquidation and Member Voluntary Liquidation. Firstly, Compulsory Liquidation is the one which can prevail under a rather large set of circumstances[351]: illiquidity, future financial difficulties, no business for more than 1 year, and/or less than 2 associates in the business. Petition for Compulsory Liquidation can be presented either by the creditors or by the debtor. As can be interpreted literally, second and third types of liquidations are be triggered voluntarily. Depending on the debtor's individual situation, such procedure is either Creditor Voluntary Liquidation, or Member Voluntary Liquidation. Creditor Voluntary Liquidation takes place when the debtor itself decides to liquidate the firm, as it cannot repay the firm's debts anymore and has become insolvent[352] while on the other hand Member Voluntary Liquidation happens when the shareholders convene to liquidate: at this point, the firm has sufficient assets to pay off its liabilities[353] and the creditors do not need to be notified. Thus, we exclude Member Voluntary Liquidation from the analysis as such this procedure has nothing to do with default companies. For each procedure, a liquidator is appointed. Most creditors are subjected to automatic stay of their claims. However, some secured creditors might be exempt from it. The liquidation ends with piecemeal liquidation or sale as a going concern. Once the liquidation process is terminated, a priority order of repayment applies: first, the bankruptcy costs, second and third the secured and preferential creditors, fourth the unsecured creditors.

The second procedure is administration, which is a way to reorganize the firm, or to prepare a CVA with its creditors, or to plan liquidation[354]. An administrator is appointed by the court: (s)he

[351] See section 122 of the Insolvency Act 1986.

[352] It is noteworthy that – despite its misleading name - , CVL cannot be initiated by the creditors

[353] The directors then issue a statutory declaration under section 89 of Insolvency act (1986) that the company is solvent. After this, it is mandatory for the company to pay off all its debts within a period of 12 months.

[354] Section 8(3) of Insolvency Act 1986 lays down the purposes for making an administration order. These are: (1) the survival of the company and the whole or any part of its undertaking as a going concern, (2) the approval of a voluntary arrangement, (3) the sanctioning under section 425 of the Companies Act of a compromise or arrangement between the company and any such persons as are mentioned in that section,

replaces the manager(s) and has the duty to protect all the interests at stake (debtor's and creditors'). The individual pursuits are suspended during administration. The procedure can be triggered by the debtor or by the creditors. Two conditions are needed to enter administration: the company should be illiquid (or insolvent), the administrator's mission[355] should be reachable. Eventually, the administrator prepares either a reorganization plan (8% of cases, according to Homan, 1989), or prepare a CVA (11%), or organize liquidation (45% as piecemeal liquidation and 36% as sale as a going concern). In case of reorganization, the administration ends with the vote of the creditors who endorse either accept or reject the plan. Consequently, the creditors are not passive in the decision-making process (even if but they stay under the supervision of the court that might impose another solution if the plan is rejected by them).

The third procedure is receivership. It is the most specific one. It had been applicable until 2003 but was abolished thereafter[356]. It is not a mere collective procedure. Indeed, it gives the secured creditors in possession of a *floating charge*[357] (the appointer) the right to appoint a receiver[358], whose mission is to prioritize and protect the appointer's interests. Consequently, receivership leads to liquidation[359]. Under receivership, the absolute priority order of repayment ranks decreasingly (1) secured and preferential creditors, (2) floating charges, (3) liquidator's fees (if receivership leads to liquidation), and (1) junior creditors. Receivership has been suspected to be costly and to undermine the recoveries, as the receiver has no incentives to manage the procedure in the unsecured creditors' interests (Armour, Hsu, Walters, 2008).

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(4) a more advantageous realization of company's assets that would be effected under liquidation. Enterprise Act 2002 streamlined the old administration procedure and brought some major changes in its provisions. Specifically, schedule B1 was inserted in the Insolvency Act 1986 with effect from 15th September 2003. The new purpose of administration is to achieve one of the following objectives: (1) rescuing the company as a going concern, (2) achieving a better result for company's creditors on the whole than would be likely if the company were wound up, (3) realizing property in order to make a distribution to one or more secured or preferential creditors.

355 As described in the "administrative order".

356 European Insolvency Regulation that came into effect from 31st May 2002 provides for collective proceedings to open in all EU member states. Receivership failed to meet this European criterion as it was not a collective procedure. Finally, the Enterprise Act 2002 put an end to the secured creditor's right to appoint a receiver.

357 The floating charges are not attached to one specific asset: the value of the assets they encompass may fluctuate over time. When the administrative receivership is triggered, the value of the assets is crystallized. Let's note that some charges may be fixed charges as well, provided the repayment basis is attached to one specific asset.

358 Or an administrative receiver if (s)he manages the firm at the same time.

359 Thus, selecting the type of collaterals (i.e. traditional ones vs. floating charges) is a strategic decision for the creditor's point of view. On the one hand, floating charges enables their owner to escape a collective procedure, but on the other hand, they do not grant a very high rank in the absolute priority order.

6.4. Using Legal Indexes to Compare the French and UK Bankruptcy Laws

The preceding section has described in a nutshell the French and UK bankruptcy procedures. We now use our legal indexes to analyze the six procedures prevailing in France ("*redressement judiciaire*", "*liquidation judiciaire*") and in UK (administration, receivership, compulsory liquidation, voluntary liquidation). The use of legal indexes helps in highlighting the procedures' characteristics (strengths / weaknesses) that are most noteworthy. We first turn to univariate statistics showing the values of the indexes for each procedure (Tables 6.1a and 6.1b).

Table 6.1a. Legal indexes on the French and UK bankruptcy procedures (part 1/2)

	Accessibility of the procedure	Exclusivity of the procedure	Costly procedure	Production of public information	Protection of the debtor's assets	Sanction of faulty management	Ease of liquidation / sale	Ease of reorganization
French "redressement judiciaire" (1994)	55%	100%	33%	82%	100%	100%	62%	70%
French "liquidation judiciaire" (1994)	55%	100%	33%	82%	90%	100%	69%	0%
UK Receivership	50%	33%	67%	100%	50%	40%	38%	0%
UK Administration	65%	67%	67%	100%	60%	60%	38%	50%
UK Compulsory liquidation	45%	100%	17%	91%	80%	100%	69%	0%
UK Voluntary liquidation	45%	67%	17%	91%	80%	100%	46%	50%

Source: the Authors' calculations

Table 6.1b. Legal indexes on the French and UK bankruptcy procedures (part 2/2)

	Employees			State			Fixed Secured Claims			Floating Secured Claims			Unsecured Claims		
	Protec-tion	Coordi-nation	Decision power	Protec-tion	Coordi-nation	Decision power	Protec-tion	Coordi-nation	Decision power	Protec-tion	Coordi-nation	Decision power	Protec-tion	Coordi-nation	Decision power
French "redressement judiciaire" (1994)	100%	60%	20%	33%	100%	40%	67%	80%	20%	50%	80%	20%	33%	80%	20%
French "liquidation judiciaire" (1994)	100%	60%	0%	33%	80%	20%	67%	80%	0%	50%	80%	0%	67%	80%	0%
UK Receivership	67%	60%	20%	50%	60%	20%	100%	20%	60%	83%	60%	80%	50%	60%	20%
UK Administration	50%	80%	40%	33%	80%	40%	83%	80%	40%	33%	80%	40%	17%	80%	40%
UK Compulsory liquidation	17%	60%	20%	17%	60%	20%	100%	20%	40%	67%	0%	40%	17%	80%	20%
UK Voluntary liquidation	17%	60%	20%	17%	60%	20%	100%	20%	40%	67%	0%	20%	17%	80%	40%

Source: the Authors' calculations

One may note that, in Table 6.1a, the legal indexes for French procedures take almost similar values. This is not unexpected, as the two French procedures share several features in common (especially the way they are triggered and managed). French "*liquidation judiciaire*" and "*redressement judiciaire*" mainly differ in their outcome and in the associated repayment order.

On the contrary, UK procedures are quite different in their characteristics, as reflected by their indexes.

We first consider the legal index ACCESSIBILITY. The UK administration is the most accessible procedure, when compared to the others (especially the UK liquidation procedures). *Ceteris paribus*, administration is easier to trigger and is accessible to a wider set of stakeholders. As a consequence, the parties can revert to the legal solution if the attempts to privately renegotiate fail. Now turning to the EXCLUSIVITY of the procedure, we notice that the French procedures are more exclusive than the UK ones (except UK compulsory liquidation). As a consequence, the French bankruptcy code can be viewed as more "irreversible" than other procedures, in the sense that, once triggered, the legal solution is hard to abort and coming back to the private solution is more difficult.

When considering corporate bankruptcy law as a means to generate INFORMATION, we observe that the indexes of both countries show rather high values (bigger than 80%). Thus, in both countries, entering bankruptcy breaches confidentiality. Yet, the UK procedures show higher values than for France. From this perspective, the creditors are more protected in UK as they benefit from a more transparent legal environment. On the contrary, the debtor might suffer from lack of confidentiality and incur opportunity costs.

The protection of the assets (PROTECT_ASSETS) is a core feature of corporate bankruptcy laws. Indeed, by holding the environment constant, if a procedure is efficient in protecting the debtor's assets, it should generate more recoveries for the pool of creditors. We observe that the design of the French procedures is relatively more protective of the debtor's assets. On the contrary, UK receivership is less protective. Overall, it is interesting to see that the various procedures do not equally protect the debtor's assets. This should generate significant differences in the overall recovery rates and confirm the idea that choosing one procedure against another is a strategic choice.

The SANCTION of faulty management is another key dimension of corporate bankruptcy laws. If we follow the assumption that such sanctions are anticipated by the managers, one can expect

that the legal environment has ex-ante effects onto the managerial behaviours taking place before default. From that perspective, French procedures and UK liquidation procedures are the most severe ones against faulty managers. At this stage of the analysis, let us remind that we focus on the content of the law only, and not on the way the law is enforced (especially, a procedure might contain lots of chapters dealing with sanction, but such sanctions might not be effective if the Courts are clement towards managers). That being said, it is not surprising to observe that liquidation procedures are more severe against faulty managers as liquidation generates additional costs relatively to reorganization (social costs, reputation costs, systemic costs, dominos effects…).

Another difference between liquidation and reorganization procedures is the way they facilitate LIQUIDATON or REORGANIZATION. Here, without any surprise, we observe that all the procedures are in coherence with respect to their objectives. Precisely, the procedures that are oriented toward liquidation facilitate more liquidation than reorganization. Yet, some of them do not show a big imbalance between the two possible outcomes (namely, the French "*redressement judiciaire*", the UK administration and the UK voluntary liquidation).

