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An International Perspective on the
Design of Bankruptcy Laws

Edited by
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WBI DEVELOPMENT STUDIES

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*An International Perspective on the
Design of Bankruptcy Laws*

Edited by
Stijn Claessens
Simeon Djankov
and
Ashoka Mody

The World Bank
Washington, D.C.

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Foreword

In late 1997 and through most of 1998, the world experienced a financial crisis that threatened the integrity of the global financial system. Though these global concerns were foremost in the minds of policymakers, there was also widespread recognition of the microeconomic nature of the crises: enterprises and financial institutions through much of East Asia, and also in other parts of the developing world, were facing severe financial distress. Emerging from the crises, therefore, required not only measures to improve global liquidity and win back consumer and investor confidence, but also a significant restructuring of the distressed corporate and financial sectors.

However, little research existed on mechanisms to engineer corporate and financial restructuring, particularly when the distress is widespread. In an effort to assess the magnitude of the problem and to help identify practical solutions, the World Bank invited leading international scholars and practitioners to a workshop in Washington D.C. in June 1999. The papers presented at this workshop were subsequently revised in light of the discussions, and edited to reflect the most recent World Bank research and analysis.

Although many questions remain to be answered, this book contributes to the literature by providing an analytical and practical approach to the design of bankruptcy systems. It discusses a range of topics including voluntary mechanisms for facilitating agreements between creditors and debtors, the role of international mergers and acquisitions, and the specific issues and concerns that arise in the course of restructuring financial institutions. While the book was motivated by events that took place after the crisis in East Asia, it also draws on experiences from other regions as well as on historical insights.

I believe *Resolution of Financial Distress: An International Perspective on the Design of Bankruptcy Laws* is a valuable addition to the World Bank

Institute's Development Studies series. The book will be of particular interest to policymakers involved with financial and corporate sector reform, as well as business school professors and students, law students, and practitioners of bankruptcy law.

Vinod Thomas
Vice President
The World Bank Institute

Contributors

Arthur Alexander is a director of the Japan Economic Institute in Washington, D.C. He was previously with the research department of the Rand Corporation. His research interests include macroeconomic and financial policy in Japan and comparative economic growth in Japan and the United States. His research has been published in *The Quarterly Journal of Economics* and *The Review of Economics and Statistics*.

Stijn Claessens is a professor of finance at the University of Amsterdam and a consultant to the World Bank. Before joining the finance faculty, he was a lead economist at the World Bank. He received his Ph.D. in finance from the University of Pennsylvania. Professor Claessens has published widely in the areas of corporate finance, transition economics, and international finance. He has published articles in *The Journal of Finance*, *The Journal of Financial Economics*, *The Quarterly Journal of Economics*, and *The European Economic Review*.

Simeon Djankov received his Ph.D. from the University of Michigan, Ann Arbor. Currently, he is a senior financial economist with the Financial Sector Policy Group at the World Bank. His work has been published in *The Journal of Financial Economics*, *The European Economic Review*, *The Canadian Journal of Economics*, and *The Journal of Comparative Economics*. He is currently on the team developing the World Bank's *World Development Report 2001—Institutions for Markets*. His research has also been cited in a number of national news and business periodicals, including *The Financial Times*, *Forbes*, and *The Economist*.

Perry Fagan is a researcher at the Harvard Business School. His interests include corporate control and organizational change, bankruptcy reform,

and financial distress issues. His previous work, co-authored with Michael Jensen, covered corporate governance issues.

C. Fritz Foley is a Ph.D. candidate at the Harvard Business School. His research interests focus on bankruptcy law reform in East Asia and resolution of financial distress in out-of-court settlements. His earlier work included studies on the growth of U.S. multinational affiliates, and the legal protection of creditors.

Stuart C. Gilson has been a member of the Harvard Business School faculty since 1991. He has a Ph.D. in finance from the University of Rochester. Professor Gilson has done extensive research in the area of corporate bankruptcy. His publications have appeared in *The Journal of Finance*, *The Journal of Financial Economics*, *The Financial Analysts Journal*, and *The Journal of Applied Corporate Finance*. His research has also been cited in a number of national news and business periodicals, including *The Wall Street Journal*, *The New York Times*, *Business Week*, *The Economist*, and *U.S. News and World Report*.

Stephan Haggard is an interim dean and professor of pacific international affairs at the University of California, San Diego. Professor Haggard's research interests center on the political economy of development in East Asia and Latin America. His most recent books include *The Political Economy of the Asian Financial Crisis* and *From Silicon Valley to Singapore: Location and Competitive Advantage in the Hard Disk Drive Industry* co-authored with David McKendrick and Richard Doner. He is currently conducting research on the restructuring of Korean corporations, fiscal federalism in Latin America, and the politics of social welfare in middle-income countries.

Donald B. Hausch is a professor of managerial economics in the School of Business at the University of Wisconsin, Madison. He has a Ph.D. from Northwestern University and masters and bachelor of science degrees from the University of British Columbia. Hausch's research interests include the economic design of organizations, contracting, competitive bidding, procurement, bankruptcy reorganization, and financial restructuring. He has co-authored two books and an edited volume and written articles that have been published in *The American Economic Review*, *Management Science*, *The Journal of Business*, *The Review of Financial Studies*, *The International Economic Review*, *The Journal of Applied Corporate Finance*, *Economic Theory*, and *The RAND Journal of Economics*.

Daniela Klingebiel is a senior financial economist in the Financial Sector Policy Group of the World Bank. She has written widely on financial distress, producing papers that measure the magnitude of the burden of financial crises, the resolution of financial distress, and stock market development. Currently she is leading a World Bank project on electronic finance.

Rafael La Porta is an associate professor in the Department of Economics at Harvard University. He received a Ph.D. in economics from Harvard in 1994. His research interests include corporate finance and asset pricing. He has published articles in *The Journal of Finance*; *The Journal of Financial Economics*; *The Quarterly Journal of Economics*; *The European Economic Review*; *The Journal of Political Economy*; and *The Journal of Law, Economics, and Organization*.

Florencio Lopez-de-Silanes is an associate professor of public policy at Harvard University. His research covers corporate governance, financial economics, and industrial organization and privatization as applied to the analysis of privatization and legal reform. He is currently an economic adviser to the Egyptian, Mexican, and Peruvian governments. His publications deal mainly with privatization, deregulation, legal reform, finance, and trade and industrial policy. He graduated from the Instituto Tecnológico Autónomo de México and received a Ph.D. in economics from Harvard University in 1993.

Joseph Mason is an assistant professor of finance at Drexel University. He received his Ph.D. in finance from the University of Illinois in 1995. His research interests include bankruptcy reform and the determinants and effects of the Reconstruction Finance Corporation's assistance to banks during the great depression. His research has been published in *The American Economic Review*.

Ashoka Mody is a lead specialist in international finance in the World Bank's Economic Policy and Prospects Group. He was recently the principal author of the World Bank's *Global Development Finance 2001*. He has been a visiting professor at the Wharton School and has also worked for AT&T's Bell Laboratories. His recent research included analysis of the microstructure of international financial markets.

Alberto Mulás is undersecretary of the Social Development Secretariat in Mexico. He graduated in chemical engineering from the Iberoamerican

University and obtained his masters in business administration from the University of Pennsylvania Wharton School. Since 1997, he has served on the board of directors of several companies, including Synkro, Serfin Financial Group, Salinas and Rocha, Cintra, Camino Real Hotels, and the SIDEK Group. He was also managing director of the Mexico office of Donaldson, Lufkin, and Jenrette Securities Corporation; restructuring coordinator of the coordinating unit for the Enterprise Banking Agreement; representative and director of Lehman Brothers, Inc. of Mexico; and vice president of JP Morgan's local representation office in Mexico.

Shoko Negishi is an economist in the Economic Policy and Prospects Group at the World Bank. Since joining the World Bank in 1997, she has been one of the authors of the *Global Development Finance* reports. Her recent publications focus on determinants and developmental impacts of foreign direct investment and the implications of corporate and financial restructuring in East Asia. Before joining the World Bank, she worked as an economist at the Research Institute of Infrastructure and Investment at the Development Bank of Japan.

S. Ramachandran is a senior economist at the World Bank. He received his masters degree from the London School of Economics and Political Science and a Ph.D. from the University of Chicago. He was an assistant professor at the University of Wisconsin, Madison. Ramachandran left academia to join the research department of the International Monetary Fund, and later joined the World Bank where he has worked extensively with transition economies and other countries undertaking major reforms in their banking systems. Ramachandran and his colleague Donald B. Hausch designed the auction-based bankruptcy process, which is described in their contribution to this volume.

Joseph E. Stiglitz is a professor of economics at Stanford University. He received his Ph.D. from the Massachusetts Institute of Technology in 1967. From 1997 to 2000 he served as the World Bank's senior vice president of development economics and as chief economist. From 1993 to 1997, Dr. Stiglitz served as a member and then as the chairman of the U.S. Council of Economic Advisers. Before his appointment at Stanford University, he was a professor at Princeton University, Yale University, and All Souls College, Oxford. Dr. Stiglitz helped create a branch of economics—The Economics of Information—that has been widely applied throughout the economics

discipline. In 1979, the American Economics Association awarded Dr. Stiglitz its biennial John Bates Clark Award.

Jay Westbrook is a professor of law at the University of Texas at Austin. A distinguished scholar in the field of bankruptcy and a pioneer in empirical studies in this area, Professor Westbrook teaches and writes about commercial law and international business transactions. He is co-author of *The Law of Debtors and Creditors* (1996), *As We Forgive Our Debtors: Bankruptcy and Consumer Credit in America* (1989), and *The Fragile Middle Class* (2000). He has been a visiting professor at Harvard Law School and the University of London and is a member of the American Law Institute, the National Bankruptcy Conference, and the American College of Bankruptcy. He is also co-head of the U.S. delegation to the United Nation's conference on international insolvency.

Michelle J. White received her Ph.D. from Princeton University and has served on the faculties of the University of Pennsylvania, New York University, and the University of Michigan at Ann Arbor. She has been a board member of the American Economics Association's Committee on the Status of Women in the Economics Profession, a member of the advisory panel to the law and social sciences program at the National Science Foundation, and first vice president of the Midwest Economics Association. She is currently an editorial board member of *The Journal of Urban Economics* and *The American Law and Economics Review* and a board member and treasurer of the Social Science Research Council.

Resolution of Financial Distress: An Overview

Stijn Claessens, Simeon Djankov, and Ashoka Mody, The World Bank

Recent financial crises involving the corporate and financial sectors in emerging markets, especially in East Asia in 1997–98, have raised important questions about the proper role of governments in preventing and alleviating financial distress. Government actions to assist specific companies and financial institutions raise equity issues, as governments will need to tax these companies and institutions in the future to service the additional public debt. Government interventions also raise the concern that private sector entities will come to expect such assistance in the future and may behave in imprudent ways, leading to future crises.

However, if governments take no action, significant sections of the economy may remain distressed for a long period of time, resulting in large, socially unacceptable losses in output and employment. This dilemma has led to the search for arrangements that would automatically trigger orderly processes to resolve systemic financial distress. In this book, the search is presented in parallel with a global review of the frameworks that currently exist for resolving financial distress at the level of individual corporations. In many countries, these frameworks are undergoing changes as governments revise bankruptcy and related laws.

In a systemic crisis, the government's first role is to define rules that lead to efficient private restructuring efforts. In the event that these private initiatives prove insufficient for acceptably resolving distress, the government's second role lies in providing direct assistance. Neither role

is obvious, however. For instance, analysts have intensely debated the degree to which excessively debtor-friendly or creditor-friendly regimes aggravate financial crises. An equally disputed area is whether direct support helps to resolve a financial crisis or merely accelerates the coming of the next one.

Another dimension of government involvement in financial crisis resolution is the opportunity it presents to introduce reforms that political interest groups would otherwise stymie. Thus, while resuscitating ailing companies and banks is of paramount importance to policymakers in times of financial distress, such periods can also provide a window of opportunity to pass legal and judicial reforms that enhance the long-term growth path of the economy. Examples of such reforms are the passage of improved bankruptcy laws in the Republic of Korea, Malaysia, and Thailand in the wake of the financial crisis and the formation of specialized bankruptcy courts in Indonesia and Thailand.

This book deals with the principles of and practical approaches to addressing the difficult public policy trade-off involved in systemic corporate and financial sector crises and the lessons gained from the changes taking place in bankruptcy frameworks around the world. It brings together research on recent public policy initiatives for distress resolution or market-based restructuring. The book also includes papers that discuss the direct role governments should play when these contractual and market-based methods are not sufficient. Finally, the scope of opportunity for revision of existing laws is assessed.

This overview chapter summarizes the main findings of the thirteen papers in the volume and the findings of some other recent studies of insolvency reform. In recent years, considerable new research on insolvency has been conducted independently of the crises in emerging markets. This literature provides important guidelines for the long-term development of bankruptcy rules and procedures. However, while bankruptcy processes are a critical complement to other initiatives, they have played a limited role in the emerging market crises. This is because the problem is so extensive, as is the time required for bankruptcy rules and institutions to become effective in economies where they have only recently been introduced.

In the second set of papers, we consider approaches to dealing with systemic financial distress. In particular, some papers address the government's role in facilitating resolution of financial claims through out-of-court arrangements that substitute for effective bankruptcy procedures. Other papers consider market-based restructuring by facilitating mergers and acquisitions and permitting a greater role for foreign investors. Finally,

where neither bankruptcy procedures—including those specially directed toward dealing with systemic distress—nor market-based restructuring through takeovers of distressed firms are adequate, the government will often step in by assuming the financial losses of distressed firms and banks. In that context, the role of asset management companies and other forms of government support are discussed.

Insolvency Regimes: Current Interest and Principles

Insolvency regimes represent the balancing of several objectives, which includes on the one hand protecting the rights of creditors, essential to the mobilization of capital for investment and working capital, and on the other hand obviating the premature liquidation of viable enterprises. In most countries the framework for dealing with insolvency has evolved over time as the balance of political power between various interests has changed and the economy's structure has been transformed. As a consequence, bankruptcy regimes differ considerably, even among developed countries. Thus, even in countries with close sociocultural affinities and economic ties, such as the United Kingdom and the United States, significant differences exist in the basic treatment of the debtor.¹ Insolvency provisions, therefore, appear tailored to the circumstances in which the country finds itself, especially in times of systemic financial distress.

In spite of the differences among regimes, a working insolvency regime is clearly an essential part of a market economy. The absence of adequate insolvency regimes in the East Asian crisis economies, which surprised many observers, considerably complicated and slowed down the process of corporate restructuring. For years, these economies had grown rapidly, and institutional reforms to deal with corporate distress had not been high on the list of policymakers' priorities, although bankruptcy codes were better developed in Korea and Malaysia than in Indonesia and Thailand. Attempts to institute and refine bankruptcy mechanisms following the crisis led to a broader reevaluation of the goals of the insolvency mechanism in a market economy (most forcefully expressed in chapter 1 in this volume).

1. The U.S. Bankruptcy Act of 1800 was largely a copy of the English Statute of Anne. Today, the British system favors the creditor and results in relatively more liquidations. Chapter 11 of the U.S. bankruptcy code is more debtor-friendly and leads to more reorganization under the control of incumbent management. Recent changes in the British bankruptcy law have, however, moved it closer to the U.S. law. For details, see chapter 3 in this volume.

The East Asian financial crisis triggered much work in international forums on developing guidelines for bankruptcy regimes (see, for example, World Bank 2000a). In chapter 1, the author turns the discourse away from the fairness of bankruptcy codes to the important question of the behavioral incentives these codes create. What matters most to creditors is the level of clarity concerning what happens when debtors default. As long as insolvency rules are predictable, lenders will charge an interest rate commensurate with the risk involved. In turn, debtors end up with access to capital while paying the fair cost.

When the legal rights of creditors are well protected, firms' access to credit expands substantially, as does the breadth and depth of debt markets (chapter 4). This is because the laws protect creditors from expropriation by the managers and controlling shareholders of firms. A simple way to reward creditors in insolvency is to respect the absolute priority of claims in bankruptcy or restructuring, that is, senior creditors are paid first, followed by junior creditors, and followed finally by shareholders if any residual remains. At the same time, some analysts have pointed out that if shareholders receive nothing during bankruptcy, managers acting on behalf of shareholders will attempt to delay or avoid bankruptcy, including undertaking high risk projects when the corporation runs into financial distress. For this reason, Hart (2000) makes a case for preserving some portion of firm value during bankruptcy for shareholders, even when absolute priority would not leave any residual value for the owner.

Insolvency procedures can be compared on many levels and the author of chapter 1 provides a useful taxonomy of these dimensions. An important consideration is whether the law provides for an automatic trigger when a company needs to file for bankruptcy. The purpose of automatic triggers is to alleviate the loss of value associated with managers or major shareholders delaying the bankruptcy decision.

