# A comparison of U.S. corporate and bank insolvency resolution

## Robert R. Bliss and George G. Kaufman

# **Introduction and summary**

Firms may become financially insolvent. When they do, legal processes are required to efficiently and equitably resolve the claims of creditors and other stakeholders. In the U.S., unlike most other countries, two distinct legal processes exist for resolving the failures or bankruptcy of commercial banks and most other corporations. Underlying these two regimes are different assumptions, goals, and strategies for resolution. In contrast, in most countries, resolution of bank insolvencies is guided by the general corporate bankruptcy code, although in some of these countries special provisions for banks are carved out.<sup>2</sup>

Bank insolvencies are resolved differently primarily because banks provide a vital service in, among other things, issuing liquid deposits, which tend to serve as money, extending credit, and processing payments. It is believed that any interruption in these activities with resulting losses would have a more serious adverse impact on the economy of the insolvent bank's market area than any interruption in the operation of other insolvent firms. In order to reduce the possible adverse effects of bank insolvency resolution in the U.S., the special code for banks, which is contained in the Federal Deposit Insurance Act (FDI Act), differs significantly from the general federal corporate bankruptcy code in a number of ways enumerated in table 1.3

In particular, the general corporate bankruptcy code in the U.S. tends to favor debtors over creditors and, especially for large insolvent firms, in-place managers and attempted rehabilitation (Chapter 11) rather than liquidation (Chapter 7). In contrast, the bank insolvency code favors depositors (usually the major class of bank creditors) over debtors, and encourages speedy legal closure and resolution at the expense of in-place management and attempts at rehabilitation. Differences with the general corporate bankruptcy code are further

widened through an emphasis on formalized early intervention prior to insolvency, quick declaration of insolvency, prompt termination of the bank charter and shareholder control rights, ousting of senior management, strict enforcement of legal priorities of the different creditor classes, potential speed of resolution, lack of creditor standing, limited judicial review, and administrative, rather than judicial, proceedings. The fundamentally different approaches to insolvency resolution of banks and nonbanks derive in part from differences in the goals that these procedures seek to achieve.

The next section reviews the history of bank insolvency laws and procedures as they developed in the U.S. Then, we compare the difference in goals of nonbank corporate bankruptcy and bank insolvency resolution. The following section analyzes differences in a number of the areas enumerated in table 1 between the provisions in the FDI Act for banks and the federal bankruptcy code for general corporations. Next, we consider the issue of multiple jurisdictions that may arise in the failure of large and complex firms. The final section concludes.

Robert R. Bliss is the F. M. Kirby Chair in Business Excellence at the Calloway School of Business of Wake Forest University. George G. Kaufman is the John F. Smith Professor of Finance and Economics at Loyola University Chicago and a consultant to the Federal Reserve Bank of Chicago. The authors are indebted for helpful suggestions and contributions to Rosalind Bennett, Lynn Shibut, and in particular, Michael Krimminger, all of the Federal Deposit Insurance Corporation (FDIC), as well as to participants in presentations at seminars at the FDIC in Washington, DC, the American Institute for Economic Research in Great Barrington, MA, Wake Forest University, and the Federal Reserve Bank of Chicago; and at sessions of the North American Economic and Finance Association at the Allied Social Science Association meeting in Philadelphia, PA, and the Western Economic Association meeting in San Francisco, CA. A longer version of this article appears in Bliss and Kaufman (2006a).

Selected differences between the corporate and banking bankruptcy codes		
Provision	Corporate	Banking
Objective	Maximize value of firm as "going concern" or liquidation	Minimize loss to FDIC (least cost resolution)
Exception to objective	None	Systemic risk exemption, if threat to stability of financial system
Prefailure intervention	By negotiation (voluntary)	Statutory (prompt corrective action and other statutory grounds) (involuntary)
Initiation (declaration) of insolvency	Major creditors and/or management petition bankruptcy court	Chartering or primary federal regulator
Creditor stays	General (explicit)	Less general, major exception is insured depositors (implicit)
Receiver/trustee	Appointed by court	FDIC (statutory)
Management of entity during bankruptcy	Court appointed management (trustee; in Chapter 11 usually the existing management initially)	FDIC
Supervisor of receiver/trustee	Bankruptcy court	FDIC
Structure of process	Judicial	Administrative
Deviation from priorities	Negotiated among stakeholders	Systemic risk exemption If consistent with least cost resolution
Legal standing of creditors	By statute	None
Creditor representation	Representative process	None
Creditor approval	Unanimous agreement	None
Timeliness of bankruptcy initiation	Requires default event	Regulators can act preemptively
Final word	Bankruptcy court	FDIC (with limited right of judicial review)
Judicial review and appeal	Ex ante	Ex post
Legal certainty	Weak	Strong
Right of offset	Variable	Strong
Creditor payment form	Liquidation—cash Reorganization—securities of reorganized firm	Cash Receivership certificates
Legal and administrative expenses	High	Low
Shareholder interests	Weak and subject to negotiation	Terminated, except for residential value
Post insolvency financing	Debtor in possession	n.a.

# History of U.S. bank insolvency regimes

Bank and nonbank insolvency laws and procedures have evolved along different paths in the U.S. Early in our history similar procedures and venues applied to both types of firms, but with the increase of federal involvement in the banking system, the processes diverged.

Article 1, Section 8 of the Constitution of the United States authorizes the federal government to "establish ... uniform laws on the subject of bankruptcies." Nevertheless, Congress was unable to enact a permanent bankruptcy code until 1898.<sup>4</sup> When a permanent federal

bankruptcy statute was finally enacted, the act specifically exempted chartered banks.<sup>5</sup> In this period, states dealt with the insolvency of state-chartered banks by suspending or not renewing their charters and appointing a receiver. For the most part, the resolution of insolvent state-chartered banks by states appears to have been conducted similarly to the resolution of nonbanks.<sup>6</sup> The bankruptcy processes were initiated by creditors or state officials who petitioned the courts for appointment of a receiver to liquidate the bank. The receiver was regarded as an officer of the court

and accountable to it. Because insolvent banks were generally required by law to collateralize their note issues with specie or government bonds, note holders were typically treated as secured creditors.

Resolution of bank insolvencies appears to have been a long-standing distinct concern. Beginning in the early 1800s, a number of bills were introduced in Congress attempting to provide special bankruptcy treatment for state-chartered banks. Although not enacted, their introduction reflected widespread public concern about resolving bank failures, particularly as the banks were providing effectively all the country's currency through their note issuance and the notes were in wide circulation across state lines, which raised federal legal issues. In 1864, Congress authorized the chartering of national banks. The National Bank Act also provided for the resolution of failed national banks by specifying that

... on becoming satisfied ... that any [national bank] association has refused to pay its circulating notes ... and is in default, the Comptroller [of the Currency] may forthwith appoint a receiver ... under the direction of the Comptroller.