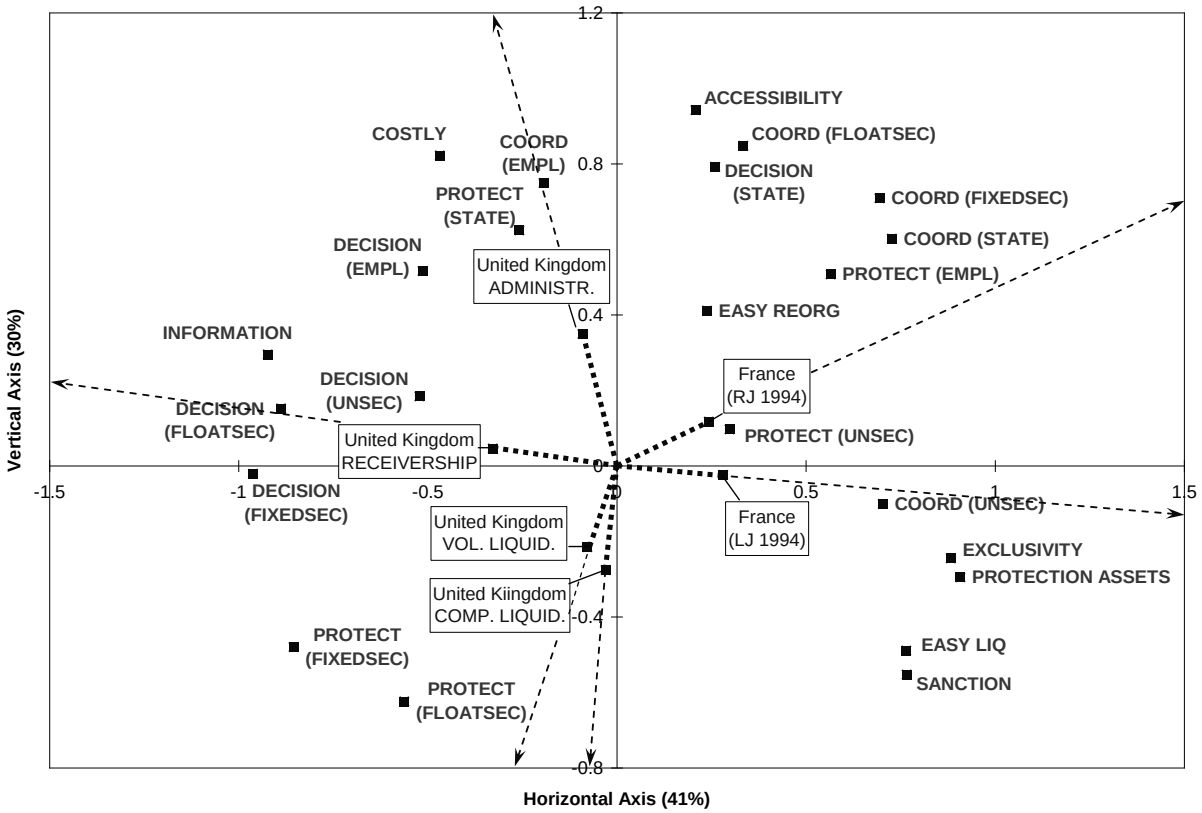
Table 6.1b shows, for each type of creditor, the values of the legal indexes accounting for PROTECTION, COORDINATION and DECISION. We confirm that the French legislation is more protective of the employees' interests and prioritizes social goals. This finding is coherent with the ranking of objectives, as stated by the 1st article of the 1985/1994 French bankruptcy law. On the other hand, in UK, the (fixed or floating) secured creditors are relatively more protected under receivership, compulsory liquidation, and voluntary liquidation. As most of the secured creditors are bankers, one can predict that such orientation of the UK law might generate higher recovery for the banks (Davydenko and Franks (2008)). The scenario however changes with respect to unsecured claims: the UK bankruptcy procedures (except receivership) show quite low protection indexes for them. On the contrary, unsecured creditors seem more protected in France, especially against delays or repayment and debt reduction. Most of the unsecured creditors are suppliers (i.e. other companies). Again, this is coherent with the orientation of the French legislation prioritizing the protection of business. When considering coordination in UK, it appears that liquidation procedures do not provide strong coordination tools to the secured

creditors. This contrasts with the situation of the other creditors (employees, State and public claims, unsecured creditors) who benefit from more coordination, whatever the considered procedure. Overall, receivership and administration equally coordinate the various creditors. In France, the coordination indexes are strong and quite balanced: all the classes of claimants benefit from a comparable level of coordination. Last, we turn to the indexes relative to decision. The situation of France contrasts with the UK. Indeed, the lowest values for decision are observed for "*redressement judiciaire*" and "*liquidation judiciaire*". This is a direct consequence of the absence of voting procedures in France: the final decision lies in the hands of the Court, so that the decision power of creditors is minimized.

Tables 6.1a and 6.1b do not account for the combined effect of the 10 indexes. We then turn to multivariate approach and perform principal component analysis (PCA) to draw a mapping of the six procedures. Graph 6.1 provides the result of this analysis which explains 71% of the initial inertia[360]. The first axis (41% of inertia) mainly opposes the French and UK procedures and the second axis (30%) mainly opposes liquidation against reorganization procedures. Each arrow shows a direction indicated by one particular procedure. The variables used to compute the PCA are the legal indexes. They are also displayed in the same graph. Thus, the interpretation of the PCA mapping is straightforward: an index is higher (respectively lower) for the procedure(s) that indicate(s) a location close to them. For instance, the indexes COORD_UNSEC, EXCLUSIVITY, PROTECT_ASSETS, EASY_LIQ, and SANCTION *altogether* take relatively higher values for French "*liquidation judiciaire*" than for other procedures, especially the UK ones.

[360] i.e. the original dispersion of the scatter-plot.

Graph 6.1: Mapping of the French and UK bankruptcy procedures (component analysis)



Source: the Authors' calculations

We observe several interesting features on the United Kingdom. Administration – which is a quite sophisticated procedure as it follows multiple objectives – shows the highest COSTLY_PROC index. Such a costly procedure may be less attractive but, on the other side administration appears relatively accessible to all the stakeholders. Administration and receivership have frequently been compared together. Indeed, since the abolishment of receivership in 2003, the number of administrations has increased, which probably reflects a substitution effect between both the procedures. Yet, administration and receivership show several differences. On one side, administration preserves the decision power of public claims and of employees' claims, and strongly coordinates them. On the other side, receivership provides more decision power to the secured creditors. This is a direct and natural consequence of the bank-friendly inclination of receivership. Yet, interestingly enough, this procedure remains transparent to all the stakeholders as it shows a high INFORMATION index that makes it comparable to administration. In that view, receivership is actually a collective procedure as it

shares information beyond the sole appointer's interests. Last, (compulsory and voluntary) liquidation procedures are quite close to each other. They show higher SANCTION indexes than the other UK procedures. In addition, they provide more protection to the secured claims (fixed and floating). This inclination towards the secured-creditors' interests has a cost, as it exhibits a low level of protection for the employees, the public claims, and the unsecured creditors. This might impact on efficiency: some of the creditors cannot get secured either because their bargaining power is low outside bankruptcy (employees) or because they can hardly take collaterals to protect their claims (trade creditors).

The French legislation also shows interesting characteristics. First, the coordination of secured claims, public claims, and unsecured claims is higher in France than is in UK (this is less true for the employees, but they take advantage of other types of protection, especially in terms of privilege[361]). Yet, these stronger coordination mechanisms are compensated by weaker decision mechanisms. Thus, entering the French procedures has two opposite effects (that might impact on the incentives to trigger bankruptcy): on the one hand, the creditors benefit from good coordination that should reduce the common pool problem, but on the other hand, they are excluded from the final choice that finally affects their recoveries. In addition, the French procedures are characterized by a stronger protection of the debtor's assets. This is a core aspect of the French legislation that has been prioritizing prevention and post-default conservatory measures that aim to preserve the debtors' asset and, consequently, the chances of reorganization.

We now wonder if these differences between the procedures are sufficient to explain (or not) the differences in the recovery rates that are observed on each procedures. We then need to use an additional set of data coming from bankruptcy files in France and in UK. This is the purpose of the two subsequent sections.

[361] Cf. "super-privilège des salaries".

6.5. The Dataset on Recoveries in UK and France

Data were manually collected from 833 bankruptcy files for the period 1993-2005 for France, and for the period 1998-2005 for the United-Kingdom (the time repartition of our sample is shown in appendix C2). The English data are slightly more recent for three reasons: first, they were already stored in electronic format[362] so that the data collection process was quicker to undertake. Second, we could not extract too many French files for year 2005 as it was a transition year in France (between the old and the new legislation). Third, we had to exclude from the sample the very recent files as we needed to work on closed files only (so that the computation of recovery rates is reliable and definitive). As the covered period is quite long (more than 10 years), we control for macroeconomic shocks by introducing in our regressions the annual growth rate of GDP.

The data on France were collected at the Commercial Court of Paris (*Tribunal de Commerce de Paris*). As the French bankruptcy procedure is mainly carried out under the supervision of the court, data might not fully reflect the countrywide application of the bankruptcy code. Additionally, local conditions might have some influence on reorganization decisions. However, we assume that this potential geographic bias is marginal when compared to the international differences that our study focuses on.[363] The bankrupt firms were identified using the BODACC[364] that records each new bankruptcy judgement. English data were collected from the Companies House web-database (Insolvency Service). This database collects the main documents of the bankrupt firms located in Greater London, Yorkshire, North, North West, East Midlands, East Anglia, Rest of South East, South West, West Midlands, Wales and Scotland. The bankrupt firms were identified using the bankruptcy filings announcements published in the "London Gazette".

Despite some formal differences, the bankruptcy files in both countries contain similar information, which allowed us to collect data using a common template (see appendix C4). The main available data are: (1) identification of firm (age, legal form, sector, number of employees,

[362] Source: Insolvency Service and Companies House.

[363] A comparison of our sample with the characteristics of French corporate bankruptcies shows little differences in terms of structural dimensions: size, sector, yet our sample entails slightly more LTD firms compared to France.