Such a trigger was introduced in Hungary in 1992 with the effect that more than 5,000 companies entered bankruptcy proceedings in a single year (Gray, Schlorke, and Szanyi 1996). While in the long run it spurred institutional building in the courts and the trustee profession, the adoption of the trigger mechanism clogged the courts for a number of months and made separating viable from nonviable firms difficult. The trigger was subsequently removed in the 1997 bankruptcy reform.

A trigger mechanism of a different type was introduced in the revision of the Thai bankruptcy law of 1999 (Foley 2000). If the debtor owed a group of plaintiff creditors more than baht 1 million, the main creditor had to petition for bankruptcy. While the trigger itself was well defined, the next

step in the bankruptcy procedure—the determination of insolvency—was not. In particular, nine presumptions of insolvency were set forth in Section 8 of Bankruptcy Act 2483. These proved to be difficult to fill, which resulted in few bankruptcy cases being initiated even after the revised law came into force. The Thai example points to the necessity for complementarity of various laws and procedures that underlie the insolvency regime.

Another important issue in the adoption of bankruptcy laws is deciding who can file for reorganization or liquidation. Related concerns are the attention paid to the debtors' and the creditors' roles, roles of the company's management and other stakeholders in preparing reorganization proposals, the ability of management to stay during the reorganization, and whether an automatic stay of assets exists. In chapter 4, the authors show that each of these features significantly affect access to credit across countries. An example of the effect these features can have is evident in the fact that the ability of managers to hold onto their positions adversely affects creditor rights and is associated with less access to external finance.

How different countries combine these features to deal with financially distressed firms depends to a large extent on the values of all stakeholders. Other factors that influence the way countries deal with financial distress include general contract law; securities laws; criminal laws; the availability of extrajudicial options; the institutional development of country, for example, courts, creditors, banks, and government; the diversity of claims; and the degree of informational asymmetries. International dimensions can be important, as in the case of Indonesia where corporate sector debt was largely owed to foreign investors (Claessens, Djankov, and Lang 2000a). The general quality of information on firm value and the development of the financial markets to absorb distressed assets are other important factors.

While an optimal insolvency regime does not exist, badly written codes make everybody worse off. Several principles apply in the construction of a good insolvency regime. First, the regime should deliver an *ex post* efficient outcome, in the sense that the distressed firm obtains the highest total value. Specifically, the firm should be closed down, liquidated piecemeal, sold as a going concern, or reorganized based on whichever of option generates the most value to creditors, the debtor, and other shareholders such as workers. Second, a good insolvency regime should be *ex ante* efficient in that it prevents managers and shareholders from taking imprudent loans and lenders from giving loans with a high probability of default. Policymakers can use reductions in claims or job losses of the respective parties to discourage imprudent behavior.

How different countries deal with financially distressed firms also varies over time, as the structure of economic production and values of all stakeholders change. In chapter 3, the author reports a general trend toward moving from more creditor-friendly regimes to more debtor-friendly regimes. Recently bankruptcy procedures around the world have predominantly moved toward adopting U.S. Chapter 11-type procedures; Argentina, Australia, Indonesia, Thailand, and the United Kingdom have all undergone legal reforms (chapter 1).

The exception to this trend is the insolvency reform that took place in Mexico in 1998 that introduced an automatic trigger for entering bankruptcy. The greater focus on intangibles in the operation of firms appears to be motivating the move toward more debtor-friendly regimes, which makes preserving the ongoing value of a firm in a financial restructuring more important. An excessively creditor-friendly approach can result in too many liquidations.

Bankruptcy or other legal resolution techniques are not the only methods for dealing with financial distress. Economists have been proposing alternative procedures for some time. These center on versions of asset sales or cash auctions. Cash auctions are easy to administer and do not rely on the judicial system (chapter 5; Hart and others 1997). While attractive from a theoretical perspective, these proposals have not had recent followers, except for the Mexican reformers in 1998. This is because asset sales are empirically shown to fetch low prices, although this empirical evidence is mostly anecdotal (Pulvino 1998). A further downside of the auction mechanism is its reliance on liquid secondary markets.

At the same time, structured bargaining mechanisms, for example Chapter 11 reorganization, depend on strong judicial systems. In countries where the judiciary is relatively weak, as in many developing countries, one might consider a menu of options to deal with insolvency from which debtors can choose whether to use structured bargaining or cash auctions. In the short run, debtors may prefer structured bargaining, even though they pay for it with higher interest rates, because creditors will adjust for the uncertain outcomes of the restructuring process (Hart 2000). In the long run, as old debts expire, debtors are likely to switch to the cash auction procedure, as this lowers the cost of obtaining capital. Most importantly, however, offering a menu of options is likely to introduce an element of competition among alternative procedures. As a result, the less efficient procedures are likely to be eliminated over time.

Importantly, for firms facing financial distress, legal insolvency is but one restructuring option. In East Asia after the 1997–98 crisis a number of

firms chose to sell equity and control to foreign investors (chapter 12; Freund and Djankov 2000), or renegotiated most of their debts out of court (chapter 6). In countries with better creditor rights and more efficient legal systems, the likelihood that financial distressed firms would file for insolvency was higher, although firms affiliated with business groups were less likely to file (Claessens, Djankov, and Klapper 1999). Even when bankruptcy procedures are not used in restructuring, however, they determine to a large extent the speed and process of restructuring.

Two of the papers in this volume look at the impact of changes in bankruptcy regimes on the resolution of financial distress. In chapter 10, the authors studied data from Indonesia, the Republic of Korea, Malaysia, and Thailand and found that a small share of distressed assets, less than 6 percent on average, was resolved through formal bankruptcy. Much more prevalent was the use of out-of-court settlements. The slow pace of the judicial process in part explains this. On average, it took more than two years for a bankruptcy case to reach a judicial decision in Thailand. Not surprisingly, the two countries with the most court delays, Indonesia and Thailand, instituted specialized bankruptcy courts. While the efficiency of in-court resolution improved significantly following these changes in the structure of the judiciary, few cases still reached the bankruptcy courts. As the authors show in chapter 10, in the Alphatec case in Thailand most bargaining took place outside the courts.

Related to the lack of willingness to use formal bankruptcy procedures is the effect of wealth distribution on changes in bankruptcy regimes. In the wake of the East Asian financial crisis, all affected countries passed new bankruptcy legislation. However, Indonesia and Thailand also introduced specialized bankruptcy courts. Foley (2000) further investigates the effect of legal reform on the value of both creditors and debtors. The key question is whether such legal changes merely redistribute pending claims, or whether the value of claims of both debtors and creditors increases. Foley shows that values for all parties increased in reaction to anticipated events in the Thai bankruptcy process. Following positive news, the increase was large; equity values increased more than 25 percent in total. The equity values of companies or banks associated with financially healthy business groups were not greatly affected. The latter finding supports Claessens, Djankov, and Klapper's (1999) results concerning business groups acting as an alternative source of capital in East Asian countries.

Bankruptcy codes can also have general, more long-term effects. Not only does the strength of creditor rights determine the prevalent interest rates, but the balance between creditor and debtor rights can also determine the

level of entrepreneurial activity (chapter 2). The more liability potential entrepreneurs face in case of default, the less likely they are to start new businesses. In chapter 2, the author provides empirical evidence on the number of start-up companies in the United States and explains the variations among states based in part on the different procedures for personal insolvency.

Systemic Distress and Corporate Restructuring

Corporate restructuring is an ongoing process that separates those firms that survive and prosper from those that are overwhelmed by new challenges and flounder. Governments have only a limited role to play in such restructuring, except to ensure an economic environment in which resources can be redeployed at minimal cost. However, when distress is widespread the danger is that it may be self-reinforcing. Several types of coordination issues arise. Firms may have few incentives to restructure because other distressed firms, and by implication consumers, have low demand for their products. In addition, distressed firms are unable to repay debts, which maintains the pressure on financial institutions, which in turn restricts the new lending that may be required to revive sectors where effective demand exists. Financial institutions may become insolvent, thus reducing the incentive of borrowers to repay loans. Finally, the judicial system will be overwhelmed with cases and have no prioritization mechanism.

Three approaches can be used to break out of the vicious cycle of self-reinforcing financial distress. The first strategy is to depend on economic recovery to release the constraint on demand and improve cash flows and firms' ability to repay their debts. Increased government spending can be used to encourage such recovery, but fiscal constraints may limit this option, particularly in times of systemic distress. Recovery may also occur if the demand for exports is buoyant, as was the case in Mexico after the 1994–95 crisis. Exports were also buoyant in the cases of Korea and Malaysia after the recent Asian crisis; both countries benefited from rapid growth in the trade of electronic products. However, relying on an economic upturn may be naive, as continued stagnation of the corporate sector in Japan over the last decade shows (chapter 9).

Economic recovery by itself has proven to be insufficient in countries like Indonesia and Thailand, where more than half of the corporate sector at some point experienced distress. Many firms were in distress not just because of an economy-wide crisis, but because business leaders had in the past made imprudent investment decisions. The evidence shows that the distress of such firms and financial institutions persists for long periods of time, rendering the economy vulnerable to renewed financial pressures.

For this reason, the next set of alternatives for breaking out of the vicious cycle of financial distress comprises a variety of market-based measures that may not require any fiscal layouts. In this approach the government sets the rules under which creditors and debtors work out their claims in a decentralized manner. These rules include rules governing normal restructuring and bankruptcy; enhanced measures for resolving financial claims through special rules or moral suasion that supplement existing bankruptcy procedures; reduction of barriers to transfer of ownership and redeployment of resources, including more liberal foreign direct investment, mergers and acquisitions, and greater mobility in labor markets; and super bankruptcy processes that, once again, change the incentives for restructuring claims.

The common feature of these decentralized approaches, whether normal creditor-led workouts or enhanced market-based or super bankruptcy approaches, is their reliance on incentives and penalties for restructuring rather than on either government fiscal stimuli (as in the case of an engineered recovery) or on government assumption of financial liabilities of bankrupt firms and financial institutions. In some cases, however, where economic recovery and enhanced incentives for restructuring are insufficient, governments may need to assume financial liabilities or provide other forms of government support to shore up the financial or corporate sectors. A related issue is the degree to which governments should exercise regulatory forbearance on financial institutions in distress. Where governments do expend fiscal resources and assume nonperforming loans, they also seek to recover some part of those resources through centralized asset management companies (AMCs).

Economic Recovery

In practice, the dependence on economic recovery, sharper incentives and tougher penalties, and the assumption of financial liabilities go together. Evidence from several countries demonstrates that this is the case. Isolating the effects and benefits of pursuing an approach that focuses solely on economic recovery is therefore difficult. While all East Asian countries engaged, after an initial contraction, in fiscal stimulus programs, Japan has relied the most on demand-led recovery, with fiscal stimulus being an important part of the approach. In chapter 9, the author describes the ongoing Japanese reforms, which so far have had mixed success, and analyzes complimentary structural reform efforts. Besides the fine-tuning of bankruptcy codes, policymakers have undertaken initiatives to increase labor mobility and facilitate mergers and acquisitions. Primarily, these initiatives

involve the elimination of a number of restrictive rules, for example, the type of majority required within a distressed firm's board of directors to permit its takeover or merger with another firm.

Both the reported levels of bankruptcies and domestic and international mergers and acquisitions of Japanese firms are on the rise, although they are rising from a low base level. In the short run, these events are painful to the employees of affected firms and to the broader economy, as they serve to depress consumer confidence. However, such restructuring offers the best hope for the revival and long-term efficiency of the corporate and financial sectors in Japan. The fiscal stimulus approach has only raised public Japanese debt to high levels, while having few long lasting benefits. More generally, the capacity of economic recovery alone to overcome a systemic crisis is limited.

Market-Based Approaches

In any circumstance, the government sets the rules for distress situations that encourage the settlement of claims and facilitate the transfer of ownership and the redeployment of resources. The government's role in a situation of systemic distress may differ from its normal functions in the degree and speed with which it acts and the extent to which it temporarily creates tighter rules to encourage restructuring. In addition, certain significant reforms, for example, those related to corporate governance, liberalization of foreign direct investment, and easier mergers and acquisitions, may be undertaken during periods of systemic distress. These correct deficiencies that lead to the problems, but are likely to have permanent benefits as the systemic crisis recedes. This political economy of reform is not uncommon, of course, and a crisis is often the best way to get difficult structural reform accepted.²

While various ways in which governments can enhance the restructuring process exist, in designing the rules for restructuring the main responsibility has to be with the debtor and creditors themselves. The usual way of resolving financial distress is an out-of-court creditor-led voluntary

2. Domowitz and Tamer (1997) show that the pace of legal activity in the United States from 1790 to 1994 supports the proposition that legislative initiatives with respect to bankruptcy are countercyclical in nature, that is, bankruptcy legislation is usually passed after a deep downturn in the economy. Berglof and Rosenthal (2000) find additional evidence for the countercyclical nature of bankruptcy reform in the United Kingdom and the United States.

workout. These voluntary workouts will differ by the type of debtor, for example, small versus large firms, the structure of creditors, for example, the amount of secured versus unsecured creditors, and according to many other criteria. In all cases, however, the formal insolvency regime serves as the background. Debtors could always pull out of negotiations if they thought they could fare better in the formal procedure. As a result, voluntary workouts have had limited success in countries where formal bankruptcy was cumbersome, for example, in Indonesia, because of deficiencies in the framework or a weak judicial system (chapter 10).

A lack of equity capital and barriers to the mobility of resources may also stymie private sector restructuring. Where past owners are unable to deal with the problems, transfer of ownership to new owners may offer the best solution to maintaining some of the value of the resources employed. Also, financial distress can signal that resources may also be better used in other sectors of the economy. The crisis in East Asia and the poor Japanese growth performance have revealed the rigidities of resource mobility in these economies. As part of reforms in this region following the financial crisis, governments have undertaken several steps to facilitate capital mobility. Some governments now allow transfer of assets to settle claims, and in some economies, reforms have longer-run implications for increased efficiency of operation. In particular, foreign investment regimes have been liberalized and mergers and acquisitions made easier (chapter 12; World Bank 2000b).

In chapter 12, the authors show that in the crisis countries of East Asia, mergers and acquisitions have occurred mostly in the nontradable sectors, where distress has been most pronounced. These include the wholesale and retail trade, transportation, real estate, and financial sectors. Observers have expressed concerns that acquisitions by foreigners may represent fire sales, resulting in a net transfer of wealth from the crisis economies (Krugman 1998). Though the evidence is not conclusive, the jump in mergers and acquisitions in the East Asian economies may represent a shift from a relatively autarkic policy stance—prior to the crisis, few East Asian countries allowed entry into their financial sectors, for example—to a more open one. Mergers and acquisitions are likely to further the integration of these economies into the global economy. The high rate of mergers and acquisitions in Korea, for example, which had the lowest incidence of corporate distress among the crisis countries, demonstrates the importance of this long-term shift relative to the incidence of fire sales. However, in chapter 12, the authors also conclude that the problems of distressed firms lies deep in past investment and financial

structure decisions and hence the influence of the wave of mergers and acquisitions may only be discerned over time.

Normal bankruptcy and restructuring frameworks might not be sufficient given coordination problems and weaknesses in institutional frameworks. First used in the Mexican crisis (chapter 7) and expanded in the context of the East Asian crisis, bankruptcy rules can be supplemented with so-called London rules³ involving enhanced mechanisms to get creditors and debtor to agree on restructuring (chapters 10 and 11). Enhancements have involved encouraging most financial institutions to sign these out-of-court accords under regular contract or commercial law. In the case where this has taken place, agreements reached among the majority of creditors can be applied to other creditors without going through formal judicial procedures. Also, formal arbitration with specific deadlines has sometimes been made part of the accord. With such arbitration, an out-of-court system does not have to rely as much on the formal judicial process to resolve disputes and its associated costs and delays. In addition, some of the approaches have involved specific penalties that can be imposed for failure to meet deadlines. The degree to which countries have adopted these enhancements has varied among East Asian countries; the framework in Thailand, followed by those in Korea and Malaysia, is the most conducive to out-of-court restructuring, and the framework in Indonesia is the least. These differences explain in part the variations in the speed of restructuring in these countries.

