Deposit Insurance Bibliography

Deposit Insurance:
An Annotated Bibliography,
Update: 2000–2003

Foreword

In 2000, the Federal Deposit Insurance Corporation (FDIC) published *Deposit Insurance: An Annotated Bibliography, 1989–1999,* a compilation of a decade's worth of deposit insurance-related research into one comprehensive reference source. The *Annotated Bibliography* is part of the FDIC's ongoing effort to assist policy makers and regulators around the world in the design and operation of deposit insurance systems and to promote additional research into deposit insurance issues.

This *Update* of the deposit insurance bibliography contains relevant materials for calendar years 2000–2003. As per the original, this *Update* includes citations and abstracts for books, journal articles, working papers, dissertations, conference proceedings, congressional hearings, and government and international agency reports that focus on deposit insurance. The *Update* is available in a printer-friendly Portable Document Format (PDF). Search and printing instructions are provided. Copies of materials listed in the *Update* can be obtained from any reference library or through standard interlibrary loan procedures.

Users may refer to the Preface of the original edition of the *Annotated Bibliography* for more details about concerning the purpose, scope, and sources of the bibliography. This information documentation can be found at:
http://www.fdic.gov/deposit/deposits/international/bibliography/index.html**.**

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Acronyms

AGDL	Deposit Guarantee Association of Luxembourg
AM	Asset Maintenance
BIF	Bank Insurance Fund
C&I	Commercial and Industrial
CAMEL	Capital, Asset, Management, Earnings, and Liquidity
CDIC	Canada Deposit Insurance Corporation
CEPR	Centre for Economic Policy Research
CPA	Certified Public Accountant
DIF	Deposit Insurance Fund (of Bulgaria)
DIC	Deposit Insurance Corporation
DIS	Deposit Insurance System
BIS	Bank for International Settlements
CDIC	Canada Deposit Insurance Corporation
CEC	Commission of the European Community
EC	European Community
ECU	European Currency Unit
EU	European Union
EWS	Early Warning Systems
Fannie Mae	Federal National Mortgage Association
Freddie Mac	Federal Home Loan Mortgage Corporation
FSAP	Financial Sector Assessment Programs
FDIC	Federal Deposit Insurance Corporation
FDICIA	Federal Deposit Insurance Corporation Improvement Act of 1991
FIRREA	Financial Institutions Reform, Recovery, and Enforcement Act of 1989
FITD	Fondo Interbancario di Tutela dei Depositi
FHLB	Federal Home Loan Bank
FOBAPROA	The Fund for the Protection of Bank Savings
FRB	Federal Reserve Bank
FSLIC	Federal Savings and Loan Insurance Corporation
GAO	General Accounting Office
GDIA	Government Deposit Insurance Agency
GDP	Gross Domestic Product
GMM	Generalized-Method-of-Moments
GSE	Government-Sponsored Enterprise
IADI	International Association of Deposit Insurers
IFS	International Financial System
IMF	International Monetary Fund
IPAB	Bank Savings Protection Institute
LTCM	Long Term Capital Management
MIMIC	Mutual Insurance Model with Incentive Compatibility
MMMF	Money Market Mutual Fund
MODIS	Market Oriented Deposit Insurance Scheme
NAFTA	North American Free Trade Agreement
NBH	National Bank of Hungary
OCC	Office of the Comptroller of the Currency

OECD	Organization for Economic Co-operation and Development
OMB	Office of Management and Budget
PCA	Prompt Corrective Action
RFC	Reconstruction Finance Corporation
RTC	Resolution Trust Corporation
ROC	Republic of China
S&Ls	Savings and Loan Associations
SADIS	South African Deposit Insurance Scheme
SAIF	Savings Association Insurance Fund
SEACEN	South East Asian Central Banks Research and Training Centre
SEDESA	Seguro de Depósitos Sociedad Anónima
SEER	System for Estimating Examination Ratings
SFRC	Shadow Financial Regulatory Committee
SND	Subordinated Notes and Debentures
TBTF	Too Big to Fail
TEK	Hellenic Deposit Guarantee Fund

Annotated Bibliography
Update: 2000–2003

1. General Deposit Insurance Theory and Policy

Entries in this section are more general than entries in the other sections and have a broader perspective on deposit insurance issues. They examine government-provided deposit insurance, alternative insurance structures and regimes, historical background, and budgeting accounting issues.

Chai, Jingqing, and R. B. Johnston. 2000. An Incentive Approach to Identifying Financial System Vulnerabilities. Working Paper WP/00/211. International Monetary Fund.

> This paper argues that any analysis seeking to identify potential vulnerabilities or instabilities in a financial system should explicitly account for that system's underlying incentive structure. Researchers have shown that three key structural and policy elements shape the incentives faced by the main agents in any financial system: the market structure within which the system operates, the existence of government safety nets, and the legal and regulatory frameworks. These factors influence agents' propensities to take risks and determine the inclinations of regulators, supervisors, and markets to monitor risk-taking. The paper outlines an approach for assessing the incentive structure in relation to risk-taking behavior that might threaten the financial system.

Cull, Robert, Lemma W. Senbet, and Marco Sorge. 2001. Deposit Insurance and Financial Development. Policy Research Working Paper no. 2682. The World Bank.

> National governments operate formal deposit insurance systems in order to stabilize their financial and payment systems. However, some economists have argued that deposit insurance can be socially counterproductive if the system is not appropriately structured and supported by adequate regulatory environments. In this paper, the authors examine the long-term effects of deposit insurance on financial development and stability (broadly defined to include the level of financial activity, the stability of the banking sector, and real-sector economic performance) in a sample of 58 countries. Overall, the paper's findings are consistent with the accepted thinking that deposit insurance schemes accompanied by sound regulatory environments have a positive effect on financial development and economic growth. However, the evidence also indicates that in countries lacking a sound regulatory environment (proxied by quality indices of the rule of law), the presence of a deposit insurance system could contribute to financial instability.