[364] *Bulletin Officiel des Annonces Civiles et Commerciales*.

part of a group, duration of the procedure); (2) the cause(s) of default (these causes were coded into 51 dummies which were further classified into 7 groups: outlets, strategy, production, finance, management, accident, and macroeconomic environment[365]: see appendix C3); (3) the coverage rates (i.e. the market value of assets divided by the due debts); (4) the estimated value of assets at the time of bankruptcy; (5) the amounts recovered by the creditors; (6) the direct bankruptcy costs[366].

Our dataset has the following breakdown for the six bankruptcy paths: 164 French "*redressements judiciaires*", 100 "*liquidations judiciaires*" (excluding sales[367]), 199 UK administrations, 198 receiverships, 100 compulsory liquidations, and 72 voluntary liquidations (to our knowledge, no previous studies on the UK had access to liquidations files). Such distribution of the sample does not reflect the actual breakdown between procedures in each country. Indeed, in order to have robust estimates in the subsequent analyses, we need to use a sufficiently high number of observations *for every procedure*. However, if we had the same structure as the national one, the samples would have exhibited excessive imbalance towards liquidation. Yet, to rebuild the original national structure, our estimations weight the observations by using each country's actual repartition of procedures for the given period[368].

Both samples are made of young SMEs. The average firm's age lies between 8 and 17 years for both the countries (the liquidated firms being younger than the others). The bulk of the sample is made of limited liability companies (on an average ranging between 90% – 100%). The number of employees was available for the French sample only: the liquidated firms in France are on an average smaller (12 employees) than the reorganized ones (26). Additionally, in France, most of the firms do not belong to a group (more than 90% of them), while this figure is in contrast with the percentages applicable to UK firms where 23% and 28% of the companies entering administration (resp. receivership) are a part of group. On the other side, all

[365] We built 7 dummy variables equal to 1 if there is at least 1 cause identified in a given category and 0 elsewhere. A few files miss information on the cause(s) of default. As such information is critical, we consider them as missing data and remove them from the econometric models.

[366] The UK files contain direct information about bankruptcy costs, which mainly correspond to the administrator's fees. For France, this information is not displayed in the bankruptcy file. However, as bankruptcy costs are precisely defined by a legal formula based on observable characteristics (recovered amounts…), costs could be reconstituted using the regulatory formula and validated by a bankruptcy practitioner.

[367] Sale as a going concern is not part of "*liquidation judiciaire*" until 2005, but part of "*redressement judiciaire*".

[368] Individual weights are 5% for "*redressement judiciaire*", 95% for "*liquidation judiciaire*", 5% for administration, 10% for receivership and 30% for compulsory liquidation, and 55% for voluntary liquidation.

the firms being liquidated in UK do not belong to a group. We now consider the market value of assets at triggering[369]. The French figures look similar between both the procedures: the most important accounts, in percentage of total assets, are receivables (from 23% to 36%), tangible assets (around 25%), intangible assets (around 13%), and cash (less than 7%). The UK figures are quite different: receivables account for more than 36% (to 44%) of the total assets. The liquidated firms show high values of cash (from 27% to 38%) which is in contrast with the administration and receivership files (less than 5%). The latter files show higher values of tangible assets (around 40%).

The various bankruptcy procedures differ considerably in their scope and in the types of rights they confer to the creditors. We thus focus on the main output of such procedures: the creditors' recovery rate, which can be considered as a proxy of the ex-post efficiency of bankruptcy law; *ceteris paribus*, a higher debtor's value should generate more recoveries. These recoveries strongly depend on the final outcome: under liquidation (or sale), the recoveries come from the liquidation (or sale) price. Under reorganization, the plan contains a provisional schedule of payments[370]. As a consequence, the actual recoveries depend on the success of the plan. For the French data, the use of external databases over the period[371] makes it possible to identify the companies whose reorganization plan failed or ended successfully: we observe that 89% of plans are successful. If the reorganized company defaults again, subsequent failure signifies that future recoveries are expected to be null. For the other successful plans, we discount the future recoveries using the French Treasury term structure. For UK data, we do not observe reorganization plan as the entire files end either in piecemeal liquidation or sale.

Table 6.2 shows the recovery rates for each type of procedure and for each class of creditors. The total recovery rate shows noticeable differences between the procedures. The higher value (46%) is observed for the French "*redressement judiciaires*". Then, come receiverships (30%), administrations (21%), and liquidation procedures. It is noteworthy that UK liquidations show

[369] This is the estimated value from the administrator's or the manager's point of view. We additionally have the final verified value of the assets that enters in the computation of the recovery rates.
[370] In France, the plan – as designed by the court – cannot force debt forgiveness but can impose longer delays.
[371] Sources: INSEE, "*série nationale des défaillances d'entreprises*", BODACC.

poor total recovery rates (9% for compulsory liquidation, 13% for voluntary liquidation): these values are in contrast with the higher rate for French liquidations (20%).

Table 6.2: Recovery rates, coverage rate, and structure of claims

Variables	France		United Kingdom			
	Redressement judiciaire (incl. sales)	Liquidation judiciaire (excl. sales)	Administration	Receivership	Compulsory liquidation	Voluntary liquidation
Sample size	*164*	*100*	*199*	*198*	*100*	*72*
Recovery rate (total)	**45.8%**	**19.6%**	**20.5%**	**29.7%**	**8.6%**	**12.9%**
Recovery rate (junior)	38.2%	3.1%	3.5%	1.6%	7.7%	4.3%
Recovery rate (preferential)	56.9%	30.8%	42.0%	31.2%	17.2%	18.7%
Recovery rate (secured)	51.9%	40.3%	38.7%	43.7%	16.2%	25.3%
Recovery rate (new money)	62.6%	27.3%	98.7%	100.0%	n.s.	100.0%
Coverage rate	66.7%	46.4%	31.8%	35.8%	15.4%	20.8%
Due claims (amount in K€)	1743	760	1788	3390	283	658
% of junior due claims	45.9%	32.9%	53.6%	35.6%	91.0%	69.5%
% of preferential due claims	33.9%	55.8%	0.7%	5.7%	3.8%	10.3%
% of secured due claims	15.2%	7.6%	31.6%	45.8%	5.1%	10.6%
% of new money claims	2.3%	0.7%	6.1%	7.6%	0.0%	4.2%
% of bankruptcy costs	2.7%	3.1%	8.0%	5.3%	0.1%	5.4%
Duration of the procedure (in months)	11.6	3.1	19.4	38.9	26.4	35.5

Source: the authors' calculations

The questions we address in this chapter are the following: *what can explain such differences between the countries? Is the design of bankruptcy Law a significant explanation? If yes, which features increase (or not) the total recovery rate?* To answer these questions, we must control for several factors.

Firstly, the recovery rate mechanically depends on the situation of the firm at triggering, and more precisely, on the value of its assets. To capture this effect, we use the coverage rate which measures the value of assets (at triggering) divided by the total due amounts. We observe in the sample that the coverage rate takes higher values in France (67% for "*redressements judiciaires*" and 46% for "*liquidations judiciaires*"). Thus the French bankrupt firms are in relative better shape when they enter the procedure than the UK ones[372].

[372] Several factors might explain this, especially, the effects of prevention policy that is quite developed in France. All remaining things being equal, a higher prevention should preserve more value before bankruptcy is triggered.

Secondly, the structure of claims (secured, unsecured, new money…) might impact on the total recovery rate. Especially, one can expect the secured creditors to monitor the debtor more as compared to the unsecured ones. In addition, the more secured the assets are, the less value they should loose, as collateralized assets cannot be sold as easily as uncollateralized ones. Table 6.2 shows the weight of each class of creditors in percentage of total due claims. We observe that the part of junior claims is generally lower in France (between 33% and 46%) as compared to UK. Especially, UK liquidations show the highest share of junior creditors (between 70% and 91%). On the contrary, the French claims are mainly owned by preferential creditors (between 34% to 56%). This mainly reflects the protection of social claims (employees) and of public claims (State) that benefit from numerous privileges ("*superprivilège des salariés*", "*privilège general des salariés et des créances publiques*"). The share of secured creditors (mainly banks) is on an average higher in UK (especially for administration (32%) and for receivership (46%)) than in France (less than 15%).

Thirdly, the differences in total recovery rates might reflect differences in bankruptcy costs. The share of direct bankruptcy costs differs from one procedure to another. To measure this, Table 6.2 discloses the percentage of direct bankruptcy fees out of the total claims. The most expensive procedures are administrations (8.0%), voluntary liquidations (5.4%) and receiverships (5.3%). The less expensive ones are "*liquidations judiciaires*" (3.1%), "*redressements judiciaires*" (2.7%), and compulsory liquidations (0.1%). We additionally compute the duration of the procedure. Indeed, as previously suggested by White (1989), duration can be viewed as a proxy of cost of the procedure, or the complexity of the case, or the attempts to keep the firm alive and in view of this, the delay evidently suggests attempts of renegotiation. However, it can also be a proxy of lengthy court and administrative procedures demanding a series of formalities to be fulfilled at the time of trigger or at the time the firm is finally being dissolved. In our sample, we observe differences in the durations across countries. France shows the fastest procedures (less than one year on average)[373].

[373] However, the two countries differ in their practices and there can be a considerable delay before the case is closed from an economic point of view and the formal closing by a court. So, we consider the time necessary for creditors (or a court) to make a decision on the outcome of the procedure.

Fourthly, once the three first effects (coverage rate, structure of claims, bankruptcy costs) have been accounted for, we consider that the fourth explanation of the differences between the total recovery rates can be attributed to the effects of the Law. In other terms, we first have to control for these three first effects (plus some other environmental variables). Then, if significant difference between the total recovery rates remains, this should reflect some differences in the design of the procedure that might be more or less efficient in generating recoveries. To capture such effects, we have to switch from univariate approach to multivariate analysis and regressions. In the next section, we shall see how this is accomplished.

6.6. Using Legal Indexes to Explain the Recoveries in France and UK

We use regression analysis to test the variables that explain the differences in total recovery rates. We split between control variables and test variables, the latter being related to the procedures and to the legal indexes.

We first control for several variables. First, we use the coverage rate to control for the quality of the assets at triggering. It compares the initial value of assets to due claims. Second, to control for the structure of claims, we compute the percentage of secured claims, which mainly represents the weight of bankers' claims. Third, we control for bankruptcy costs, and mainly the indirect ones[374] through the duration of the procedure. In fact, the duration itself is a misleading indicator as it is strongly related to the procedure. In fact, it is more relevant to use the duration *in excess*: for each procedure, some files are more complex or difficult to deal with, so that they last longer than the average duration. Thus, for each file, we compute the difference between the duration of such file and the average duration that is observed on all the files belonging to the same procedure (in log). Fourth, we encompass the causes of default that have played a role in the bankruptcy process. For each category, (strategy, production, finance, management, accident, outlets, macro.), we built a dummy variable equal to 1 if a cause related to such category was mentioned in the bankruptcy file[375] (and 0 elsewhere). Fifth, we control for a set of variable accounting for the firm's characteristics: age (in log), limited liability (dummy variable), group belonging (dummy variable), percentage of estimated cash in the total assets, and total assets

[374] Direct bankruptcy costs are already taken into account in the analysis as the total recovery rate is net of such costs.

