A Comparison of US, UK, and German Insolvency Codes

Julian R. Franks, Kjell G. Nyborg, and Walter N. Torous

Julian R. Franks is a Professor of Finance, Kjell G. Nyborg is an Assistant Professor of Finance, and Walter N. Torous is a Professor of Finance. All are at the London Business School.

This paper describes three insolvency codes, those of the United Kingdom (UK), Germany, and the United States (US) and compares their efficiency against a number of benchmarks. These codes have been chosen because they cover a broad spectrum of debtor- and creditor-oriented insolvency procedures. The paper also compares the plans of distressed firms' reorganizations both within and outside the formal bankruptcy process, including the size of write downs and creditors' claims and the deviations from absolute priority which have accrued both to equityholders and different classes of creditors. Some evidence of the costs of bankruptcy is also provided for each country.

■ This paper describes three insolvency codes, those of the United Kingdom (UK), Germany, and the United States (US), and appraises their efficiency against a number of benchmarks.[1] These codes have been chosen because they cover a broad spectrum of debtor- and creditor-oriented insolvency procedures.

An important difference between the three codes is the allocation of control rights. For example, Chapter 11 in the US allows the debtor to retain control of the firm and provides it with the exclusive right, at least for a limited period, to propose a plan of reorganization. In contrast, in the UK, receivership gives control rights to a particular secured creditor, who has no duty to take account of the interests of other more junior creditors. Under the current German code, strong control rights are given to secured creditors and this has the effect of favoring the liquidation of the enterprise rather than its maintenance as a going concern.

All three codes have been subject to serious criticisms which have given rise to new or impending legislation. The concern expressed of the UK code has been that it encourages creditors to prematurely liquidate the firm when it is worth more as a going concern. (See Kaiser, 1996.) The 1986 Insolvency Act was designed to rectify the more obvious shortcomings. However, the new procedures have been invoked in a relatively small number of cases, and in 1994, the UK government issued a Consultation Document inviting evidence from interested parties with a view to further legislation.

In Germany, criticism of the existing code centered on premature liquidations arising from the ability of secured creditors to repossess their assets and so precipitate the closure of the firm. (See Kaiser, 1996.) New legislation was passed in 1994, to come into force in 1999, which will limit the powers of the secured creditors to repossess their assets. It will also allow other creditors more control over the proceedings so as to reduce the discretion of the administrator to delay sale and liquidate.

In the US, new legislation was passed in 1994 which increases protection for some creditors as well as

This paper was prepared under funding for the World Bank research project "Optimal Bankruptcy Policy" (RPO-678-51). We are grateful to Izak Atiyas for many valuable discussions on this topic and to participants at a seminar at the World Bank for their many insightful comments on an earlier draft. We wish to acknowledge the advice given by Barbara Livonius, Arne Witting, and Hans-Georg Lendfermann on the German code, Martin Aaron and Mark Homan on the UK code, and Ken Klee on the US code. We also wish to thank Inke Drews for valuable research assistance on the German code. The paper draws on Franks, J.R., and W.N. Torous, 1996, "Lesson from a Comparison of US and UK Insolvency Codes," *Oxford Review of Economic Policy* vol. 8, no. 3.

[1]In the US, corporate insolvency is described as bankruptcy whereas in the UK such a description is only applied to individuals.

Financial Management, Vol. 25, No. 3, Autumn 1996, pages 86-101

expedites the bankruptcy process. In addition, there has been an increasing use of reorganizations outside the formal bankruptcy process, what Jensen (1989) has described as the "privatization of the bankruptcy process."

International comparisons should be of interest on a number of accounts. First, the high level of insolvencies due to the recession in Western Europe in the early 1990s has led to a further review of insolvency procedures by regulators to determine if particular provisions provide the correct incentives to liquidate or maintain an insolvent company as a going concern.

Second, the newly emerging nations of Eastern Europe must establish their own codes, and this paper provides information on the strengths and weaknesses of competing creditor- and debtor-oriented codes. Also, when the EU harmonizes the insolvency codes of the Union, an appropriate model must be chosen as the basis for harmonization.

Third, companies with international operations should take account of the fact that the design of a code and the costs of insolvency, both direct and indirect, will vary across jurisdictions, and thereby alter the location of borrowing and lending decisions.

Section I of the paper examines criteria for judging the efficiency of an insolvency code. Section II describes the three insolvency codes in some detail, Section III compares the three codes, and Section IV discusses the implications for their efficiency in the light of the benchmarks discussed earlier. Section V examines some of the implications for the design of bankruptcy procedures. Section VI provides conclusions.

I. Criteria for Judging the Efficiency of a Bankruptcy Code

Efficiency can be evaluated at three stages in the bankruptcy process—ex ante, interim, and ex post—depending upon the information available at the time. As defined by Holmstrom and Myerson (1983), the *ex ante* stage is the time before individuals are in receipt of any private information; the *interim* stage is when private information is received, but not shared; and, finally, the *ex post* stage is when all private information has become common knowledge.

In the context of bankruptcy, the ex ante stage is prior to the onset of financial distress, for example, when the debt contract is signed. The interim stage is when the firm's distress becomes common knowledge, precipitating restructuring, and if this fails, formal bankruptcy. At this interim stage, creditors, managers, and owners have different information regarding the firm's liquidation and going-concern values. For example, a creditor whose claim is secured by a particular asset may have monitored its value throughout the life of the loan and have better information about its value than other creditors, or indeed the firm itself. Moreover, insiders are likely to have different information than outsiders about the going-concern value of individual divisions or the firm as a whole.

Ex post efficiency would be achieved if all this private information could be costlessly communicated to all creditors, managers, and other interested parties and efficient decisions taken on the basis of complete information. An important question is whether such ex post efficiency would also guarantee ex ante efficiency, so that optimal investment and financing decisions would be achieved both after and before the firm is in financial distress.

One view is that if ex post efficient investment decisions can be achieved without deadweight costs, then ex ante efficiency should also be achieved. The basis of this view is that any financial recontracting which is made in order to achieve ex post efficiency will be anticipated at the inception of the debt contract. For example, creditors who expect to be adversely affected by such recontracting (referred to as negative deviations from absolute priority) will demand a higher interest rate than they otherwise would. The implication is that any recontracting in bankruptcy should not affect ex ante optimal investment. Given this irrelevancy proposition, the role of the bankruptcy code must be to promote low-cost information production.

If, however, recontracting involves large legal and administrative costs, or if the incentives to recontract encourage over- or underinvestment, then such inefficient recontracting will be anticipated at the inception of the debt contract and will also result in suboptimal ex ante investment decisions. In addition, even if recontracting produces optimal investment in bankruptcy, it may reduce the amount of lending creditors are willing to make, and in the presence of tax and other advantages to debt, this will produce ex ante suboptimal investment decisions. Under this view, it may be preferable for the bankruptcy process to discourage recontracting, and thereby minimize deviations from absolute priority.

Finally, there is an important question as to whether a bankruptcy code is needed. Such a code limits the contracts that can be written between creditors and debtors and it is debatable whether this is desirable. Although we will not address this issue at length, our evaluation of the three bankruptcy codes can be seen as an appraisal of different prevailing contractual arrangements.

The following three criteria are used to evaluate the efficiency of a bankruptcy code:

Does it preserve promising enterprises while liquidating uneconomic ones?

Consistent with economic valuation criteria, firms which are worth more as going concerns than their liquidation value should be preserved, while others should be liquidated. In addition, a code should create the correct incentives for optimal investment in reorganization.