By providing for the Comptroller rather than the courts to declare insolvency, terminate the bank's charter, and appoint and direct the actions of the receiver, the act recognized the need to resolve banks differently than other firms by providing for speedy administrative action outside the slower judicial system.<sup>7</sup> The statutory bank receiver could be granted powers that other receivers were ordinarily not granted.8 The grounds for appointment of a receiver for national banks were broadened by Congress in 1876 to include operating in an unsafe and unsound manner. Shortly thereafter, states began to modify their insolvency regimes for state-chartered banks in a similar fashion. The special statutory regime granted state regulators a greater role in declaring a bank insolvent and provided for the appointment of a statutory receiver independent of the courts.<sup>10</sup>

In 1933, the newly created Federal Deposit Insurance Corporation (FDIC) was made the sole receiver for insolvent national banks and could be appointed receiver by state banking agencies for state-chartered banks. This marked a departure from previous practice and bankruptcy theory by appointing a major creditor as administrator/adjudicator rather than a financially disinterested party. In addition, the Comptroller was granted the authority to appoint the FDIC as a conservator, rather than a receiver, if it preferred to attempt to rehabilitate the bank, at least temporarily, as a standalone entity rather than liquidating or merging it quickly

with a solvent bank. 12 The 1933 act reinforced the Comptroller's 1876 powers to preemptively legally close banks, 13 as it did not require explicit evidence of insolvency but only a need "... to conserve the assets of any bank for the benefit of the depositors and other creditors" (Todd, 1994, p. 2). In 1987, the Competitive Equality Banking Act, granted the FDIC additional authority to charter a new temporary national "bridge" bank 14 as an alternative to liquidation under receivership or a conservatorship. Bridge banks keep all or parts of insolvent banks operating under new FDIC-appointed management and FDIC ownership while the bank is resolved in an orderly manner. In receiverships, the old bank's charter is revoked, shareholder control interests are terminated, and typically senior management is changed.

In 1991, the FDIC Improvement Act (FDICIA) enhanced the powers of the FDIC and Federal Reserve by expanding their authority as a state-chartered bank's primary federal regulator to legally close a bank under their jurisdiction and appoint the FDIC as its statutory receiver or conservator. Previously, this power rested solely with the chartering state banking agency. although the FDIC could remove insurance coverage. FDICIA also expanded and strengthened the powers of the primary federal regulators to legally close a bank beyond the previously legislated causes of finding of insufficient assets to meet its obligations, unsafe and unsound banking practices, or threatened losses that would deplete the bank's capital. Included as part of the newly enacted prompt corrective action (PCA) provisions, the new criterion affirmatively requires (rather than merely permits) the appropriate regulators to appoint a receiver or conservator within 90 days (and allowing for two 90-day extensions) of a finding that a bank's book-value tangible equity capital has declined and remained below the "critically undercapitalized" ratio to a bank's total assets. This ratio is currently set by the bank regulators at the two percent minimum prescribed in the legislation. Thus, a bank need not be book-value insolvent or predicted to be so in order to be placed into receivership. 15 Among other things, this provision reduced the discretion of bank regulators to decide when to appoint receivers ("forbearance"), which often resulted in closure delays at a cost of continuing, if not worsening, the insolvent bank's losses. These provisions, designed to precipitate resolution before an actual event of insolvency or default, mark another important departure from corporate bankruptcy law and provides regulators, including the FDIC, with a powerful tool for mitigating losses to creditors.

Lastly, in 1993, the Depositor Preference Act reordered the priority of payment of claims on insolvent banks to give priority to domestic deposits, generally those payable at the bank's domestic offices, over other types of deposits<sup>16</sup> and other creditors (though behind tax liabilities, unpaid wages, and administrative costs incurred by the FDIC in administering the resolution). The FDIC, standing in the shoes of insured depositors, is on an equal basis with the uninsured domestic depositors and ahead of general creditors.

# **Goals of bankruptcy**

As noted earlier, banks and general corporations are subject to different bankruptcy codes because the goals of resolving insolvencies differ for the two types of firms. The goals of corporate bankruptcy are not explicitly spelled out in the code. Different scholars have defined them in various ways. Common elements in these definitions include solutions of a collective action problem—coordinating the debt collection efforts of multiple creditors to maximize overall recovery value (Jackson, 1986); maximizing the realized value of the bankrupt firm's assets (Hüpkes, 2000); distributing the assets equitably to the creditors<sup>17</sup> (Hüpkes, 2000), if it is determined that the firm should be liguidated (Chapter 7); or restoring the firm to financial solvency by renegotiating creditor claims, if it is determined that the firm has "going concern value" (Chapter 11) and creditors as a group would be better off if the firm is restructured rather than liquidated.

In contrast, the goal of bank insolvency resolution is explicit. It is to achieve a resolution, subject to the legally mandated creditor priorities, that "is the least costly to the deposit insurance fund of all possible methods." This is referred to "as least cost resolution." In pursuit of this goal, the FDIC is required to "maximize the net present value return from the sale" of assets. Because the FDIC and uninsured domestic depositors at present have equal priority, achieving least cost resolution for the FDIC also achieves least cost to uninsured domestic depositors, but not to other creditors.

Banking law traditionally considers the impact of bank resolution, not only on the bank's creditors, but also on the local economy and financial markets more broadly, while bankruptcy procedures focus narrowly on the interests of creditors, managers, and stockholders. Thus, the bank insolvency code is more concerned with adverse externalities for the general community. Under FDICIA, the FDIC may, under restrictive conditions, bypass the least cost resolution requirement if adhering to it, and imposing losses on uninsured depositors and other creditors, "would have

serious adverse effects on economic conditions and financial stability and any action or assistance ... would avoid or mitigate such adverse effects." This is referred to as the "systemic risk exemption" (Kaufman, 2004b). Likewise, in asset sales, the FDIC is directed to "... fully consider adverse economic impact. ..." No comparable concern for the impact of insolvency resolution on third parties appears in bankruptcy law.<sup>20</sup>

To minimize the impact on the economy, bank insolvency law permits keeping distressed banks in business temporarily in order to rehabilitate and reprivatize them later through an FDIC conservatorship or bridge bank. Conservatorship is currently rarely used.<sup>21</sup> The bridge bank provides a more frequently used alternate means of keeping a closed bank operating while the final disposition is being worked out.

Most corporate bankruptcies are liquidations (Chapter 7), but most large bankruptcies begin as Chapter 11 administrations, initially under the control of existing (prefiling) management. Thus, banking law places an emphasis on minimizing immediate losses to the FDIC and depositors through prompt initiation of legal closure and resolution primarily through liquidation; while corporate bankruptcy is more likely to weigh perceived long-term going concern value. That is, banks, even large banks, have their charter revoked when they are placed into receivership and the bank per se disappears in its old form; on the other hand, corporations that file under Chapter 11 generally attempt to survive under their own name on a standalone basis.