The most far-reaching proposal to enhance restructuring is that of super bankruptcy, a temporary tool to be used when a country faces systemic bankruptcy brought on by huge macroeconomic disturbances (chapter 1). The basic presumptions of super bankruptcy are that management automatically stays in place and a forced debt-to-equity conversion takes place. The existence of such a bankruptcy code is likely to result in higher interest rates in normal times, especially for short-term foreign lenders, and raise the moral hazard of worse management and higher risk-taking. However, in a systemic crisis super bankruptcy can preserve the going concern value of firms by preventing too many liquidations and keeping existing managers, who most often know how best to run the firms, in

3. The London rules are principles for corporate reorganization that were first enunciated in the United Kingdom in the early 1990s. Since the London rules were not designed for systematic corporate distress, countries have tried to tighten them in various ways.

place. An important design issue is when to call for super Chapter 11, that is, when is the crisis of a systemic nature, and who has the authority to call for such a suspension of payments? Political economy factors should be taken into account here as wealth is often concentrated in emerging markets, and some debtors would stand to gain disproportionately from a suspension of payments (Claessens, Djankov, and Lang 2000b).

The evidence from East Asia suggests that adopting a temporary super Chapter 11 is unnecessary. Corporations and banks moved slowly to restructure outstanding debt, in the hope that economic recovery would obviate the need for write-offs (for banks) or the surrender of equity control (for large shareholders). However, few firms were prematurely liquidated, in part because a working bankruptcy regime was often not in place. When economic recovery indeed came about in 1999, few firms were liquidated or had gone through bankruptcy procedures, and no significant loss of value seems to have occurred as a result of not adopting super bankruptcy rules. If anything, observers have argued that too many firms were allowed to continue to operate for too long, as in the case of several business-group affiliated firms in Korea, and that equity holders bore too little of the costs of restructuring.

Direct Support by the Government

Injection of new government funds is the most difficult aspect of restructuring. In principle, governments should not be in the business of paying for the mistakes of private companies and financial institutions. However, the need to revive the economy may force the government's hand, and government support should then be part of the most efficient or most necessary approach to resolving a systemic crisis.

In particular, governments often have contractual obligations, for example, insuring depositors or issuing general guarantees to stabilize the financial system and restore confidence. In such situations, a key issue that governments face concerns the speed of their actions. They may choose to acknowledge their liabilities, but delay the injection of funds by exercising regulatory forbearance (that is, not enforcing prudent capital requirements) on financial institutions. In another scenario, they may choose to take the fiscal losses that result from restructuring the banks up front and start with a clean slate. The experience is that forbearance, though fiscally attractive in the short-run, can lead to mounting costs overall. The lesson here is that by accepting early losses governments can help stop continued distress. For such a course of action to be successful,

strong restructuring initiatives and complementary structural reforms, along the lines suggested earlier in the chapter, should accompany it to prevent the recurrence of financial distress.

A variety of approaches exist with respect to government assumption of financial losses in the banking system. These include direct injection of capital or subordinated debt, provision of loss-sharing arrangements on some pool of assets, grants of government loans, or placement of deposits (chapter 13). Each has advantages and disadvantages.

Recently countries have increasingly used publicly owned AMCs. Unfortunately, the efficacy of AMCs in resolving a systemic bank crisis is questionable, as their track records have been mixed at best. In chapter 13, the author distinguishes between two main types of AMCs. The first type is set up to help and expedite corporate restructuring, whereas the second type is established to dispose of assets acquired or transferred to the government during the crisis. The latter are known as rapid asset disposition vehicles.

The author discusses seven cases for which data are publicly available. The governments of Finland, Ghana, and Sweden set up restructuring vehicles. Two corporate restructuring AMCs (the exception is Sweden) did not achieve their narrow goals of expediting corporate restructuring, which suggests that AMCs are rarely good tools to accelerate corporate restructuring. Only the Swedish AMC successfully managed its portfolio, acting in some instances as lead agent in the restructuring process. In Mexico, the Philippines, Spain, and the United States, governments set up rapid asset disposition agencies. Rapid asset disposition vehicles fared somewhat better with two out of the four agencies, the Spanish and U.S. agencies, achieving their objectives.

However, achieving these objectives even with an AMC required many ingredients. These include professional management, political independence, a skilled resource base, appropriate funding, adequate bankruptcy and foreclosure laws, good information and management systems, and transparency in operations and processes. Arguably the most important ingredient is the political will of the government to address the issues. Success is also more likely if the assets acquired are mostly real estate related assets, because these are easier to restructure than corporations. In addition, success is more likely if the amount of assets transferred is small relative to the banking system, making it easier for the AMC to maintain its independence and not to succumb to political pressure. As always, explicitly considering political economy elements when adopting this model is important (chapter 11).

An example of a different form of government support is the U.S. Reconstruction Finance Corporation (RFC) (chapter 8). The RFC, which lasted from 1932 to 1957, provided loans for or invested more than US\$40 billion in 5,685 banks, 40 percent of all insured banks in the United States. These banks were initially thought to be illiquid, but by 1933 many banks were found to be insolvent and needed to be closed or get additional capital, so a preferred stock program was established. RTC officials' discretion to support banks was limited, and to be eligible for this program banks had to agree to limit dividends and devote earnings to retiring the stock of the bank, or essentially buying out the government's position. The RFC, whose stock was senior to all others, could also only hold a maximum of 49 percent of the equity in a bank, which meant private funds were needed. While difficult to evaluate its success, the intervention appears to have contributed to a recovery of confidence and output, until monetary tightening reversed both trends in 1937. However, the government recovered its initial capital and did not leave nonviable banks in business.

The Fondo Bancario de Protección al Ahorro (FOBAPROA) agency in Mexico (chapter 7), with the objective of both restructuring banks and recovering nonperforming loans, had a mixed record. During 1996, the year following Mexico's 1995 financial crisis, the government started the recapitalization of the banking system that enabled banks to sell bad loans, on a 2-to-1 ratio based on every dollar of new equity invested by shareholders, to the FOBAPROA trust. Such sales were generally executed on a risk-shared basis, with the selling bank retaining 25 percent of the risk, and were implemented not as actual asset, or loan, sales, but as purchases of loans' cash flows. The program led to the transfer of underlying cash flows valued at approximately US\$18 billion in loans to FOBAPROA, which resulted in deterioration of loan administration procedures and dislocation in the asset-client relationship. Concurrent with the loan sales, several banks with severely depleted capital, whose shareholders would not commit fresh equity to capitalize them, were sold to foreign financial institutions. In these instances, FOBAPROA purchased the banks' bad loan portfolios, further reducing the incentives for other banks to write off bad loans.

In the end, countries often choose a mixture of these various approaches when dealing with a systemic crisis. Of the four East Asian crisis countries, Indonesia, the Republic of Korea, Malaysia, and Thailand, three employed AMC's; all have employed some form of out-of-court-system; and most have used, after an initial period of a year or so, fiscal stimulus and monetary policy to foster economic growth (chapter 10). In addition, all have enhanced their basic frameworks for private sector operations, including more

effective provisions for bankruptcy, corporate governance, liberalization of entry, and other matters. Similarly, Mexico's government used both an AMC and a more decentralized approach to resolve financial distress in 1995. In the end, export led-growth started the Mexican recovery, although it did not resolve the banking problems.

As the case studies show, the weights of these various policy options vary by country. Solutions to financial crises have to be country-specific. Systemic crises differ in many dimensions; one is the size of the problem, specifically, the number of nonperforming loans and the degree of corporate distress. Another dimension is the type of distress, for instance, is real estate or are corporations involved? Other aspects of systemic crises are the amount of foreign and domestic debt, both public and private, which limits the scope for taking on new liabilities or the difficulty in restructuring; the quality of the initial institutional framework and human resource capacity; the macroeconomic policies being pursued; the existing ownership structures; and the political economy structure of the country. Given these differing dimensions, governments have to tailor their approach to each specific circumstance.

Conclusions

Insolvency regimes are an essential part of a market economy, in cases of both nonsystemic and systemic financial distress. The ability to resolve normal insolvencies efficiently allows an economy to operate more effectively. Based on the basic requirements for a well-functioning insolvency regime that have been documented, best practices are continually reviewed. As a result, global regimes are tending toward less liquidation and more rigorous processes and depending less on the use of market-based resolution techniques.

Some lessons concerning systemic restructuring have become clear. The government's role must be limited to establish an enabling environment for the private sector to do the necessary restructuring. In addition, adjusting the approach according to the type of assets that are causing the distress is clearly important.

To the extent that governments directly intervene in systemic restructurings, they should be careful how they deal with banks suffering from financial distress. They should not close these banks without alternative financial intermediation mechanisms and a comprehensive program of bank restructuring. They should not recapitalize banks too

quickly, and should instead try to link recapitalization with bank privatization where possible.

Instead of focusing on companies experiencing financial crisis, governments should try to support businesses that can effectively weather financial distress by providing tax relief or other support to healthy corporations. In addition, governments should help small and medium sized firms that are often the victims of the credit crunch that tends to follow a financial crisis. This can take the form of automatic reschedulings, or tax and regulatory relief.

Finally, to resolve the debt overhang that hinders recovery, governments need to have loss-absorption mechanisms. In many cases, this requires the injection of public funds. Designing the proper incentive structures for these mechanisms then becomes critical. If, for example, recapitalization is necessary to restore the banking system, linking the recapitalization of an individual bank to the degree of progress it makes in restructuring its nonperforming loans becomes an important issue. Because banks should not be expected to undergo corporate restructuring, inviting participation from other investors early and providing them with loss-absorption mechanisms will also be crucial. This may often result in mixed public-private restructuring funds, where private, sometimes foreign, management runs a government-owned distress fund.

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Bankruptcy Laws: Basic Economic Principles

Joseph E. Stiglitz, Stanford University

Financial experts agree that complete recovery from the 1997 East Asian crises necessitates widespread corporate reorganization of the affected countries, particularly resolution of the massive bankruptcies. Thus far such reorganization falls far short of that required for successful recovery. By some accounts 65 percent of Indonesia's firms, 41 percent of the Republic of Korea's firms, and 23 percent of Thai firms were technically insolvent in September 1998.¹ Indeed, without addressing the bankruptcy issue, East Asian economies will experience difficulties in fully resolving weaknesses in the financial sector, which is so essential for the restoration of the flow of credit that underpins a healthy economy. If firms remain in bankruptcy, the incidence of nonperforming loans will also remain high, and it will

1. Given the focus of this paper on fundamental economic principles, the term *bankruptcy* is used somewhat loosely and interchangeably with *insolvency* and *default*. Also, some distinctions of significance for purposes of legal or empirical analysis, for example, between *technical insolvency* and *illiquidity* (when debt service obligations exceed earnings) are not dwelt upon. Thus, the figures quoted above correspond to an average insolvency of 31 percent for the five affected East Asian countries, but the proportion of illiquid firms was more than double that figure—63 percent. The issue is more than academic because the latter figure relates to understanding the implications of high interest rates and the importance of restoring credit flows (see Claessens, Djankov, and Ferri 1999).

even be difficult to ascertain the full magnitude of capital infusions necessary to restore viability to the banking institutions within these countries.

More broadly, inadequacies in bankruptcy law and the capacity to implement these laws effectively have often been cited as some of the underlying institutional weaknesses in Asian and other emerging markets, including the transition economies. Until the most recent global financial crisis, originating in Asia, much of the attention on bankruptcy regimes focused on Eastern Europe, where bankruptcy (the existence of old firms) and its twin, entrepreneurship (the creation of new ones), were seen as necessary ingredients for economic revitalization and development of postsocialist market economies. Yet a decade of transition, including advice from sophisticated bankruptcy experts, has yielded meager results; the institution of bankruptcy, seen as a vital ingredient for hardening the budget constraint for enterprises, has failed to take root.

As policymakers of emerging market economies approach the task of designing or redesigning bankruptcy laws, they need to think carefully about some of the basic underlying principles, which all too often have been ignored, set forth both in the popular press and by the visiting “firemen” from the industrial countries proffering their advice and counsel. Policymakers will also need to understand why bankruptcy has failed to work in so many countries. This chapter principally aims to identify the reasons for the failure of bankruptcy procedures in some of these countries. Its second major objective focuses on a critical issue for dealing with economic crises, namely, the big difference between dealing with isolated cases of financial distress and with widespread bankruptcies due to systemic financial or currency crises. We propose a major reform in the design of bankruptcy law that, if widely adopted, promises to reduce the severity of the kinds of crises recently experienced in East Asia (associated with private debt)—reforms that will, in effect, entail an automatic bailing in of the private sector, which should reduce the need for external bailouts, and will mitigate some of the moral hazard problems—the profligate lending without due diligence—that have played such a central role in recent events.

Key Principles

Bankruptcy contains three key principles. First, the central role of bankruptcy in modern capitalist economies is to encourage reorganization. Modern capitalism could not have developed without limited liability corporations. Almost by definition, the notion of limited liability requires the concept of bankruptcy. In most industrial economies, the concept of bankruptcy has

evolved far from its etymological roots in medieval Italian custom (*banca rupta*, meaning “broken bench”), in which it signified social opprobrium or punishment for an individual or entity of an economic state whose assets were less than the individual’s or entity’s debts. Today, in many countries, most notably the United States since 1978, bankruptcy cannot be equated with liquidation or a simple transfer of ownership from debtor to creditor. Not surprisingly, creditors view these forms of bankruptcy as letting borrowers off the hook, or allowing debtors to unilaterally abrogate contracts. These views on bankruptcy, however, are as misguided as those that viewed debtor prisons as the natural and just punishment for those who failed to meet their financial obligations. Indeed, a well-functioning bankruptcy regime is critical for an efficient market economy, and for creditors there must be a clear understanding of the consequences when debtors cannot meet their obligations. Bankruptcy law has such importance for modern capitalism that firms are typically not allowed to write contracts that override the provisions of the bankruptcy code, provisions such as the procedures for dispute resolution and other rules.²

Second, there is no single universal bankruptcy code. Any bankruptcy regime balances several objectives, including protecting the rights of creditors (which is essential to the functioning of capital markets and the mobilization of capital for investment) on the one hand, and obviating the premature liquidation of viable enterprises on the other hand. Most countries’ bankruptcy laws have evolved over time with a change in the balance of political power between various interests, along with the structural transformation of the economy and historical development of the society at large. Thus, even in countries with close sociocultural affinities and economic ties such as the United States and the United Kingdom, significant differences exist in the basic treatment of debtors.³ Bankruptcy provisions, therefore, need to be tailored to the individual country and the circumstances in which it finds itself, although countries should recognize the great advantage of adhering to widely accepted standards.

There is no single bankruptcy code that is unambiguously best for everyone in society. Some individuals may do better under one code than

2. This is unlike most other commercial law in the United States, where most items can be altered by mutual agreement among the contracting parties (see, for instance, Schwartz 1997).

3. The British system favors the creditor and results in relatively more liquidations, while Chapter 11 of the U.S. bankruptcy code is more debtor-friendly and leads to more reorganizations under the control of incumbent management.

under another. Hence, historically, bankruptcy codes have been the subject of intense political debate, as seen by the recent furor over revisions in the U.S. bankruptcy code. To be sure, some of this debate is misguided: debtors, for instance, may fail to take into account the effect of greater debtor protections on interest rates. This has strong implications: bankruptcy codes cannot be imposed from the outside, and one should be suspicious of bankruptcy codes designed by one party, for example, lenders, or those representing primarily their own interests.

But the observation that there is no single Pareto dominant efficient code should not lead one into the opposing fallacy—that the design of a code is simply a matter of politics. Badly written codes may actually make debtors, creditors, and others worse off. In other words, some codes are Pareto inferior dominated by others. In the United States and a few other countries, bankruptcy focuses mainly on debtors and creditors. Bankruptcy affects not only lenders and borrowers, but other stakeholders as well, most importantly, workers. There is thus an important externality: the resolution of bankruptcy disputes between lenders and borrowers affects innocent bystanders. Workers being affected is only one issue; workers may also have rights that need to be recognized in bargaining between lenders and borrowers.⁴ There is typically an implicit commitment between workers and the firm. If workers continue to work effectively, the firm will continue not only to employ them, but also to pay wages commensurate with their abilities and effort. Of course, this commitment has limitations: if the firm's sales decline precipitously, the worker, as well as the firm's shareholders, bear some of the risk. The commitment is usually not explicit simply because it is impossible to write down all the relevant conditions. Anglo-American common law recognizes these implicit commitments. In bankruptcy proceedings, a payment due to workers for work already performed has seniority even over other senior creditors. There are broader, and typically unresolved, issues concerning other "obligations" toward workers (those embedded in the implicit contract) and other creditors. The nature of the implicit commitment (the social contract) may differ from country to country, which is another reason why bankruptcy laws need to be adapted to the circumstances of each country.

4. As I shall argue later in the chapter, what is critical is the clarity of those rights; presumably, the terms of the contract can be adjusted to reflect those rights, for example, if severance pay does not have "senior" status, and workers know it, they can insist on higher wages to offset the risks incurred. Different bankruptcy rules do impose different information burdens and imply different allocations of risk bearing, and some of these arrangements may actually be inefficient.