Does it allow the firm to be reorganized or liquidated at minimum possible cost?

The second criterion is the size of the costs of the insolvency process. These costs include the direct (dead-weight) costs of bankruptcy, including legal and accounting fees. It also includes indirect costs such as lost investment opportunities or overinvestment induced by the insolvency process. Profitable investment opportunities may lapse because of conflicts between different creditors and equityholders. For example, new loans in UK receivership usually do not take priority over existing claims and this may inhibit expenditures necessary for continuing the business. In contrast, overinvestment may take place within Chapter 11 in the US because the debtor may receive part of the benefits of the investment without contributing to the cost.[2]

Insolvency costs also include those borne by other stakeholders such as employees, suppliers, customers and the state, all of whom are not part of the financial claims against the company in the event of default, and are not taken into account in the decision to liquidate or to maintain the firm as a going concern. Examples include future benefits to suppliers from the continued operation of the business, the extra costs incurred by customers from replacing spare parts arising from the liquidation of the firm (Titman, 1984), and the lack of incentives for employees to invest in firm-specific human capital (Shleifer and Summers, 1988).

Does it permit innovations in debt contracts to improve the insolvency process?

The third benchmark is the extent to which commercial law and practice allow commercial arrangements to evolve so as to reduce the costs of insolvency.[3] While not a characteristic of a bankruptcy code per se, this criterion reflects the fact that the nature of a formal reorganization process affects the out-of-court resolution of financial distress. For example, private arrangements have evolved to avoid some of the costs of formal reorganizations.

II. A Description of Three Bankruptcy Codes

A. UK Insolvency Code

Prior to the 1986 Insolvency Act there were three possible routes to formal reorganization: 1) liquidation, 2) receivership, and 3) company voluntary arrangements. An additional procedure, administration, was introduced in 1986.

The most widely used route is the liquidation code, which in 1990 accounted for about three quarters of all formal reorganizations, while receivership accounted for a further 22% (Rajak, 1994).[4]

The objective of the liquidator is to sell sufficient of the firm's assets to repay creditors. The liquidator can sell the company as a going concern or in a non-operating state, but he cannot use funds belonging to creditors to delay the sale, otherwise he risks dismissal or legal action.

Receivership can only take place when one or more of the firm's creditors has a particular kind of lien on the firm's assets, known as a floating charge, which is a claim on moveable assets such as stocks and work in progress. The receiver is appointed by the creditor with the floating charge, and represents the interests of that creditor with virtually no duty of care to other creditors.

The powers of the receiver are significant. He has complete control of the firm, and does not require permission from the court or from other creditors for his actions. Although the receiver does not have the power to stay the claims of the firm (i.e., to postpone interest and capital repayments), he may terminate any of the firm's contracts with other parties such as suppliers and contractors.[5] The receiver can also raise funds to keep the firm as a going concern, although any new borrowing will be junior to existing loans. An important constraint on the receiver's discretion are liens (known as fixed charges) held by other creditors

[2]In effect, equity holders have a call option on the value of the firm. The riskier the assets or the longer the period of reorganization, the more valuable the call option (Franks and Torous, 1989).

[3]We are grateful to Oren Sussman for many helpful discussions on this issue.

[4]Olsen (1996) decribes a sample of 246 reorganizations of distressed and quoted UK companies over the period 1987 to 1995. He found that 148 were resolved through the insolvency process and the remainder through workouts. Of the 148 resolved through insolvency, 115 were receiverships (78%), 10 were liquidations, 15 were administrations, and 7 were company voluntary arrangements. The remaining case was a scheme of arrangement, which is a court-supervised arrangement with creditors.

[5]This has the effect of making them junior unsecured creditors and therefore of little value when the firm is insolvent.

on particular assets such as plant, equipment, and buildings. Creditors with fixed charges can repossess those assets even if those assets are vital for maintaining the firm as a going concern. In that event, the receiver must negotiate with the creditors or risk repossession. In order to avoid being held to ransom by other creditors, the creditor with the floating charge will attempt to obtain liens on fixed assets as well.

In the absence of a creditor with a floating charge, a receiver cannot be appointed and the only alternative available pre-1986 was liquidation. The position of administrator was established in the 1986 Insolvency Act and was intended to fill that gap.

Whereas the appointment of the receiver does not usually require the permission of the court, the administrator can only be appointed by the court. Approval will only be given if there is a good chance the firm can emerge as a going concern. Within three months of his appointment the administrator must propose a reorganization plan to be approved by a majority of all creditors, or seek an extension. Whereas in receivership control rights rest with the creditor with the floating charge, the administrator's actions require a vote by all creditors. However, the number of administrations has been limited in part because the creditor with a floating charge always can preempt the appointment of the administrator by appointing a receiver instead. He or she may wish to do so because the creditor represented by the receiver has greater control rights than he or she would in administration.

B. US Bankruptcy Code

There are two main bankruptcy procedures in the US for corporations: Chapter 7 and Chapter 11.

Chapter 7 is the liquidation provision. It provides for the appointment of a trustee by the court to oversee the liquidation of the company. Invariably, the firm is closed down prior to sale and the assets auctioned.

Chapter 11 allows a firm to remain in operation while a plan of reorganization is worked out with its creditors. To facilitate this, the directors of the corporation are permitted to remain in charge and substantial rights are given to the firm, often referred to as the debtor-in-possession. The rationale is that existing management representing equityholders will have greater incentives to maintain the firm as a going concern in order to preserve some value for equity's claim. In almost half the cases, the existing management remains in control, and in the large majority of remaining cases, new management is appointed (Gilson, 1989). In a few cases, the court appoints a trustee, but this is usually a temporary measure until new management is appointed.

Most firms enter Chapter 11 only after attempting an informal reorganization or workout outside of the bankruptcy process. A workout can take the form of an exchange offer for outstanding debt, renegotiation of bond covenants, or the negotiation of a reduction in interest payments and an extension of loan maturities. Workouts generally involve lower direct costs than Chapter 11 cases because the time spent in reorganization is much shorter, taking 17 months as compared with 27 months for Chapter 11 (Franks and Torous, 1994). The shorter period reflects that only a subset of the distressed firm's liabilities are usually involved in the exchange compared with all liabilities in Chapter 11. In addition, in a workout the court does not supervise the affairs of the distressed company in contrast to Chapter 11, where the day to day affairs of the company are under the scrutiny of its creditors and the court.

Some firms attempt to combine the lower administrative costs of a workout with the non-unanimity requirements and tax benefits of Chapter 11, by filing a "pre-packaged" bankruptcy petition. In this case, a plan of reorganization is arranged with the main creditors outside formal bankruptcy, the firm then enters Chapter 11 and the plan is immediately submitted to the judge and then to creditors for approval so as to take advantage of the code's non-unanimity provisions. Court approval also has the advantage of forestalling future litigation. "Pre-packs" constitute an important trend in recent filings for Chapter 11 and accounted for 43% of filings in the first six months of 1993 for firms with assets greater than $100 million.

The majority of bankruptcies are processed through Chapter 7. For example, in the Central District of the California Bankruptcy Court there were 57,752 Chapter 7 cases pending as compared with only 6,739 Chapter 11 cases as of December 1993.[6] The preponderance of cases in Chapter 7 reflect mainly a deficiency of cash flow necessary to keep the business running as a going concern. Although Chapter 11 is designed to be used for companies which can be maintained as a going concern, management will often wish to liquidate in Chapter 11 rather than in Chapter 7 because they retain control of the business and continue to draw an income.