## **Differences in code provisions**

The statutes governing bankruptcy and bank insolvency resolution in the U.S. differ in many ways, some of which are detailed in table 1. This section examines a number of the salient areas.

### Initiation of bankruptcy

Most corporations are subject to the Bankruptcy Code. Involuntary bankruptcy may be initiated either by a minimum number of creditors, whose claims are in default, or voluntarily by the firm itself in anticipation of a default or for strategic reasons.<sup>22</sup> In either case, a petition is made to one of a number of regional federal bankruptcy courts. Court approval of the creditors' petition or merely filing a voluntary petition initiates the process.

Unlike corporate bankruptcy law, where either creditors or management may initiate the process, bank resolution is initiated exogenously by the chartering agency or the institution's primary federal regulatory agency, or the FDIC,<sup>23</sup> based on one or more

reasons enumerated in the FDI Act, for example, if the relevant authority believes that the bank is not being operated in a safe and sound manner, or that the bank is unlikely to meet its deposit obligations. Perhaps the most significant of the reasons for bank closure, since the passage of FDICIA in 1991, is becoming "critically undercapitalized" while the bank is still bookvalue solvent, defined as a minimum of two percent equity capital to total assets, and possibly even market-value solvent. Thus, the mandatory critically undercapitalized criterion serves as a backstop intended to prevent regulators from delaying closing a bank for other discretionary prudential reasons.

No such anticipatory initiation of insolvency proceedings is available under the corporate bankruptcy laws. However, solvent nonbank institutions (as well as banks) which rely heavily on short-term financing, are subject to liquidity crises that may precipitate insolvency if markets believe that a solvent institution is insolvent. Creditors can also write acceleration clauses into debt and derivatives contracts that are triggered short of insolvency and default (for example, "due on downgrade" clauses).24 Acceleration, like withdrawal of short-term credit, can induce a liquidity crisis leading to actual default and insolvency. The downside of runs and acceleration as bankruptcy initiation devices is that in response to a creditor demands to liquidate claims and in an effort to avoid default, an institution may engage in forced liquidation of assets at fire sale prices, thus destroying value. However, management does have the alternative of voluntary filing of bankruptcy if it wishes. Thus, while creditors cannot legally initiate insolvency procedures without an act of default (as bank regulators can), efforts by creditors to withdraw short-term credit or accelerate claims may achieve the same result.

## Stays

The ability to temporarily prevent creditors from pursuing their claims (termed "stays") is central to the corporate bankruptcy process. Stays permit the bankruptcy court time to collect and validate claims, to determine the best way to dispose of assets in an orderly, value-maximizing manner, and to treat all like-priority creditors equally. Stays prevent creditor runs and keep contracts in force—the counterparty is bound by the contract; claims on the insolvent firm remain pending; and collateral may usually not be liquidated. This facilitates the coordination of creditor claims. The ability of bankruptcy courts to impose stays on most creditor claims is explicit in the corporate bankruptcy code. In Chapter 11 reorganizations, the ability of courts to stay contracts is crucial for the firm to preserve productive

capacity (assets) while creditor claims are being renegotiated.

Under the FDI Act, the FDIC's ability to stay is limited to requesting a maximum stay of 60 days of judicial actions (law suits) to which the closed bank is a party or becomes a party. The request must be honored by the courts. However, the FDI Act contains no general power to stay contracts, including deposit contracts. In particular, the FDIC cannot keep contracts in force while preventing counterparties from exercising their rights under those contracts. Thus, unlike bankruptcy courts, the FDIC cannot stay "selfhelp remedies" such as liquidation of collateral, for most contracts.<sup>25</sup> However, the FDIC as receiver has broad powers to disaffirm or repudiate contracts within "a reasonable time." As they cannot compel performance under the repudiated contract, the effected counterparties' remedies are limited to ex post damages. Unlike the general corporate bankruptcy stay that keeps contracts in place, this procedure is more akin to the close-out mechanism found in derivatives contracts.26 When the FDIC terminates a contract, it creates a claim that has the status of a general creditor.

Certain qualified financial contracts (for example, derivatives master agreements, see Bergman et al., 2003) are exempt from the stays that apply to most contracts under the corporate bankruptcy code. These derivative master agreements contain close-out provisions which, when triggered, allow the solvent counterparty to immediately terminate the contract (and all transactions under the master agreement), net the values, and pay the net amount due or file a claim if the net amount is owed.<sup>27</sup> However, these rights are not immediately enforceable for banks placed into receivership or conservatorship. The FDIC has the power to prevent close-out for one business day in the case of receivership and indefinitely in the case of conservatorship or for contracts that are transferred to a bridge bank, for virtually any reason excepting nonperformance (default or failure to meet collateral calls).<sup>28</sup> Thus, while most contracts, with the exception of qualified financial contracts, are automatically stayed by courts in the event of a corporate bankruptcy, the opposite situation obtains in the event of a bank's insolvency.

# Management of the insolvency process

Corporate bankruptcies are resolved in special federal bankruptcy courts. The proceedings are judicial in nature with each party being represented by its own lawyers. The court appoints an agent to coordinate the process: For a liquidation, this would be a receiver and for reorganization, a trustee. In Chapter

11 reorganization proceedings, the insolvent corporation's senior management is usually allowed by the court to continue operating the company and has exclusive rights to formulate a reorganization plan during an exclusion period of 120 days. The bankruptcy court may, at its discretion, grant extensions of this period and has routinely done so in the past.<sup>29</sup> Creditors may, however, petition the court to appoint an independent trustee under certain circumstances. All creditors have "standing" to be represented in the proceedings, although the dynamics of voting may lead to certain minority blocks being effectively frozen out. Each creditor group, and in reorganizations also management and shareholders, must vote to approve the plans proposed by management, receiver, or trustee. Decisions during the course of the proceedings (for example, releasing collateral to secured creditors, partial payment of claims, paying employees, new post-insolvency—debtor in possession (DIP)—borrowing) are taken by the receiver/trustee with the approval of the court (the judge overseeing the case). The decisions taken by the court, for instance granting extensions of the exclusion period to allow management to remain in control, may not always be in the interests of all existing creditors. However, major decisions, such as approval of a reorganization plan, are subject to unanimous agreement by all creditor classes.<sup>30</sup> If a plan is voted down, the parties continue to seek agreement, possibly under a new receiver/ trustee. Eventually, if the parties cannot agree the court can "cram down" the plan that it considers most equitable. Decisions undertaken by the bankruptcy court may be appealed to higher courts, and many decisions are litigated before they finally take effect.<sup>31</sup>