Demirgüç-Kunt, Asli, and Enrica Detragiache. 2001. Does Deposit Insurance Increase Banking System Stability? An Empirical Investigation. Policy Research Working Paper no. 2247. The World Bank.

> This study analyzes panel data for 61 countries during 1980-97 and concludes that explicit deposit insurance tends to be detrimental to bank stability, the more so where

bank interest rates are deregulated and the institutional environment is weak. Also, the adverse impact of deposit insurance on bank stability tends to be stronger when the coverage offered to depositors is extensive, when the scheme is funded, and when it is run by the government rather than by the private sector. (© 2001 EconLit)

Economides, Nicholas, R. Glenn Hubbard, and Darius Palia. 1999. Federal Deposit Insurance: Economic Efficiency or Politics? *Regulation* 22, no. 3:15–17.

This article argues that the adoption of the federal deposit insurance system in the United States can be attributed more to political power than economic necessity. Although deposit insurance was proposed ostensibly to protect depositors against future bank failures, it would also safeguard the interests of small banks. At the same time that large, well-capitalized banks were supporting the less-restrictive branching legislation, small banks were lobbying both to maintain strict branching regulations, which would prevent competition from larger banks, and to create a deposit insurance fund, which would enable smaller banks to attract consumers while holding less capital. In the end, a concerted political campaign by small banks and their representatives was able to overcome the opposition of larger banks and deposit insurance legislation was enacted.

Kelly, William A., and Judith F. Karofsky. 1999. Federal Credit Unions without Federal Share Insurance: Implications for the Future. Paper no. 1752-46. Filene Research Institute.

This study compares the performance of uninsured credit unions with that of uninsured banks. Results show that federal share insurance has not bestowed sizable benefits on member institutions and that uninsured credit unions behave more conservatively towards risk-taking than uninsured banks. The authors suggest that uninsured accounts should therefore be permitted at credit unions, although they also urge that more research be done regarding the implementation of such a policy.

Kroszner, Randall S., and Philip E. Strahan. 2000. Obstacles to Optimal Policy: The Interplay of Politics and Economics in Shaping Bank Supervision and Regulation Reforms. Working Paper no. W7582. National Bureau of Economic Research.

This paper provides a positive political economy analysis of the most important revision of the U.S. supervision and regulation system during the last two decades, the 1991 Federal Deposit Insurance Corporation Improvement Act (FDICIA). The authors analyze the impact of private interest groups as well as political-institutional factors on the voting patterns on amendments related to FDICIA and its final passage to assess the empirical importance of different types of obstacles to welfare-enhancing reforms. Rivalry of interests within the industry (large versus small banks) and between industries (banks versus insurance) as well as measures of legislator ideology and partisanship play important roles and, hence, should be taken into account in order to implement successful change. A "divide and conquer" strategy with respect to the private interests appears to be effective in bringing about legislative reform. The concluding section draws tentative lessons from the political economy approaches about how to increase the likelihood of welfare-enhancing regulatory change. (© 2002 EconLit)

Madies, Philippe. 2003. Fondements des systèmes de garantie des dépôts professionnels et volontaires La garantie des dépôts comme un “bien club” (Foundations of Professional and Voluntary Deposit-Guarantee Schemes: The Deposit Guarantee as a Club Good). *Revue d’Economie Politique* 112, no. 3:387–407.

In French without English summary.

Oda, Nobuyuki, and Tokiko Shimizu. 2000. Prospects for Prudential Policy: Toward Achieving an Efficient and Stable Banking System. Bank of Japan *Monetary and Economic Studies* 18, no. 1:119–36.

This paper discusses the role of public intervention in the banking market, emphasizing that although market mechanisms can be effective in achieving efficient banking markets, government intervention and prudential policy can be justified when there are notable market failures. Specific market failures in banking include asymmetries in the type and quantity of information available to banks and creditors, and negative externalities associated with bank failures. The authors provide a conceptual summary of the ways in which bank regulatory systems can address these market problems and ensure banking efficiency and stability. They recommend that the deposit insurer charge a variable premium and have the authority to take prompt corrective action against undercapitalized institutions. Separately, the central bank acts as a lender of last resort. In addition, the authors believe that a payments system should be devised to force risk takers to internalize the costs of their behaviors.

Stojanovic, Dusan, Mark D. Vaughan, and Timothy J. Yeager. 2000. Is Federal Home Loan Bank Funding a Risky Business for the FDIC? Federal Reserve Bank of St. Louis *The Regional Economist* (October): 4–9.

This paper discusses the recent growth of the Federal Home Loan Bank (FHLB) System, which was established in1932 to address a perceived deficit in the nation’s capital market by making collateralized loans to thrift institutions. The scope of the FHLB System has expanded considerably; the system now offers thrifts, commercial banks, and credit unions a wide range of products and services to help them fund mortgage loans, manage interest-rate risk, and otherwise meet the challenges of a competitive banking market. Between 1992 and 1999 the FHLB’s assets, membership, and outstanding advances increased dramatically. FHLB advances may prove costly for the FDIC, however, because they allow banks to take more risks, weakening the deposit insurer’s position in failure resolutions.

Villanueva, Delano. 1999. *Early Warning Indicators, Deposit Insurance and Methods for Resolving Failed Financial Institutions: Selected Papers of the SEACEN Workshop on a Regulator’s Action Plan on Bank Failures*. Southeast Asian Central Banks (SEACEN). Kuala Lumpur: SEACEN Centre.

This volume collects the lecture and teaching materials presented at the March 1998 SEACEN workshop, “A Regulator’s Action Plan on Bank Failures.” The materials cover various aspects of financial crisis management. Topics include early-warning indicators, deposit insurance as a mode of depositor protection, the resolution process, purchase-and-assumption transactions, deposit payoffs, open- bank assistance transactions, other resolution alternatives, the FDIC’s role as receiver, and other significant issues.

2. Designing and Establishing Deposit Insurance Systems

Entries in this section discuss international experiences with deposit insurance, various surveys of international deposit insurance systems and structures, lessons learned, emerging best practices, and prescriptions for designing effective and efficient deposit insurance systems.