C. The German Code

Current German bankruptcy law consists of two codes: *Konkursordnung*, or compulsory liquidation,

[6]Additionally, in this Court for the year to December 1993, a total of 68,992 cases were commenced in Chapter 7 and 2,228 cases in Chapter 11. The corresponding numbers of cases closed were 88,892 and 1,527, respectively.

and *Vergleichsordnung*, or composition proceedings. In July 1994, new bankruptcy legislation was passed. The new code is scheduled to come into force in 1999.

Currently, the most commonly used procedure is compulsory liquidation. In compulsory liquidation, control of the assets of the firm is transferred from management to the *konkursverwalter* (insolvency administrator), an insolvency practitioner typically appointed by the court. A creditors' committee supervises the insolvency administrator.

Although the administrator's directive is to sell the firm for cash, there is no rush to sell off the firm's assets. There is, in effect, an unlimited stay against unsecured creditors, and the administrator can raise new senior financing. Thus the administrator can keep a firm alive if he deems economic conditions to be unfavorable for a sale, for example, there may not be liquid markets for some assets such as office buildings or manufacturing plants. That the administrator has great powers to take his time in selling the insolvent firm is illustrated by the average duration of the typical *konkursverfahren*. According to Gessner et al. (1978) in a study commissioned by the German Federal Ministry of Justice, the average time spent in compulsory liquidation is 27.5 months.

The composition proceeding is a relatively recent addition to the statutes and is an alternative to compulsory liquidation. However, it is seldom used; in 1992, only 0.3% of all insolvencies were composition proceedings while 25% of insolvencies entered into compulsory liquidation. Composition proceedings were more common in the past. In 1960, they amounted to 16% of all insolvencies, while in 1974 they amounted to only 7% (Landfermann, 1994).

A debtor's application for composition proceedings may fail if the debtor has acted fraudulently in the past or if the court's opinion is that the firm is not viable as a going concern. This is in part why composition proceedings are so rarely used. Another reason is the stringent requirements in terms of repayment to creditors: preferred creditors must be repaid in full, and unsecured creditors must receive at least 35% of their claim (at least 40% if repayment is to take place in more than one year). Also, secured creditors cannot be forced to take part in composition proceedings. An important reason for the decline in the use of composition proceedings is the increase in preferred creditors created by the German parliament.

In the composition proceedings, the court appoints an administrator, *vergleichsverwalter*, whose responsibility is to supervise management. Current management continues to make decisions regarding the day-to-day business of the firm, but transactions which go beyond that must be approved by the composition administrator, who is invested with the powers of a director. The debtor thereby retains considerable control, unlike the case in a compulsory liquidation where the debtor relinquishes control to the insolvency administrator and creditors.

The new code bears some similarity to the current *konkursordnung*. The main differences are:

- There is an automatic stay of secured claims for three months.
- There are no preferred creditors.
- In *konkursverfahren*, the administrator has considerable control rights. Under the reform, these rights are reduced.

The reform provides a fairly flexible framework in which to reorganize or sell the firm in part or in whole. The three-month automatic stay is designed to give the administrator and all interested parties an opportunity to share information so that efficient solutions can be achieved. Upon entering formal bankruptcy, the court appoints a creditors' committee and an insolvency administrator. Both of these appointments can be overturned at the creditors' assembly, which must be held within three months.

At the creditors' assembly the insolvency administrator informs creditors about the economic conditions of the bankrupt firm. The administrator proposes a plan of reorganization, which may have been worked out in cooperation with the creditors' committee. The plan can involve keeping the firm as a going concern, in whole or in part, or can result in the complete liquidation of the firm. The plan can include proposals to continue to stay secured claims (subject to some constraints) as well as unsecured assets. If the plan is voted down, the creditors' assembly could vote to let the administrator try again with a new plan, or they could vote in favor of an alternative plan to be proposed by the debtor. Since neither the administrator nor the debtor has a monopoly on the right to propose plans, their control rights are considerably reduced compared to the existing codes.

Secured and unsecured creditors vote in separate groups. Simple majority by number and by claim in each group is required for a favorable vote. Confirmation by the court is also necessary. Similar to Chapter 11 in the US, such confirmation will not be given if the plan would put a creditor opposing the plan in a worse position than the creditor would be in the next best alternative. This provides a guarantee that a large group of creditors cannot disadvantage other creditors.

III. Differences Between the UK, US, and German Codes

In Table 1, nine characteristics of the three principal codes are compared. We also discuss other codes within

Table 1. A Comparison of the Main Characteristics of the Insolvency Process in the UK, US, and Germany

Characteristics	United Kingdom: Receivership	United States: Chapter 11	Germany: New Code
Control Rights	Creditors in control: board of directors steps down. Receiver has strong powers over the firm except concerning secured assets.	Debtor in control: in 50% of cases, previous managers retain control; in remainder, new managers appointed.	Creditors committee in control. Creditors vote on the proposed plan.
Solvency Requirements	Firm cannot meet payments to creditors. Penalties for directors who trade while firm is insolvent.	Firm need not be insolvent.	Firm cannot meet payments to creditors. Overindebted.
Automatic Stay Against Creditor Claims	None in receivership.	Most creditor claims are stayed (exceptions, e.g., lease payments).	Automatic stay for unsecured: minimum of three months for secured.
Renegotiation of Liabilities	No discretion in receivership.	Great discretion to renegotiate debt contracts.	Renegotiation may take place with all creditors.
Constraints on Firm as a Going Concern	Secured creditors can liquidate even if firm is worth more as a going concern to all creditors.	Few.	All creditors vote on plan.
New Financing in Reorganization	Constrained because new financing will probably come from senior creditors and its junior to existing claims.	New financing is easily accommodated because it has priority over existing claims.	New financing can be arranged.
Preservation of Residual Claims of Equity Holders	Equity unlikely to have claim in receivership.	In majority of cases, deviations from absolute priority in favor of equity.	Deviations can be proposed but must be agreed by a creditors' vote.
Direct Costs	Lower because 1) short period and 2) court is not involved in the process.	Higher because 1) long periods and 2) court is extensively involved in the process.	Creditors have the ability to shorten procedure, but court heavily involved.
Private Benefits of Firm's Stakeholders	Takes no account of the private benefits of the distressed firm's stakeholders.	Gives considerable weight to the private benefits of distressed firm's stakeholders.	May play an important role in the restructuring of the distressed firm.

each country described earlier but not mentioned in the table.

A. Control Rights

Control rights provide creditors and the debtor with prespecified rights over a firm's assets should the firm enter the insolvency process. Frequently, these control rights create a tension between different creditors. For example, in the UK a secured creditor in receivership has complete control over the asset his debt has a lien against. Such a lien may be used to prevent a receiver from using the asset to maintain the business as a going concern. As a result, although the creditor appointing the receiver can manage the firm without intervention from the courts, his or her control rights may be severely limited by secured creditors if he or she wishes to continue running the business. In contrast, the debtor has few control rights in insolvency, especially in a receivership; for example, the board of directors immediately steps down when the receiver is appointed.

In Germany, secured creditors do not have to participate in liquidation or composition proceedings. Hence, although the insolvency administrator in *konkursverfahren* can stay unsecured claims, raise new senior financing, and in theory have the rights necessary to maintain the firm as a going concern, these rights are, in practice, often nullified by the secured creditors' right to take possession of the assets upon which they have a lien. In the majority of insolvencies, after secured creditors have grabbed their assets, there are insufficient funds in the company to open formal insolvency proceedings.