In contrast, bank insolvencies are handled in an administrative proceeding. The bank's charter is revoked and shareholder control interests are terminated by the bank's primary regulator, and senior management is removed by the FDIC as receiver or conservator, all without involvement of any court.<sup>32</sup> Following its appointment as receiver or conservator, the FDIC is solely in charge. As receiver or conservator, the FDIC collects information from the bank, its depositors, and other creditors; determines the validity of claims; and then, within the confines of the law and its own regulations, disposes of the assets and pays off or transfers the liabilities. The FDIC unilaterally makes all decisions necessary to carry out the liquidation or reorganization. No separate oversight authority—equivalent to the court/trustee relationship—exists. Furthermore, once the receiver or conservator is appointed, there is no mechanism for creditors, management, or shareholders to participate in the decision-making process

beyond filing claims and providing requested information. In effect, claimants have no standing and very limited rights to appeal decisions before they are executed. However, some decisions of the FDIC are subject to ex post judicial review, although damages are the only available remedy. Other decisions, for instance to disallow creditor claims, are not subject to judicial review.<sup>33</sup>

## Priorities, collateral, and offsets

Legal priority, security interests, and right of offset, where protected, jointly determine what a creditor is entitled to under the law.34 Both bankruptcy law and the FDI Act provide a list of priorities specifying the order in which creditors should be paid off. In both cases, the costs of administering the insolvency come first. These costs can be very substantial in the case of corporate insolvencies. Bris, Welch, and Zhu (2004) report the mean (median) ratio of total direct expenses-including attorneys', accountants', and trustees' fees—as a percentage of reported assets at time of filing to be 8.2 percent (2.5 percent) for Chapter 7 bankruptcies and 16.9 percent (2.0 percent) for Chapter 11 proceedings. The bankruptcy code lists a number of unsecured creditor classes that receive favored or priority status. However, except for taxes (and for bank and financial holding companies, agreements with regulators), these are likely to be of little practical importance. The large majority of unsecured corporate creditors will find themselves lumped together as general creditors.<sup>35</sup> In Chapter 11 proceedings, creditors are generally paid in securities of the reorganized firm, often in more junior securities.

In 1993, the Depositor Preference Act created a large, special class of senior creditors, namely domestic depositors, including the FDIC through its subrogation of the insured depositors' claims, who are given priority over other unsecured general creditors.<sup>36</sup> Insured depositors are paid in full by the FDIC, which steps into their shoes and assumes (subrogates) their claims. Uninsured domestic depositors and the FDIC share equally (on a pro rata basis) in any recoveries, up to the amount of the deposit liabilities. Any excess recoveries are then distributed to general creditors, and next to shareholders (including parent company equity interests).<sup>37</sup> Because of depositor preference, general creditors of banks usually recovered a smaller percentage of their claims than general creditors of nonbank firms.

Commercial law provides mechanisms for creditors to establish security interests in the property of the debtor through collateralization of their claims. If the proper legal forms have been followed, bankruptcy courts will enforce these rights. Thus, secured

general creditors may enjoy higher recoveries than would unsecured creditors. Banking law discourages collateral arrangements on the part of a bank's depositors. In the U.S., generally only U.S. Treasury and state and municipal governments can secure their deposits with collateral. Non-deposit creditors (including foreign depositors) have greater opportunity to secure their claims through collateralization, repurchase agreements, etc. Federal Reserve lending through the discount window is also fully collateralized.

During Chapter 11 rehabilitation, the bankrupt firm can contract, with the court's permission, for additional debtor in possession (DIP) financing to allow it to continue operating. This new debt is effectively given priority over the existing, prebankruptcy debt.<sup>38</sup> Such borrowing may reduce ultimate payments to existing creditors, if economic firm value continues to be eroded. There is no external (financial market) DIP financing for banks, although at times financial assistance to insolvent banks by the regulatory agencies has played a similar role.

While corporate bankruptcy law generally frowns on offsets—the canceling of reciprocal obligations to arrive at a net amount to be owed or claimed—both the courts and the FDIC support offset for bank loans and deposits. A solvent bank depositor can offset an uninsured deposit he or she is owed by an insolvent bank against a performing loan it owes to that bank up to an equal face value. This protects the value of the uninsured deposit and avoids having it treated as a general creditor claim subject to loss. For corporations subject to the bankruptcy code, reciprocal contracts are generally treated separately and are not offset. Amounts owed by solvent counterparties must be paid as they come due, even though the same party may be owed funds from the insolvent counterparty; the solvent counterparty becomes a general creditor for amounts it is owed and is subject to losses. However, nonbank firms are less likely than banks to have reciprocal creditor/debtor contracts. Only offset of qualified financial contracts, for example, many derivatives under master agreements, is supported for both banks and nonbanks.

# Legal certainty of claims

The dynamics of the corporate bankruptcy process increases the uncertainties as to both the value and timing of creditor recoveries. The straightforward priorities of payoff under bankruptcy law only apply in liquidation. An essential element of corporate reorganization is that creditors participate in a renegotiation of their claims, the outcome of which, while subject

to collective approval, may depend as much on bargaining power of the different claimants as on their theoretical priorities in liquidation. Furthermore, security interests may lead to apparent, if not real, redistribution between theoretically equal-priority creditors. However, the corporate bankruptcy process, with its use of class voting and the possibility of junior holdouts, may reduce at least the present value of the aggregate final recovery value. This frequently leads to dynamics where more senior creditors give up part of their legal claim in the hopes of achieving a settlement that yields a larger presentvalue recovery (smaller, more immediate portion of a bigger, or at least more certain, pie). Leaving aside the possibilities that claims will be disallowed for various reasons, the precise distributional outcome of reorganization under bankruptcy is uncertain.

Bank insolvencies generally do not suffer from this problem. Offset and collateral are usually not major issues (particularly, for small and medium banks), and depositor preference is usually adhered to.<sup>39</sup> Absolute priority may be violated in bank insolvencies under two conditions. Firstly, if the systemic risk exemption is invoked and some general creditors are made whole, while uninsured depositors and the FDIC are not. Secondly, if least cost resolution is achieved by transferring some nondeposit liabilities-for instance, in-the-money complex financial contracts—to a bridge bank at market value rather than liquidating them, thus protecting those creditors from the credit losses that other general creditors incur. Neither of these two conditions is likely to occur frequently, but both are more likely to occur in large bank failures. Despite the fact that the PCA closure rules are stated in terms of a positive minimum equity level, the superimposition of depositor preference on least cost resolution may have made foreign depositors and unsecured general creditors less certain about their recovery amounts than domestic depositors. Because the FDIC has equal priority with domestic depositors and is senior to other creditors, the general creditors' funds operate as a buffer against its losses (effectively capital).<sup>40</sup> To the extent the law requires that regulators operate to minimize losses only to the deposit insurance fund, depositor preference may unintentionally provide them an incentive to be less aggressive in legally closing insolvent banks within the discretion available to them under PCA, and the FDIC may be less assiduous in disposing of assets of closed banks in the most efficient manner. Thus, nondomestic depositors and other creditors have an incentive to run or collateralize their claims. This potential incentive did not exist before depositor preference was adopted in 1993. Before this, the FDIC had equal priority with all depositors and other creditors and shared equally with them in any losses.