Other examples of stakeholder interest pertain to utilities or other monopolies (natural or otherwise) in which the liquidation or even a significant hobbling of a firm can have major adverse impacts on consumers or cause severe economic dislocation.⁵ Modern bankruptcy bases itself on the theory of incomplete contracts. A complete contract would specify what actions should be taken in every state of nature. A complete contract would thus specify clearly what should be done in the event that the borrower could not meet his obligations. It would detail not only the priorities of claimants, but also the resolution of residual claims and control. Contracts are not complete for several reasons. One is simply the difficulty of doing so; the transaction costs of fully specifying a contract would be prohibitive. However, this explanation is incomplete, for if this were the sole reason, bankruptcy law would not override provisions of contracts, which it usually does. This issue relates to, but is somewhat different from, the argument for standard contracts. That deviation from norms provides a signal causes concern. On the one hand, there may be a concern that such signals may result in a “signaling” equilibrium, and the social costs of such signaling can be quite high.⁶ There may be efficiency gains from “pooling,” more than offsetting the losses from the reduced information flow (Stiglitz 1975). Standard bankruptcy law can be conceived of as restricting the range of admissible signals. More generally, there is a concern that asymmetries of information will lead one side of the market to take advantage of the other, so that when a contract dispute does occur (which is not uncommon), any deviation from the standard contract will be interpreted against the party writing the nonstandard provision. This in itself discourages contract innovation, but does not explain why governments would not allow contracts to be written with alternative provisions for bankruptcy. Other reasons pertain to the fact that a firm typically has more than one creditor who may differ in preferences but also contract asynchronously. This is important because, as noted earlier, virtually any contract provision affects other parties—both those with formal contracts and those with informally defined rights. Standard bankruptcy contracts reduce the information burden imposed on these

5. One of the more notorious U.S. bankruptcy cases related to users of a company’s products, namely, asbestos.

6. A fundamental proposition in the signaling literature is that for an action (a contract) to convey information, it must be costly, but it must be less costly to the party trying to send the positive signal than to other parties. Not only are signals costly, but, in general, market signaling equilibria are not (constrained) Pareto efficient (see Greenwald and Stiglitz 1986).

parties: they can assess the impact of loans in a far more straightforward way than they otherwise could.⁷

While it fills the incomplete gaps in contracts, bankruptcy law is itself incomplete: it typically does not provide a simple formula that can automatically be invoked. Judges in the United States specializing in the intricacies of such matters are called upon to make rulings interpreting the bankruptcy law in different circumstances. Ambiguity often exists in the priorities of different creditors, and sometimes the interests of other stakeholders are taken into account. While all residual value is turned over to the creditors when a firm cannot meet its obligations in simple models of bankruptcy, in practice the original equity owners generally retain a significant share. (There is often a disagreement about the “equity” value of the firm and, therefore, the adequacy of compensation of the creditors, with the original owners claiming the market has simply temporarily undervalued their shares. Thus, while equity owners may believe that the creditors have received more than the value of their claims, creditors may believe that they are inadequately compensated. Of course, if markets worked perfectly, such disparities would not exist—but neither would there be liquidity problems, which are often at the root of bankruptcies.) Indeed, one of the cornerstones of corporate finance textbook treatment of bankruptcy, namely, the “absolute priority rule,” is honored more in its breach in corporate reorganizations (see, for example, Altman and Eberhart 1994; Eberhart, Moore, and Roenfeldt 1990). In addition to equity owners retaining some share, especially if they include managers, deviations also include junior classes of debtors receiving some compensation even when more claims have not (necessarily) been fully satisfied.

These ambiguities have one further implication: because bankruptcy law affects the likely outcome if a dispute has to be resolved by the courts, bankruptcy law affects the outcome of the bargaining process designed to avoid the uncertainty and delay of relying on court-mandated resolutions. Thus bankruptcy law provides the backdrop—the default or “threat point”—against which bargaining occurs. Not surprisingly, laws that give creditors or debtors more or less rights affect the outcome of the bargaining process in ways that retroactively affect creditors and debtors differentially.

7. Indeed, provisions imposed by different contracts could even be mutually contradictory, presenting a legal nightmare. Moreover, these uncertainties compound other uncertainties, leading to higher risk premiums and/or more extensive debt covenants, which restrict debtor flexibility.

Economic analyses of bankruptcy law presents such difficulty because bankruptcy does occur, and bankruptcy law is important precisely because standard neoclassical theory fails. Given that so much of standard economic analysis is rooted in that paradigm, analysts find it difficult comprehending the central issues. It has already been noted that incomplete contracts underlie bankruptcy law; they fail to specify clearly what happens when debtors cannot fulfill their obligations. The problems run deeper, however. Under standard neoclassical theory, there would be unanimity concerning the actions a firm should take. The manager who maximizes the firm's stock market value would manage the firm, and maximization of stock market value would result in Pareto efficiency. Indeed, each of these propositions is not generally true when an incomplete set of markets exists; generally, there is not unanimity about what the firm should do, so control does matter (see, for example, Grossman and Stiglitz 1977 and the references cited there). The owners do not necessarily seek to maximize the firm's stock market value, and the takeover mechanism works imperfectly at best (see, for example, Grossman and Hart 1980). Finally, stock market value maximization is not necessarily Pareto efficient (see, for instance, Stiglitz 1972). If firms always chose the manager who maximized their stockholder value, and if there were always unanimity about what action that entailed, there would be no need to resort to bankruptcy courts. With the backdrop of bankruptcy, at least under the absolute priority system, it would be clear what actions should be taken and who should manage the firm. The value maximizing strategy would Pareto dominate all other strategies.

Of course, many disagree about what policies will maximize market value in the relevant horizon and whether that is the appropriate policy; for example, whether to focus myopically on today's market value or to have longer term objectives. There is a widespread belief that firms should have long-term objectives; but once one entertains that prospect, one is on treacherous ground, for it suggests that the market may exhibit either irrational exuberance or pessimism. Precisely these disputes about valuation ("fundamental value" as opposed to today's market value) underlie so many disputes that make their way to bankruptcy court.

Efficiency and Incentive Issues

In defining bankruptcy laws, efficiency concerns, including the efficiency with which markets share risks, are paramount. In a sense, equity or fairness is not an issue, provided the rules are perfectly clear and unambiguous, which is never the case. As long as the rules are clear, lenders will

receive an interest rate that compensates them for the risks they face. To be sure, given differential abilities of different lenders in screening, and rents that different lenders may receive because of particular niches they occupy, different bankruptcy rules may affect those rents. For instance, lenders who make a living by lending to those who normally do not repay loans on their own and, therefore, obtain returns from their differential ability to collect debts, may find the value of those skills diminished under a regime that gives debtors more rights; hence the resulting adjustment in interest rates is likely to decrease the demand for loans among such deadbeats and, thus, the total demand for “loan collectors” will diminish.

Debt contracts contain a number of key efficiency issues related to the following:

- Ex ante screening. Such screening serves two functions: one is to ensure that capital is allocated to high-return uses.⁸ The second related objective is to ensure that borrowers pay interest rates commensurate with the risks. In the absence of such screening, markets will treat those with different risks the same; significant inefficiencies can result from the consequent ignorance. Likewise, if interest rates do not respond to risks, individuals will not have an incentive to avoid risks: the “selection problem” thus leads to an “incentive” or moral hazard problem.
- Ex post monitoring. After the loan has been made, banks perform an important social role in monitoring the use of funds. Their sole incentive, of course, is to ensure that they get repaid—banks do not care about the surplus in excess of that amount. Elsewhere (Stiglitz 1982), I have discussed the free rider problems associated with monitoring on the part of shareholders, unless there is a single large shareholder. Bank monitoring typically has an externality on equity owners: they at least prevent the worst abuses.

By making the lender bear more of the risk, the lender has greater incentives both to engage in ex ante screening and ex post monitoring, with benefits accruing to others.

- Borrower actions prior to bankruptcy. Borrower actions are never perfectly monitored, and it has long been recognized that the borrowing

8. However, the lenders do not seek to maximize expected returns per dollar invested, but only the expected returns they themselves capture.

firm's interests often differ markedly from those of other stakeholders, including lenders. This is seen most vividly after bankruptcy, if they receive no equity interest. Then, they may have a strong incentive to engage in asset stripping (sometimes tamed slightly by reputational concerns); only strong trustee oversight usually suffices to prevent such abuses. And the inadequacies of court oversight are usually such that it behooves debtors and creditors to give the bankrupt management some equity stake in the firm (as evidenced in the recent long-term capital management bailout in the United States).

As the firm approaches bankruptcy, there often arises a concern that the managers will "gamble on resurrection." Limited liability makes the firm payoff function convex, inducing risk-taking behavior, even among managers who in more normal times would be averse to risk (see Stiglitz and Weiss 1981). So strong is this incentive for risk-taking that firms will undertake low expected return projects with high variance—one can think of the high variance as having more "option value." Creditors—and the economy generally—pay a price for such risk-taking behavior.

Such risky behavior resembles an attempt to shift more of the (expected) income from bankruptcy states (when the owner captures nothing) to the nonbankruptcy state. Given that at the margin the owner captures all of the latter return, and none of the former, the scope for distortionary behavior seems clear.

Moreover, managers, recognizing that the determinants of what they receive after bankruptcy depends on the outcome of a bargaining game, take actions that affect the outcome of that bargaining, attempting to make themselves more indispensable. In a slightly different context (that of staving off takeovers), Morck, Shleifer, and Vishny (1988) and Edlin and Stiglitz (1995) have analyzed the potential for such managerial entrenchment.⁹

In short, borrowers under financial distress have incentives to (a) take actions that shift income from bankruptcy states of nature, in which they are disenfranchised, to prebankruptcy states, in which they receive all the returns, and (b) take actions that increase their postbankruptcy income.

Much of the earlier bankruptcy literature aimed at a very different incentive issue: the avoidance of bankruptcy in the first place. By penalizing

9. Was it an accident that the creditors in the long-term capital management bailout felt that the only way the positions of long-term capital management could be unwound was to retain existing management?

management (equity owners) strongly in the event of bankruptcy (reducing the amount they will have in the postbankruptcy situation), the other two distortionary forms of incentives are increased. Earlier discussions have focused on a second issue: ensuring that resources are efficiently deployed after bankruptcy. Several, sometimes conflicting, factors enter here: (a) slow resolution of bankruptcy ties up assets, deprives the firm of future opportunities, and can lead to asset stripping; (b) the quickest and smoothest resolutions entail leaving existing management in charge—the same management that produced the problem in the first place; and (c) existing management is also most likely to be sensitive to the concerns of noncreditor stakeholders.

Interestingly, if confidence existed in standard market processes (“Coasian bargaining”), then no matter how control issues were settled in bankruptcy, resources would be efficiently deployed. As long as there is clarity of property rights, the “owner” will deploy assets in such a manner as to maximize value. Transaction costs are significant and, hence, the initial assignment of property rights after bankruptcy does indeed make a difference.

Risk Sharing

The resource deployment issues—from who gets loans to how they are employed—are critical. Risk-sharing issues represent another area receiving little attention. The bankruptcy provisions entail implicit forms of risk sharing. In a pure equity contract, the amount the supplier of funds receives is proportional to the profit of the company (the return net of interest payments). By contrast, in a pure debt contract with no bankruptcy, in which the amount that the supply of funds receives is independent of the firm’s performance, a contract with bankruptcy (ignoring any incentive effects) is a mixture—effectively a debt credit in the nonbankruptcy states and an equity contract in the bankruptcy states. With limited liability, every debt contract (with indebtedness over some critical threshold) is actually of this mixed form. The terms of the contract (bankruptcy provisions) can affect the degree of risk sharing. For instance, compare a contract that entails the creditor retaining a 20 percent equity interest following bankruptcy, with one in which the debtor receives nothing. Ignoring for the moment any incentive effects, in order for the lender to receive the same expected return (assuming risk neutrality), the lender must receive a higher interest rate before bankruptcy. The loan that lets the borrower off the hook by allowing the retention of a larger equity share, even when the borrower

fails to fulfill the obligation to the lender, is more effective in risk sharing; it “transfers” income from the borrower to the lender in the “good states” (the nondefault states) for greater income of the borrower in the “bad states,” the states when the debtor is likely to especially value income.

The natural question arises: Why do markets in general not provide better risk sharing, that is, rely more on equity and equity-like contracts? Previous literature, such as Myers and Majluf (1984) and Greenwald, Stiglitz, and Weiss (1984), provides explanations based on asymmetries of information: both moral-hazard and adverse-incentive effects are associated with raising capital through equity contracts. Accordingly, the issuance of new equity finances a relatively small proportion of new investment. Loan contracts, even with some equity-like features (as a result of bankruptcy), do not suffer from the adverse selection or moral-hazard effects, at least not anywhere near the extent that full equity contracts suffer.

Asymmetries of Information and Differences in Beliefs

Another important element missing in earlier discussions arises from the existence of differences in beliefs and knowledge about the occurrence of different events that affect the profitability of the firm.¹⁰ Typically, the entrepreneur may be more optimistic than the creditors about the firm’s prospects.¹¹ The result is that the debtor believes that the expected payment to the creditor is greater than the creditor believes he is receiving. The debtor, for instance, might believe that the probability of default is zero, and so the expected payment is close to the promised interest rate, while the creditor may think that the probability of default is significant. In a sense, a dead-weight loss results, as if in the process of transferring money from the debtor to the creditor, some of it disappears. The bankruptcy code affects how much of it disappears. For instance, consider a two-state model in which the firm goes bankrupt in one state (the bad state). Then, providing the

10. See Stiglitz (1972) for an early presentation of such a model. Note that if there were a complete set of Arrow-Debreu securities, differences in beliefs would not matter for the efficiency of the market economy.

11. Knight (1933) stressed the importance of this entrepreneurial confidence in the workings of the capitalist economy. He was concerned with the discrepancy between the seeming expectations of returns and the ex post facto returns; the irrational exuberance served to offset the information spillovers that, by themselves, would have implied that the market would have invested too little in innovative activity.

debtor with increased income in the bankruptcy state (not entirely wiping him out), compensated for by an increased interest rate in the nonbankruptcy state sufficient to leave creditors just as well off, makes debtors better off provided

$$Y_B^b / 1 - p_B^b > Y_B^c / 1 - p_B^c$$

where Y_B^b is the expected income (from the borrower's perspective) in the bankruptcy state, Y_B^c is the expected income from the creditor's perspective in the bankruptcy state, p_B^b is the probability of bankruptcy from the borrower's perspective, and p_B^c is the probability of bankruptcy from the lender's perspective.

Asymmetries of information have other implications for the impact of bankruptcy codes. They affect the extent to which self-selection (or adverse selection) occurs in the process of applying for loans. One of the arguments made for debtor prisons was that they discouraged from applying for loans those who did not intend to repay them, or who knew they were unlikely to be able to repay them. Today, however, the issue does not center on sending to prison those who do not fully repay their loans, but on how much they should be allowed to keep in the bankruptcy state. In general, the effect is ambiguous. Again consider the two-state model described above, and consider the effect of increasing the share of the income the debtor can retain in the bankruptcy state, offset by an increase in the interest rate paid in the good state. A borrower with a low probability assessment on bankruptcy does not value the increase in share in the bankruptcy state much, but values highly the increase in the payment in the good state. By contrast, a borrower who believes that income in the bankruptcy state is high (that is, if the firm cannot meet its obligations, it misses the mark by a small amount) highly values the increase in the share of the income that is retained. To the extent that information is imperfect, and self-selection mechanisms have ambiguous effects, greater reliance needs to be placed on creditor screening; in that case, the incentives associated with stronger debtor rights become more important.

Absolute Priority

Many financial authorities presume that in bankruptcy codes creditors should be fully satisfied before debtors receive anything. In practice, this does not often occur. Many of the controversies about valuation of assets, in effect, amount to discussions over whether creditor claims are fully satisfied. The discussion so far has argued that, from the perspective of

economic efficiency, bankruptcy codes that give the debtor something, even when creditors are not fully satisfied, may be preferable because they (a) improve risk sharing, (b) may reduce the “ignorance wedge,” (c) may improve the effectiveness of self-selection, (d) typically improve the efficiency of resource allocations after bankruptcy, if the debtor-manager has some advantage in managing the resources, and (e) reduce the prebankruptcy diversion of income from bankruptcy states to nonbankruptcy states.

Seller Beware

A quite different line of reasoning from that above emphasizes debtor rights, one based on somewhat paternalistic notions: sellers often try to exploit unaware consumers, and consumers need some protection from such exploitation. The United States and other countries have enacted truth in lending laws, intended to ensure that borrowers are at least informed concerning true interest rates. There are many instances of lenders preying on consumer weaknesses, attempting to induce them to buy on credit more than they can afford, and then repossessing the goods and keeping the amounts paid when the borrowers cannot pay what is owed. Much of the debate concerning personal bankruptcy centers on these issues. Making the creditor bear more of the risk of default discourages this kind of opportunism and encourages lenders to do due diligence.