[375] Let us stress the fact that all the causes should be mentioned here as they come from the report of the administrator who checked and reported all of them.

(thousands of euros, in log). Last, we control for the sector (industrial dummy) and for the macroeconomic growth (increase rate of national GDP).

Then, we test the impact of corporate bankruptcy law onto the total recovery rate (our explained variable). From this perspective, we build successive models. In the first set of models, our explanatory variables are the bankruptcy procedures. Each procedure ("*redressement judiciaire*", "*liquidation judiciaire*", administration, receivership, compulsory liquidation, and voluntary liquidation) is a dummy variable that enters into the regression equation: a positive and significant coefficient indicates that the considered procedure significantly increases (relatively to the others) the total recovery rate. Table 3 reports the estimations.

Table 6.3: Bankruptcy procedures as explanatory variables of the total recovery rate

Variables	Dependant variable: total recovery rate					
	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**
Constant	0.19903*** 0.0007	0.21721*** 0.001	0.21177*** 0.0004	0.22493*** 0.0002	0.22131*** 0.0002	0.19806*** 0.0009
"Redressement judiciaire"	0.19951*** <.0001					
"Liquidation judiciaire"		-0.00203 0.9173				
Administration			-0.02955 0.3724			
Receivership				0.03023 0.3102		
Compulsory liquidation					-0.05047* 0.0615	
Voluntary liquidation						-0.0828*** 0.0054
Coverage rate	0.13017*** <.0001	0.13419*** <.0001	0.1327*** <.0001	0.13671*** <.0001	0.13576*** <.0001	0.13169*** <.0001
% of secured debts	0.25756*** <.0001	0.24323*** <.0001	0.25096*** <.0001	0.22491*** <.0001	0.23911*** <.0001	0.25*** <.0001
Duration of the procedure (relative to average)	0.00753 0.4075	0.00506 0.5857	0.00472 0.6116	0.00592 0.5252	0.00613 0.5088	0.00866 0.353
ln (age)	-0.00184 0.8028	0.0007 0.9267	0.00087 0.9082	0.00054 0.9422	0.001 0.8939	0.00182 0.8074
Limited liability	-0.16005*** 0.0005	-0.19771*** <.0001	-0.19646*** <.0001	-0.20043*** <.0001	-0.19526*** <.0001	-0.19265*** <.0001
Debtor belongs to a group	-0.09305*** 0.0014	-0.09431*** 0.0016	-0.09247*** 0.002	-0.09811*** 0.0011	-0.0943*** 0.0016	-0.10434*** 0.0005
% of estimated cash in the assets	0.04664 0.1526	0.04906 0.1621	0.05013 0.1326	0.04839 0.1471	0.07373** 0.0383	0.0515 0.1206
ln (total assets, in K€)	0.01835*** 0.0008	0.02251*** <.0001	0.02291*** <.0001	0.02126*** 0.0002	0.01961*** 0.0006	0.02157*** <.0001
Cause of default: strategy	-0.00427 0.8266	-0.00633 0.7528	-0.00521 0.7942	-0.00633 0.7509	-0.00648 0.7448	0.00204 0.9191
Cause of default: production	-0.06569*** 0.0004	-0.06494*** 0.0006	-0.06426*** 0.0007	-0.06463*** 0.0007	-0.06764*** 0.0004	-0.06111*** 0.0013
Cause of default: finance	-0.02334 0.2219	-0.02165 0.2702	-0.0209 0.2849	-0.02203 0.2596	-0.02114 0.2783	-0.01781 0.3607
Cause of default: management	0.08481*** 0.0001	0.08734*** 0.0001	0.0871*** 0.0001	0.08782*** <.0001	0.08647*** 0.0001	0.09557*** <.0001
Cause of default: accident	0.01238 0.49	0.01337 0.4804	0.01509 0.4119	0.01318 0.4723	0.01953 0.2925	0.0188 0.3051
Cause of default: outlets	0.01521 0.3625	0.01125 0.5115	0.01125 0.5098	0.01022 0.55	0.00907 0.5953	0.0206 0.2338
Cause of default: macro	0.00135 0.9362	0.00681 0.702	0.00807 0.641	0.00547 0.7527	0.00622 0.7184	0.01711 0.3299
Sector: industry	0.01756 0.2833	0.01171 0.4906	0.01278 0.4449	0.00981 0.5604	0.01612 0.338	0.01215 0.4649
Annual change in GDP	-0.94378 0.1599	-0.76997 0.2801	-0.77274 0.2601	-0.77761 0.2571	-0.42876 0.5433	-0.54845 0.424
OLS regression **Number of observations: 735**	Fisher Stat: 18.35 (prob: <.0001) Adj. R^2: 0.299 Nb. of variables with VIF>2: none	Fisher Stat: 15.75 (prob: <.0001) Adj. R^2: 0.266 Nb. of variables with VIF>2: none	Fisher Stat: 15.81 (prob: <.0001) Adj. R^2: 0.267 Nb. of variables with VIF>2: none	Fisher Stat: 15.83 (prob: <.0001) Adj. R^2: 0.267 Nb. of variables with VIF>2: none	Fisher Stat: 16.02 (prob: <.0001) Adj. R^2: 0.270 Nb. of variables with VIF>2: none	Fisher Stat: 16.35 (prob: <.0001) Adj. R^2: 0.274 Nb. of variables with VIF>2: none

Source: the Authors' calculations

Note – The dependent variable is the total recovery rate. Table reports coefficients with t-statistics below. *, **, *** denote an estimate significantly different from zero at the 10%, 5% or 1% level.

Table 6.3 shows the results of OLS regression models. They are computed on the full sample, i.e. France and UK (due to missing data, 735 observations out of 833 were used in the regressions). The six columns share the same control variables. The difference between them is the considered

procedure as test variable. Our models are globally significant at the 1% level (Fisher stat.). The adjusted R^2 is satisfactory with values lying between 27% and 30%. Last, we use the VIF[376] check for multicolinearity: all our variables show an acceptable VIF factor inferior to 2. When compared to the others, only one bankruptcy procedure is significantly associated to higher total recovery rate: the French "*redressement judiciaire*". On the contrary, the two procedures which are significantly associated to lower total recovery rate are the UK compulsory and voluntary liquidation procedures. This result is quite important, as UK has long been suspected to generate more recoveries than France. But, most of the previous studies on UK ignored liquidation procedures and only focused on administration and receivership. Overall, this first result confirms that the Law is not neutral: after having controlled for various factors (value of assets, structures of claims, origins of default, bankruptcy duration, firm's characteristics…), we find that the total recovery rate strongly depends on the procedure that is triggered after default.

This first approach is useful in identifying those procedures which are most efficient in increasing the total recovery rate. Yet, this approach is not sufficient as it does not highlight precisely the legal features that play a role in generating additional recoveries. In the second set of models, we use our legal indexes[377] as explanatory variables of the total recovery rate. We propose here a set of 8 hypothesis (H1 to H8), each of them being related to one or more index(es).

Hypothesis H1. A more accessible procedure increases the total recovery rate.

We consider the first the index named "ACCESSIBILITY". What is the expected impact on the total recovery rate? As discussed before, an accessible procedure should be triggered earlier because it relies on a wide and accessible set of triggering criteria and/or can be triggered by a wide set of stakeholders. As a consequence, "accessibility" should increase recoveries. Yet, an easily accessible procedure might be triggered for pure strategic purpose, and the final impact on recoveries be reversed. We second consider EXCLUSIVITY. An "exclusive" procedure cannot

[376] VIF stands for "Variance Inflation Factor". It measures the severity of multicollinearity in an OLS regression. It indicates how much the variance of an estimated regression coefficient is increased because of multicollinearity.

[377] Namely, these dummies are: ACCESSIBILITY, EXCLUSIVITY, COSTLY PROCEDURE, INFORMATION, PROTECT_ASSETS, PROTECT_CLAIMS, COORD_CLAIMS, DECISION_CLAIMS, EASE_LIQ and EASE_REORG.

be aborted easily: precisely, the parties cannot turn back to the private solution or switch to another procedure. We cannot predict any direct impact of "exclusivity" on the recoveries but we can expect the effects of an exclusive procedure to be amplified as no other ways of resolving the default can be used by the stakeholders.

Hypothesis H2. A costly procedure has opposite effects onto the total recovery rate.

We expect bankruptcy costs (COSTLY_PROC) to have balanced and opposite effects onto the recoveries. On one hand, the higher the bankruptcy costs are, the lower is the remaining amount to be shared among the creditors. *Ceteris paribus*, bankruptcy costs compete with the other classes of claimants. On the other hand, bankruptcy costs should not be considered as a loss of money but rather as a way to (1) explore the various outcomes, (2) to audit the debtor's situation, (3) to reward the practitioner's efforts to recover more. Overall, both effects might compensate, so we cannot predict which one will overcompensate the other.

Hypothesis H3. Production of public information under bankruptcy has opposite effects onto the total recovery rate.

We consider here the index INFORMATION. A common feature of bankruptcy procedures is that they are not (fully) confidential. From that point of view, they might generate fear among the debtor's partners due to loss of reputation. This effect depends of the relations that have been settled between the debtor and its creditors prior to the default. It might also depend on the "*climat des affaires*" within the country. From that point of view, the final recoveries might suffer from the lack of support from the most important creditors. So, it is important to comprehend that confidence has value, even under the event of bankruptcy. However, the production of public information has also positive effects onto the recoveries. This is particularly true regarding the final choice to be made. Such choice should maximize the value of the bankrupt firm, and consequently the recovered amounts. To be efficient, such choice needs to rely on complete and reliable information. Considering this view, producing more information should reduce type I and type II errors. Overall, both effects might compensate for each other.

Hypothesis H4. Protection of the debtor's assets should increase the total recovery rate.