Alsalem, Ahmed Mohammed. 2000. An Evaluation of the IMF Best-Practice Deposit Insurance System: Lessons from the United States Experience. Ph.D. diss., Colorado State University.

It is generally agreed that a well-designed deposit insurance system should advance the vitality and stability of the banking sector while minimizing the informational asymmetries that are often associated with insurance programs: moral hazard, adverse selection, and agency problems. To this end, researchers have sought to create models that guide the development of effective deposit insurance systems by identifying specific best practices. One such model, proposed by Gillian Garcia, was adopted by IMF authorities for use by countries that are considering the establishment of a deposit insurance system. The author argues, however, that the Garcia-IMF model is flawed because it is based only on the lessons from the post-1991 period in the United States and recent experiences in other countries. It omits the long and rich pre-1991 experiences of the Federal Deposit Insurance Corporation (FDIC), the individual U.S. states, the failed Federal Savings and Loan Insurance Corporation (FSLIC), and The National Credit Union Share Insurance Fund (NCUSIF). The author makes use of this richer history to identify and incorporate additional institutional features that have proven successful in the past. He then shows that his modified Garcia-IMF model better addresses the fundemental problems of operating a deposit insurance system.

Beck, Thorsten. 2001. Deposit Insurance as Private Club: : Is Germany a Model? Policy Research Working Paper no. 2559. The World Bank.

The 1980s and 1990s have seen a marked increase in the number of countries that use explicit deposit insurance schemes as part of their government-provided financial safety net. Yet the benefits of having an explicit public system are not universally accepted. Indeed, a number of alternative deposit insurance systems—ones where the government's guarantee is less explicit or denied entirely—have existed for some time and have been quite successful. This paper describes and evaluates the deposit insurance scheme set up by private commercial banks in Germany in 1975. In contrast to many deposit insurance schemes, the German deposit insurance system is completely private, has no government supervision, and relies on peer monitoring by its member banks. The author evaluates the unique characteristics of the German scheme and the financial environment in which it operates to determine the extent to which it can serve as a model for other countries. He concludes that the German model might be applicable to developing countries that are characterized by concentrated banking sectors, provided there exists an institutional environment that fosters contract enforcement and exhibits a minimum level of corruption.

Beck, Thorsten. 2002. Deposit Insurance as a Private Club: Is Germany a Model? *Quarterly Review of Economics and Finance* 42, no. 4:701–19.

This paper describes and evaluates the deposit insurance scheme set up by private commercial banks in Germany in 1975. Unlike schemes in most countries, its funding and management is completely private. While other schemes rely on monitoring by depositors to decrease moral hazard, the German scheme relies on peer monitoring by its member banks. This paper evaluates the German deposit insurance scheme against the background of its unique characteristics—a very concentrated private banking market, a strong institutional environment, and an antibankruptcy bias in Germany—and determines to what extent it serves as a model for other countries. (© North-Holland / 2002 Board of Trustees of the University of Illinois)

Beck, Thorsten. 2003. The Incentive-Compatible Design of Deposit Insurance and Bank Failure Resolution: Concepts and Country Studies. Policy Research Working Paper 3043. World Bank. (Also published as chapter 4 in D. G. Mayes and A. Liuksila. 2004. *Who Pays for Bank Insolvency?* Palgrave Macmillan.)

Deposit insurance and bank failure resolution policies are important parts of the financial safety net, and an incentive-compatible design of both can minimize the probability and cost of financial fragility. This paper discusses an incentive-compatible design of deposit insurance, bank failure resolution, and their potential interactions. It also presents and compares the financial safety-net arrangements in three countries: Germany, Brazil, and Russia. From this analysis, the author draws the following lessons: (1) embedding the financial safety net and its different components within the banking community can reduce principal–agent problems by making the banks the managers and owners of the safety net; (2) assessing risk-based premiums based on auditing by the deposit insurer itself helps align incentives of banks and the deposit insurer and thus minimizes moral-hazard risk; (3) a private–public partnership that relies on a completely industry-based solution for nonsystemic crises can reduce risks to the financial safety net.

Brownbridge, Martin, and Samuel Munzele Maimbo. 2003. Can Prompt Corrective Action Rules Work in the Developing World? *Journal of African Business* 4, no, 2:47–68.

Experience has shown that one major weakness of existent banking regulation is “regulatory forbearance”—that is, the failure of bank regulators to enforce regulations properly and to intervene promptly when banks become distressed. One method of constraining regulatory forbearance has been the implementation of rules that automatically trigger regulatory action, such as the prompt corrective action (PCA) rules adopted in the United States in 1991. This paper examines the potential benefits and the feasibility of incorporating PCA-type rules into banking regulations in developing countries. The paper concludes that such rules can improve bank regulation in developing countries if the rules are part of a more comprehensive set of institutional reforms that strengthen the operational independence of the bank regulators, improve their on-site examination authority, and strengthen accounting standards.

Canada Deposit Insurance Corporation (CDIC). 2001. International Conference on Deposit Insurance: Guidance and Future Directions. Conference Proceedings.

The first day of the CDIC international conference focused on guidance for countries developing deposit insurance systems and on emerging issues and future challenges for deposit insurers. The second day focused on technical presentations that covered issues such as premium and funding options, self-assessment methodologies, liquidation and failure-resolution options, and research priorities for deposit insurers. The final day of the conference was devoted to a discussion of the latest draft of the Basel II Capital Accord.

Coburn, Jane F., and John P. O'Keefe. 2003. Risk Assessment: Results of an International Survey of Deposit Insurers. FDIC *Banking Review* 15, no. 1:17–35.

In 2000, the FDIC conducted a survey of foreign deposit insurance organizations to ascertain their methods of risk assessment and asset liquidation, the role of their receiver, and their policies on funds availability. This article analyzes the responses from 37 insurers located in 34 countries. The article is the second in a three-part series on the survey results. The first part described failure-resolution methods, asset-liquidation practices, and the role of the receiver. This installment focuses on the risk-assessment practices of the insurers. The results of the survey highlight both operational similarities and operational differences between foreign deposit insurance organizations and the FDIC.