The criticism of this approach is that poor but honest borrowers will be forced to pay higher interest rates. This argument assumes that creditors cannot, or do not, adequately screen; if the market differentiates among borrowers, then good borrowers will not have to pay a higher interest rate. (To be sure, debtor-friendly bankruptcy laws may exacerbate the self-selection problem, so that with any given “quality” of screening, the mix of borrowers is poorer.)

Implications for Policy

Analysis of the design of bankruptcy laws presents an important issue in identifying the central distortion present in the market. In some countries, a key problem concerns development of a credit culture. Part of the credit culture results from the sanctions that others impose on those who go into bankruptcy; for instance, social sanctions or lack of access to future credit. If such sanctions are strong or, more broadly, if the credit culture is strong, the marginal benefits derived from imposing further penalties through

bankruptcy law are limited, and the forward-looking incentive benefits and improved risk distribution from greater debtor rights suggest that bankruptcy law should be tilted in debtors' favor. By contrast, in an economy where these sanctions are not present, no moral aversion attaches to bankruptcy and, consequently, many "rational calculators" arise, calculating the maximum amount that can be extracted out of the system in excess of individuals' income.¹²

By contrast, if a central problem seems to be a failure in lending practices—so that lenders do not perform due diligence—bankruptcy codes that impose higher costs on lenders seem appropriate. Several reasons—beyond sheer incompetence—explain why lending practices may be at fault. For instance, there can be (and are) important agency problems within lending institutions. Often, lending officers are rewarded on the basis of the amount of loans that they extend, or on returns—not appropriately risk adjusted. In the aftermath of the last major regional economic crisis, in Latin America, many lending officers were, or at least believed they were, rewarded on the basis of relative performance (Nalebuff and Stiglitz 1983). If officers had not lent to Latin America—and there had not been a crisis—their lending portfolios would have been smaller and yielded lower returns. In the event of a crisis, each lending officer would claim as much prudence as the other; clearly, if the entire class fails the exam, the students cannot be blamed. And such was the case in the Latin American crisis. While I have not seen a detailed analysis of what happened to those who were responsible for the lending (or, more broadly, for the banking institutions at the time the lending occurred), my impression is that many continued to rise in the organization, and few were made to bear the costs of their bad lending decisions.

An alternative explanation for excessive borrowing lies in weak bank regulation in creditor countries, where banks with negative or low net worth "gamble on resurrection" (Kane 1990).¹³ In either of these cases, lenders may be willing to lend at interest rates below actuarial fair values, inducing borrowers to engage in excessive borrowing. Such cases do not

12. One colleague calculated that given the sanctions and practices prevalent in the United States, he should have three personal bankruptcies during his life. These calculations were conducted in the late 1960s, when I first began working on bankruptcy. I have not checked to see how the optimal number of bankruptcies has changed since then.

13. Note that strict enforcement of capital adequacy standards can actually exacerbate these problems, especially in the absence of accounting regulations requiring marking to market. See Hellman, Murdock, and Stiglitz (2000).

make apparent that the borrower should be blamed for the consequences: the borrowers' actions were perfectly rational responses to attractive lending offers. To the extent that bankruptcies are related to these creditor failures, bankruptcy laws that weigh the interests of debtors more heavily improve both incentives and risk distribution.

The recent global financial crisis has highlighted the downside risks of unstable short-term capital. More important, large externalities become associated with such capital flows. Innocent bystanders, such as workers and small businesses in the affected countries, suffered greatly from the resulting recessions and the associated domestic credit contractions and usurious interest rates. Bankruptcy laws that enhanced debtor rights might well result in higher interest rates, and higher interest rates might result in a diminution of short-term capital flows. However, all of this may be for the better—at least partially improving the major discrepancy between the private and social costs associated with these capital flows.

In some countries, creditors who prey on uninformed consumers represent a major problem. They induce consumers to borrow beyond their means, often to purchase overpriced goods, and charge usurious interest rates. More debtor-friendly bankruptcy laws discourage such practices.

The design of bankruptcy law has a key trade-off between simplicity and adapting to the current situation. Simplicity—well defined rules that serve as backstops for the bargaining process—encourage quick resolution. By contrast, such rules provide less fine-tuned incentives. If, for instance, the prevalent problem in society is that creditors fail to undertake due diligence. A legal framework that provides debtor-friendly rules may, on average, make sense; but it leaves open an opportunity for scurrilous borrowers to take advantage of the provisions. However, a law that tailors its provisions to the situation opens the way for costly litigation. Part of the answer as to how these considerations should be balanced depends on the nature of the legal system. There should be less discretion in a corrupt legal system that is open to influence. Some countries that have bankruptcy laws that, on paper, seem quite reasonable have flaws in the implementation of the law, not just by judicial delay, but by the ability of one party or the other to exercise influence over the judicial process.¹⁴ All too often the assumption exists that a judiciary is capable of making the fine distinctions

14. Addressing judicial malfeasance is, of course, a complex issue beyond the scope of this chapter. Suffice it to say that institutions promoting media freedom and judicial accountability, tempering arbitrary exercise of judicial powers, are likely ingredients.

required by sophisticated bankruptcy laws, and that the judiciary is immune from incentives. In some countries, incentives delay resolutions. While the firm remains under trusteeship, the trustees benefit from the fees as long as the bankruptcy remains unresolved.

The Theory of Systemic Bankruptcy

Arguably one of the high-priority issues of economic policy in the world today concerns hastening and broadening the incipient recovery in economies affected by the economic crises of 1997–98 and ensuring sustainability of the recovery. As indicated earlier, not only have the countries of East Asia faced systemic bankruptcies due to the sharp devaluations and steep increases in interest rates, but many economies in transition face similar problems, although the systemic roots are quite different and varied. In the Czech Republic most of the large industrial conglomerates are insolvent, while the problems in Russia's enterprises are too complex to easily characterize. However, bankruptcy codes designed to deal with isolated bankruptcies are not well suited for addressing the special problems that arise in these cases of systemic bankruptcy. Some of the obvious reasons for this are the following:

- When a single firm goes bankrupt, a reasonable inference can be made that the firm itself did something wrong. There is a strong presumption that management made a mistake. With systemic bankruptcy that presumption is reversed. The situation is analogous to a single student who has not understood an exam question; the student is probably to blame—he or she did not pay attention or study hard enough. If, however, 70 percent of the students fail to understand a question, the teacher probably failed to communicate the point effectively. If interest rates soared to 40 percent or higher, many seemingly well-managed firms in most countries of the Organisation for Economic Co-operation and Development would go bankrupt too. A firm's managers demonstrate flawed business policy by assuming there exists a high probability of interest rates soaring to those levels next year, or counting on the economy contracting by 15 percent—unless, of course, such forecasts are commonplace at the time the debt is undertaken. By contrast, the management of a firm that did not purchase appropriate insurance against important risks, such as fire or currency devaluation, should be questioned. Even if legitimate questions exist, one must be careful—is overall management deficient, or is a new corporate finance officer required?

- When a single firm goes bankrupt, there is typically a large supply of alternative managerial teams. When half of the firms in the economy go bankrupt, it becomes impossible to replace all the managers. This again reinforces the presumption for the retention of existing management. While in some cases there may be advantages to importing some managerial skills from abroad, outside managers will probably not fully understand the situation within the country. The challenge will be to combine international experience with local knowledge. Blending the two has constituted one of the true sources of economic strength of East Asian economies over the past decades. The remarkable performance of these economies during an extended period suggests enormous managerial talent. In today's complex international financial world, there may be a greater need to import this specific type of expertise. There is no convincing case that selling corporations to foreign owners will generally enhance the level of productivity or the pace of growth.
- When there is systemic financial distress, ascertaining the net worth of a firm, or indeed valuing many of the financial claims, becomes difficult. This is because many of the assets of a corporation may be claims on other firms that are themselves bankrupt. Furthermore, transfer of assets to settle claims is typically problematic, as the creditors are themselves preoccupied with their own financial distress and reorganization and may have restrictions on their activity, such as in the case of banks in which regulatory authorities may have intervened.
- Usually, large legal and specialist resources are deployed to resolve individual bankruptcies. Indeed, many authorities criticize current practices in the United States, where even the direct pecuniary legal and administrative costs of individual transactions appear to be staggering. The affordability or feasibility of the traditional approach, with its high concentration of specialists and advisers (accountants, lawyers, turnaround specialists, financial engineers, restructuring experts), is a matter of serious doubt in situations in which half or more of the firms have to deal with insolvency. Not enough bankruptcy lawyers and other trained personnel are available.
- Most important, even in the most experienced and fine-tuned regimes, bankruptcy proceedings are often protracted. For example, despite the improvements made possible by the 1978 reforms in the United States, the time period for a typical Chapter 11 reorganization is approximately two years. Such delays impose significant private costs of which the direct (legal and administrative) costs are

usually the smaller part. The indirect costs of bankruptcy, or more precisely, financial distress in general are even more significant. An important part of these, namely, agency costs, were dealt with earlier in the discussion of efficiency and incentive issues. Another major part of the indirect costs relates to the impaired ability to do business. Suppliers become less responsive, demand early payment, and so forth, while customers faced with greater delivery risk reduced or canceled orders. Not only are such private costs likely to escalate over time, but the associated social costs may significantly exceed the private costs under systemic bankruptcy.

- In particular, when a single firm goes bankrupt, there is normally little concern about macroeconomic consequences (occasionally, however, a firm is so large that the too big to fail doctrine is invoked). With systemic bankruptcy, macroeconomic concerns become paramount. Delay in resolving an isolated bankruptcy may lead not only to loss in output during the intervening period, but, worse, to asset decay, or even asset stripping. When a large number of firms are left in limbo, unemployment increases, financial institutions experience large repercussions, and a vicious cycle ensues. As suppliers and customers are left in limbo, firms cannot meet their own commitments, even if they do everything right. To protect themselves, firms must cut back on production, using up inventories and freezing hiring, thus contributing to the overall economic downturn.

A simple solution to this conundrum involves a new super Chapter 11 to be imbedded in every country's bankruptcy code. In the U.S. bankruptcy code, Chapter 11 is distinguished from Chapter 7 in that under Chapter 11 management proposes a continuation of its own control of the firm; existing management/controlling shareholders typically receive more than is their due—that is, existing shareholders are not totally wiped out financially, even if creditor obligations are not fully satisfied, simply because doing so erodes the management structure and, hence, the efficiency of the firm. This was brought home forcefully by the reorganization of long term capital management, the U.S. hedge fund that had an exposure of more than US\$1 trillion, and thus presented (at least in the view of some participants in the private bailout) a systemic risk to the global financial system. Even as lenders were bailing out the firm, the principal equity owners, who under "straight" bankruptcy proceedings should have received nothing, retained a 10-percent equity share.

Chapter 11 is designed for a quick resolution of bankruptcy disputes, but even under this rule, proceedings typically take almost two years. To protect against wastage or mismanagement of assets in the interim, courts typically take a strong trusteeship role. With systemic bankruptcy, not only is the cost of delay greater—as unemployment mounts and financial institutions weaken—but the effectiveness of interim monitoring is reduced. There simply is not an adequate supply of bankruptcy trustees. Even the United States, with its wealth of experience in sophisticated bankruptcy law, could not meet the challenge.

A super Chapter 11 is required to address the exigencies a country faces with systemic bankruptcy, especially if such bankruptcy results from huge macroeconomic disturbances—for example, major economic contractions, huge increases in interest rates, and massive devaluation. There would be a presumption that existing management would remain and that there would be a debt-to-equity conversion. There would be three major differences from a standard Chapter 11 bankruptcy: (a) given the importance of speed of resolution, the time within which the courts would have to rule would be shortened considerably, and there would be a heavier burden placed on those attempting to delay; (b) there would be a stronger presumption in favor of the management remaining in place and on management proposals that, in the reorganization, give management/old shareholders enough of an equity industry to have adequate incentives. In other words, the burden of proof would be placed on creditors to demonstrate that the management proposal was “grossly inequitable”; and (3) to facilitate quick resolution, a wider set of default/guideline provisions would be specified. These “default options” would provide the backdrop for a speedy resolution of the debtor-creditor bargaining problem and would aim at ensuring fairness in protecting other claimants (such as workers) and in balancing the claims of creditors with claims denominated in foreign currency, and those in domestic currency, in an environment of rapidly changing exchange rates.

Such a super Chapter 11 might be an effective way out of the impasse, which is costing so much for everyone in the countries facing systemic distress. Such a bankruptcy code might, however, lead to somewhat higher interest rates, especially by short-term foreign lenders. It may, however, be beneficial for lenders to focus more clearly on the risks inherent in such lending—risks that extend well beyond the parties to the transaction, parties that have been repeatedly hurt under the current financial regime. Such a bankruptcy regime would be fairer than the current one, especially if it

were known in advance. Adjustments in interest rates charged would compensate lenders for any changes in risk assumed. Even under the current circumstances, one could argue that a movement to this new code would be fair, because so much of the burden of the delay is being borne by third parties, and the current regime gives too much power to the creditors, who frequently have already been well compensated for the risks they bore in terms of the high interest rates received.

Even ignoring the systemic benefits, the quick resolution provided by such a provision would have distinct efficiency advantages: it would eliminate asset stripping. Such a provision is even advantageous in terms of incentives prior to bankruptcy; considerable evidence now exists that firms facing a high probability of imminent bankruptcy may engage in value-decreasing, risk-taking behavior, which enhances equity values in the event the disaster does not occur, but decreases asset values in the event it does occur. At the time loans are made, the macroeconomic prospect of a firm may look good. In the world of rapid financial movements and changes in investment sentiment, these prospects can change dramatically, providing considerable scope for these perverse incentives. A super Chapter 11 provision would reduce such perverse incentives.

A change in bankruptcy code along these lines would also reduce the need for public funds in the corporate reorganization process. Once the economy has begun working again, capital markets would once again be willing to provide funds to those firms that have good projects with high returns. Remember that corporate reorganizations are simply a rearrangement of claims on the assets of the firm. Indeed, such rearrangements, if not done or done badly, have strong implications for the performance of firms. The reorganization process itself does not require funds, except in the event of costly and litigious bankruptcy proceedings, and the super Chapter 11 would, by design, reduce the incentives for such litigation. In the past there have often been proposals for an injection of funds from public agencies as a carrot to induce faster reorganization. If taken seriously, such discussions are counterproductive, for they provide an incentive for a delay in reorganization in the hopes that such delay will reap some part of the public largesse. Far better ways to spend scarce public funds are available—focusing on high-multiplier, job-creation programs with benefits targeted especially to the poor. Incentives for faster bankruptcy resolution may be needed, but these should take the form of sticks rather than carrots. Fears that such sticks will dry up a future supply of capital, especially from abroad, are almost surely unfounded. Lenders are forward looking; they look at future prospects, not only past results. A clearly defined bankruptcy regime, a well-functioning economy with high

employment, a lack of the kind of social and political unrest that inevitably accompanies extended periods of unemployment—all of these are of prime importance, and all of these would be enhanced by the new bankruptcy code. Given these enhanced opportunities and increased certainties, creditors would be able to better ascertain the interest rates to be charged to adequately compensate themselves for their risks. The historical experience has confirmed these theoretical propositions: lenders returned relatively quickly even after the massive defaults that have periodically plagued Latin America. The situation indicates that the experience will be replicated in East Asia.

Such a systemic bankruptcy code produces other advantages. It can be thought of as a decentralized alternative to the widely discussed bail-in proposals (at least in cases like East Asia, where the debt obligations were private). Private creditors would be “forced” to participate, through the automatic workings of the bankruptcy law. Indeed, when combined with truly flexible exchange rates, the need for public bailout funds would be greatly reduced, if not eliminated. And such a provision might even serve to stabilize the economy. Elsewhere, I have analyzed a model in which multiple equilibriums arise (Stiglitz 1999). As the exchange rate falls, the developing country with foreign-denominated debt becomes increasingly poorer, reinforcing the falling exchange rate. There is a good equilibrium at a high-exchange rate and a bad equilibrium at a low exchange. The super Chapter 11 bankruptcy provision limits the extent of wealth transfer to the creditor country, and may thereby eliminate the bad equilibria. Interestingly, once the possibility of the bad equilibrium has been eliminated, the economy remains within the good equilibrium, so that the provisions of the super Chapter 11 do not actually have to be invoked.

The foregoing proposal for dealing with systemic bankruptcy is clearly one of several possible approaches that may be considered, including those involving concerted government action. The experience of Chile in the early 1980s and Mexico more recently provide both positive and negative lessons to draw upon. Whichever avenue is pursued, many details would need to be fleshed out and several complicated issues addressed, especially those relating to moral hazard as well as demands on implementation capacity.