It seems natural to predict that a procedure being able to protect the debtor's assets (PROTECT_ASSETS) and to preserve their value should generate more recoveries for all the creditors. Such protection can take several aspects. First, some assets might be reinstated within the debtor's patrimony if they were previously sold under suspicious circumstances ("*période suspecte*" in France). Second, other assets might stay in the debtor's patrimony as they are attached to collaterals. Third, other assets might be protected by the administrators (or the liquidators) in order to avoid any additional loss of value. On the contrary, some creditors might withdraw those assets from the debtor's patrimony whose ownership belongs to them (in France: "*droit de revendication*", "*droit de rétention*"). Overall, the rules prevailing under the procedure are not neutral regarding the way the assets (and their values) are preserved. The resulting recoveries mechanically depend on the effect of such rules.

Hypothesis H5. The protection and coordination of claims should generate higher total recovery rate but with differences depending on the type of claims.

A first major role of bankruptcy procedures is to protect the creditors' claims (PROTECT_CLAIMS) and their expected recoveries. One can expect that the more the law protects the creditors' interests, the higher should be the associated recoveries. This is true if we consider the creditors as a homogenous pool of claimants. Yet, the legislation might not identically protect the various types of claimants: such differences might serve the recoveries of specific classes of creditors at the expenses of others. A second important feature of bankruptcy procedures is to help the creditor to coordinate (COORD_CLAIMS). Resolving this well-known common pool problem should help in increasing the total recoveries, especially when compared to the private solution.

Hypothesis H6. The decision power granted to the creditors has opposite effect onto the total recovery rate.

The power to decide has no direct and obvious connection with the recoveries. Nevertheless, we can predict two opposite effects associated to variable DECISION_CLAIMS. On one hand, having the power to influence the final choice might have positive (direct and indirect) effects on recoveries. First, it gives the creditors more incentives to trigger the procedure earlier as they know they can influence its outcome. Second, it makes them more involved in the procedure seeking for the solution which maximizes their interests. On the other hand, benefiting from the decision power might have contrasting effects. First, it might increase the recoveries of the classes of creditors who have the highest decision power at the expense of the other classes of creditors. Second, it might generate additional coordination issues among the other creditors. Overall, all these effects can compensate so that it is hard to predict any definitive impact on the total recovery rate.

Hypothesis H7. Excessive inclination to liquidation or to continuation might have a negative impact on the total recovery rate.

The various bankruptcy procedures are more or less oriented towards liquidation (EASY_LIQ) or towards reorganization (EASY_REORG). Some procedures are solely dedicated to one single outcome, but some others are flexible enough to lead to both solutions. In fact, such orientation has *a priori* no direct link with the global recovery rate. In fact, one can suspect that a systematic orientation in favour of one solution against the other is likely to fail in minimizing the type I and type II errors that might occur while making the final choice. On the contrary, more balanced procedures should be able to minimize such costs as they are flexible enough to lead to the most efficient outcome (i.e. the one maximizing the debtor's value).

Hypothesis H8. Provided they are anticipated, the sanctions of faulty management should increase the total recovery rate.

Do managers fully anticipate all the states of the world, especially those corresponding to bankruptcy? This answer is not straightforward and goes beyond the scope of this research. Yet, if we make the assumption that the managers are aware that they might be sanctioned for faulty management, then an increase of sanctions (SANCTION) might reduce their incentives to moral hazard, which in return, should make them more responsible towards the management of the debtors assets, and the resulting recoveries in case of bankruptcy.

Table 6.4 summarizes the results of our OLS regressions. Appendix C5 details the corresponding estimations[378]. Table 6.4 discloses the signs and significance of the estimated parameters that are associated to our legal indexes. It also provides the list of the control variables that are used in the regressions.

[378] Due to space constraints, we only give the estimates on all the claims, without showing our results on the classes of creditors (these are available on request).

Table 6.4: Legal indexes as explanatory variables of the total recovery rate

OLS models on France and UK - sample size: 734 observations *(each test variable is introduced one after the other in the models; control variables are the same in all the models)*			
Test variables: legal indexes on corporate bankruptcy law (%)			
Accessiblity	Positive**	*Sanction of faulty management*	Non significant
Exclusivity	Non significant	*Coordination of claims (all claims)*	Positive***
Costly procedure	Positive*	*Coordination of claims (employees)*	Non significant
Production of information	Negative**	*Coordination of claims (State, public claims)*	Positive***
Protection of debtor's assets	Positive*	*Coordination of claims (fixed secured)*	Positive**
Ease of liquidation	Non significant	*Coordination of claims (floating secured)*	Positive***
Ease of reorganization	Positive*	*Coordination of claims (unsecured)*	Non significant
Protection of claims (all claims)	Positive***	*Decision power (all claims)*	Non significant
Protection of claims (employees)	Positive***	*Decision power (employees)*	Non significant
Protection of claims (State, public claims)	Positive***	*Decision power (State, public claims)*	Positive***
Protection of claims (fixed secured)	Negative***	*Decision power (fixed secured)*	Non significant
Protection of claims (floating secured)	Non significant	*Decision power (floating secured)*	Non significant
Protection of claims (unsecured)	Non significant	*Decision power (unsecured)*	Non significant
Control variables (list)			
Coverage rate • Share of secured claims (in % of dues claims) • Age (log) • GDP growth • Limited liability (dummy) • Debtor is part of a group (dummy) • Value of total assets at triggering (thousands of €) • Share of cash (in % of total assets at triggering) • Cause of default: strategy (dummy) • Cause of default: production (dummy) • Cause of default: finance (dummy) • Cause of default: management (dummy) • Cause of default: accident (dummy) • Cause of default: outlets (dummy) • Cause of default: macro. (dummy) • Sector: industry (dummy) • duration of the procedure (in log, relatively to the average duration in the considered country).			

Source: the Authors' calculations

Note – The dependent variable is the total recovery rate. *, **, *** denote an estimate significantly different from zero at the 10%, 5% or 1% level.

Several of our hypotheses are empirically confirmed. We first consider H1. As expected, we confirm that an accessible procedure is associated to higher recovery rates, but we do not find such effect on exclusivity (not related to the total recovery rate).

Interestingly enough, when considering hypothesis H2, we empirically find that, despite being in competition with the creditors' recoveries, bankruptcy costs significantly serve the total recoveries. This is coherent with the Lubben's view (Lubben 2010). Bankruptcy costs are not

pure sunk costs but are the counterpart of a service that is provided by the practitioners, whose work eventually serves the creditors' interests.

According to hypothesis H3, the production of information has two opposite effects on recoveries. While, on one hand, it should destroy value due to breach in confidentiality. On the other hand, producing public signals to the stakeholders should help them to make the adequate choice at the end of the process. From our result it is evident that the former effect over compensates the latter and our legal index relative to production is negatively related to total recovery rates which signify a more transparent procedure leads to lower recoveries.

We now test hypothesis H4. Without surprise, we confirm that the procedures that provide more protection to the debtor's assets significantly improve the total recovery rate.

We find a similar result regarding the protection and coordination of claims (hypothesis H5). Indeed, we find that both indexes PROTECT_CLAIMS and COORD_CLAIMS strongly increase total recoveries. A higher protection of the creditors' rights is actually associated to improved recoveries for them. Similarly, the more the procedure is efficient in reducing the conflicts of interests, by improving coordination, the more recoveries it generates. These findings are key results as they confirm the usefulness of legal procedures when compared to simple private workouts. However, as suggested in H5, the overall effect is not the same for all the classes of claimants. Indeed, we find a reversed result regarding the protection of secured claims that does not generate higher global recoveries. This can be explained as the procedures that provide more protection to the secured creditors (receivership for instance) are not designed with the intent of increasing the overall recoveries but are more focused on the repayment of those creditors who are in possession of the collaterals.

Last, we consider hypotheses H6 to H8. Firstly, regarding H6, we do not find a significant effect of the creditors' decision-power on the global recovery rates. This is not that much surprising as the final outcome should mainly depend on the structure of claims and of the creditors' interests, which varies from a file to another. The power to decide is not sufficient in itself to draw a systematic link (either positive of negative) with the recovery rate. We can also interpret this

result in a symmetric way: leaving the power to decide in the hands of a judge (as in France) should not impact too much on the total recoveries. Above finding negates the common vision about the French Bankruptcy code, being suspected to be excessively debtor friendly and in that sense could compromise the value maximization goal. Secondly, hypothesis H7 is partially confirmed: inclination towards liquidation does not create or destroy recoveries. But, inclination towards reorganization significantly increases the total recovery rate. Thirdly and finally, hypothesis H8 is not confirmed as it is observable that it does not have any impact on the total recoveries. This signifies that a stringent legal environment does not affect the total recoveries.

6.7. Conclusions

In this chapter, we contribute to the literature by reconciling two complementary approaches of corporate bankruptcy. The first approach belongs to the law and finance paradigm and is based on the construction of legal indexes. Yet, the works following that avenue are mainly oriented to macroeconomic development and growth without drawing a direct link with the creditors' individual recovery rates. The second approach gathers financial works testing for a ranking of countries based on their recovery rates. Nevertheless, such works provide little insights into the legal characteristics that can explain such ranking.

We first propose a set of legal indexes highlighting ten dimensions of corporate bankruptcy law. We build composite indexes on six bankruptcy procedures prevailing in two countries which are good representative of the main European legal systems: France (Civil Law country) and United-Kingdom (Common Law country). We then propose a mapping of procedures that shows a clear specialization between them. The French procedures are more protective of the debtor's assets and favor more the coordination of secured claims, public claims, and unsecured claims. Yet, stronger coordination mechanisms are compensated by weaker decision mechanism in France. In United-Kingdom, we find strong opposition between the procedures oriented to liquidation and the other procedures (administration and receivership). On one side, UK liquidation procedures are more severe against faulty management and provide more protection for secured claims. Indeed, this inclination towards the secured-creditors' interests has a cost, as it provides less protection to the employees, the public and the unsecured claims. On the other side, we observe that UK administration preserves more the decision making power of public claims and of

employees' claims, and coordinates them. UK receivership provides more decision power to the secured creditors but still remains transparent to all the stakeholders.

We then use an original database of 833 bankruptcy files to measure the recovery rates that are generated by each procedure. We find strong differences between them on an average: French "*redressement judiciaires*" (46%), receiverships (30%), administrations (21%), French liquidation (20%), UK voluntary liquidation (13%), and compulsory liquidation (9%).