### **Timeliness**

The timeliness of insolvency resolution has two components: the ability to initiate the process before the potential losses to debt claimants become large and the ability to resolve the insolvency and pay the depositors and other creditors the recovery values of their claims in an expeditious manner once it is initiated. Prompt legal closure at positive legal capital deprives shareholders and managers of the incentive to gamble for resurrection at the depositors' and creditors' expense and minimizes these losses, while prompt resolution mitigates both credit losses, if asset values decline, and liquidity losses to depositors and creditors, who have their funds tied up in the insolvent bank.

As was noted earlier, there is no mechanism for nonbank corporate creditors to preemptively precipitate a bankruptcy proceeding so as to limit their losses except in some instances through runs and acceleration, both of which may also exacerbate the losses. Absent such creditor-precipitated liquidity crisis, creditors must await an event of default that permits them a basis for petitioning the court to place the firm into bankruptcy. So long as firms can meet current obligations, including through asset liquidations, there is little that creditors can do even if the firm is believed to be insolvent. Managers can and sometimes do file for bankruptcy, usually Chapter 11, in anticipation of an actual default. However, in such a voluntary action the managers may not always be acting solely in the creditor's interests. On the other hand, bank regulators have broad powers to legally close a bank on the basis that it may get into financial trouble (that is, operating in an unsafe and unsound manner) and a positive requirement to close it before it becomes book-value insolvent. However, when a bank becomes financially distressed, bank book values are likely to exceed market or economic values by increasing amounts, and regulators may be unaware of the true economic solvency of a bank until it is well and truly economically insolvent, particularly for small banks. Nonetheless, evidence suggests that in most instances banks are resolved with proportionally smaller losses relative to combined depositors' and other creditors' claims than to creditors' claims in corporate bankruptcies, both before and after the establishment of the FDIC.<sup>41</sup>

Once initiated, the FDIC as receiver can move with self-determined speed and has done so in the past. The bank may be sold immediately, generally over the first weekend, in part or whole; converted into a temporary bridge bank; and/or liquidated more slowly through time. More recently, banks have been kept in receivership while the assets are sold.

The FDI Act recognizes the special character of bank deposit claims, specifically that because of their liquidity they serve as money. Thus, the FDI Act requires that "payment of the insured deposits ... shall be made by the Corporation [FDIC] as soon as possible" and authorizes the FDIC "to settle all uninsured and unsecured claims with a final settlement payment" based on average past recovery values in order "to maintain essential liquidity and to prevent financial disruption." The FDIC also has the authority to make advance dividend payments to claimants based on its estimates of recovery values for the bank being resolved. Like the prompt payment of insured deposits, advanced dividends on uninsured deposits minimize liquidity losses. However, advanced dividends are likely to be less than par value, so that the uninsured claimants may suffer credit losses, at least initially. Thus, because of the prompt payment of insured depositors at par and the potential for accelerated payment of the expected recovery value of uninsured deposits. liquidity issues are potentially separate from the time in receivership.

Except for insured depositors, whose claims are usually settled immediately by transferring the deposits to another bank at par value and are made immediately available, both uninsured depositors and creditors, once their claims have been approved by the FDIC are given receivership certificates. These are paid in cash as this becomes available through sale of assets, or earlier through the aforementioned advanced dividends. The timing and amount of any dividends are determined by the FDIC and may be spread over several months or years. Liquidation of a bank's assets, once it is has been closed, is not immediate and asset values may deteriorate as they do in Chapter 11 proceedings. 42

Prior to FDICIA, it was common practice to use purchase and assumption to resolve bank failures. This process transferred all of the insolvent bank's assets and liabilities to an acquiring bank, usually over a weekend. This ensured liquidity for all creditors, but at the cost of indiscriminately bailing all of them out at par value, undermining market discipline, and potentially exacerbating moral hazard. Following the introduction of least cost resolution in FDICIA in 1991, purchase and assumption transactions became infrequent. Initially, the FDIC frequently used its powers to make advanced dividend payments to holders of receivership certificates, thus providing a measure of liquidity and maintaining the ability to impose credit

losses. Since then, the FDIC has paid advanced dividends progressively less frequently and has relied more on regular dividends. This has caused liquidity losses. But the involved banks have been comparatively small and the adverse effects have usually been limited to the local economy.<sup>43</sup>

In corporate bankruptcy, the average length of time the firm is in Chapter 7 or 11 may be long and variable (see Bris, Welch, and Zhu, 2004). Creditor liquidity in corporate bankruptcy is tied more closely to the time spent in bankruptcy than in bank insolvency as there are only limited arrangements for payments to creditors before proceeds are received from the sale of assets or approval of the reorganization plan.<sup>44</sup> Thus, the final resolution of banks may be faster than for nonbanks, but need not be. Moreover, for domestic depositors, bank insolvency usually provides some recovery prior to the final resolution.

# **Multiple jurisdictions**

Both bankruptcy and bank insolvency laws and procedures reflect an implicit assumption that a single venue (court or administrative proceeding) is resolving a single firm. This is true for most small firms and many small banks. However, single firm/single venue is unlikely to apply for large multinational firms and financial institutions. The resulting multiplicity of jurisdictions is likely to reduce the efficiency and increase the cost of failure resolution. The involvement of multiple jurisdictions in the insolvency resolution of a single firm can arise for two reasons: international operations and organizational structure. In both cases, the operation of parallel, sometimes adversarial, proceedings can lead to problems, with creditors bearing the resulting legal costs.

Multinational firms, be they banks or nonbanks, are subject to multiple jurisdictions when they fail. There are two approaches to this problem: to treat the firm as a single entity and to have one court take the lead in guiding the resolution (the universal approach) or for each jurisdiction to conduct separate proceedings using the assets under its control for the benefit of local creditors (the territorial approach).

Recent revisions to the U.S. corporate bankruptcy laws in the Bankruptcy Abuse Prevention and Consumer Protection Act of 2005 have adopted many of the provisions of the United Nations Commission on International Trade Law (UNCITRAL) model law for international insolvencies. This focuses on the universal approach. However, both the UNCITRAL model law and U.S. legislation specifically exempt banks. The U.S. approach to bank insolvency is inconsistent. It is territorial with respect to foreign

banks that have branches in the U.S., and universalist with respect to domestic banks having foreign branches. U.S. subsidiaries of foreign banks are chartered as separate legal entities and are subject to the same resolution laws and regulation as are domestic banks. If a foreign bank with U.S. branches fails, as did the Bank of Credit and Commerce International (BCCI) in 1991, U.S. regulators would seize all assets they can in the U.S. and use those to satisfy domestic creditors of the branches (including uninsured claimants) before passing any surplus to foreign courts for distribution to foreign creditors. However, if a U.S. bank with foreign offices were to fail, the FDIC asserts claims over the worldwide assets of the bank and seeks to use those to pay off creditors under depositor preference rules which give priority to domestic depositors.