Conclusion

Bankruptcy laws are essential for a well-functioning economy. Well-designed bankruptcy laws facilitate better risk sharing and provide better incentives, not only to avoid bankruptcy, but also to avoid other distortions.

They can provide incentives for lenders to engage in better selection and more effective monitoring, and they can help ensure that assets are better managed after bankruptcy. Bankruptcy, and how bankruptcy is resolved, affect not only debtors and creditors, but workers and other stakeholders in the firms as well. In addition, the effects are felt both at the time bankruptcy occurs and before bankruptcy, for instance, in the terms at which capital is provided.

The design of bankruptcy requires a delicate balance: excessive protection of debtors can result in a complete stifling of credit markets. If borrowers know that creditors have no recourse, then borrowers will have no incentive to repay, and creditors will then have no incentive to lend. The legal system must provide some protection to creditors (see chapter 4 in this volume). However, excessive deference to creditors attenuates their incentives to engage in due diligence, worsens the sharing of risk between creditor and debtors, encourages predatory behavior by creditors, and weakens creditors' incentives to engage in monitoring. Striking the proper balance defies an easy solution. Clearly, the means used to strike that balance will differ from country to country. Most important, a major reform in bankruptcy law is required to address the kinds of systemic bankruptcies that now plague so many countries worldwide.

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2

Bankruptcy Procedures in Countries Undergoing Financial Crises

Michelle J. White, University of Michigan

This chapter considers the role of bankruptcy procedures in countries undergoing financial crises. Divided into two sections, the chapter's first section deals with the basic economic issues and tradeoffs involving corporate bankruptcy, and the second section addresses the effect of bankruptcy law on the incentives of potential entrepreneurs to set up and run small firms. Both sections consider how bankruptcy issues differ among Asian and European countries and the United States.

Economic Issues in Corporate Bankruptcy

Corporate bankruptcy procedures maximize the value of assets of firms that are already in financial distress or may be in financial distress in the future. Maximizing value involves considerations at several different time periods: (a) after firms file for bankruptcy, (b) when firms are in financial distress but not in bankruptcy, and (c) before firms are in financial distress. After firms have filed for bankruptcy, an important aspect of an efficient bankruptcy policy entails determining which firms will be reorganized and which firms will be liquidated. When firms are in financial distress but not in bankruptcy, common property problems become important because firms' ownership is unclear. Bankruptcy aims to mitigate both creditors' and managers' incentives to protect their individual interests in ways that reduce the overall value of the firm. Before a firm enters financial distress,

creditors lend money to the firm based on agreements of how much the firm is obliged to repay and what happens if the firm defaults. The treatment of creditors' claims when the firm defaults affects creditors' overall return and, therefore, their incentive to lend. An ideal bankruptcy procedure maximizes the value of failing firms' assets at all three time periods. However, in actuality, bankruptcy procedures involve tradeoffs, so that changes that increase efficiency at one time period may reduce efficiency at other time periods. Perhaps, as a result, bankruptcy procedures are quite variable internationally, and there is no widely used universal pattern.

Common Property Problems when Firms Are in Financial Distress but Not in Bankruptcy

When firms are in financial distress, the value of their assets is insufficient to repay all of their creditors' claims. Therefore, ownership of the firm becomes uncertain, because equity will be worthless if the firm is forced to repay creditors' claims in full. Creditors have an incentive to be first to collect on their claims, because some creditors will be forced to take losses, and those that collect earliest will receive the most. Managers have an incentive to gamble with failing firms' assets, because a gamble that pays off will save the firm and a gamble that fails will leave managers and equity no worse off than they would have been anyway.

When creditors perceive that a firm may be insolvent, they have an incentive to race to be first to collect on their claims. For example, suppose a firm has two creditors, each of whom are owed US\$100. One or both of the creditors perceive that the liquidated value of the firm's assets is less than US\$200, meaning neither creditor can be repaid in full. Therefore, as in a bank run, both creditors have an incentive to seek quick repayment by taking legal action against the firm. Although both loans may have due dates in the future, loan agreements generally involve many covenants. If the firm violates any of the covenants, the creditor has the right to declare the loan in default and demand full repayment immediately. Firms in financial difficulties are likely to be in violation of many of their covenants. The first creditor to succeed in their legal action seizes the firm's assets that are easily liquidated and, therefore, receives full payment as long as the firm has assets whose liquidated value is US\$100 or more. The second creditor seizes the remaining assets and sells them. Assuming that the liquidated value of the remaining assets is less than US\$100, the second creditor receives only partial repayment.

When creditors race to be first to collect, two types of inefficiencies may occur. First, because assets are liquidated piecemeal, they are worth less than if all of the firm's assets were sold together. Second, piecemeal liquidation of assets causes firms to shut down. Some of these firms may be worth more if they continued in operation and were subsequently sold as going concerns, even though they are in financial distress. Because few firms are liquid enough to repay all their creditors at once, the perception that a firm is insolvent may be a self-fulfilling prophecy, leading to firms' shutting down because creditors remove essential assets. Thus, even profitable firms may be shut down if creditors race to be first to collect.

To go back to the example, suppose the firm's assets consist of three machines. If the machines were sold individually, each would be worth US\$50. If the two creditors race to be first to collect from the firm, the first creditor to succeed would liquidate two machines and would receive full payment of US\$100. The second creditor would liquidate the remaining machine and receive US\$50, making the total value of the firm's assets US\$150 if creditors race to be first to collect. If the three machines were sold together, suppose they would be worth US\$170, because a new manager could easily take over and restart the firm's operations. Finally, if the firm were sold as a going concern under its old managers, suppose it would be worth US\$180. Thus, in the example, the cost of the race to be first is either US\$20 or US\$30, depending on the quality of the current manager relative to a new manager.

A bankruptcy procedure increases efficiency by substituting collective liquidation of failing firms' assets for partial private liquidation by creditors. Suppose an individual creditor attempts to collect on an unpaid debt by seizing particular assets and the firm's managers file for bankruptcy, then creditors' attempts to collect from the firm are stayed, and they must collect through the bankruptcy process. In bankruptcy, the bankruptcy court judge appoints a trustee. The trustee sells all of the firm's assets and uses the proceeds to settle all creditors' claims. In the example, suppose the trustee either sells the firm's three machines for US\$170 or sells the firm as a going concern for US\$180, depending on whether the firm shut down before entering bankruptcy. If the two creditors have equal priority in bankruptcy, each will then receive either US\$85 or US\$90. When there is a collective bankruptcy procedure, individual creditors anticipate that racing to be the first to collect is not worthwhile, because managers will file for bankruptcy and, in bankruptcy, individual creditors will receive the same amount regardless of whether they race to

be first or not.¹ Given the mandatory bankruptcy procedure, the outcome is both more efficient and fair.

The role of bankruptcy law in preventing creditors from racing to be first to collect relates closely to the reason why bankruptcy procedures in most countries are mandatory rather than discretionary. Many aspects of corporation and contract law are default rules, meaning that parties can either adopt them (by doing nothing) or adopt some alternative (by specifying it in a contract or in the firm's corporate charter). Most countries mandate bankruptcy procedures to prevent managers from making an enforceable promise to creditors that they will never file for bankruptcy.² The United Kingdom serves as the primary example of a country without a mandatory bankruptcy procedure. Most U.K. firms have a single creditor, called a floating charge creditor, who retains the right to liquidate certain assets of the firm, particularly inventory and accounts receivable, if it defaults on its contract with the creditor. The proceeds of the partial liquidation repay the floating charge creditor. Managers cannot file for bankruptcy unless the floating charge creditor consents. Because the floating charge creditor partially liquidates the firm's assets, the assets cannot be sold together, and the firm cannot be sold as a going concern, lowering the payoff to the other creditors and reducing efficiency.³ Other industrial countries mandate bankruptcy procedures.

In the Asian countries, the race by creditors to be the first to collect probably presents less of a problem than in the industrialized countries, because creditors generally have weaker legal rights against firms that default. Even if creditors perceive that a firm is in financial distress, they have

1. In the case of two creditors, they may have equal priority in bankruptcy (as assumed in the text) or one creditor may have higher priority than the other where priority is based on creditors' original loan agreements with the firm. If the two creditors have unequal priority, the creditor with lower priority has a stronger incentive to race to be first, because the gain from being paid in full is greater when the creditor's payoff in bankruptcy is lower. Even a low-priority creditor's incentive to race to be first becomes muted if managers respond by filing for bankruptcy (see Jackson 1986 and White 1989 for general discussion). See LoPucki (1983) for examples showing that U.S. firms often file for bankruptcy just ahead of creditors who would seize assets.

2. See Schwartz (1997) for a discussion of whether creditors would adopt bankruptcy procedures and what their characteristics would be if bankruptcy were not mandatory.

3. See Webb (1987, 1991) for a discussion of U.K. bankruptcy law and an analysis of the race by creditors to be first to collect as a prisoner's dilemma game.

little incentive to race to be the first to collect because managers can prevent them from seizing the firm's assets.

The other side of the common property problem when firms are in financial distress involves managers with an incentive to use the firm's assets inefficiently. Because their firms may shut down, managers anticipate they may lose their jobs. And because the value of the firm's equity amounts to zero in liquidation, managers no longer have an incentive to behave in equity holders' interest. One possible outcome is that managers strip firms of their most valuable assets, perhaps by transferring these assets at a low price to new firms that managers control. Another possibility entails managers who use the firm's capital to make risky investments with a low probability of a high payoff. If the investments succeed, the firm will be saved. If the investments fail, the firm will shut down, but managers and equity will be no worse off than they would have been without the risky investments. Because of equity's limited liability, creditors bear the loss of the risky investments because their payoff in bankruptcy falls. Clearly, managers have an incentive to undertake risky investments even if the investments have a negative expected payoff, such as trips to the gambling tables (see Jensen and Meckling 1976; Stiglitz 1975).

The industrial countries have developed various practices that mitigate the common property problems of firms in financial distress. The secured loan represents one particularly important practice. Secured creditors lend to the firm on condition that they receive a security interest in a particular asset, such as a building, a vehicle, a piece of equipment, inventory, or some of the firm's accounts receivable. If the firm defaults, secured creditors are allowed to seize their lien assets quickly and, in most cases, without going to court. Secured creditors also assume the right to be repaid first from the proceeds of selling the assets subject to the security interest, provided the security interest is publicly registered. (This applies regardless of whether the firm has filed for bankruptcy.) A lien on a particular asset reduces secured creditors' need to monitor the firm's financial condition because secured creditors either get repaid in full or get their lien assets back. Their return, therefore, does not depend on being first. Secured creditors need only monitor firms' use of their lien assets to prevent abuse.⁴

4. If the value of the collateral is less than the secured creditor's claim, the remainder becomes an unsecured claim that gives the creditor an interest in racing to be first to collect.

Secured loans also reduce managers' ability to gamble with the firm's assets. In the United States, secured interests are registered with the government of the state where the firm is located, and a public record of liens is maintained. New lenders to firms routinely check the public record before lending to ensure managers have not offered new lenders security interests in assets already subject to prior creditors' liens (unless the new creditor agrees that its lien will be subordinate to the earlier creditor's lien). Most firms in financial distress have few assets not already subject to liens. Therefore, managers of firms in financial distress are unlikely to be able to borrow new funds to finance risky investments. Moreover, transferring an asset to a new company becomes less attractive if the asset is subject to a lien, for the lien survives the transfer, necessitating that the creditor be repaid if the new firm is to retain the asset.⁵

One of several drawbacks of secured loans, however, is that the more strongly secured creditors are protected, the less inclination lenders have to lend on an unsecured basis. Furthermore, secured loans make it more difficult for firms to reorganize in bankruptcy.

Managers usually have a choice between filing for bankruptcy earlier or later. Their choice of when to file relates to their choice of whether to gamble with or steal the firm's assets. If filing for bankruptcy means that the firm shuts down immediately and managers lose their jobs, then managers have an incentive to delay bankruptcy as long as possible and use the extra time to gamble with or steal the firm's assets. However, if filing for bankruptcy means that managers remain in control while the firm is reorganized, they possess less incentive to delay bankruptcy. European countries' bankruptcy laws require managers to file for bankruptcy within a few days after their firms first become insolvent. Sanctions, including jail terms, may be used against managers who delay filing. European countries' bankruptcy laws also encourage creditors and other interested parties to initiate involuntary bankruptcy filings. The U.S. bankruptcy code, however, takes the opposite approach and relies on rewards rather than sanctions to encourage managers to file early for bankruptcy. Rewards include the option for managers to file for bankruptcy reorganization rather than bankruptcy liquidation as well as retaining control of the firm, at least during the initial stages of the reorganization process (see White 1996 for discussion and references).

5. When there is no public record of liens (as in Germany), secured creditors have an incentive to race to be first to reclaim their lien assets because another creditor may have a lien on the same asset.

In most Asian countries, managers generally avoid bankruptcy, both because bankruptcy procedures are undeveloped and because creditors cannot force firms to shut down by seizing assets. This gives managers too much control and exacerbates the common property problem. Either increasing creditors' rights outside of bankruptcy or instituting a bankruptcy reorganization procedure would reduce managers' incentive to steal or gamble with firms' assets, consequently improving efficiency.

The Decision to Liquidate versus Reorganize Firms in Bankruptcy

While firms that file for bankruptcy are always in financial distress, they may be either economically inefficient or economically efficient. For a firm in financial distress, being economically efficient means that no alternative use of the firm's assets with higher value exists. Being economically inefficient means that some alternative use of the firm's assets has higher value. In the previous example, the firm was economically efficient despite being in financial distress because when it was sold as a going concern under the old manager (US\$180), the value of its assets exceeded the liquidated value of its assets sold piecemeal (US\$150), or exceeded the liquidated value of its assets when it was sold as a whole under the operation of a new manager (US\$170). If the firm were economically inefficient and sold as a going concern under the old manager, the value of its assets would be less than their liquidated value.

Firms that are economically efficient despite being financially distressed often have specialized assets that have no better alternative use. Therefore, to at least temporarily continue operating the firm seems worthwhile, because its revenues exceed its variable costs, even though revenues are less than fixed plus variable costs. It may not be worthwhile to replace the firm's capital when it wears out. A railroad whose tracks would be worth little as scrap steel if they were dismantled presents an example. Economically inefficient firms that should be liquidated include those in industries that have excess capacity, those that use less efficient technology than their competitors, and those that use unspecialized assets (because the assets are valuable in alternative uses).

Bankruptcy procedures aim to liquidate economically inefficient distressed firms and save or reorganize economically efficient distressed firms. Saving rather than shutting down efficient distressed firms preserves their value as a going concern. Saving rather than shutting down inefficient distressed firms prolongs the movement of their assets from less efficient to more efficient.

Classifying financially distressed firms into efficient or inefficient categories, however, proves extremely difficult. This is because classifying firms as efficient or inefficient requires determining how much their assets would be worth if they were employed in their best alternative use—information that cannot be found on firms' balance sheets. Managers cannot adequately judge whether their firms are efficient or inefficient, because they are only familiar with the existing use of the firm's assets. Thus, bankruptcy decides which firms should be liquidated and which should be saved or reorganized. Different countries do this in a number of different ways and additional ways have been proposed.

As soon as a firm files for bankruptcy in a European country, an appointed official either assumes management of the firm or oversees its managers. Generally, the official (or the bankruptcy judge, based on the official's recommendation) decides whether the firm will be reorganized or liquidated. Thus, a neutral expert with specialized training determines whether to liquidate or reorganize firms in bankruptcy. In the United Kingdom, the official—called an insolvency practitioner—is an accountant with specialized training in evaluating failing firms. However, the official's decision does not always depend exclusively on which alternative maximizes the value of the firm's assets. In France the official seeks primarily to save the firm rather than repay creditors. In the United Kingdom, appointment of the official usually follows the partial liquidation of the firm's assets by the floating charge creditor, resulting in little or no possibility of saving the firm.

Another possibility entails routine auction of bankrupt firms. Two advantages come from auctioning bankrupt firms. First, it preserves a firm's value as a going concern in case continuing to operate turns out to be the best use of its assets. Second, it passes the decision of whether to turn bankrupt firms over to the winners of the auction, who because they have their own money at stake are better decisionmakers than either the old managers or bankruptcy professionals.

However, no country practices routine auctioning of bankrupt firms because bankruptcy auctions tend to result in low values and, therefore, low payoffs to creditors. Whether routine use of auctions in bankruptcy causes additional competition in the market for bankrupt firms to develop and values to increase remains unclear. Because of the low valuations, bankruptcy judges tend to prefer bankruptcy reorganizations over bankruptcy liquidations, because reorganizations set artificially high valuations on sustainable firms only because no arm's length sales occur. Furthermore, routine use of auctions may discourage managers from filing for early bankruptcy as they anticipate that the new owner will install a new manager.