We then turn to OLS regressions and use our legal indexes to isolate the characteristics of corporate bankruptcy law that significantly impact on the total recovery rate in France and in UK. By controlling for the value of assets, the structure of claims, the origins of default, and the firm characteristics, we test for several hypotheses. We first isolate the legal features of bankruptcy procedures that are associated to higher total recovery rates: namely, (1) accessibility of the procedure, (2) protection of the debtor's assets, (3) protection and coordination of claims, (4) orientation towards reorganization, and (5) bankruptcy costs. From that perspective, these costs are not sunk cost only, but can be viewed as the counterpart of a service provided by the practitioners that eventually serve the creditors' recoveries. On the contrary, we find that the production of information under bankruptcy has a negative impact on total recoveries, probably due to the breach in confidentiality. Last, some dimensions of corporate bankruptcy law are not significantly related to total recovery rates (inclination towards liquidation, severity towards faulty management).

Our approach advocates for further works exploring the relations between the Law and the financial output of bankruptcy. The combined use of legal indexes and individual data from the bankruptcy files is an interesting and promising way to explore.

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Appendixes

C1. Legal Indexes (list)

	France		United Kingdom			
	"Redressement judiciaire"	"Liquidation judiciaire"	Receivership	Administration	Compulsory liquidation	Voluntary liquidation
ACCESSIBILITY						
The triggering criteria does not require the value of the firm's assets to exceed the expected legal costs.	1	1	0	1	0	0
The triggering criteria relies (partially or not) on present financial difficulties (cash shortage, delays…).	1	1	1	1	1	1
The triggering criteria relies (partially or not) on present non financial difficulties (social conflict…).	0	0	0	0	0	0
The triggering criteria relies (partially or not) on future / expected financial difficulties.	0	0	1	1	1	1
The triggering criteria relies (partially or not) on future / expected non-financial difficulties.	0	0	0	0	0	0
The triggering criteria does not require any difficulty, financial or not, present or future.	0	0	0	0	0	0
The debtor (manager or shareholder) can trigger the procedure.	1	1	0	1	1	1
The Court(s) can trigger the procedure.	1	1	0	0	0	0
Debtor's employees can trigger the procedure.	0	0	0	0	0	0
The State & public claims can trigger the procedure.	1	1	0	1	1	0
Secured creditor(s) can trigger the procedure.	1	1	1	1	0	0
Unsecured creditor(s) can trigger the procedure.	1	1	0	1	1	0
Any other stakeholder (account supervisor, customers, etc.) can trigger the procedure.	0	0	0	0	0	0
The debtor cannot oppose to the triggering (when (s)he has not decided to trigger him(her)self) .	0	0	1	0	0	0
The Court (in charge of the corporate bankruptcy affairs) cannot oppose to the triggering.	0	0	1	1	1	1
Debtor's employees cannot oppose to the triggering.	1	1	1	1	1	1
The State & public claims cannot oppose to the triggering.	0	0	1	1	0	1
Secured creditor(s) cannot oppose to the triggering. (whatever the type of collateral)	1	1	1	1	1	1
Unsecured creditor(s) cannot oppose to the triggering.	1	1	1	1	0	1
Any other stakeholder(s) (account supervisors, customers...) cannot oppose to the triggering.	1	1	1	1	1	1
EXCLUSIVITY						
The bankruptcy procedure can be aborted if the debtor and the creditor(s) find a private agreement.	0	0	1	1	0	1
The debtor can abort the bankruptcy procedure.	0	0	0	0	0	0
One (at least) creditor(s) can abort the bankruptcy procedure.	0	0	1	0	0	0
COSTLY_PROC						
The firm's assets must exceed the expected legal costs.	0	0	0	0	0	0
The practitioners do not operate under perfect competition: i.e. some barriers limit free entrance.	1	1	1	1	1	1
The legal costs are freely invoiced by the practitioners. Put 'N' if the legal fees are determined by the Law.	0	0	1	1	0	0
The amount of the legal costs does not have to be approved by the creditor(s).	1	1	0	0	0	0
The legal costs are not limited by a pre-determined maximum ceiling. Put 'Y' if the costs are freely invoiced.	0	0	1	1	0	0
The legal costs cannot be reduced for small companies or files. Put 'Y' if the costs are freely invoiced.	0	0	1	1	0	0

	France		United Kingdom			
	"Redressement judiciaire"	"Liquidation judiciaire"	Receivership	Administration	Compulsory liquidation	Voluntary liquidation
INFORMATION						
The procedure is not confidential.	1	1	1	1	1	1
The law entitles stakeholders (employee…) to alert the manager on the difficulties, prior to bankuptcy.	1	1	1	1	1	1
Any stakeholder has an access to the information in the bankruptcy files, before the procedure is ended.	1	1	1	1	1	1
Any stakeholder has an access to the information in the bankruptcy files, once the procedure is ended.	0	1	1	1	1	1
Court and/or practitionner(s) may share the information they gather with the creditors (whatever their type).	1	1	1	1	1	1
An audit of the debtor takes place during the procedure (origin(s) of the default, last financial reports…).	1	0	1	1	1	1
Some experts can be hired to audit the firm.	1	1	1	1	1	1
The value of the debtor's assets is checked. (market value)	1	1	1	1	1	1
The value of the claims is checked. (some may be accepted or rejected)	1	1	1	1	1	1
Pre-estimation of the debtor's liquidation value is performed during the bankruptcy process.	0	1	1	1	1	1
Pre-estimation of the debtor's continuation value is performed during the procedure (forecast accounting).	1	0	1	1	0	0
PROTECT_ASSETS						
The contracts that took place before bankruptcy can be cancelled if they decreased the value of assets.	1	1	0	1	1	1
Before the procedure, some stakeholder(s) can warn the Court in case of first difficulties.	1	1	0	0	0	0
Before the procedure, the Court can interview the manager(s) in case of first difficulties.	1	1	0	0	0	0
During the procedure, the economic value of the debtor's assets is assessed and checked.	1	1	1	1	1	1
During the procedure, an audit of the restructuring opportunities (if they exist!) is performed.	1	0	1	1	1	1
During the procedure, the debtor's assets cannot be freely sold or liquidated.	1	1	0	0	1	1
During the procedure, major decisions (firing, investing…) are subjected to a legal authorization.	1	1	0	1	1	1
During the procedure, the continuation of previous contracts (supplies, electricity…) can be enforced.	1	1	1	0	1	1
During the procedure, legal practitioners (administrators, experts...) can help the manager(s) to run the firm.	1	1	1	1	1	1
During the procedure, faulty and/or incompetent manager(s) can be fired from the direction of the company.	1	1	1	1	1	1
PROTECT_EMPL						
Employees (prior): can be paid outside the procedure.	1	1	1	0	0	0
Employees (prior): no debt reduction	1	1	1	0	0	0
Employees (prior): no delays	1	1	0	0	0	0
Employees (post): can be paid outside the procedure.	1	1	1	1	1	1
Employees (post): no debt reduction	1	1	1	1	0	0
Employees (post): no delays	1	1	0	1	0	0
COORD_EMPL						
Employees: A legal mandatory represents them	1	1	0	1	0	0
Employees: stay of claim	0	0	1	1	1	1
Employees: stay of individual legal proceedings	0	0	1	1	1	1
Employees: They are consulted for the important decision	1	1	0	0	0	0
Employees: they are granted an information right	1	1	1	1	1	1

	France		United Kingdom			
	"Redressement judiciaire"	"Liquidation judiciaire"	Receivership	Administration	Compulsory liquidation	Voluntary liquidation
DECISION_EMPL						
Employees: They are consulted on the final decision	1	0	0	1	1	1
Employees: They vote on the final decision	0	0	0	1	0	0
Employees: The Court cannot impose a solution on them	0	0	1	0	0	0
Employees: They have an appeal right	0	0	0	0	0	0
Employees: Eventually, they can take the control	0	0	0	0	0	0
PROTECT_STATE						
State & public claims (prior): can be paid outside the procedure.	0	0	0	0	0	0
State & public claims (prior): no debt reduction	1	1	1	0	0	0
State & public claims (prior): no delays	0	0	0	0	0	0
State & public claims (post): can be paid outside the procedure.	0	0	1	1	1	1
State & public claims (post): no debt reduction	1	0	1	1	0	0
State & public claims (post): no delays	0	1	0	0	0	0
COORD_STATE						
State & public claims: A legal mandatory represents them	1	1	0	1	0	0
State & public claims: stay of claim	1	1	1	1	1	1
State & public claims: stay of individual legal proceedings	1	1	1	1	1	1
State & public claims: They are consulted for the important decision	1	0	0	0	0	0
State & public claims: they are granted an information right	1	1	1	1	1	1
DECISION_STATE						
State & public claims: They are consulted on the final decision	1	0	0	1	1	1
State & public claims: They vote on the final decision	0	0	0	1	0	0
State & public claims: The Court cannot impose a solution on them	0	0	1	0	0	0
State & public claims: They have an appeal right	1	1	0	0	0	0
State & public claims: Eventually, they can take the control	0	0	0	0	0	0
PROTECT_FIXEDSEC						
Fixed Secured (prior): can be paid outside the procedure.	0	0	1	1	1	1
Fixed Secured (prior): no debt reduction	1	1	1	1	1	1
Fixed Secured (prior): no delays	0	0	1	0	1	1
Fixed Secured (post): can be paid outside the procedure.	1	1	1	1	1	1
Fixed Secured (post): no debt reduction	1	1	1	1	1	1
Fixed Secured (post): no delays	1	1	1	1	1	1
COORD_FIXEDSEC						
Fixed secured: A legal mandatory represents them	1	1	1	1	1	1
Fixed secured: stay of claim	1	1	0	1	0	0
Fixed secured: stay of individual legal proceedings	1	1	0	1	0	0
Fixed secured: They are consulted for the important decision	0	0	0	0	0	0
Fixed secured: they are granted an information right	1	1	0	1	0	0