Demirgüç-Kunt, Asli, and Enrica Detragiache. 2002. Does Deposit Insurance Increase Banking System Stability? An Empirical Investigation. *Journal of Monetary Economics* 49, no. 7:1373–1406.

Based on evidence for 61 countries in 1980–1997, this study finds that explicit deposit insurance tends to increase the likelihood of banking crises, the more so where bank interest rates are deregulated and the institutional environment is weak. Also, the adverse impact of deposit insurance on bank stability tends to be stronger the more extensive is the coverage offered to depositors, where the scheme is funded, and where it is run by the government rather than the private sector. (© 2003 Elsevier Science B.V.)

Demirgüç-Kunt, Asli, and Edward J. Kane. 2001. Deposit Insurance around the Globe: Where Does It Work? Policy Research Working Paper no. 2679. The World Bank.

In the late 1990s, several financial and banking crises occurred around the globe. As a result, a growing number of developing countries have been seeking advice about designing and adopting an explicit deposit insurance system. Previous research has delineated not only the well-known trade-off between banking stability and moral hazard but also the interaction between deposit insurance design features and country-specific elements of a country's financial and governmental contracting environment. This paper documents the extent of cross-country differences in deposit insurance design and reviews the empirical evidence on how particular design features affect private market discipline, banking stability, financial development, and the effectiveness of crisis resolution. The authors'sauthor's findings suggest that countries with institutionally weak informational, legal, and supervisory environments should refrain from adopting an explicit deposit insurance system until they assess and remedy any weaknesses in their environments.

Demirgüç-Kunt, Asli, and Edward J. Kane. 2002. Deposit Insurance around the Globe: Where Does It Work? *Journal of Economic Perspectives* 16, no. 2:175–95.

Many nations around the world have established (or are considering establishing) a deposit insurance system to help prevent costly and disruptive bank runs. However, little empirical evidence exists about the desirability and operational effectiveness of deposit insurance systems. How, for example, does deposit insurance affect bank stability? What role does deposit insurance play in the management of crises? How does it affect market discipline or financial system development? In this paper, the authors attempt to answer these questions by reviewing empirical evidence on deposit insurance and bank regulation from over 70 countries. Given their findings, the authors conclude that deposit insurance is not always good or always bad. It can be a useful part of a country's financial safety net. However, in institutionally weak environments, designing a deposit insurance scheme that will not increase the probability and depth of future banking crises is hard to do.

Demirgüç-Kunt, Asli, and Edward J. Kane. 2002. Cross-Country Evidence on Deposit Insurance. *Quarterly Review of Economics and Finance* 42, no. 2:695–99.

The papers included in this special issue of the *Quarterly Review of Economics and Finance* are part of a research effort at the World Bank to understand the effects of explicit deposit insurance on economic outcomes and to investigate the institutional prerequisites for successful adoption of explicit deposit insurance. This paper synthesizes the papers included in the special issue.

Demirgüç-Kunt, Asli, and Tolga Sobaci. 2001. Deposit Insurance around the World. *The World Bank Economic Review* 15, no. 3:481–90.

In the past two decades, in a series of banking crises around the world, banks have become systematically insolvent. These crises have occurred in developed and developing economies alike. To make such financial system breakdowns less likely and to limit their costs if they occur, policymakers feel the need for financial safety nets. These include such policies as implicit or explicit deposit insurance, a lender of last resort function of the central bank, bank insolvency resolution procedures, and bank regulation and supervision. Of these policies, explicit deposit insurance has been gaining popularity in recent years. Since the 1980s the number of countries with explicit deposit insurance schemes almost tripled, with most OECD countries and an increasing number of developing economies adopting some form of explicit depositor protection. In 1994 deposit insurance became the standard for the newly created single banking market of the European Union. Establishing an explicit deposit insurance scheme became part of the generally accepted best practice advice given to developing economies. (© 2001 EconLit)

Drehmann, Mathias. 2002. Will an Optimal Deposit Insurance Always Increase Financial Stability? Bonn Economic Discussion Papers, no. 2002-28. Graduate School of Economics, University of Bonn.

This paper presents a theoretical model showing that deposit insurance can increase the probability of systemic banking crises, even if the deposit insurance is optimally designed and premiums are risk related. This result is driven by the possibility of contagious bank runs. In the model, the potential for contagious bank runs (and the costs associated with them) acts as a disciplinary device that prevents banks from investing in highly correlated portfolios. This disciplinary effect is eliminated, however, by deposit insurance. In the presence of deposit insurance, bank portfolios can become so highly correlated that the probability of a systemic banking crisis increases.

Evanoff, Douglas D. 2001. Designing an Effective Deposit Insurance Structure: An International Perspective. The Federal Reserve Bank of Chicago. *Chicago Fed Letter*, no. 167c.

In December 2000, the Federal Reserve Bank of Chicago and the Financial Stability Forum (an international regulatory and monetary authority created by the Group of 7 industrialized nations in 1998 to study ways of managing risk in the global financial system) cosponsored a symposium on designing effective deposit insurance systems. Based on the Financial Stability Forum's recommendations to countries that were considering introducing or modifying deposit insurance schemes, the symposium was intended to generate informed feedback from leading financial and banking economists. This *Letter* summarizes the discussion at the symposium and the conclusions that emerged.

Financial Stability Forum. 2000. Working Group on Deposit Insurance: A Consultative Process and Background Paper. (June).

The Financial Stability Forum commissioned a Study Group in 1997 to analyze the feasibility of setting out international guidance regarding deposit insurance arrangements. The Study Group's report concluded that international guidelines would be an invaluable resource to countries looking to adopt or reform a deposit insurance system. Accordingly, the Working Group on Deposit Insurance was commissioned. This pamphlet outlines the issues on which the Working Group will focus in developing deposit insurance guidelines. As part of its charge, the Working Group will assess the conditions necessary to establish an effective system, delineate key attributes of the ideal system, and address issues related to making the transition from blanket guarantees to a limited-coverage insurance system.