Because of the political reluctance to transfer bankrupt firms' assets at low prices to either foreigners or rich insiders, Asian countries would probably reject routine auctioning of firms in bankruptcy.⁶

Separate bankruptcy procedures for liquidation (Chapter 7) and reorganization (Chapter 11) exist in the United States. Managers are allowed to make the initial decision whether to liquidate or reorganize by choosing whether to file under Chapter 7 or Chapter 11. If managers file under Chapter 11, they retain control of the firm under the loose supervision of the bankruptcy court. Eventually, either a reorganization plan must be adopted by a vote of creditors and equity holders or the firm's bankruptcy filing shifts to Chapter 7, resulting in liquidation. Sometimes two years or more elapse before this occurs. Managers prefer reorganization over liquidation of their firms because they retain their jobs during at least the initial stages of the reorganization (see Gilson 1989, 1990; Gilson and Vetsuypens 1993; Hotchkiss 1995) for data on turnover of managers and directors during Chapter 11 reorganizations). Thus, the U.S. procedure for determining the liquidation or reorganization of bankrupt firms makes no pretense of basing the decision on efficiency considerations. Because managers almost always prefer reorganization over liquidation, the U.S. procedure allows too many financially distressed firms to reorganize (see White 1994 for a model). Allowing managers to remain in control while their firms reorganize also encourages managers to file for bankruptcy early, which preserves distressed firms' value as a going concern.

In Japan, Indonesia, and perhaps other Asian countries, governments have bailed out firms in financial distress (see chapter 10 in this volume). This amounts to an inefficient and wasteful policy for several reasons. First, suppose government policy permits bailout of only those firms in the worst financial condition. This gives managers an incentive to worsen their firms'

6. See Baird (1986) for a discussion of the possibility of auctioning all firms in Chapter 11. Much of the discussion in the literature concerns the issue of how to accurately value firms that are reorganized, because under Chapter 11 no arm's length transaction occurs. Creditors have an incentive to place a low value on the firm so that equity is eliminated, while equityholders have an incentive to place a high value on the firm so that equity claims remain intact. Roe (1983) proposed selling publicly 10 percent of the shares of firms in Chapter 11 as a means of accurately valuing the remaining shares. Aghion, Hart, and Moore (1992) and Bebchuk (1988) discuss a method of using options to accurately value the firm. In their model, junior creditors have an option to buy the firm by repaying senior creditors' claims in full.

financial condition so that they are more likely to qualify for a bailout. Managers can achieve this by stealing or gambling with the firm's assets, or using the firm's assets to lobby politicians for a bailout.⁷ Second, suppose the firm has shut down because new lenders will not lend for working capital until managers and creditors agree on a plan to reorganize existing creditors' claims. Because the firm may receive a government bailout, the existing creditors have an incentive to delay agreeing to a plan, as managers will be willing to pay them more after a bailout. Creditors have an incentive to delay even with a small probability of the firm being bailed out. Thus, the prospect of a bailout delays firms' recovery. Third, bailing out failing firms is expensive because much of the bailout money goes to creditors and does not directly benefit the firm or its workers.

Asian countries must adopt bankruptcy laws and follow them routinely, because such laws constitute a commitment by the government to refrain from intervening in bankruptcy proceedings and from bailing out firms in financial distress. A bankruptcy law that is routinely followed sends a strong signal from the government that creditors and equity holders of firms in financial distress must bear the firms' losses, because the government will not bail them out. If creditors routinely expect that bankruptcies will follow the country's bankruptcy law, the costs just discussed would be avoided.⁸

The recent financial crisis in the Asian countries caused many firms (in some countries most firms) to become insolvent at the same time. The crises had no counterpart in any of the industrial countries, where only a small fraction of firms are insolvent at any one time. During a financial crisis, an unusually high proportion of financially distressed firms is likely to be economically efficient. This is true because in the event that distressed firms' assets are offered for sale, they are unlikely to find new buyers, because not enough potential buyers exist for every distressed firm for sale, and potential buyers cannot obtain bank loans to finance their bids. Moreover, while reductions in demand indicate a temporary excess capacity in many industries, demand is likely to recover quickly, and excess capacity will disappear once the financial crisis passes. These considerations suggest that a higher

7. See Aghion, Bolton, and Fries (1999) for a model in the context of bank bailouts.

8. The U.S. government bailout of the Chrysler Corporation is frequently cited as an example of the fact that the U.S. government bails out distressed firms, but this is the only occasion in which a private U.S. firm received a public bailout.

proportion of firms should be reorganized rather than liquidated in bankruptcy during a financial crisis as opposed to normal times. Bankruptcy procedures should, therefore, contain a crisis provision that saves more distressed firms during financial crises.

The legal process of bankruptcy reorganization in the United States and other industrial countries developed a number of features intended to prevent failing firms' assets from being dispersed and to preserve their going-concern value. At least some of these may be relevant for Asian countries that adopt reorganization procedures. As already discussed, once a firm files for bankruptcy, the automatic stay freezes creditors' legal actions against the firm and forces them to collect from the firm through the bankruptcy procedure. In the United States, the automatic stay also includes secured creditors, preventing them from seizing assets essential to firms' operations during the reorganization procedure. Interest payments on unsecured loans are suspended during the reorganization process, thereby increasing a firm's working capital and making it more feasible for the firm to continue operating. However, firms in reorganization must continue to make interest payments to secured creditors. Firms in reorganization possess the right to reject unprofitable contracts while retaining profitable contracts. This allows distressed firms to improve their profitability.⁹ In the United States, for at least six months after the bankruptcy filing, the manager holds the exclusive right to offer a reorganization plan, and bankruptcy judges often extend the exclusivity period. Creditors must vote on the manager's plan before they are allowed to offer plans of their own. The right to make a take-it-or-leave-it offer to creditors increases managers' bargaining power, because creditors will accept lower repayment if the alternative is to wait a prolonged period until they are allowed to offer plans of their own. To obtain additional working capital, firms in bankruptcy may offer a lender postbankruptcy priority over all prebankruptcy creditors. Finally, for a reorganization plan to be accepted, creditors need not be in unanimous agreement, effectively blocking minority holdouts from preventing adoption of a plan. Otherwise, holdouts could make reorganization infeasible by demanding full repayment. The U.S. bankruptcy

9. Damage payments or penalties for nonperformance of contracts become unsecured claims against the firm, but these usually receive only a low payoff. However, firms that the bankrupt firm maintains contracts with are also allowed to reject contracts (see Che and Schwartz 1999). Weiss' (1990) study of large firms in Chapter 11 bankruptcy finds that nearly all reorganization plans are proposed by managers rather than creditors. See also LoPucki and Whitford (1990).

reorganization procedure even allows the bankruptcy judge to accept a reorganization plan when a majority of creditors in a particular class votes against it, a procedure known as cramdown.¹⁰

Bankruptcy Issues before Firms Are in Financial Distress

The possibility of financial distress and bankruptcy also affects whether creditors make loans to firms, because creditors' returns depend on the probability of default and on how much creditors receive if default occurs. An efficient bankruptcy policy must take account of its effects on incentives at this early time period.

Consider a model developed by Bolton and Scharfstein (1996). In their model, one or more creditors lend to the firm in period 1, and the firm's manager promises to repay creditors a fixed amount in period 2. In period 2, the firm may have either positive or zero cash flow, but—because cash flow cannot be verified—the manager and creditors cannot contract over a schedule of payments based on cash flow. Managers always default if cash flow is zero ("liquidity default"), and they may also default if cash flow is positive ("strategic default"). If managers default, creditors have the right to initiate a bankruptcy procedure. A market-based bankruptcy procedure follows, in which the firm's assets are offered for sale to the highest bidder, who is either the old manager or a new buyer who would install a new manager. If the default is a liquidity default, the existing manager has no cash, so the new buyer purchases the assets, and the manager is replaced. If the default is strategic, managers have cash and they outbid the buyer for the firm's assets. Bolton and Scharfstein argue that the firm's assets are best put to use when the existing manager continues to run the firm, making a sale of the assets to a new buyer inefficient. Regardless of whether or not the firm defaults in period 2, none of its cash flow in period 3 goes to creditors.

Two sources of inefficiency occur in the model: transferring firms' assets to new managers following default and strategic default, which unnecessarily puts firms into bankruptcy. Bolton and Scharfstein calculate the most efficient contract. It sometimes, though not always, involves putting firms into bankruptcy following default, regardless of whether the default was strategic- or liquidity-based. Putting some firms into

10. See Bebchuk and Chang (1992) for a model of bargaining in Chapter 11 reorganization that incorporates several of these features.

bankruptcy following default reduces managers' gain from defaulting strategically; while not putting firms into bankruptcy with certainty following default reduces the efficiency cost of bankruptcy. Under the optimal contract, managers never default strategically, so that creditors' return is higher and lending increases.¹¹

The above analysis contains several implications for bankruptcy policy in the Asian countries in crises. First, current bankruptcy policy in these countries gives existing managers enormous power because, even when they default, creditors are unable to collect from the firm by seizing its assets. Bolton and Scharfstein's model shows that favoring managers to this extent is costly, for it encourages managers to default strategically and, therefore, discourages creditors from lending. Second, the model reflects an unrealistic aspect in arguing that the best use of firms' assets is always for existing managers to remain in control. As many firms that default are inefficient and their assets would be more valuable in alternative uses, this assumption becomes unrealistic in normal times. The assumption becomes more realistic for the Asian countries in financial crisis because economic disruption and lack of bank financing means that few buyers would have the money to purchase the assets of firms in bankruptcy.

Applying these considerations to Bolton and Scharfstein's model suggests that an efficient bankruptcy procedure for the Asian crisis countries might involve appointing a professional bankruptcy official to oversee each firm that defaults. The bankruptcy official would be instructed to make a determination as to whether individual firms in bankruptcy fall into any of four classes: (a) strategic default/efficient, (b) liquidity default/efficient, (c) strategic default/inefficient, or (d) liquidity default/inefficient. (Here, efficient versus inefficient refers to whether firms' assets are worth more in their current use or in an alternative use.) Firms in the first class would be put into bankruptcy with a probability between zero and one to penalize managers for strategic default. Firms in the second class would never be put into bankruptcy, because managers did not default strategically and the current use of the firm's assets is efficient. Firms in the third and fourth classes and are inefficient and should be put into bankruptcy in order to allow their assets to be transferred to better use. However, the probability

11. The model assumes more efficiency is derived from liquidating all of a firm's assets following default with a low probability than to liquidate some of firm's assets with a higher probability. This is because assets are subject to economies of scale.

of putting these firms into bankruptcy would depend on whether or not the country was in a financial crisis. In the absence of a financial crisis, the probability of bankruptcy would be one. If a financial crisis is taking place, the probability could be as low as zero. This is because, in a financial crisis, few new buyers exist in the market, meaning there is little to be gained from offering firms' assets for sale on the market.

Because a fraction of firms that defaulted strategically would be put into bankruptcy, managers would be deterred from behaving strategically. A fraction of firms whose managers defaulted for liquidity reasons would also be put into bankruptcy, but this would not affect incentives. The fraction of inefficient firms put into bankruptcy following default could be set based on the number of buyers and the amount of their bids at bankruptcy sales, because there would be fewer buyers who would make lower bids in times of financial crisis.

Bankruptcy officials will inevitably make mistakes in determining firm types. For example, if many strategic defaults (by both inefficient and efficient firms) were misclassified as liquidity defaults, there would be a lower probability of bankruptcy following a strategic default, and managers' incentives to default strategically would increase. If the opposite occurred, managers would be strongly deterred from defaulting strategically, but the costs of bankruptcy would be inefficiently high. These distortions, however, could be offset by varying the probability of putting firms into bankruptcy following default.

The law relating to secured credit also affects creditors' incentives to lend. As discussed earlier, having a security interest in a particular asset increases creditors' payoff when default occurs and reduces the probability of default. It therefore increases creditors' expected payoff and makes them more willing to lend.

However, secured credit has offsetting disadvantages. For instance, firms normally have a mixture of secured and unsecured loans. When some creditors are secured, the remaining unsecured creditors receive less following default, because they are repaid from the liquidation value of the assets not subject to security interests. The more secured claims the firm possesses, the fewer assets it has left to repay unsecured claims. This means that creditors are less willing to lend to firms in the form of unsecured loans. Furthermore, when firms are in financial distress, managers have an incentive to use assets not already subject to security interests as security for new loans that can be used to gamble on risky projects that might save the firm. Unsecured creditors cannot prevent this, because their only recourse against the firm involves taking legal action, which is costly and time-consuming.

Thus, if managers try to obtain unsecured loans by promising not to use the firm's assets to obtain secured loans in the future, these promises are noncredible because they are unenforceable. Having a mixture of secured and unsecured loans raises the probability that managers will act in ways that reduce the value of unsecured creditors' claims.¹²

The industrial countries' laws governing security vary in the degree to which they protect the interests of secured creditors. The laws of the United Kingdom strongly protect a single secured creditor (the floating charge creditor), who is allowed to prevent the firm from entering bankruptcy. In the United States, secured creditors can seize assets subject to security interests, regardless of whether or not the firm is in bankruptcy. However, if firms file under Chapter 11 to reorganize in bankruptcy, secured creditors' rights to seize assets are suspended during the reorganization. Instead, they receive cash payments, but these may be less than the value of the assets. Other countries provide less protection for secured creditors. Canada and France subordinate secured creditors' claims to workers' claims for wages and governments' claims for taxes, which are both unsecured. In Germany secured creditors receive only partial repayment of their claims from the sale of the assets subject to security interests, with the remaining amount of the claim being unsecured. Because stronger protection of secured creditors increases creditors' willingness to lend on a secured basis but reduces their willingness to lend on an unsecured basis, and vice versa, a single, economically efficient arrangement may not be possible.

In the Asian countries, providing strong protection for secured creditors may be worthwhile because it allows creditors to avoid the judicial system. As many of crisis countries' courts are corrupt, unsecured creditors have little protection against strategic default by managers. Secured creditors, however, can seize assets subject to security interests without going to court.

Bankruptcy and Entrepreneurial Activity

Another important aspect of bankruptcy relates to its effect on incentives for potential entrepreneurs to start and operate small businesses. In most

12. Unsecured claims are often involuntary (such as claims for taxes or tort judgments). Other claims are unsecured because they are too small to justify the cost of registering a secured interest, such as trade credit (see Bebchuk and Fried 1996; White 1989).

countries, small businesses, particularly small startups, are unincorporated. This means that the debts of small businesses are legally obligations of their owners. If a small firm fails, its owner could incur high debts (note that small firms are rarely reorganized in bankruptcy).

Bankruptcy law for individuals and small firms varies widely across countries. In the United States, individuals and married couples who own small firms can file for personal bankruptcy under Chapter 7 and both the firm's debts and the individual's personal debts will be discharged. Individuals do not have to use any of their postbankruptcy earnings to repay their debts, but they must give up all of their nonexempt assets to repay creditors. A key difference between bankruptcy procedures for individuals and for corporations is that individuals who file for bankruptcy are allowed to keep some assets, while corporations that file for bankruptcy are not. Each state in the United States sets exemption levels applicable in bankruptcy and individuals may keep any assets below the relevant exemption. Most states have separate exemptions for home equity (the homestead exemption) and for other types of assets, such as personal property, vehicles, and retirement accounts. Homestead exemptions vary widely, from only a few thousand dollars in some states to unlimited amounts in Florida, Texas, and five other U.S. states. Entrepreneurs in these states can file for bankruptcy if their firms fail and keep an unlimited amount of wealth, as long as the wealth constitutes home equity. Other exemptions are generally much smaller. Other countries' bankruptcy procedures for individuals entail much harsher penalties. Germany disallows discharge of debt in bankruptcy for individuals until many years after the bankruptcy filing, and then only if the individual makes a reasonable effort to repay the debt from postbankruptcy earnings. Therefore, German entrepreneurs whose businesses fail face the obligation to repay their business debts from future earnings. This deters entrepreneurship and prevents individuals from starting a new business if an earlier business failed.

From an economic standpoint, personal bankruptcy can be thought of as providing partial wealth insurance. Individuals have a choice between working for others, which generates a fairly steady stream of earnings and wealth, and starting a business, which generates a stream of earnings and wealth at high risk. Under U.S. bankruptcy law, individuals who choose to be entrepreneurs have partial wealth insurance because, if the business does badly, they can file for bankruptcy and their wealth will increase because their debts will be discharged. The higher the bankruptcy exemption, the greater the partial wealth insurance that bankruptcy provides. Clearly an increase in the bankruptcy exemption level raises the expected

utility of running a business relative to working at a job, assuming that potential entrepreneurs are risk averse and that they borrow. By contrast, higher exemption levels reduce lenders' incentive to lend to small businesses, because debtors are more likely to default when the exemption is higher. Therefore, lenders are predicted to ration credit more tightly in states with higher bankruptcy exemptions.