	France		United Kingdom			
	"Redressement judiciaire"	"Liquidation judiciaire"	Receivership	Administration	Compulsory liquidation	Voluntary liquidation
DECISION_FIXEDSEC						
Fixed secured: They are consulted on the final decision	1	0	1	1	0	0
Fixed secured: They vote on the final decision	0	0	0	1	0	0
Fixed secured: The Court cannot impose a solution on them	0	0	1	0	1	1
Fixed secured: They have an appeal right	0	0	0	0	0	0
Fixed secured: Eventually, they can take the control	0	0	1	0	1	1
PROTECT_FLOATSEC						
Floating Secured (prior): can be paid outside the procedure.	0	0	1	0	1	1
Floating Secured (prior): no debt reduction	1	1	1	0	0	0
Floating Secured (prior): no delays	0	0	0	0	1	1
Floating Secured (post): can be paid outside the procedure.	0	0	1	1	1	1
Floating Secured (post): no debt reduction	1	1	1	1	0	0
Floating Secured (post): no delays	1	1	1	0	1	1
COORD_FLOATSEC						
Floating secured: A legal mandatory represents them	1	1	1	1	0	0
Floating secured: stay of claim	1	1	0	1	0	0
Floating secured: stay of individual legal proceedings	1	1	0	1	0	0
Floating secured: They are consulted for the important decision	0	0	1	0	0	0
Floating secured: they are granted an information right	1	1	1	1	0	0
DECISION_FLOATSEC						
Floating secured: They are consulted on the final decision	1	0	1	1	0	0
Floating secured: They vote on the final decision	0	0	1	1	0	0
Floating secured: The Court cannot impose a solution on them	0	0	1	0	1	1
Floating secured: They have an appeal right	0	0	0	0	0	0
Floating secured: Eventually, they can take the control	0	0	1	0	1	0
PROTECT_UNSEC						
Unsecured (prior): can be paid outside the procedure.	0	0	0	0	0	0
Unsecured (prior): no debt reduction	1	1	1	0	0	0
Unsecured (prior): no delays	0	0	0	0	0	0
Unsecured (post): can be paid outside the procedure.	0	1	1	1	1	1
Unsecured (post): no debt reduction	1	1	1	0	0	0
Unsecured (post): no delays	0	1	0	0	0	0
COORD_UNSEC						
Unsecured: A legal mandatory represents them	1	1	0	1	1	1
Unsecured: stay of claim	1	1	1	1	1	1
Unsecured: stay of individual legal proceedings	1	1	1	1	1	1
Unsecured: They are consulted for the important decision	0	0	0	0	0	0
Unsecured: they are granted an information right	1	1	1	1	1	1

	France		United Kingdom			
	"Redressement judiciaire"	"Liquidation judiciaire"	Receivership	Administration	Compulsory liquidation	Voluntary liquidation
DECISION_UNSEC						
Unsecured: They are consulted on the final decision	1	0	0	1	1	1
Unsecured: They vote on the final decision	0	0	0	1	0	0
Unsecured: The Court cannot impose a solution on them	0	0	1	0	0	0
Unsecured: They have an appeal right	0	0	0	0	0	0
Unsecured: Eventually, they can take the control	0	0	0	0	0	1
SANCTION						
The pre-default managers' decisions can be cancelled if they have decreased the value of the debtor's assets.	1	1	0	1	1	1
During the procedure, faulty and/or incompetent manager(s) can be fired from the direction of the company.	1	1	1	1	1	1
Manager having contributed to impoverish the debtor (voluntarily or not) may be put to jail.	1	1	0	0	1	1
Manager having contributed to impoverish the debtor may have to personally repay for the company's debts.	1	1	0	0	1	1
Manager having contributed to impoverish the debtor may not be allowed to restart a new business.	1	1	1	1	1	1
EASY_LIQ						
The objectives of the law a-priori explicitely promote piecemeal liquidation over continuation.	0	0	0	0	1	0
The objectives of the law a-priori explicitely promote sale over continuation.	0	1	1	0	1	1
The company can (or must) be piecemeal liquidated at the end of the procedure.	1	1	1	1	1	1
The Court can force liquidation.	1	1	0	0	0	0
A specific stakeholder can force liquidation.	0	0	1	0	1	0
A liquidator facilitates/monitors the liquidation process.	1	1	0	1	1	1
A fast (or simplified) liquidation procedure may prevail for the smallest companies (or the simplest files).	0	0	0	0	0	0
The company (or a part of it) can (or must) be sold as a going concern at the end of the procedure.	1	1	0	1	1	1
A liquidator facilitates/monitors the sale (if any).	1	1	0	1	1	1
The Court can force the sale.	1	1	0	0	0	0
A specific stakeholder can force the sale.	0	0	1	0	1	0
Rival Buyout offers can be proposed to the Court at the end (or during) the procedure.	1	1	0	0	0	0
Auctions can take place at the end of (or during) the procedure. (either on the firm itself or its assets)	1	1	1	1	1	1
EASY_REORG						
The objectives of the law a-priori explicitely promote continuation over piecemeal liquidation.	1	0	0	1	0	0
The objectives of the law a-priori explicitely promote continuation over sale.	1	0	0	0	0	0
A continuation plan can (or must) be decided (or voted) at the end of the procedure.	1	0	0	1	0	1
The Court can force a continuation plan.	1	0	0	0	0	0
A specific stakeholder can force a continuation plan.	0	0	0	0	0	0
A practitionner (administrator, mediator…) prepares/facilitates/monitors the plan.	1	0	0	1	0	1
Delays can be imposed on some claims to facilitate the continuation plan.	1	0	0	1	0	1
Delays (if any) are not time-limited.	1	0	0	0	0	1
Claim reduction can be imposed on some creditors to facilitate the continuation plan.	0	0	0	1	0	1
Public aids (direct or indirect) can be granted to the reorganizing firms.	0	0	0	0	0	0

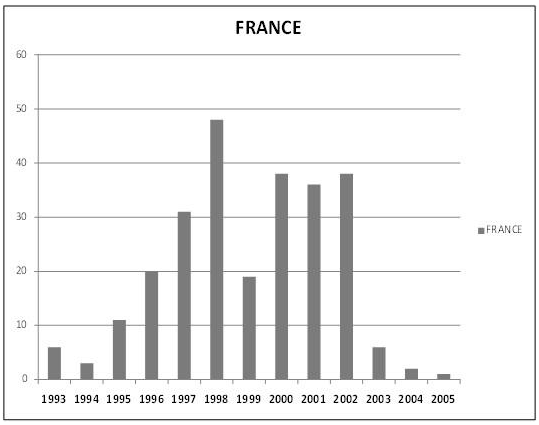
C2. Sample Structure and Time Repartition

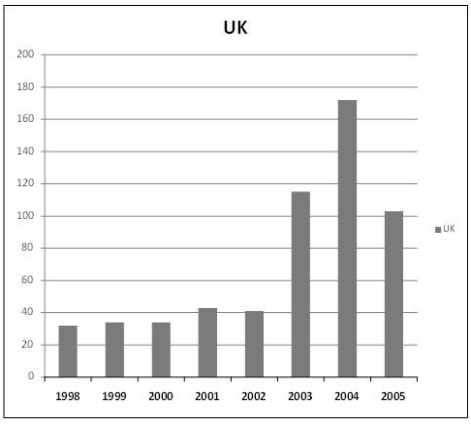
C2.1. Sample Structure

Variables	France		United Kingdom			
	Redressement judiciaire (incl. sales)	Liquidation judiciaire (excl. sales)	Administration	Receivership	Compulsory liquidation	Voluntary liquidation
Sample size	*164*	*100*	*199*	*198*	*100*	*72*
Age (in years)	17.4	9.9	13.3	15.2	8.3	12.3
% of LTD companies	87.2%	97.0%	98.0%	97.5%	100.0%	100.0%
Number of employees	26.12	11.96	n.a.	n.a.	n.a.	n.a.
Sector: trade	20.7%	19.0%	15.6%	13.1%	12.0%	13.9%
Sector: industry	25.6%	26.0%	49.2%	58.6%	48.0%	51.4%
Sector: services & others	53.7%	55.0%	35.2%	28.3%	40.0%	34.7%
% of groups	8.5%	5.0%	23.1%	27.8%	0.0%	0.0%
% of intangible assets	13.7%	12.7%	5.8%	5.1%	0.0%	0.0%
% of tangible assets	24.9%	23.9%	39.9%	42.1%	13.5%	24.7%
% of financial assets	6.6%	2.2%	0.1%	0.5%	0.0%	0.9%
% of inventory	14.5%	6.1%	11.1%	8.5%	4.4%	4.4%
% of receivables	23.3%	35.9%	36.0%	39.1%	44.3%	39.0%
% of marketable securities	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%
% of cash	7.0%	5.7%	4.6%	3.1%	37.7%	27.0%
% of other assets	9.5%	13.4%	2.4%	1.7%	0.1%	4.0%
Cause(s) of default: strategy	14.6%	15.0%	29.6%	26.3%	15.0%	11.1%
Cause(s) of default: production	27.4%	19.0%	30.2%	24.7%	11.0%	11.1%
Cause(s) of default: finance	25.0%	24.0%	19.6%	15.7%	10.0%	6.9%
Cause(s) of default: management	13.4%	12.0%	9.0%	8.1%	18.0%	8.3%
Cause(s) of default: accident	28.7%	20.0%	32.7%	22.7%	57.0%	9.7%
Cause(s) of default: outlets	51.2%	59.0%	64.8%	83.3%	45.0%	27.8%
Cause(s) of default: macro	43.3%	21.0%	42.2%	44.9%	19.0%	20.8%

Remark: for each procedure, the sum of all causes is more than 100% as there can be more than one cause per file that did participate to the bankruptcy process.

C2.2. Time Repartition of the Sample





C3. Codification of the Causes of Default

	Origin of the default (codifications)
Outlets	[1] Brutal disappearance of customers; [2] Customer(s) in default; [3] Product(s) too expensive (selling price is too high); [4] Bad evaluation of the market; [5] Product(s) too cheap (selling price is too low); [6] Unsuitable products; [7] Obsolete products; [8] Loss of market shares (regular fall of the firm's demand).
Strategy	[1] Youth of the company (inexperience); [2] Voluntary dissolution of the activity;[3] Failure of important projects (partnerships, investments, reorganizations);[4] **Voluntary acceptance of little profitable markets** (dumping...).
Production	[1] **Production capacity was too strong, overinvestment**; [2] Depreciation of the assets; [3] Operating costs were too high (other than wages: external expenses, raw materials...); [4] Wages expenses were too high; [5] Brutal disapearance of suppliers; [6] Unsuitable process of production (obsolete); [7] **Underinvestment**.
Finance	[1] Longer delays on accounts receivable; [2] Contagion / reported losses from subsidiaries; [3] Shorter delays on accounts payable; [4] **Excessive speculation of the company**; [5] end of the financial support from the head office / holding; [6] Lack of equity (compared to leverage/liabilities); [7] Loan refusal to the company; [8] end/reduction of the subventions to the company; [9] Contractual interest rates are too high.
Management	[1] **Weak accounts reporting / informational system is deficient**; [2] **Problems of competence**; [3] Disagreements among the directors / managers; [4] **Excessive takings from the managers**; [5] **Insufficient provisions**; [6] **Lack of knowledge on the real level of costs of returns (causing too weak selling)**; [7] **Bad evaluation of inventory**; [8] Problems of transmission of the company / difficulties in restructuring.
Accident	[1] **Swindle / embezzlements affecting the company**; [2] Another insolvency procedure (for other companies) is extended to the firm (same patrimonies); [3] Disputes with public partners (fiscal inquiry); [4] Disputes with private partners; [5] Death / disease / disappearance of the manager; [6] Disaster; [7] Social problems within the company.
External environment	[1] Unfavorable fluctuation of the exchange rates; [2] Increase of the competition; [3] Decreasing demand to the sector; [4] “Force majeure” (war, natural catastrophe, industrial crisis, politics, bad price evolution); [5] Public policy less favorable to the sector; [6] Period of credit crunch; [7] The general level of interest rates is too high; [8] Macroeconomic increase of operating costs (raw materials, GMW…).