In the U.S., if banks are embedded in bank or financial holding companies, multiple jurisdictions arise because of the different codes that apply to the parent and the bank subsidiary. U.S. bank and financial holding companies are nonbank corporations subject to the bankruptcy code, while their subsidiary banks are subject to the FDI Act. Where the bank insolvency leads to failure of the parent holding company, as is frequently the case, or the reverse, which is less frequent, different parts of the organization are simultaneously resolved in different venues. These simultaneous resolutions are occasionally adversarial, particularly, when there are significant nonbank assets at the holding company level. Conflicts may arise when the FDIC expects to suffer losses in the resolution of the bank and seeks to extract assets from the holding company, necessarily putting it in conflict with the creditors of the holding company.

## **Conclusions**

Bank and nonbank insolvency proceedings in the U.S. contain significant, and in many respects fundamental, differences. Central to these differences are the ability to quickly initiate proceedings against a distressed or insolvent firm, the termination of control rights of shareholders and managers, and the use of a judicial process overseen by a neutral court versus an administrative process overseen by an interested major creditor. These differences reflect different goals: for nonbanks to protect creditors' rights, for banks to mitigate credit losses through prompt closure and liquidity losses through rapid resolution. Both processes, in practice, fail to fully achieve their goals. For nonbanks, the control granted managers in Chapter 11 has created dynamics that undermine creditors' ability to realize the maximum amount of their claims. Supported by the ability to obtain debtor-in-possession financing on preferential terms to continue the firm in operation, this leads to managers and junior creditors extracting concessions that they would not obtain if senior creditors controlled the process. The resulting protraction of the bankruptcy process is in the interests of managers, junior creditors, and the lawyers and other professionals involved, but it is disadvantageous to senior creditors, unduly expensive and destructive of firm value, and has been widely criticized.

If the adverse external effects of bank insolvencies, including systemic risk, are in fact greater than for the failure of other firms of comparable size and are primarily directly related to the magnitude of credit and liquidity losses at the insolvent banks—so that the greater these losses, the greater the adverse effects—then a special bank insolvency resolution regime designed to minimize or eliminate, if possible, these losses is desirable. A resolution regime that encourages timely legal closure at a positive capital ratio facilitates these objectives, as does an administrative rather than judicial process.

The FDI Act also appears to provide the FDIC with sufficient authority to minimize liquidity losses. It can pay insured deposits at par value the next business day or so and pay advanced dividends on uninsured deposits against the bank's estimated recovery value as soon as possible, so that consumer access to these accounts is not frozen. Liquidity losses may also be reduced by transferring loans to a newly chartered temporary bridge bank. This permits borrowers at the insolvent institution ongoing access to their credit lines.

Bank insolvency resolution has been fairly successful in reducing credit losses in insolvency by legally closing banks more promptly than is the case for nonbanks, though the evidence we have is limited to the sample of relatively small banks that have failed. Nonetheless, bank insolvency resolution has fallen somewhat short in recent years in reducing liquidity losses to uninsured depositors. The means for providing liquidity available in the law have not always, particularly recently, been utilized in instances where losses were imposed on uninsured depositors and other creditors.

Adverse externalities from bank insolvencies may be reduced further by reducing uncertainties surrounding the bank insolvency resolution process. This is achieved in the FDI Act by not only attempting to minimize credit and liquidity losses, but also, for the most part, by providing absolute priority, prohibiting ex ante appeals of decisions by the receiver and limiting ex post appeals, and reducing discretion in the application of corrective sanctions on a timely basis. The increased certainty may also reduce the incentives for banks to engage in excessive risk-taking moral hazard behavior. Lastly, the incentive for uninsured deposits to run may be reduced if the depositors are certain that they will suffer no credit losses in the resolution process and will have prompt access to their funds.

The limited empirical evidence that we currently have on the effectiveness of the resolution of bank insolvencies since the adoption of PCA and FDICIA in 1991 and depositor preference in 1993 and greater evidence on the resolution of nonbank insolvencies are not entirely informative for comparison of the strengths and weaknesses of the two regimes. Moreover, most bank insolvencies have been small, while we have ample evidence of large nonbank insolvencies. Thus, a final verdict concerning the superiority of one regime over the other waits further observations.

## NOTES

'The term "bankruptcy" is derived from the Italian "banca rotta," which means broken bench and refers to the practice of breaking a merchant's bench in the market place when he became insolvent (Jackson, 1986, p. 1). We use the term bankruptcy in its generic sense of an insolvency proceeding. Strictly speaking bankruptcy applies to corporations subject to the bankruptcy code and following the initiation of bankruptcy proceedings by a court. For banks, "bankruptcy" occurs when the bank is placed into receivership or conservatorship by its chartering agency or primary federal regulator. In neither case is insolvency per se a necessary precondition for an "insolvency proceeding."

<sup>2</sup>A review of bank insolvency codes in many foreign countries appears in Hüpkes (2000, 2003).

<sup>3</sup>The Federal Bankruptcy Code is contained in Title 11 of the United States Code. Banks are excluded under section 109 of Title 11. Bank closure and insolvency procedure laws are contained *inter alia* in Title 12.

<sup>4</sup>Congress passed bankruptcy codes in 1800, 1841, and 1867 which were repealed in 1803, 1843, and 1878, respectively. The 1898 law was the first "permanent" general bankruptcy law in the U.S. (Jackson, 1986, p. 1). See also Swire (1992).

<sup>5</sup>Glick (1989).

<sup>6</sup>Upham and Lamke (1934).

<sup>7</sup>The act applied only to nationally chartered banks. A number of states adopted similar legislation for their banks, giving the state regulatory agency the authority to appoint and direct the operations of the receiver, although not necessarily granting the receiver all the powers granted by the federal statute (Swire, 1992). However, a number of states continued to resolve their state-chartered banks under their state bankruptcy laws (and courts) as late as 1894 (Todd, 1994).

<sup>8</sup>The duties of a receiver are discussed in Upham and Lamke (1934), pp. 22–23.

<sup>9</sup>Upham and Lamke (1934).

<sup>10</sup>Swire (1992) and Todd (1994).

<sup>11</sup>Provisions in Chapter 11 give management, hardly a disinterested party, initial control of the process, but the court, which has no financial interest, oversees their actions, and reorganization plans are subject to collective creditor approval.

<sup>12</sup>There are two types of conservatorships: A pass-through conservatorship that is used for technical reasons in conjunction with a receivership to facilitate the resolution of a savings institution. A straight conservatorship is used as a means of operating the bank on a temporary basis under the control of the conservator, without revoking the charter. Straight conservatorships have been extremely rare.

<sup>13</sup>Bank "closure" does not necessarily mean that the bank is physically closed and ceases operations, any more than bankruptcy means that a nonbank corporation ceases doing business. Early bank closures usually resulted in physical closure and liquidation. Currently, most legally closed banks are merged or sold rather than liquidated with limited disruption to their customers.