In contrast, bankruptcy law in Germany does not provide any wealth insurance at all, because debts are not discharged in bankruptcy and there is no exemption. This means that, relative to the United States, potential entrepreneurs in Germany are more likely to choose to work for others rather than become self-employed. Lenders in Germany, however, presumably ration credit to small businesses less tightly, because individuals that become entrepreneurs are less likely to default than in the United States. Overall, differences in bankruptcy laws may partly explain why U.S. households are four times more likely to run businesses as households in Germany.¹³

No empirical research explains differences in the levels of entrepreneurial activity internationally. Two recent studies make use of cross-state differences in U.S. states' bankruptcy exemption levels to investigate, first, how bankruptcy laws affect small firms' ability to borrow small-business loans and, second, how bankruptcy laws affect the level of entrepreneurial activity.

In the first study, Berkowitz and White (1999) examine whether owners of small firms are more likely to be turned down for credit when they live in states that have higher bankruptcy exemptions, controlling for other factors. The study uses a dataset of small firms collected by the Federal Reserve Board of Governors that includes both noncorporate and corporate small firms. The dataset controls for the demographic characteristics of owners, firms' size and profitability, and the history of firms' relationships with their main lenders. The findings demonstrate that when noncorporate firms locate in states with unlimited homestead exemptions, rather than average homestead exemptions, their probability of being turned down for business loans rises from 21 percent to 33 percent, and the relationship has statistical significance. Otherwise, similar corporate firms are also more

13. The probability of running a business is 8.6 percent for U.S. households and 2.2 percent for German households, according to "Compliant German, Assertive American: Siblings as National Symbols," *New York Times*, Nov. 7, 1999, p. 14. Besides differences in bankruptcy law, other possible reasons for the lower rate of entrepreneurship include Germany's more generous system of support payments for the unemployed.

likely to be turned down for business loans when they locate in states with unlimited rather than average homestead exemptions: the figures are 17 percent versus 45 percent, and the relationship is statistically significant. This suggests lenders see through the corporate veil for small firms, and they recognize that assets can easily be shifted between small firms and their owners, regardless of whether or not the firm is incorporated.

In the second study, Fan and White (2000) use data from three different household surveys to examine whether individuals are more likely to start, run, and shut down small businesses if they live in states with higher bankruptcy exemptions. Households are categorized as running a business if they respond yes to a question asking whether anyone in the household runs a business or if they report having positive earnings from self-employment (farming is excluded). In the regressions, the study controls for household demographics, the predicted amount that the workers in the household could earn if they work at a job, and business cycle factors such as the unemployment level and the rate of growth of income in the individual's state of residence.

In one dataset, the probability of individuals being self-employed rises from about 10 percent if individuals live in states with low bankruptcy exemptions, to 11.5–12 percent if individuals live in states with high or unlimited bankruptcy exemptions. In two other datasets, the figures increase from about 12 percent if individuals live in states with low bankruptcy exemptions, to about 15 percent if individuals live in states with unlimited bankruptcy exemptions. The study also finds evidence that individuals are more likely to start businesses if they live in states with high bankruptcy exemptions. In one dataset, the probability of starting a business rises from about 4.0 percent per year to about 5.1 percent per year if individuals live in states with unlimited rather than low bankruptcy exemptions. In a second dataset, the figure increases from about 2.2 percent to about 3.3 percent. (All these relationships are statistically significant.) The study did not find evidence that the bankruptcy exemption level affects households' probability of shutting down existing businesses.

Overall, the evidence from these two studies suggests that adopting a higher bankruptcy exemption level increases the probability of individuals starting and running small businesses, but handicaps the businesses by reducing their probability of obtaining credit in the form of small-business loans. The results suggest that more attention needs to be paid to the issue of how bankruptcy laws affect levels of entrepreneurial activity internationally.

Conclusion

Bankruptcy law affects economic efficiency not just after firms enter financial distress, but also when potential entrepreneurs are thinking of setting up new businesses and when potential lenders decide whether to extend credit. Thus, bankruptcy law needs to be considered together with other aspects of commercial law, contract law, securities regulation, property law, and legal procedure. Even if potential lenders have identified a profitable investment opportunity in a country with an efficient bankruptcy law, they are unlikely to lend if the local manager can bribe the court to look the other way when the manager defaults on obligations to the foreign lender. With uncertain enforcement of contracts, potential investors or lenders cannot accurately evaluate investment opportunities. This means that less lending and investment occurs, and projects that do go ahead may not be the most efficient ones. Bankruptcy law is just one aspect of the general business environment in a particular country that affects lenders' incentives to lend to firms in that country.

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3

Systemic Corporate Distress: A Legal Perspective

Jay Lawrence Westbrook, The University of Texas at Austin

With reform of insolvency law a major policy issue in many countries, this volume performs a great service in highlighting the need for attention to the special case of systemic corporate distress; that is, widespread financial difficulties encompassing a large percentage of a country's or region's commercial community.¹ Such distress, traditionally called a recession or depression, relates to the ordinary ups and downs of capitalism like an epidemic resembles ordinary medical practices. Every public health authority understands the need for special medical rules and practices to deal with epidemics, but the need for special insolvency mechanisms invoked to treat widespread financial distress had received scant attention.

While epidemic control starts with a fundamentally sound system of public health, effective management of systemic corporate distress rests

1. In North America, the term bankruptcy often describes insolvency proceedings of all kinds, including those applicable to consumers and to businesses and to natural as well as legal persons. Many in the English-speaking world use insolvency to refer to enterprise cases and bankruptcy to refer to cases involving natural persons. Regardless of terminology or the nature of the debtor, the central idea concerns a collective legal proceeding responding to the circumstance of general default, actual or threatened (see, for example, United Nations General Assembly (1997), paragraph 50). Because this chapter addresses financially distressed businesses, it generally uses the term insolvency.

on an existing insolvency regime with well-developed institutions administering appropriate legal rules and practitioners with experience handling more routine commercial cases. This chapter primarily analyzes the key legal elements of insolvency regimes generally, which is a variation on the theme of systemic distress. The chapter then turns to the special issues presented by systemic distress.

The Reform Movement

Although the literature takes relatively little notice, governments around the world continue to ponder insolvency reform, and within the last decade, some have adopted new laws. In 1992 Canada substantially revised its insolvency laws, adding important amendments in 1997. Most Eastern European countries created new insolvency laws after the fall of the Berlin Wall. China, Germany, and Russia have adopted new insolvency laws.² Japan's insolvency reform commission has already adopted a new unified corporate reorganization law to replace the previous insolvency reorganization statutes.³ The United States established a commission to consider extensive changes in its bankruptcy law. Following its report, the U.S. Congress nearly passed important changes last year, including the United Nations Commission of International Trade Law's Model Law on Cross-Border Insolvency.⁴ The United Kingdom is actively considering further changes in its Insolvency Act, Mexico has passed a new insolvency statute in one house of its congress, New Zealand is studying new legislation, and the European Union is on the verge of adopting as a regulation its Cross-Border Insolvency Convention.

This wave of worldwide reform reflects the age of most insolvency laws in industrial and developing countries. Until the 1980s, few insolvency laws underwent substantial revision in this century. Even the Great Depression produced only changes in detail in most countries, or the addition of emergency measures, but not complete recodifications.

The globalization of enterprise and finance has increased the potential volatility of economic affairs even as it has enhanced wealth. Massive flows

2. For information on Germany, see "Insolvenzordnung" (Insolvency Law), art. 102, reprinted in *Gesetzesbeschluss des Deutschen Bundestages*, Drucksache 12/2443, April 21, 1994. Also see Balz (1997); Kamlah (1996).

3. Minjisaiseiho (Civil Rehabilitation Law), Law No. 225 of 1999.

4. The proposed legislation contained important changes to business bankruptcy provisions, although its most controversial provisions were on the consumer side.

of capital, often seeming to move in or out of regions or industries with irrational exuberance or panic, exaggerate the effects of economic change. Rapid and severe change sometimes makes otherwise healthy businesses subject to financial distress. Accelerated change can ravage a particular industry or corporate group, or it can create wider systemic corporate distress in a country or region. A globalizing economy requires a constant reshuffling and readaptation of economic enterprises. When those changes bring financial distress, as they often do, insolvency reorganization becomes the natural tool of economic repair.

“Degovernmentalization,” a worldwide phenomenon closely related to globalization, describes the combination of deregulation and privatization, trends that have dominated governments’ policies around the world for the last two decades. Most countries’ policies in the 1930s emphasized regulation and nationalization to prevent a general default by an economic enterprise, a fact that is sometimes used to explain the reason the Great Depression produced revision, but not fundamental reform of most insolvency laws. When those policies were reversed in favor of market controls, it became necessary to adopt modern insolvency laws to manage the inevitable defaults in a system based on competition and risk.

The so-called stranger syndrome, which is particularly relevant to the recent emphasis on reorganization or rescue in insolvency reform, has also emerged in the globalizing economy. When economies were dominated by relatively small groups of people, often of the same background and social class, reorganization of a troubled but viable enterprise was possible on a relatively informal basis. Even if official intervention proved necessary (as with the London approach), the commonalties among the relevant people often made possible a consensual adjustment without the need for extensive formal proceedings. As economies have joined to create a global market, for finance and management as well as trade, informal accords have become far more difficult to achieve. Reorganizing a company whose equity and debt holders represent investors and institutions from many different worldwide commercial cultures appears more difficult. Because of the lack of common conventions and shared understandings, reorganization often requires a more formal and more rule-bound approach. That context also leads to an emphasis on notice, participation, and transparency. The U.S. Chapter 11 mechanism received such attention in reform discussions because it provides that sort of rule-bound, participatory approach, because it was developed in a continental economy lacking a single, cohesive commercial class.

Finally, in a number of countries, notably the United States, economic growth rests increasingly on massive corporate borrowing. The growing

importance of debt in corporate financial structures naturally and properly leads to a greater concern with insolvency laws as mechanisms of adjustment.

Elements of Reform

This global laboratory of reform experiments, many of them based on the lessons learned from prior periods of economic difficulty, begins to produce certain elements commonly understood as central to an effective insolvency system. The following are the major elements of recent reforms:

- Emphasizing reorganization or rescue rather than liquidation
- Reducing priorities, except for those favoring workers and secured creditors
- Including secured creditors in the insolvency process, especially in reorganization
- Providing for cooperation in transnational cases.

However, two areas of great importance have been neglected, namely:

- Institutional reform
- Reform of related areas of law and administration.

Reorganization

The emphasis on reorganization constitutes the most striking aspect of worldwide reform.⁵ The new German law, whose centerpiece entails modernizing the reorganization mechanism, imposes a decision period at the start of every proceeding to determine whether to liquidate or attempt to reorganize the business (Balz 1997; Kamlah 1996). Although based squarely and explicitly on U.S. Chapter 11, the German law differs distinctly in choices on many specific issues. The extensive Japanese reform program

5. See, for instance, Kamlah (1996). Once again, there are variations in terminology. Reorganization refers to a process by which a business activity continues as a going concern, in whole or significant part, rather than the assets being sold either piecemeal or as an assets-only package. It may or may not mean that the business organization—the company—continues. Rescue, restructuring, and rehabilitation signify other common terms in English. These procedures relate to the traditional legal procedure of composition. In Spanish, traditional procedures of this sort are often called *suspension de pagos* and in French *regalment*.

passed a new reorganization statute without waiting for the development of the remainder of the reform proposals. Most of the Japanese reforms and reform proposals place similar emphasis on reorganization.

As noted earlier, reorganization becomes central because the global economy puts otherwise healthy businesses at risk for financial distress. If that is true, the well-known fact that liquidation tends to destroy value means that a large amount of value might be destroyed unnecessarily without a mechanism for enabling viable businesses to weather an externally triggered storm. Reorganization would result in some group of beneficiaries retaining substantially greater value. Obviously, this point is closely related to the emerging concern with systemic distress.

In a number of countries, reorganization reform also reflects a new preoccupation with the role of entrepreneurs in economic growth. Although reorganization does not necessarily benefit entrepreneurs and their equity investors, it can have that purpose and effect. Those countries encouraging start-up companies and promoting entrepreneurial activity have seen reorganization as part of that program.

Priorities

In many countries, after the claims of priority creditors have been satisfied in an insolvency proceeding, little remains for distribution to general unsecured creditors. Consequently, a movement has arisen to reduce or eliminate priorities and return to the traditional insolvency ideal, equality of distribution. In recent years, notable examples include the new Australian, Canadian, and German statutes. In those statutes and in a number of reform proposals, however, the priorities accorded secured creditors and employees remain in place.

Inclusion of Secured Creditors

While the distribution priority of secured creditors has been preserved, a strong trend subjects those creditors to the insolvency process, especially in reorganization proceedings (IMF 1999). The inclusion of creditors reflects a realization that reorganization rarely occurs without the cooperation of secured creditors, and that compelling such cooperation often becomes necessary. Imposition of the insolvency stay or moratorium on secured and unsecured creditors' enforcement rights constitutes the most common mechanism for including creditors, making the claims of secured creditors a part of the overall reorganization plan.

Internationalization

Multinational enterprise leads necessarily to multinational default. United Nations Commission of International Trade Law has now promulgated a widely supported Model Law on Cross-Border Insolvency that is being seriously considered in a number of jurisdictions.⁶ Even prior to the Model Law, several countries adopted special provisions for cross-border cooperation.⁷ Most future reform legislation will likely contain such provisions.

Institutional Reform

By contrast, two other elements of reform—institutional and related areas of law and administration—remain largely ignored. This neglect partly results from the fact that much reform has occurred in industrial economies where the necessary institutions and related legal regimes already exist. Those countries saw less need for reform in these two areas, possibly causing reformers in other countries, where institutional reform and reform of related areas is still greatly needed, to misconstrue the lack of emphasis on institutional reform in the reforms adopted by developed countries.

Administration of insolvency laws requires strong, independent institutions. Insolvency, especially of large enterprises, can create enormous political ramifications and invite political intervention in individual cases. While political decisions necessarily and properly govern the macroeconomic directions of an economy, experience shows that political intervention in individual enterprises produces inefficiency and corruption (Lam and Kan 1999).⁸ Creation of an independent mechanism to manage financial distress, with overall policy choices in place, lends the insolvency process a perception of fairness and economic efficiency, as well as other societal values. Only an administration in which the administrators (typically judges) receive reasonable compensation and remain insulated from political pressures can achieve those results.

6. It passed both houses of Congress in the United States at different times and passed the Senate in Mexico. It reportedly has been incorporated, in principle, into the new Japanese reorganization statute and is under active consideration in the legislatures of a number of other countries.

7. Australia: §29, Insolvency Act (1966); Germany: Insolvenzordnung §102; United Kingdom: §426 Insolvency Act (1986); United States: 11 U.S.C. §304 (1994).

8. China serves as an example of a country with excessive executive involvement and too little judicial independence.

Institutional independence alone is insufficient. Administrators must also be competent. Competence entails not only legal competence, but also some combination of academic and practical knowledge of business affairs. If the judges in a particular system lack business competence, other competent officials—trustees or consultants—must be included in the process, or the system must rely on creditors and other interested parties to make the necessary economic judgments. Competence comes from the employment of qualified people with the requisite educational and specialized credentials. Although extremely important, these attributes often receive scant attention. Educational programs frequently make more difference in the actual function of a legal system than the incentives and disincentives so carefully included in the law itself.⁹ Specialization has two benefits: it enables educational programs to be targeted efficiently and, equally important, enables the various actors in a system (judges, administrators, lawyers, and others) to become repeat players, gaining both experience and mutual confidence over time. Where specialization appears too expensive because of the limited number of insolvency cases in good times, it can be limited to a portion of the system to be used in normal times to provide a cadre of experienced officials in times of systemic distress; for example, specialized panels of judges residing only in a country's largest city. These judges could handle commercial cases generally, taking charge of all insolvency cases and developing sustained expertise.¹⁰

Related Laws

Insolvency laws do not exist in isolation. On the contrary, reforms of an insolvency code may be useless if unaccompanied by necessary changes in related areas of the law and public administration. There are many such areas, but the most important are individual debt collection, bank regulation, and taxation.

Of these three, individual debt collection ranks the highest in importance. Many falsely view insolvency law as the simplest and best solution to the problem of a nonpayment commercial culture. For a variety of reasons,

9. A notable example was the dramatic increase in payout plans for individual bankruptcies under Chapter 13 of the U.S. Bankruptcy Code, an increase that probably resulted much more from educational programs than from the reforms that gave rise to the programs (see Sullivan, Warren, and Westbrook 1994).

10. Both Canada and Mexico have insolvency specialization in Toronto and Mexico City, respectively.