Financial Stability Forum and Federal Reserve Bank of Chicago. 2000. *Designing an Effective Deposit Insurance Structure: An International Perspective*. Conference Proceedings. December 12, 2000.

This conference held at the Federal Reserve Bank of Chicago, served as a forum for academics, regulators, and industry practitioners to discuss ways to improve deposit insurance system design and reform. The Financial Stability Forum's Working Group on Deposit Insurance presented four draft issue papers covering public-policy objectives, methods of analyzing a nation's preparedness for deposit insurance, ways to limit moral hazard, and issues encountered when deposit insurance is altered to provide limited coverage rather than blanket guarantees. The discussants offered serveral suggestions for improving the papers, pointing out the need to determine when implicit insurance might be preferable to explicit insurance, the need to present definitive guidance rather than a vague list of alternatives from which countries can choose when implementing a deposit insurance scheme, and the important role of market discipline in a country's regulatory scheme.

Fondo Interbancario di Tutela dei Depositi (FITD). 2001. *Report on Deposit Insurance: An International Outlook*. Rome: : FITD.

This report focuses on updated data on deposit insurance systems already in place and describes innovations that have been introduced that may be of use to countries developing their own deposit insurance systems. Section one of the report presents the results of an FITD survey of the institutional characteristics of deposit insurance schemes in 30 countries. The survey results show that though there are some similarities, there are still many institutional and operational differences among deposit insurers around the globe. Section two of the report is a speech by Philadelphia Federal Reserve Bank President Anthony M. Santomero on how deposit insurance in the United States has evolved and how it currently works.

Garcia, Gillian. G. 2000. Deposit Insurance and Crisis Management. Working Paper no. WP/00/57. International Monetary Fund.

A well-designed deposit insurance system (DIS) will provide incentives for citizens to keep the financial system sound. However, a poorly designed DIS can foster a financial crisis. This paper, therefore, makes recommendations for creating and running a limited, incentive-compatible DIS. The paper also examines factors in the decision to grant, temporarily, a comprehensive guarantee, and the design of that guarantee, should a systemic financial crisis nevertheless occur. It concludes with guidance on the removal of that guarantee. (© 2002 EconLit)

Hartley, James E. 2001. Mutual Deposit Insurance. *The Independent Review* 6, no. 2:235–52.

Should government bank deposit insurance be scrapped in favor of a system of bank cross-guarantees? Some proponents claim to have found successful cross-guarantees among the banks of antebellum Indiana, Ohio, and Iowa, but a closer examination suggests otherwise. (© 2001 EconLit)

Hermes, Niels, and Robert Lensink. 2000. Financial System Development in Transition Economies. *Journal of Banking and Finance* 24, no. 4:507–24.

This paper provides an overview of the major issues with respect to financial system development in transition economies, which were discussed at a conference in Groningen, the Netherlands, December 1997. After a brief remark on the role of financial system design during economic transition, the paper focuses on the role of stock markets in the process of financial intermediation with emphasis on the role of regulations in these markets, the role of deposit insurance to improve bank system stability, and the importance of an independent central bank, measurement issues relating to central bank independence and its impact on inflation and growth. (© 2002 EconLit)

Iwanicz-Drozdowska, M. 2002. Kryzysy Bankowe. Przyczyny I rozwiazania. (*Banking Crisis. Causes and Solutions)*. Polish Economic Publishers. [In Polish with English summary.]

This book compiles case studies on banking crises occurring within the last 20 years in 22 countries around the world. Each case study includes information on the economic environment of the particular country, the country's regulatory environment and financial policies, the reaction of government and supervisory agencies to financial crises, and moral-hazard issues

Kane, Edward J. 2003. What Kind of Multinational Deposit-Insurance Arrangements Might Best Enhance World Welfare? *Pacific-Basin Finance Journal* 11, no. 4: 413–28.

This paper analyzes the problems with the International Association of Deposit Insurers (IADI). The author thinks that because of cultural differences among regulators, the IADI cannot effectively consolidate deposit insurers. He finds that the IADI could be more successful in its mission of preventing cross-country spillovers of crisis pressure and improving the exchange of regulatory information if it organized a public market in deposit-reinsurance derivatives. Such a market would ultimately give signals about which insurance structures were optimal. Thus, individual countries would have an incentive to improve their own deposit insurance structure frequently, not only during a financial crisis.

Kaufman, George G., and Steven A. Seelig. 2001. Post-Resolution Treatment of Depositors at Failed Banks: Implications for the Severity of Banking Crises, Systemic Risk, and Too-Big-to-Fail. IMF Working Paper no. WP/01/83. International Monetary Fund.

Losses may accrue to depositors at insolvent banks both at and after the time of official resolution. Losses at resolution occur because of poor closure rules and regulatory forbearance. Losses after resolution occur if depositors are denied access to their funds—even temporarily. This paper examines both the sources and the implications of potential depositor losses in bank resolutions—, in particular, depositor losses due to delays in the payment of legitimate depositor claims. The paper also reports on a special survey of access practices in deposit insurance schemes around the world and contrasts those with the policy of immediate access currently followed by the FDIC in the United States. The paper concludes with "best- practices" recommendations regarding depositors'sdepositor's access to their funds at resolved institutions.

Lee, Wai Sing, and Chuck C. Y. Kwok. 2000. Domestic and International Practice of Deposit Insurance: A Survey. *Journal of Multinational Financial Management* 10, no. 1:29–62.

The literature on deposit insurance tends to be mostly confined to a discussion of the reform proposals and risk-related premium assessment methodologies. The theoretical explanation of the alternatives to the major components of a deposit insurance scheme is sketchy. Comparisons on the international practice of deposit insurance are not extensive and comprehensive enough. To fill the gaps in the literature, this paper examines the theoretical foundations of the key issues of a deposit insurance scheme, provides a critical comparison on the international practice of deposit insurance, and makes suggestions on how a complete deposit insurance scheme can be properly designed and implemented. (© 2002 EconLit)

Vaez-Zadeh, Reza, Xie Danyang, and Edda Zoli. 2002. MODIS: A Market-Oriented Deposit Insurance Scheme. Working Paper 02/207. International Monetary Fund.