<sup>14</sup>A bridge bank is a newly chartered national bank, frequently under a similar name, owned and operated by the FDIC, to which some or all of the bank's assets and liabilities are effectively transferred when the bank is closed. The life of a bridge bank is statutorily limited to two years, with two one-year extensions permitted.

15If a bank is resolved at a gain to the FDIC after making all depositors and other creditors whole, the excess is paid to the old shareholders.

<sup>16</sup>The legal definition of deposit is specified by law and regulatory interpretation. Deposits at foreign offices are generally excluded as are some types of deposits at domestic offices, for instance, international deposit facilities. See Curtis (2000) for a full discussion. For ease of exposition, we will refer to those deposits that qualify for deposit insurance (up to allowed limits) under depositor preference as "domestic deposits" or simply "deposits." Those deposits that do not qualify, we subsume under the term "foreign deposits."

<sup>17</sup>"Equitably" means according to legally defined priorities and within the priority classes on a pro rata basis, taking into account valid security interests (collateral) and contractual subordination agreements (for example, subordinated debentures). Most creditors, including secured creditors (to the extent that their claims exceed the liquidated value of their collateral), fall into the "general creditor" class. See Bhandari and Weiss (1996) for a collection of articles on this and related issues in the economics of bankruptcy.

<sup>18</sup>12 USC 1823 (c) (4) (A) (ii).

1912 USC 1823 (d) (3) (D) (i).

<sup>20</sup>The failure of corporate bankruptcy procedures to explicitly consider externalities does not necessarily reflect an implicit belief that corporate failures do not engender significant externalities—occasional government bailouts of large corporations, protective trade policies, and recurring news stories of the impact of the failure of major employers in small towns, suggests otherwise. A more likely explanation lies in the origin of corporate bankruptcy law in common law with its emphasis on parties "in interest" with legal standing (hence, an emphasis on debtor and creditor and not employees, suppliers, let alone local communities). Bank insolvency procedures, in contrast, have their origins in regulatory policy with a clearer focus on markets and economic effects.

<sup>21</sup>Conservatorships are used primarily for thrift institutions for which there is no authority to charter a bridge bank. Thrift conservatorships are, in time, converted to receiverships.

<sup>22</sup>Examples of strategic motives include fixing open-ended tort claims (for example, asbestos litigation), restructuring labor contracts, and offloading pension and health plans. Bankruptcy may be also be used to sell a firm free and clear of potential claims arising from pre-sale events.

<sup>23</sup>Chartering agencies are the Office of the Comptroller of the Currency (OCC) for nationally chartered banks, state bank regulator agencies for state-chartered banks and thrift institutions, and the Office of Thrift Supervision, (OTS) for federal thrift institutions. Primary federal regulators are the OCC for nationally chartered banks, the Federal Reserve for state-chartered member banks, the FDIC for state-chartered non-Federal Reserve member banks, or the OTS for federal thrifts. The FDIC may also appoint itself conservator or receiver.

<sup>24</sup>These clauses require immediate termination of the contract and payment in full if contractually stipulated "credit events" occur. These credit triggers, such as minimum working capital ratios or minimum debt ratings, are designed to terminate contracts in advance of insolvency.

<sup>25</sup>Simmons (2001).

<sup>26</sup>See Bergman et al. (2003).

<sup>27</sup>The benefits and disadvantages of this exemption to the usual staying of contracts during an insolvency proceeding are discussed in Bliss and Kaufman (2006b).

<sup>28</sup>An important question concerns the status of in-the-money qualified financial contracts transferred to a bridge or other bank or kept in force in a conservatorship. It is possible that the FDIC will effectively guarantee the values of these contracts (which will continue to fluctuate in response to changes in value of the underlying sources of risk), thus removing the element of credit risk from these contracts if they are not disavowed (and permitted to close out) within the stipulated one business day. It is not clear how this would be squared with least cost resolution without invoking the systemic risk exemption, a complicated and potentially time consuming process, since the derivatives counterparties, who are technically subordinated to domestic depositors, would in effect receive full value on their positions.

<sup>29</sup>It is not unusual for large Chapter 11 proceedings to remain under management control for several years, for example, United Airlines remained in bankruptcy for some three years before emerging in February 2006 under new ownership. The Bankruptcy Abuse Prevention and Consumer Protection Act of 2005 now limits extensions of the exclusion period to 18 months for filing a management plan and 20 months for approving such a plan.

<sup>30</sup>Voting is done by creditor classes. Classes are determined by the court with the intention that all members of a class have similar interests (priority, security interests, etc.). Voting within creditor classes is by claim amount and number of creditors. One large creditor cannot freeze out other members of the class, nor can one small creditor "hold up" the other members of the class.

<sup>31</sup>A bankruptcy court typically rules on numerous intermediate matters (for instance, the choice of a trustee or disposition of assets). The parties may then choose to appeal these rulings, during which time the court may stay its own ruling until the appeals are resolved.

<sup>32</sup>One exception, however, is that the FDI Act grants the directors of a bank 30 days following self-appointment of the FDIC as conservator or receiver in which to file an appeal. This right appears to have been rarely exercised and never successfully. No right of appeal exists for a primary regulator-initiated bank closure.

<sup>33</sup>These powers, which go far beyond those enjoyed by a bank-ruptcy trustee or court, have been termed "super powers" by Baxter, Hansen, and Sommer (2004).

<sup>34</sup>"Priority" refers to the order in which various unsecured creditor classes are paid to be off from the assets of the bankruptcy estate. "Security interest" refers to liens on property that reduce the assets available to the estate; mortgages and collateral being common examples. "Offset" is the process of combining (netting) offsetting multiple contracts between the insolvent firm and a given counterparty to reduce both the assets available to the estate (amounts owed by the counterparty) and unsecured claims against the estate (amounts owed to the same counterparty); bank loans and deposits are an example.

<sup>35</sup>A number of creditors have subordinated claims. These include subordinated debenture. However, such subordination is contractual rather than statutory. The default priority for creditors under the Bankruptcy Code is "general creditor."

<sup>36</sup>A number of states had previously provided for depositor preference in their banking legislation, which applied to state-chartered banks that were resolved under state laws (Kaufman, 1997). State laws, which govern insurance company insolvencies, frequently grant policy holders priority over other creditors.

<sup>37</sup>Nearly all large commercial banks in the U.S. are currently fully owned subsidiaries of bank or financial holding companies.

<sup>38</sup>Most DIP financing of ongoing regular business expenses (for example, wages) is classified as "administration expenses" and thus enjoys the senior priority that the law awards such costs (in both bank and general corporate insolvencies) over other unsecured creditors. Under such terms, banks are frequently willing to provide working capital to Chapter 11 insolvencies. It is also possible, though rare, for courts to award DIP financing a senior secured status displacing previous secured creditors. Bankruptcy procedures, though they may not always be successful, are designed to ensure that post-filing lending is not employed to obtain preferential recoveries on prefiling debt.