In contrast, in the US in Chapter 11 the debtor-in-possession usually remains in control of the business throughout the entire reorganization process. As a consequence, the equity usually has some value even when the firm is insolvent. However, the company's management is subject to detailed supervision by the court, which potentially limits its discretion to raise financing, sell assets, and even fix the size of the salaries of the managers.

According to Gilson (1989), approximately 50% of financially distressed firms' top management remains in place throughout the formal reorganization process. Even when they are replaced, and then only with the agreement of the court, the new management represents the debtor.

Chapter 7 operates like the UK's liquidation code, but very differently from Chapter 11. A trustee is appointed by the bankruptcy court to liquidate the firm, and the debtor's management always steps down.

B. Solvency Requirements

In the UK, the creditor can appoint the receiver when there is a default on the covenants in the loan's trust deed. For example, there are usually minimum financial ratios, such as debt to equity, which if breached can trigger default and the appointment of the receiver. In practice, creditors may not wish to precipitate a firm moving into insolvency. Eurotunnel was frequently in breach of its loan covenants, and lenders took advantage of this breach to increase interest rates rather than precipitate bankruptcy. Even when the company suspended interest and loan repayments, Eurotunnel's creditors preferred to renegotiate outside the formal bankruptcy process. This reflected their preference not to take managerial control of the company.

Whereas a receiver may exercise his control rights without the authority of the court, an administration order requires the permission of the court. It can only be granted providing it is shown that 1) the company is unable, or will be unable, to pay its debts, and 2) the whole or part of the company may survive as a going concern or there may be a more advantageous realization of the company's assets as compared with a liquidation. The appointment can be applied for by the company, its directors, or by any creditor.[7] One reason why the directors will not take the firm into receivership unless it really is insolvent is that management must step down in favor of creditor control.

In contrast, in the US management remains in control, and the control rights of creditors are limited in Chapter 11. As a result, in the large majority of cases the debtor firm voluntarily applies for protection from the courts. In some cases, the firm is solvent when entering Chapter 11. For example, Texaco entered Chapter 11 in order to dispute a large court award, while other companies have entered Chapter 11 as a way of withdrawing from expensive labor contracts.

In Germany, statutory bankruptcy proceedings are triggered when a firm cannot repay its creditors, or when it is *overindebted*. A firm is overindebted if the value of its liabilities exceeds the value of its assets, with the latter valued at market prices. Managers who fail to report the overindebtedness of their firms may be liable for damages. In theory, the valuation of the assets of the firm with respect to the overindebted test is made on a liquidation basis rather than on a going-concern basis. However, in practice, a firm would not be deemed overindebted if there is perceived to be a chance that the firm will be able to meet its obligations when they fall due. As a result, the overindebtedness criterion is of little practical significance. A notable recent exception is the case of Metallgesellschafft AG (MG AG), which was declared overindebted on January 5, 1994, primarily due to losses arising from futures trading by its US subsidiary MGMR Corp.

As discussed previously, under the existing code, composition proceedings have stringent entry requirements and are therefore rarely used. Also, since most assets tend to be pledged to secure debt, it is in practice almost impossible to enter composition without the cooperation of secured creditors. Although compulsory liquidation does not share the same stringent entry requirements as composition proceedings, the majority of petitions for liquidation fail due to want of assets to cover the costs of the proceedings.

[7]Only a small number of applications are made by creditors, about 42 out of 705 in the period 1987-90 (Rajak, 1994). Of 410 applications made in London during this time period, 316 were granted, 89 were dismissed or withdrawn, while the outcome of the remaining five are unknown.

This problem of insufficient funds has increased over time. In 1960, the percentage of unaccepted petitions amounted to 27%. In 1974, 48% of petitions were rejected for want of assets. By 1992 this number had increased to 75% (Landfermann,1994). This increase is caused by an increase in secured claims and an increase in administrative obligations in bankruptcy. This reflects developments in labor law whereby the administrator in bankruptcy is required to pay wages out of the bankrupt firm's estate well after notice of termination to employees, even if the business is closed. The importance of the secured creditors' ability to take possession of their assets is highlighted by the finding by Gessner et al. (1978) that secured claims accounted for 87% of all claims against the firm.[8] The German bankruptcy reform will limit the ability of secured creditors to take possession, thereby facilitating more going concerns.

C. Automatic Stay Against Creditors' Claims

There are no automatic stay provisions in the UK's receivership code. Indeed secured creditors often precipitate liquidation by repossessing their assets even when they are essential to keep the business running.

The administrator in UK administration represents all creditors, and since he is not selected or appointed by any one creditor, some of the potential conflicts that arise in receivership are mitigated. The administrator has strong powers to delay or stay creditors' claims. For example, interest and repayment on loans are stayed while the administration order is outstanding. Also, the owner of a leased asset may be prevented from repossession if the asset is necessary to run the company.

In Chapter 11, there are strong automatic stay provisions. Perhaps most importantly, all payments of interest and principal on much of the company's debt is stayed while the firm is in Chapter 11. Interest continues to accrue on fully secured debt but not on unsecured or undersecured debt. Furthermore, in contrast to the UK's receivership code, the filing of a bankruptcy petition automatically restrains almost all creditors from taking any action against the debtor to collect their claims or enforce their liens.

In the new German code, there is a three-month automatic stay against all claims.

D. Management of Liabilities

In the UK, since the receiver represents the interests of only one creditor, he has very little discretion in renegotiating the distressed firm's liabilities. For example, the issuance of further debt could not be made without the agreement of other creditors, unless the new debt was junior to all existing claims. This may be a particular disadvantage if the receiver wishes to maintain the company as a going concern and the company requires an injection of funds.

In comparison, the court-appointed administrator has greater flexibility in managing liabilities, since there is a court-administered process for obtaining the agreement of creditors to new financing arrangements. However, the approval of the court is also required.

If a secured asset is necessary to run the business in Germany, the insolvency administrator may redeem a creditor's claim in cash to prevent the creditor from repossessing the asset. If cash cannot be found in the bankrupt firm, the administrator may attempt to strike a deal with the creditor whereby the creditor will receive preferential treatment within the formal bankruptcy proceedings so that the creditor will get the cash equivalent of his security (Hübner, 1984). This is possible under German bankruptcy laws because new senior financing can be raised by the administrator.

Both the US and new German bankruptcy codes allow for the renegotiation of all claims against the distressed firm. While court approval is necessary, only a majority of creditors (and two-thirds by value) within each class need approve.

E. Liquidation versus Going-Concern Value

In Chapter 11, there is no duty on management (or the court) to liquidate a company even if the liquidation value is greater than the going-concern value. The implication is that the business could be kept running even when it would be worth more to some creditors than a liquidation. Eastern Airlines is an extreme example of a business that was maintained as a going concern when it was apparent that creditors would have received a larger repayment from the immediate liquidation of the firm and the realization of the assets. The structure of Chapter 11 is designed to keep firms as going concerns, and this explains why the code gives such strong control rights to the debtor company rather than to creditors.

Under both the UK and German codes, liquidation can be forced by the creditors. For example, in the UK the receiver may liquidate a business without asking the permission of the court or other creditors. Under the current German code, secured creditors can take possession even if that results in the termination of a firm which is viable as a going concern. However, if a firm enters compulsory liquidation or *konkursverfahren,* the insolvency administrator has substantial powers to keep the firm alive. Under the

[8]In particular, 28% of the claims have a right to segregation and the remaining 72% of claims have other security.

new German code, secured creditors' rights will be reduced, in the hope that this will promote a more efficient liquidation decision.