C4. Structure of the Templates

1. Company's identification	**3b. Financial information and bankruptcy costs**
Matriculation number	Declared market values of assets (triggering time).
Sector (French NAF national codification)	Verified claims by levels of priority (end of the procedure)
Geographical localization	Number of creditors.
Number of employees	Bankruptcy costs individual estimation
Legal form	**3c. Engaged measures / legal measures**
Creation date	Engaged measures during the bankruptcy procédure (up to 10), each of ther to the Court approval.
Manager(s): age, functions, nb. of administrators…	Identification of the legal practitioners
2. Process of default	**3d. Procedure outcome**
Origin of default (up to 10 cumulative causes, based on a specific codification (51 codes). The identification of causes stems from an audit engaged by the administrator.	Realized value of assets (if liquidation)
3. The bankruptcy procedure (from triggering to the final issue)	Characteristics of the buyout plan(s) (if any), in case of a sale as a going co pros and cons of the offer, as analyzed by the legal administrator)
3a Type of procedure	Characteristics of the reorganization plan (length of the plan, repayment sch
Type of the legal procedure (simplified or not)	**3e. Legal sanctions against managers (if any)**
Date of triggering and of ending	Suspect period
Identity of the bankruptcy's initiator	Pecuniary sanctions
Legal issue: liquidation, sale, reorganization	Extra pecuniary sanctions
Remark: all files are closed files (with definitive recovery rates).	Type of fault

C5. Regression Analysis using Legal Indexes

Variables	Dependant variable: total recovery rate										
	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**	**Model 7**	**Model 8**	**Model 9**	**Model 10**	**Model 11**
Constant	0.02311 0.8369	0.20177*** 0.0011	0.19142*** 0.0016	0.42319*** 0.0005	0.06667 0.493	0.17001* 0.0753	0.22031*** 0.0002	0.24511*** 0.0048	0.05943 0.4708	0.03708 0.647	0.21194*** 0.0004
Legal index: "Accessibility"	0.33861** 0.0452										
Legal index: "Exclusivity"		-0.03826 0.4168									
Legal index: "Costly procedure"			0.11645* 0.0644								
Legal index: "Production of information"				-0.28488** 0.0499							
Legal index: "Protection of debtor's assets"					0.13677* 0.0557						
Legal index (a): "Ease of liquidation"						0.05121 0.5533					
Legal index (b): "Ease of reorganization"							0.06821* 0.0588				
Legal index: sanction of faulty management								-0.02473 0.625			
Legal index: protection of claims (all claims)									0.24457*** 0.0071		
Legal index: coordination of claims (all claims)										0.20553*** 0.0014	
Legal index: decision power (all claims)											-0.02061 0.7664
Coverage rate	0.13416*** <.0001	0.13075*** <.0001	0.13933*** <.0001	0.12724*** <.0001	0.12709*** <.0001	0.13162*** <.0001	0.13547*** <.0001	0.13574*** <.0001	0.13404*** <.0001	0.13022*** <.0001	0.1331*** <.0001
% of secured debts	0.24713*** <.0001	0.265*** <.0001	0.21012*** <.0001	0.28842*** <.0001	0.28950*** <.0001	0.25887*** <.0001	0.23851*** <.0001	0.23294*** <.0001	0.24084*** <.0001	0.27275*** <.0001	0.25068*** <.0001
Duration of the procedure (relative to average)	0.00721 0.4394	0.00478 0.6072	0.00788 0.4013	0.00467 0.6143	0.00411 0.6578	0.00492 0.5965	0.00462 0.6177	0.00562 0.5478	0.00785 0.3982	0.00814 0.3802	0.00506 0.5862
ln (age)	0.00138 0.8535	0.00117 0.876	0.00069 0.9266	0.00177 0.8132	0.00138 0.8544	0.00115 0.8791	-0.00038 0.9597	0.00063 0.9328	0.00184 0.8057	0.00215 0.7739	0.001 0.8951
Limited liability	-0.19374*** <.0001	-0.19397*** <.0001	-0.20069*** <.0001	-0.18799*** <.0001	-0.18688*** <.0001	-0.19557*** <.0001	-0.19199*** <.0001	-0.19938*** <.0001	-0.19506*** <.0001	-0.18477*** <.0001	-0.19688*** <.0001
Debtor belongs to a group	-0.0982*** 0.001	-0.09171*** 0.0023	-0.1039*** 0.0006	-0.0877*** 0.0034	-0.08635*** 0.0041	-0.09271*** 0.002	-0.09173*** 0.0021	-0.09669*** 0.0014	-0.09966*** 0.0008	-0.09644*** 0.0012	-0.09344*** 0.0018
% of estimated cash in the assets	0.0676** 0.0494	0.05189 0.1204	0.05728* 0.0873	0.06567* 0.0549	0.05972* 0.076	0.05135 0.1242	0.04887 0.142	0.04933 0.1397	0.07299** 0.0332	0.08472** 0.0152	0.05308 0.1266
ln (total assets, in K€)	0.02044*** 0.0003	0.02361*** <.0001	0.01904*** 0.0011	0.02358*** <.0001	0.02412*** <.0001	0.02334*** <.0001	0.02147*** 0.0001	0.02177*** 0.0002	0.01943*** 0.0005	0.01976*** 0.0004	0.02268*** <.0001
Cause of default: strategy	-0.0039 0.845	-0.00425 0.8323	-0.00581 0.7705	-0.00179 0.9288	-0.00307 0.8779	-0.00437 0.8283	-0.01001 0.617	-0.0065 0.7449	-0.0005 0.9801	0.00008 0.9967	-0.0054 0.7882
Cause of default: production	-0.06611*** 0.0005	-0.0643*** 0.0007	-0.06557*** 0.0006	-0.06446*** 0.0007	-0.06469*** 0.0007	-0.06416*** 0.0008	-0.06744*** 0.0004	-0.065*** 0.0006	-0.06399*** 0.0007	-0.06613*** 0.0005	-0.06485*** 0.0007
Cause of default: finance	-0.02007 0.3035	-0.02017 0.3034	-0.02195 0.2603	-0.01819 0.3524	-0.01909 0.3285	-0.02031 0.3011	-0.02405 0.2185	-0.02192 0.2625	-0.01823 0.3494	-0.01744 0.3697	-0.02089 0.2874
Cause of default: management	0.09034*** <.0001	0.08827*** <.0001	0.08991*** <.0001	0.08826*** <.0001	0.08722*** 0.0001	0.0883*** <.0001	0.08392*** 0.0002	0.08776*** <.0001	0.09108*** <.0001	0.09203*** <.0001	0.08774*** <.0001
Cause of default: accident	0.01867 0.3117	0.01573 0.3947	0.0147 0.4219	0.02163 0.248	0.01904 0.3033	0.0156 0.4009	0.01007 0.5844	0.01312 0.4758	0.02404 0.1973	0.02588 0.1643	0.01522 0.4207
Cause of default: outlets	0.01446 0.3977	0.01376 0.4265	0.01135 0.5053	0.01484 0.386	0.01449 0.3971	0.01318 0.4469	0.00873 0.6094	0.01089 0.5245	0.01334 0.4327	0.01781 0.297	0.01191 0.4876
Cause of default: macro	0.01064 0.5391	0.01062 0.5503	0.00579 0.7374	0.0143 0.417	0.01255 0.4725	0.01013 0.5728	0.00082 0.9628	0.0061 0.7267	0.01296 0.4546	0.01617 0.3526	0.0085 0.633
Sector: industry	0.01519 0.3643	0.01424 0.4004	0.00977 0.5588	0.01929 0.2588	0.01859 0.2749	0.01348 0.4248	0.01242 0.4564	0.01068 0.5282	0.01567 0.3477	0.02109 0.2106	0.01305 0.4446
Annual change in GDP	-0.41031 0.5603	-0.70531 0.3052	-0.58543 0.3962	-0.51444 0.4589	-0.62444 0.3636	-0.71512 0.2989	-0.8528 0.2142	-0.75582 0.2706	-0.35693 0.609	-0.12779 0.8568	-0.70129 0.32
OLS regression **Number of observations: 735**	Fisher Stat: 16.06 (prob: <.0001) Adj. R²: 0.270 Nb. of variables with VIF>2: none	Fisher Stat: 15.80 (prob: <.0001) Adj. R²: 0.267 Nb. of variables with VIF>2: 1	Fisher Stat: 16.02 (prob: <.0001) Adj. R²: 0.269 Nb. of variables with VIF>2: none	Fisher Stat: 16.05 (prob: <.0001) Adj. R²: 0.270 Nb. of variables with VIF>2: none	Fisher Stat: 16.04 (prob: <.0001) Adj. R²: 0.270 Nb. of variables with VIF>2: none	Fisher Stat: 15.78 (prob: <.0001) Adj. R²: 0.266 Nb. of variables with VIF>2:	Fisher Stat: 16.03 (prob: <.0001) Adj. R²: 0.270 Nb. of variables with VIF>2: none	Fisher Stat: 15.77 (prob: <.0001) Adj. R²: 0.266 Nb. of variables with VIF>2: none	Fisher Stat: 16.32 (prob: <.0001) Adj. R²: 0.273 Nb. of variables with VIF>2: none	Fisher Stat: 16.54 (prob: <.0001) Adj. R²: 0.276 Nb. of variables with VIF>2: none	Fisher Stat: 15.76 (prob: <.0001) Adj. R²: 0.266 Nb. of variables with VIF>2: none

Note –Table reports coefficients with t-statistics below. *, **, *** denote an estimate significantly different from zero at the 10%, 5% or 1% level.