<sup>39</sup>The insolvency resolution of Superior Bank may be an exception. The FDIC negotiated to share the part of the proceeds of litigation against the bank's auditors, Ernst and Young, with the previous owners of the failed bank, arguing that this would result in a higher total recovery, rather than paying all the proceeds to the uninsured depositors. See Johnson (2005).

<sup>40</sup>See discussion in Kaufman (1997).

<sup>41</sup>Bris, Welch, and Zhu (2004) and Kaufman (1994).

<sup>42</sup>It is important to remember that delay does not necessarily produce asset value erosion, though egregious examples of loss of value during Chapter 11 proceedings focuses the attention on that possibility. Rapid liquidation of assets under adverse market conditions or without proper incentives to maximize value can be similarly deleterious to the welfare of creditors.

<sup>43</sup>A history of attempts to deal with liquidity losses in the resolution of bank insolvencies in the U.S. appears in Kaufman (2004a).

<sup>44</sup>A market may exist for bonds and perhaps equity of firms in bankruptcy, allowing those creditors to sell their claims and realize their current market value. No pre-existing market currently exists for insolvent bank receivership certificates.

<sup>45</sup>See Bliss (2006) for a full discussion.

<sup>46</sup>It is possible for creditors of a nonbank holding company subsidiary to initiate proceedings in a different jurisdiction than creditors of the holding company itself, thus setting up a similar multiple-jurisdiction problem. These cases are rare as most domestic U.S. bankruptcies are consolidated into a single venue.

<sup>47</sup>In some instances, one group of creditors may benefit at the expense of another depending on the distributions of claims and assets across jurisdictions. For example, in the case of the Bank of Credit and Commerce International, U.S. creditors at U.S. branches were paid in full, while foreign creditors at foreign branches suffered varying degrees of losses.

### REFERENCES

**Baxter, Thomas C., Jr., Joyce Hansen, and Joseph H. Sommer,** 2004, "Two cheers for territoriality: An essay on international bank insolvency law," *American Bankruptcy Law Journal*, Vol. 78, No. 1, Winter, pp. 57–91.

**Bergman, William J., Robert R. Bliss, Christian A. Johnson, and George G. Kaufman,** 2003, "Netting, financial contracts, and banks: The economic implications," in *Market Discipline in Banking: Theory and Evidence, Vol. 15, Research in Financial Services*, G. Kaufman (ed.), Amsterdam: Elsevier Press, pp. 303–334.

**Bhandari, Jagdeep S., and Lawrence A. Weiss,** 1996, *Corporate Bankruptcy: Economic and Legal Perspectives*, Cambridge, UK: Cambridge University Press.

**Bliss, Robert R.,** 2006, "Multiple regulators and insolvency regimes: Obstacles to efficient supervision and resolution," in *The Structure of Financial Regulation*, D. Mayes and G. Woods (eds.), conference proceedings, Bank of Finland, forthcoming.

\_\_\_\_\_\_\_, 2003, "Bankruptcy law and large complex financial organizations: A primer," *Economic Perspectives*, Federal Reserve Bank of Chicago, Vol. 27, No. 1, First Quarter, pp. 48–58.

**Bliss, Robert R., and George G. Kaufman,** 2006a, "U.S. corporate and bank insolvency regimes: An economic comparison and evaluation," Federal Reserve Bank of Chicago, working paper, No. WP-2006-01

\_\_\_\_\_\_, 2006b, "Derivatives and systemic risk: Netting collateral and closeout," *Journal of Financial Stability*, forthcoming.

**Bris, Arturo, Ivo Welch, and Ning Zhu,** 2004, "the costs of bankruptcy: Chapter 7 cash auctions vs. Chapter 11 bargaining," Yale University, International Center for Finance, working paper, No. 04-13.

**Corrigan, E. Gerald,** 1983, "Are banks special?," *1982 Annual Report*, Federal Reserve Bank of Minneapolis.

Curtis, Christopher T., 2000, "The status of foreign deposits under the Federal Depositor Preference Law," *University of Pennsylvania Journal of International Economic Law*, Vol. 21, Summer, pp. 237–271.

**Glick, Mark,** 1989, "A history of corporate bank-ruptcy," University of Utah, working paper, available by subscription at www.econ.utah.edu/les/.

**Hüpkes, Eva,** 2003, "Insolvency—Why a special regime for banks," in *Current Developments in* 

*Monetary and Financial Law, Vol. 3*, Washington, DC: International Monetary Fund.

\_\_\_\_\_\_, 2000, The Legal Aspects of Bank Insolvency, The Hague, Netherlands: Kluwer.

**Jackson, Thomas H.,** 1986, *The Logic and Limits of Bankruptcy Law*, Washington, DC: Beard Books.

**Johnson, Christian A.,** 2005, "Justice and the administrative state: The FDIC and the Superior Bank failure," *Loyola University Law Review*, Vol. 36, pp. 483–494.

**Kaufman, George,** 2004a, "Depositor liquidity and loss sharing in bank failure resolutions," *Contemporary Economic Policy*, Vol. 22, No. 2, April, pp. 237–249.

\_\_\_\_\_\_\_, 2004b, "Too big to fail in U.S. banking: Quo vadis," in *Too Big To Fail*, Benton Gup (ed.), Westport, CT: Praeger, pp. 154–167.

\_\_\_\_\_\_, 2004c, "FDIC losses in bank failures: Has FDICIA made a difference?," *Economic Perspectives*, Federal Reserve Bank of Chicago, Vol. 28, No. 3, Third Quarter, pp. 13–25.

\_\_\_\_\_\_, 1997, "The new Depositor Preference Act," *Managerial Finance*, Vol. 23, No. 11.

\_\_\_\_\_\_\_, 1994, "Bank contagion: A review of the theory and evidence," *Journal of Financial Services Research*, April, pp. 154-167.

**Shibut, Lynn, Tim Critchfield, and Sarah Bohn,** 2002, "Differentiating among critically undercapitalized banks and thrifts," in *Prompt Corrective Action in Banking*, George G. Kaufman (ed.), Amsterdam: Elsevier.

Simmons, Rebecca J., 2001, "Bankruptcy and insolvency provisions relating to swaps and derivatives," in Nuts and Bolts of Financial Products 2001: Understanding the Evolving World of Capital Markets and Investment Management Products, Corporate Law and Practice Handbook Series, New York: Practicing Law Institute.

**Swire, Peter P.,** 1992, "Bank insolvency law now that it matters again," *Duke Law Journal*, Vol. 42, No. 3, pp. 469–556.

**Todd, Walker,** 1994, "Bank receivership and conservatorship," *Economic Commentary*, Federal Reserve Bank of Cleveland, October 1.

**Upham, Cyril B., and Edwin Lamke,** 1934, *Closed and Distressed Banks*, Washington, DC: Brookings Institution.