F. Bankruptcy Financing

Financing of the distressed firm's continued operations during bankruptcy may be required to maintain the firm as a going concern. In the UK, the receiver can raise these additional funds, but as described above, any new borrowings will be junior to all existing loans. Olsen (1996) found only one receivership of a quoted company out of a sample of 20 where new funds were raised.

The difficulties of arranging new financing as well as the lack of automatic stay provisions may explain why large companies will go to great lengths to remain outside the court-administered process. Eurotunnel, the financially distressed firm that operates the channel tunnel, has recently carried out a major restructuring of its debts, which saw its total debt of £9.1 billion reduced to £7.1 billion. The restructuring involved a £1 billion debt-for-equity swap, the issuance of convertibles and warrants, a reduction in the interest rate on remaining debt, and further facilities for raising new financing should there be shortfalls in revenues. This agreement was made outside the formal bankruptcy process and was negotiated by the company and a small group of banks with large loans outstanding to Eurotunnel. The agreement awaits approval by all 225 banks and by 75% of the company's shareholders.[9]

This position is in contrast to the US's debtor-oriented Chapter 11, which explicitly recognizes the importance of new financing during reorganization by providing for debtor-in-possession financing. Such financing takes priority over many outstanding obligations, and as a result, it is referred to as supra priority financing. For example, Eastern Airlines was able to raise large amounts of funds to finance the continued operation of the airline; such financing took priority over existing debt. Such financing provides strong incentives for the debtor company to overinvest since the equityholder benefits in the unlikely event that the project pays off but does not contribute to the costs.

New senior financing can be raised under the current German code. This will be maintained in the new code. Additionally, the new code will dispense with preferred creditors.

[9]The workout was facilitated by the fact that although the firm was financially insolvent, the operating assets continued to be profitable as a going concern.

G. Deviations from Absolute Priority

The UK code of receivership results in a speedy settlement of claims and adherence to the priority of claims. This is achieved because creditors obtain control of the company when it enters the formal insolvency process. Olsen's (1996) empirical analysis of financially distressed UK public companies over the sample period 1987 to 1995 confirms a complete absence of deviations from absolute priority in receivership. However, he finds substantial deviations from absolute priority in workouts, with bank creditors giving up, on average, approximately 12% of their entitlements.

Many authors, including Franks and Torous (1989) and Weiss (1990), have found that the majority of Chapter 11 reorganizations in the US result in deviations from absolute priority in favor of shareholders and some creditors. In addition, Franks and Torous (1994) have found that equity deviations occur in voluntary reorganizations or workouts and that they are of a substantially greater magnitude than those in Chapter 11.

Table 2 summarizes the results for deviations in the UK and US. Deviations in favor of equity are comparable for the sample of UK and US workouts. Secured creditors gave up far more in UK workouts than the more senior creditors in the US, and these appear to benefit unsecured creditors in UK workouts who fare better than unsecured creditors in the US.

A study by Gessner et al. (1978) found that secured claims accounted for 89% of all claims against insolvent firms. The average dividend to unsecured, non-preferential creditors in compulsory liquidation is only 5% (Landfermann, 1994). When we consider that only 25% of bankruptcy petitions have sufficient funds to meet the administrative costs of bankruptcy, unsecured creditors end up with a dividend of approximately 1.3% on the average.

While a systematic analysis of relevant German data does not exist, the recent financial distress of Klückner, a steel, plastics, and engineering company, illustrates that deviations may occur under the German code. The company filed for composition in December 1992 with a total debt of DM2.7 billion, and the plan of composition was approved in June 1993. The plan provided for payments to creditors (including Deutsche Bank, Dresdner Bank, and West LB) to be made at the end of 1994. Unsecured creditors incurred writedowns of 60% (the maximum allowed by law) while secured creditors incurred writedowns of 40%; as a result, there were large deviations in favor of unsecured creditors. Creditors with debts of less than DM 10,000 were paid in full to secure approval of the plan, since the approval

Table 2. Deviations from Absolute Priority

The UK sample consists of 35 firms that successfully restructured their secured bank debt between 1987 and 1995. The US sample consists of 82 firms from the period 1983-1988. The definitions of the creditor class may not match in the two jurisdictions. In the US, secured creditors include secured debt, bank debt, and senior debt.

Creditor Class	UK Workouts	Chapter 11	US Distressed Exchanges
Secured	-12%	-4%	-7%
Unsecured	6	1	-1
Equity	6	3	8

Sources: Franks and Torous (1994) and Olsen (1996).

of a majority of creditors by number was required. In addition, equityholders would retain an interest in the firm.

H. Direct Costs of Each System

The costs of Chapter 11 can be expected to be greater than the costs of a UK receivership because the receiver (and to a lesser extent the administrator) can act without having to report back to creditors or the court on a day-to-day basis. For example, in the US case of Wickes, which was reorganized in 1985, the period spent in Chapter 11 was almost three years. The expenses of the reorganization totalled approximately $250 million, of which between $75 million and $120 million are estimated to be incremental to the Chapter 11 process. These costs constituted between 16% and 26% of the value of the reorganized firm.

In the UK, there is little communication between the receiver and creditors other than his appointor. This lack of need for ongoing consultation makes the receivership process relatively fast and therefore of short duration, perhaps only months or weeks. Administration in the UK takes longer because of the need to obtain the agreement of creditors to any plan of reorganization.

In Germany, the existing liquidation process can be very lengthy and costly because unsecured creditors cannot easily terminate the proceedings. It is widely believed that the administrator often does not act in the interest of creditors; a common complaint of creditors is summarized in the following statement: "From the experience with many proceedings one may gain the impression that several insolvency administrators have a personal interest in executing the procedure in a biased manner." (Gessner et al., 1978). This refers in part to the incentives of the administrator to conduct the proceedings so as to maximize his fees. Creditors may claim that this is reflected in the often prolonged time in compulsory liquidation. But this time may also reflect a desire on the part of the insolvency administrator to continue the firm as a going concern. The new code, like the UK administration code, provides creditors with the ability to liquidate after the compulsory stay of three months has been exhausted.

Another means of comparing the costs of reorganization is to examine writedowns of creditor claims. Writedowns may reflect the costs of financial distress and the reorganization process, or it may reflect the decline in the value of the firm prior to financial distress. A comparison of data from the UK and the US gives some clue as to whether there are differences in costs of distress and reorganization. This is shown in Table 3 for US data (from Franks and Torous, 1994) and UK data (from Olsen, 1996). For the UK data, we see, on average, substantially larger writedowns of creditors' claims in receiverships than in workouts. In particular, unsecured creditors in receiverships experience an almost total elimination of their claims.

A comparison of how creditors fare in the two countries suggests that writedowns are always larger in receivership than in Chapter 11. For example, for secured creditors the writedowns are 47% in UK receiverships and only 29% in Chapter 11. This pattern is repeated for all creditors, with writedowns of 66% in receiverships and 49% for Chapter 11. The pattern is not the same for reorganizations outside the court-administered process. For example, for unsecured creditors the writedowns are only 5% in the UK sample compared with 20% in US distressed exchanges.