This paper outlines the features of a market-oriented deposit insurance scheme (MODIS). Among the main features of the MODIS described here are that banks will issue two types of deposits (tier 1 and tier 2). Tier 1 deposits would be covered by the government-run deposit insurance system, while tier 2 deposits would not. Depositors would be able to choose how they would like to allocate their funds between the two types, and there are no upper limits on either type. The authors use a model to determine the optimal level of deposit insurance coverage under MODIS and find that the best insurance coverage is higher in developing countries than in developed countries.

3. Pricing and Valuation of Deposit Insurance

Entries in this section deal with methodologies for calculating deposit insurance premiums. In particular, these entries explore option pricing theory and its application to deposit insurance pricing; the effects of fixed and risk-adjusted pricing regimes; estimation of actuarially fair premiums; and the market value of deposit insurance guarantees over time.

Colantuoni, Joseph A. 2002. Pricing Deposit Insurance as a Contingent Claim. Ph.D. diss., University of Virginia.

> This paper uses three option pricing techniques to price federal deposit insurance for a large sample of banks. Because the historical flat-rate premium system and risk-related premium matrix used by the FDIC are unable to differentiate risk among banks, deposit insurance is modeled here as a European put option. Estimates of individual bank insurance premiums are generated for both public and private banks, and each model is evaluated on how it prices risk across institutions, indicates bank failure, and covers the cost of bank failure; each model is also evaluated on how its premium estimates compare with historical assessment rates. While the contingent claim models presented in this paper effectively separate strong banks from weaker ones, the models' premium estimates are highly sensitive to minor variations in reported financial data.

Dermine, Jean, and Fatma Lajeri. 2001. Credit Risk and the Deposit Insurance Premium: A Note. *Journal of Economics and Business* 53, no. 5:497–508.

> Previous research on market-based evaluation of deposit insurance premia has modeled the bank as a corporate firm with risky assets and insured liabilities. No attempt was made to analyze explicitly the risk characteristics of bank assets. The purpose of this note is to model bank lending explicitly and calculate loan-risk sensitive insurance premia. The lending function of banks creates the need to model equity as a "capped" call option. A simulation exercise shows that market-based estimates of deposit insurance premia which ignore the cap lead to significant underestimation. (© 2001 EconLit)

Duan, Jin-Chuan, and Jean-Guy Simonato. 2002. Maximum Likelihood Estimation of Deposit Insurance Value with Interest Rate Risk. *Journal of Empirical Finance* 9, no.1:109–32.

> This paper develops a maximum likelihood estimation method for the deposit insurance pricing model of Duan, Moreau, and Sealey (1995). A sample of 10 U.S. banks is used to illustrate the estimation method. The results are then compared to those obtained with the modified Ronn-Verma method used in Duan, Moreau, and Sealey (1995). The authors' findings reveal that the maximum likelihood method yields estimates for the deposit insurance value larger than the ones based on the modified Ronn-Verma method. The authors conduct a Monte Carlo study to ascertain the performance of the maximum likelihood estimation method. The simulation results are clearly in favor of their proposed method. (© Elsevier Science B.V.)

Duffie, Darrell, Robert Jarrow, Amiyatosh Purnanandam, and Wie Yang. 2003. Market Pricing of Deposit Insurance. *Journal of Financial Services Research* 24 no. 2–3:93–119.

This paper presents an approach to the market valuation of deposit insurance that is based on reduced-form methods for the pricing of fixed-income securities under default risk. By reference to bank debt prices as well as qualitative-response models of the probability of bank failure, the authors suggest how a risk-neutral valuation model for deposit insurance can be applied both to the calculation of fair-market deposit insurance premia and to the valuation of long-term claims against the insurer. (© 2003 Kluwer Academic Publishers)

Eisenbeis, Robert A., and Larry D. Wall. 2002. The Major Supervisory Initiatives post-FDICIA: Are They Based on the Goals of PCA? Should They Be? Working Paper 2002-31. Federal Reserve Bank of Atlanta.

In 2001, the FDIC made a number of proposals to reform the existing deposit insurance system. In this paper, the authors question whether these reform proposals are leading in the right direction. That is, are the current initiatives consistent with the goals of FDICIA? According to the authors, the evidence suggests that most supervisory efforts have been directed toward minimizing the probability of failure rather than minimizing the expected losses due to failure. Minimizing expected losses, the authors argue, is where the emphasis should lie.

Falkenheim, Michael, and George Pennacchi. 2003. The Cost of Deposit Insurance for Privately Held Banks: A Market Comparative Approach. *Journal of Financial Services Research* 24, no. 1–2:121–48.

Previous empirical studies that use an option pricing model to estimate deposit insurance costs have been limited to banks that issue publicly traded securities: a bank's security prices are used to infer its risk characteristics. However, if deposit insurance costs are needed for privately held banks, as would be the case under a system of risk-based insurance premiums, then an alternative method is required. This paper presents a "market comparable" approach for valuing private banks' deposit insurance. The approach first uses information on public depository institutions to identify the statistical relationships to predict the risk characteristics of a private depository institution based on its supervisory accounting data. This approach is applied to over 7000 private banks and thrifts to estimate their risk characteristics and their implied risk-neutral and physical probabilities of insolvency. For the vast majority of institutions, these risk characteristics and insolvency probabilities are within a reasonable range. (© Kluwer Academic Publishers)

Laeven, Luc. 2002. International Evidence on the Value of Deposit Insurance. *Quarterly Review of Economic and Finance* 24, no. 4: 721–32.