Comparisons are complicated because of different definitions for particular claims, and because of different incentives to reorganize both within and outside the court-administered process. However, the comparison of all creditors' claims suggests that taking both forms of reorganizations together, the writedowns are not dissimilar between the two codes. This suggests that costs may not be very different.

A very different picture emerges from a comparison of the administrative costs of receivership compared with US bankruptcy costs. Olsen (1996) finds that costs in receivership are more than 20% of the proceeds. In contrast, in UK workouts the costs are considerably lower at 3% of firm value. The much higher costs in receiverships may reflect the small size of firms, which are less than £3 million, valued on the basis of proceeds of reorganization. If the costs are measured based on the prereceivership book value, the ratio falls to 6%. In contrast, the costs in US bankruptcies are estimated by Warner (1977) at about 5.3% for a sample of US

Table 3. Average Writedowns for a Sample of UK and US Firms that Completed a Reorganization Outside the Court-Administered Process and Within It

The UK sample consists of 61 firms from the period 1987-1995. The US sample consists of 82 firms from the period 1983-1988. The definitions of the creditor class may not match in the two jurisdictions. In the US, secured creditors include secured debt, bank debt, and senior debt.

Creditor Class	Receivership	UK Workouts	Chapter 11	US Distressed Exchanges
Secured	47%	19%	29%	17%
Preferential	59	—	—	—
Unsecured	97	5	71	20
All Creditors	66	15	49	20

Sources: Franks and Torous (1994) and Olsen (1996).

railroads. In a later study, Altman (1984) estimated the administrative costs of bankruptcy at 6.2%. Cross country comparisons are especially difficult because of size and industry effects between the two samples, and because more solvent firms enter Chapter 11 compared with receivership. However, there is little evidence that the direct costs are higher in Chapter 11 compared with receiverships.

I. Private Benefits of Creditors and Other Stakeholders

The US system indirectly gives considerable weight to the interests of the distressed firm's stakeholders through incentives to keep the firm running as a going concern in bankruptcy. However, these benefits may be offset by costs imposed on stakeholders in other non-bankrupt companies. For example, there is serious concern in the US that the Chapter 11 process is being used by some firms to acquire a competitive advantage. If firms in an industry are generally in financial difficulties, then those firms entering Chapter 11 may find access to new financing less costly than those firms which are in distress but which have not entered bankruptcy. Managers of solvent US airlines have in the past been particularly vigorous in their complaints that competitors in Chapter 11 have enjoyed a competitive advantage.

It may be argued that providing all firms have equal access to Chapter 11, no competitive advantage exists. However, there are costs and benefits of Chapter 11 reorganizations and workouts that affect firms asymmetrically. For example, tax benefits accrue to some firms as a result of entering Chapter 11 but not to others.

In contrast, the UK process takes no account of the private benefits of stakeholders, giving absolute priority to the repayment of creditors' claims. The German composition code resembles Chapter 11 in so far as the debtor remains in control, and as the reorganization of MG AG illustrates, private benefits may play an important role in resolving financial distress. In this case, two major creditors, Deutsche Bank and Dresdner Bank, in cooperation with MG AG, drafted a restructuring proposal which was accepted by domestic German creditors, but not by foreign creditors. A deal was struck, however, whereby foreign creditors obtained preferential treatment in the restructuring of their claims. Deutsche Bank's and Dresdner Bank's willingness to agree to preferential treatment for other banks suggests that they would suffer more than other creditors from formal bankruptcy proceedings, and they would derive greater private benefits from keeping MG AG as a going concern than foreign banks.

In Germany, there is social prestige attached to "saving a firm." There is evidence that insolvency administrators will take externalities into account, for example, the impact of closure on local employment, when deciding whether to maintain firms as going concerns. According to a questionnaire study by Gessner et al. (1978) of close to 300 insolvency practitioners, the criterion that employees would not find adequate employment when laid off was chosen by 11% as important for a firm permanently continuing as a going concern. The criterion that the geographic region required the restoration of the production capacity was selected as important by 17% for continuing a firm permanently as a going concern. In terms of keeping firms temporarily as going concerns, these two criteria were selected by 30% and 9%, respectively. The new code will weaken the role of the administrator to make these judgements.

IV. US, UK, and German Codes and Efficiency

Section I set out a number of criteria to assess the comparative efficiency of each of the three codes.

Does it preserve promising enterprises while liquidating uneconomic ones? The US code appears to provide strong incentives to maintain a firm as a going concern even when it is worth more in liquidation. In contrast, the UK code, by emphasizing the rights of creditors and in some cases giving priority to only one creditor, is likely to result in inefficient liquidations.

The bias of the US code is justified by the fact that there are large stakeholder groups, such as employees and suppliers who are not usually party to the decision to liquidate and who stand to reap large private benefits. However, the US code achieves this objective indirectly by giving power and value to the debtor-in-possession rather than directly to these other stakeholders. The rationale for this is that a shareholder-oriented management, because it represents the most junior claims, will have greater incentives to keep the business alive.

The current German code, by giving strong rights to secured creditors, is widely believed to precipitate premature liquidations. The new code, which is similar to the UK's administration procedure, mitigates these effects by allowing an automatic stay (initially for three months) and diluting the secured creditors' rights through majority voting procedures for approving the plan of reorganization.

Does it allow the firm to be reorganized or liquidated at minimum possible cost? The legal and administrative costs of bankruptcy appear to be lower in the US than the UK. Also, both systems have developed alternatives to the formal process which should reduce costs. There is, however, considerable concern that these costs favor only larger companies, and that smaller companies are substantially disadvantaged because of economies of scale in administration and legal expenses. While in Germany, companies are kept for a long time in liquidation, suggesting high costs, the large majority of distressed companies reorganize outside the formal process; secured creditors grab their assets, and the firm must be liquidated. As a result, legal and administrative costs may be low but at the expense of serious underinvestment problems, some would say, as in the UK receivership code. The new German code is designed to remedy this but at the likely expense of higher administrative costs.

The US process allows the company to raise new financing more easily and at lower cost than the UK process. We might therefore expect less underinvestment in the US. However, as the case of Eastern Airlines clearly demonstrates, this access to supra-priority financing also increases the possibility of overinvestment. At the time of its bankruptcy filing, Eastern Airlines publicly stated that it had sufficient funds ($3.7 billion) to fully repay its liabilities ($3.4 billion). One year later, Eastern proposed to repay its creditors $1.6 billion, while Eastern's final plan of reorganization, rejected by creditors, proposed a repayment of only $0.85 billion. When the firm was eventually liquidated, the creditors received only about $0.34 billion.

In the UK, by contrast, new borrowings do not take priority over existing claims, and therefore, there are disincentives to raise new financing, and we might expect underinvestment. This is illustrated by the actual case of a receiver appointed by a creditor with a charge on two hotels with realisable value as bricks and mortar of £1.2 million. If it were kept as a going concern, the assets would have a higher value of £1.8 million. The creditor with the floating charge was owed £1.8 million plus interest. The receiver decided to run the hotels as a going concern but subsequently the roof of one hotel collapsed and the repair cost of £100,000 had to be paid for by the appointing creditor. Other creditors refused to contribute since they believed little would be left over to repay their claims. The roof repair illustrates the underinvestment problem. If new funds have to be invested, creditors, other than the appointor, may refuse to contribute, even though they might benefit, when those new borrowings will be junior to all other claims.

Does it permit innovations in debt contracts to improve the insolvency process? The costs of each code have an important effect upon the incentives to complete workouts. In the US, because of both the direct and indirect costs of the bankruptcy process, there are strong incentives for the insolvent company to come to an out-of-court agreement with creditors.