The goal of this paper is to improve our understanding of the costs and benefits of explicit deposit insurance. To this end, the author compares the opportunity-cost value of deposit insurance services for a large sample of banks drawn from countries with or without explicit deposit insurance. After correcting for certain bank- and country-specific factors, the paper finds that the existence of explicit deposit insurance raises the opportunity-cost value of deposit insurance, but that the presence of a sound legal system with proper enforcement of rules reduces the adverse effects of explicit deposit insurance on the opportunity-cost value of deposit insurance services. These findings suggest that moral hazard and other incentive problems created by existing governmental deposit insurance schemes differ in magnitude between different types of banks and among different countries, and that explicit deposit insurance should not be introduced in countries with weak institutional environments. (© 2002 Elsevier Science B.V.)

Laeven, Luc. 2002. Pricing of Deposit Insurance. Policy Research Paper no. 2871. World Bank.

The purpose of this paper is to provide guidelines for the pricing of deposit insurance in different countries. More specifically, the goals of the paper are twofold: (1) to present several methodologies that can serve as benchmarks for the pricing level of deposit insurance, and (2) to quantify how specific design features affect the price of deposit insurance. Among the paper's findings is that risk diversification and risk differentiation within a deposit insurance system can reduce the price of deposit insurance. More importantly, the paper finds that the actual premiums paid in many countries are lower than the premiums implied by the theoretical model. Consequently, the author argues, deposit insurance is underpriced in many countries around the world.

Morel, Christophe, and Jean-Louis Nakamura. 2000. Fonctions et tarification d'un fonds de garantie bancaire (functions and pricing of deposit insurance). *Revue française d'economie* 15, no. 2:77–116.

The purpose of this research is two-fold. Firstly, it presents the economic justifications for deposit insurance schemes as well as the features of such schemes identified as "optimal" in the literature in order to avoid moral hazard and adverse selection phenomena. Thus, according to the literature, deposit insurance should be limited, compulsory, universal and the fees paid by the banks should directly depend on each bank's risk level. Secondly, it tests two alternative ways of calculation for the fees paid by the banks to the deposit insurance. The first method consists in drawing a comparison between the

insurance fee and a put option, whose price may be calculated from each bank's investment risk. The second proposal relies on a model of banking behavior which determines a "socially optimal" insurance fee. Such a fee should indeed maximise the banks' profits when no bank fails and depositors' indemnities when the bank is going bankrupt. (© 2002 EconLit)

Niinimaki, Juha-Pekka. 2003. Fairly Priced Deposit Insurance under Adverse Selection. *Finnish Economic Papers* 16, no. 1:38–48.

This paper studies the connection between standard insurance theory and deposit insurance. The author extends the Rothschild and Stiglitz model of insurance to deposit insurance. He explains that high-risk banks should receive full coverage and low-risk banks should have only partial coverage. If interest rates can be regulated, low-risk banks can also receive full coverage. The paper uses a price-coverage method of screening, and a model in which both the banker and some depositors know the bank's risk. The author finds that the best solution may be to divide deposits into junior and senior deposits.

Pennacchi, George G. 2001. Estimating Fair Deposit Insurance Premiums for a Sample of Banks under a New Long-Term Insurance Pricing Methodology. In *The Financial Safety Net: Costs, Benefits, and Implications for Regulation, Proceedings of the 37th Annual Conference on Bank Structure and Competition,* 756–76. Federal Reserve Bank of Chicago.

A number of theoretical and empirical studies have applied option pricing methods to value deposit insurance premiums. However, the research is based on models that typically specify a single maturity date for the deposit insurance contract. This paper presents a model for valuing deposit insurance wherein insurance rates are set according to a moving average of the value of the FDIC's exposure to future losses. That is, the methodology involves treating the insurance guarantee as a moving average of several long-term contracts going forward. In addition to calculating fair premiums, the paper also calculates what is referred to as "expected- value" premiums under this overlapping contract or moving-average approach. Expected- value premiums differ from fair- value premiums in that they do not provide compensation for the insurer's exposure to systemic risk. The author holds that this approach results in less volatile insurance premiums and avoids providing banks with a deposit insurance subsidy. However, this stability comes at a price: higher fair- value premiums are needed to compensate taxpayers for their exposure to systemic risk.

Shibut, Lynn. 2002. Should Bank Liability Structure Influence Deposit Insurance Pricing? Working Paper 2002-01. Federal Deposit Insurance Corporation.

In this paper, the author discusses the influence of the banking industry's liability structure on the FDIC's risk exposure, the relationship between this exposure and the assessment base, and various ways in which the FDIC could incorporate the effects of bank liability structure into its price for deposit insurance. For most of the industry, she finds that the FDIC's risk exposure increases when banks move from domestic deposits to other funding sources because decreases in assessment income associated with a smaller assessment base are not offset by reductions in the FDIC's exposure to loss. Because of the benefits of market discipline, however, this result may not hold for banks that rely heavily on unsecured credits. The author outlines three ways to incorporate bank liability structure into the FDIC's pricing policy for deposit insurance: (1) change the assessment base, (2) adjust the pricing matrix, and (3) price directly for risk. She concludes that no such changes should be made in isolation. In particular, issues related to bank size must also be addressed because any change associated with liability structure would effectively shift the assessment burden toward larger banks.

4. Regulation and Supervision of Insured Depository Institutions

The entries in this section deal with the regulation and supervision of insured depository institutions: the appropriate role for bank regulation, alternative regulatory structures, principles of effective regulation, regulatory forbearance and its effect on the cost of bank failures, bank capital regulations, the economic effect of bank regulation, and deregulation.

American Enterprise Institute (AEI). 2000. Reforming Bank Capital Regulation: A Proposal by the U.S. Shadow Financial Regulatory Committee. Policy Statement no. 160. AEI Press.

This statement by the Shadow Financial Regulatory Committee (SFRC) responds to the Basel Committee's 1999 proposal to reform international bank capital standards. The SFRC agrees with the Basel Committee's objective of relying more heavily on market-based risk assessments to determine bank capital standards but believes that the specific proposals under consideration may actually distort the relationship between capital requirements and risk. The SFRC recommends that the current risk-based requirements be replaced by a minimum leverage requirement. The group further recommends that banks be forced to meet these new capital requirements by issuing new subordinated debt; this would align market forces more directly with bank risk measures and would reward or penalize proper or inadequate bank risk management. The SFRC would not, however, reduce the role of bank supervisors and regulators but, instead, would supplement regulation with market discipline.