In Germany, some have suggested that the high rate of liquidations provides strong incentives to remain outside the formal bankruptcy process. It has been estimated by Franke (1983) that 50% of potential insolvencies cases are averted through pre-insolvency restructuring. Gessner et al. (1978) report a somewhat lower number (23%). However, it is conceivable that the firms that enter the formal process are simply the "rotten apples" which are worth more liquidated than restructured.

To evaluate the effectiveness of any code, it is necessary to include both the incidence and outcome of workouts. Franks and Nyborg (1996) have stressed the importance of the formal bankruptcy rules in determining how many workouts take place. They show that a bankruptcy law that automatically leads to the liquidation of the insolvent firm may under certain circumstances be more efficient than the UK receivership code, which allows for keeping the firm as a going concern. The reason lies in the effect the allocation of control rights has on the incentives of creditors to communicate private information to each other, which is essential for efficient liquidation decisions. The receivership code gives control rights to one creditor, thereby reducing other creditors' incentives to reveal their private information since this may be used against them by the controlling creditor. In contrast, the harshness of a pure liquidation code provides better incentives for creditors to try to come to some agreement in order to avoid a possibly inefficient liquidation. The Franks and Nyborg model may be relevant for the German insolvency experience insofar as it shows that the extent to which a workout is achieved depends critically on the specific form of the bankruptcy code.

Information production and recontracting: We would like to stress the importance of information production in both formal bankruptcy and in workouts. The more perfect the information available to the markets, the more likely it will be that efficient solutions will obtain. As discussed previously, this has implications for both ex ante and ex post efficiency. A problem may be that information exchange is associated with recontracting which, although ex post efficient, can lead to ex ante inefficiencies.

The UK receivership code does not provide the incentives to generate information since control is vested in one creditor and he may use information disclosed by other creditors to his advantage. Moreover, the lack of automatic stay provisions and supra priority does not allow time for information exchange and bargaining. In contrast, both the UK administration code and the new German code do provide the right incentives for information gathering and exchange by vesting control rights in all creditors and imposing a short automatic stay against claims. The German code is especially attractive in this respect because it allows both the debtor and the creditors to put competing plans of reorganization to the creditors' assembly thereby encouraging information exchange. However, Chapter 11 of the US code gives too much power to the debtor-in-possession, for example, the exclusive right to submit reorganization plans to the court. Such a concentration of power allows the debtor to use information to extract a greater surplus from other parties and thereby discourages disclosure.

Recontracting will frequently be reflected in wealth transfers between the parties measured as deviations from absolute priority. Although deviations from absolute priority appear small in Chapter 11, they are significant in distressed exchanges, and these may be the result of creditors trying to avoid the costs of the formal process. An important question is whether these deviations are the result of the concentration of control rights or the result of recontracting to overcome under- or overinvestment problems. Although it is difficult to distinguish the two, evidence suggests that part of the gains accruing to equityholders comes from bargaining power rather than correcting the incentives to invest. In comparison, the UK receivership system leads to less recontracting. This may be because receiverships are about the efficient liquidation of companies and that going concerns are reorganized outside the formal process. The evidence concerning deviations from absolute priority and new financing arrangements in UK workouts are consistent with this view. However, there is a strong view that there is underinvestment in receivership because of the concentration of control in a single creditor, which thereby leads to ex post inefficiencies. Likewise, the current German code does not encourage recontracting, although the new code provides strong incentives to remedy these defects.

V. The Design of a Bankruptcy Code

In an otherwise perfect market, to the extent that formal bankruptcy may involve dead-weight costs, one would expect firms not to enter the bankruptcy process. There would always be a workout—either to maintain the firm as a going concern or to liquidate it—which would maximize firm value. Under these assumptions, it is desirable to have a simple bankruptcy code which provides for strict adherence to the original contract, not allowing for renegotiations. However, information asymmetries can alter this conclusion. Since information asymmetry is likely to be an important contributor to the market's failure to restructure troubled firms, a bankruptcy code should encourage information production and transmission. For example, an automatic stay against all creditors' claims allows time for information to be exchanged.

It is useful to stress the importance of information production both inside and outside of formal bankruptcy. The more complete the information available to the market, the more likely that an efficient extra-judicial solution will be achieved. This is illustrated by the recent case of the German property developer Schneider, who transacted business as a private individual and, as a result, did not have to submit to the same detailed audits as would be required of joint stock companies. Upon the insolvency of Schneider, substantial errors were made. In one case, for example, it had been reported that a particular office building had twice the rental space that it actually had. It may be that Schneider would not have been allowed such high borrowings if creditors had had more information.

Even with perfect information, however, free-rider problems may arise. For example, in US workouts involving an exchange of securities, a creditor cannot be forced to participate in the exchange. As a result, some security holders may attempt to free ride on others. For example, suppose that holders of debt are offered junior securities in the exchange offer. The dissenting holders will find that their securities have a higher value after the exchange because a greater proportion of the outstanding debt has become junior to theirs. Companies avoid this free-rider problem by offering cash or more senior securities in exchange and thereby threaten to dilute the claims of dissenting debtholders.

A second free-rider problem arises in the UK receivership system when creditors other than the appointor of the receiver, refuse to contribute towards new financing although they may benefit if the new financing adds value. These free-rider problems can be mitigated by clauses, as in Chapter 11, which allow supra-priority financing or by providing control rights to all creditors, as in the UK administration code or the new German bankruptcy code.

Aghion, Hart, and Moore (1994) (AHM) have proposed a much simpler code as a response to some of these complaints. For example, they argue that the UK code fails to distinguish between two decisions: how the firm should be reorganized, and how that reorganized value should be divided among the firm's claimholders. The former addresses the question of whether the firm should be kept as a going concern or liquidated. The latter addresses whether the value of the firm should be distributed to creditors according to absolute priority.

Their proposal has two stages. To begin with, the firm is put up for auction where both cash and non-cash bids are entertained. They advocate the use of non-cash, as well as cash bids, because capital market imperfections may prevent some managerial teams from raising sufficient cash to bid. As a result, contingent on their winning the auction, they allow bidders to borrow on the assets of the bankrupt firm.

The second stage involves senior creditors being given all the equity in exchange for their debt. This equity-for-debt swap mitigates conflicts between creditors resulting from their failure to agree on the valuation of the company. However, more junior creditors and equity are given options to buy shares from their more senior creditors at an exercise price equal to the face value of the more senior claims. Therefore, if one class of creditors places a higher value on the assets than another, they can buy out the more senior classes, while preserving absolute priority. It is important that the trading of claims occurs when bids are in, but before the final bid has been selected, so that junior creditors or equityholders can use the values submitted in the bid process to assess the value of the company when trading their claims. This trading of claims provides a means of minimizing costly conflicts about firm valuation. The shareholders then vote on which bid to accept.

An important advantage of the bidding process in the AHM proposal is that it allows the market to determine if a firm is to be liquidated or not. This is an important response to concerns about receivership where decisions about liquidation are taken by a minority of incumbent creditors (i.e., secured creditors).

Given the importance of capital market imperfections allowed by AHM, it is critical that there should be a suitable stay on creditors' claims to give time for bids to be solicited and for finance to be arranged. AHM suggest a period of about three months. It may be that the period of the stay should be determined by an independent party and should vary with the size of the company. Large companies, for example, should be permitted longer stays than smaller companies.

The stay period has strong advantages, in addition to facilitating the auction process. For example, it will allow information to be gathered about the company's quality and value. An important criticism of the UK insolvency process is that the receiver may have little time to make up his or her mind about the viability of the distressed company. As a result, there is a bias towards the liquidation of some firms when more information might indicate that they would be better retained as going concerns.[10]

Another important question is the financing of the activities during the moratorium. If there is negative operating cash flow, supra priority financing may be necessary to fund any operating deficit. Although receivers can raise finance from their secured lender, i.e. the appointor, such financing does not have priority over existing financing and therefore may give rise to an underinvestment problem. Supra priority financing may be vital for some insolvent companies.

The moratorium also raises the question of who should be in charge of the company during this time period. The UK tradition focuses on the creditor whereas the US tradition since 1978 focuses on the debtor and its managers.

VI. Conclusions

It should be clear that all three codes have potentially significant defects. The US Code is lengthy, expensive, and encourages complex bargaining that

[10]The Cork Committee recommended an automatic stay in receivership, but this was rejected by the British Government. As of April 1995, the government has indicated that it would introduce a moratorium into the UK code. However, some creditor agreement would have to be obtained.

leads to changes in the priority of claims and therefore a lack of adherence to the original terms of the debt contracts. Furthermore, management has strong incentives to overinvest. However, commercial arrangements have evolved to reduce those costs through out-of-court workouts and pre-packaged Chapter 11s.

The UK process of receivership, on the other hand, is usually speedy. Creditors obtain control of the firm and therefore there is greater adherence to the debt contract. However, this may be achieved at the costs of premature liquidations and underinvestment. Nor does it appear that the appointment of the administrator has significantly rectified these faults, if for no better reason than the number of appointments has been relatively few and the appointment can be blocked by other secured creditors.

The new German code will reduce the incidence of inefficient liquidations by curtailing the rights of secured creditors and by the elimination of preferred creditors. The fact that control rights are in the hands of all creditors rather than the debtor firm makes it closer to the UK's administration rather than to Chapter 11. ■

References

Aghion, P., O. Hart, and J. Moore, 1994, "The Economics of Bankruptcy Reform," *Journal of Law, Economics and Organization,* (no. 8), 523-46.

Braun, K.H., 1984, "Germany: Composition Proceedings," in Sir K. Cork and G.A.Q. Weiss, Eds., *European Insolvency Practitioners' Handbook*, Basingstoke, UK, Macmillian Publishers Ltd., Chapter 8.

Franke, G., 1983, "Ökonomische Überlegungen zur Gestaltung einesgerichtlichen Sanierungsverfahrens," *Konkurs-, Treuhand- und Schiedsgerichtswesen*, 44, 37-35.

Franks, J.R., and K.G. Nyborg, 1996,"Control Rights and the Loss of Private Benefits: The Case of the U.K. Insolvency Code," *Review of Economic Studies* (September), 1165-1210.

Franks, J.R. and W.N. Torous, 1989, "An Empirical Investigation of US Firms in Reorganization," *Journal of Finance* (July), 747-769.

Franks, J.R. and W. N. Torous, "How Shareholders and Creditors Fare in Workouts and Chapter 11 Reorganizations," *Journal of Financial Economics* (May), 349-351.

German Federal Ministry of Justice, 1991, "Bill of the German Federal Government," Draft of an Insolvency Statute, (November).

Gessner, V., B. Rhode, G.Strate, K. A. Ziegert, 1978, *Die Praxis der Konkursabwicklung in der Bundesrepublik Deutschland*, Bundesanzeiger Verlagsges.mbH., Köln.

Gilson, S., 1989, "Management Turnover and Financial Distress," *Journal of Financial Economics*, (December), 241-262.

Harm, C., 1991, "The Financing of German Industry by German Banks: An Institutional Analysis," World Bank Working Paper.

Holmstrom, B. and R.B. Myerson, 1983, "Efficient and Durable Decision Rules with Incomplete Information," *Econometrica*, (November), 1799-1819.

Hübner, U., 1984, "Germany: Reservation of Title," in Sir K. Cork and G.A. Weiss, Eds., *European Insolvency Practitioners' Handbook*, Basingstoke, UK, Macmillan Publishers Ltd., Chapter 9.

Insolvency Act, 1986, in the Public General Acts and General Synod Measures, Part II Ch. 45, 1027-1332.

Insolvency Law and Practice—Report of the Review Committee, 1982, Sir K. Cork (June), HMSO London, Cmnd 8558.

Izak, A., 1995, "Bankruptcy Policies: A Comparative Perspective," World Bank Working Paper, forthcoming as Chapter VII in C. Frischtak, C. Gray, J. Mitchell, and S. Ramachandran.

Jensen, M., 1989, "Active Investors, LBOs, and the Privatisation of Bankruptcy," *Journal of Applied Corporate Finance* (Summer), 35-44.

Johlke, H. M., 1984,"Germany: Bankruptcy Proceedings," in Sir K. Cork and G.A. Weiss, Eds., *European Insolvency Practitioners' Handbook*, Basingstoke, UK, Macmillan Publishers Ltd., Chapter 7.

Kaiser, K.M.J., 1996, "European Bankruptcy Laws: Implications for Corporations Facing Financial Distress," *Financial Management* (Autumn), 67-85.

Kilger, 1975, "Der Konkurs des Konkurses," *Konkurs-, Treuhand- und Schiedsgerichtswesen*, 142.

Landfermann, H.G., 1994,"Bankruptcy Law: German Insolvency Law Reform," ms., German Federal Ministry of Justice, Bonn, Proceedings of The European Law Forum at Ljubljana, Ed. P. Koncar.

Olsen, J.P., 1996, "A Restructuring of Distressed Bank Debt: Some Empirical Evidence from the UK," unpublished manuscript, London Business School, London, UK.

Rajak, H., 1994, "The Challenges of Commercial Reorganizations in Insolvency: Empirical Evidence from England", in J.S. Ziegel, Ed., *Current Developments in International and Comparative Corporate Insolvency Law*, Oxford, Clarendon Press.

Shleifer, A., and L. Summers, 1988, "Breach of Trust in Hostile Takeovers," in ed. A. Auerbach, *Corporate Takeovers:Causes and Consequences*, Chicago, IL, University of Chicago Press for NBER.

Sussman, O., 1994, "Talking About Growth: The Evolution of Contractual Language," Hebrew University Working Paper.

Titman, S., 1984, "The Effects of Capital Structure on a Firm's Liquidation Decision," *Journal of Financial Economics* (December), 137-151.

Uhlenbruck, 1975, "Zur Krise des Insolvenzrechts," *Neue Juristische Wochenschrift*, 897.

Weil, K., 1992, "Corporate Insolvency Law in Germany," in H. Rajak and G. White, Eds., *A Practitioner's Guide to European Corporate Insolvency Law*, London, Westminster Management Consultants Ltd., Chapter 5.

Weiss, L., 1990, "Bankruptcy Resolution: Direct Costs and Violation of Absolute Priority," *Journal of Financial Economics* (October), 285-314.

White, M., 1991, "Corporate Bankruptcy: A US-European Comparison," University of Michigan Working Paper.

Winthrop, Stimson, Putnam, and Roberts, 1994, Congress Passes Bankruptcy Reform Act, Bulletin No. 94-70.

Winthrop, Stimson, Putnam, and Roberts, 1994, Bankruptcy Procedures Changed, Bulletin 94-71, November 3.