Association d'économie financière. 2000. *La Revue d'économie financière*, no. 60. [Published in English.]

This issue of the *Revue d'économie financière* focuses exclusively on issues relating to financial security and regulation. The pieces cover five themes: changes in the principles of prudential control, the legal aspects of prudential control, the organization of prudential supervision, supervisory problems posed by particular financial players, and the question of deposit insurance. The articles specifically related to deposit insurance are "The French System of Deposit Insurance," by Charles Cornut; "An Overview of France's New Deposit Insurance System," by Sylvie Matherat and Vitchett Oung; and "Deposit Insurance as a Tool for Banking Supervision," by Christophe Morel. Each of these is abstracted separately.

Barth, James R., Gerald Caprio, Jr., and Ross Levine. 2001. Bank Regulation and Supervision: What Works Best? Policy Research Working Paper no. 2725. The World Bank.

This article draws on a unique World Bank database on bank regulation and supervision in 107 countries to examine the relationship between regulation/supervision on the one hand, and bank performance and financial system stability on the other hand. More specifically, the authors assess the effect of a number of regulatory and supervisory practices, including the regulation of bank capital, permissible bank activities, information disclosure, ownership, the features of deposit insurance schemes, supervisory power, and level of enforcement. The analysis raises cautionary flags about strategies that rely excessively on direct government oversight and restrictions on bank activities. Rather, the regulatory strategies that best promote sector performance and stability are found to be those that empower the private sector and limit the adverse effects of overly generous deposit insurance schemes.

Barth, James R., Gerald Caprio, Jr., and Ross Levine. 2001. The Regulation and Supervision of Banks around the World. Policy Research Working Paper no. 2588. The World Bank.

This paper presents and discusses a new database on the regulation and supervision of commercial banks in 107 countries; included in the database is information on deposit insurance schemes. The data are drawn from a 1998–99 survey of national supervisory and regulatory agencies and covers entry and capital requirements, activity and ownership restrictions, auditing and disclosure requirements, loan classifications and provisioning regulations, troubled-bank resolution activity, supervisory quality, and a number of characteristics ofabout deposit insurance schemes. In addition to providing a basic description of the data, the paper also presents some descriptive statistics, including alternative groupings and aggregations, as well as some simple correlations among selected variables. The database is available at the World Bank's Web site for financial sector research (http://worldbank.org/research/interest/intrstweb/htm).

Barth, James R., Gerard Caprio, Jr., and Ross Levine. 2002. Bank Regulation and Supervision: What Works Best? Working Paper 9323. National Bureau of Economic Research.

Responding to a paucity of evidence on which of the many regulatory and supervisory practices in use around the world work best to promote banking system development and stability, the authors of this paper use information from an international survey to examine the relationship between specific regulatory practices and banking system development, efficiency, and fragility. The data, primarily from 1999, are used to assess which regulations and supervisory practices are associated with greater bank development, performance, and stability. More specifically, the authors examine regulations on permissible bank activities, the mixing of banking and commerce, regulations on domestic and foreign bank entry, capital adequacy, deposit insurance, supervisory power, independence, strictness of enforcement, regulations fostering information disclosure, and government ownership. Broadly, the findings suggest that policies that rely excessively on extensive government oversight of and restrictions on banks may be inferior to regulatory practices that force accurate disclosure, empower private-sector corporate control of banks, and foster incentives for private agents to monitor and exert corporate control.

Beck, Thorsten, Asli Demirgüç-Kunt, and Ross Levine. 2003. Bank Supervision and Corporate Finance. Policy Research Working Paper 3042. World Bank.

Banks provide a substantial proportion of external finance to corporations around the globe. Yet there have been few studies of whether international differences in bank supervision influence the flow of credit to corporations. This paper begins by examining several competing theories about how bank supervisory practices facilitate or retard the flow of credit. It then uses firm-level data on almost 5,000 firms across 49 countries to examine the effect of bank supervision on the accessibility of external capital for private firms. One of the authors' findings is that in countries where strong official supervisory agencies directly monitor banks, firms tend to face greater financing obstacles. However, greater independence of the supervisory agency tends to mitigate the adverse consequences of powerful supervision. Another of the authors' findings is that when bank supervisory agencies both force banks to disclose accurate information and enhance private monitoring, the financing difficulties faced by firms tend to be eased.

Benston, George J. 2000. Is Government Regulation of Banks Necessary? *Journal of Financial Services Reaserch* 18, no. 2–3:185–202.

Banks have been involved with and regulated by governments for hundreds of years. Following a brief review of this history, the author delineates nine reasons that could justify continued regulation, particularly in the United States. These include deposit insurance, preventing banks from obtaining excessive economic power, reducing the cost of individual bank insolvency, avoiding the effects of bank failures on the economy, protecting the payments system, serving the interests of popularly elected officials, enhancing the Federal Reserve's control over the money supply, suppressing competition, and protecting consumers. Analysis of each leads the author to conclude that deposit insurance, which allows banks to hold insufficient capital, is the only public-policy-justifiable rationale for regulation. This concern can be managed with capital requirements; otherwise, banks should only be regulated as are other corporations. (© 2002 EconLit)

Board of Governors of the Federal Rerserve System. 1999. Using Subordinated Debt as an Instrument of Market Discipline. Staff Study no. 172. Board of Governors of the Federal Reserve System.

This report presents the results of a Federal Reserve System study of issues pertaining to the use of subordinated notes and debentures (SND) as policy instruments to achieve market discipline. The study examines the motivations for SND policies, given current banking industry conditions; presents a review of relevant literature discussing the extent to which SND policy can influence market discipline; and analyzes the different operational characteristics of an SND policy.

Board of Governors of the Federal Reserve System and U.S. Department of the Treasury. 2000. The Feasibility and Desirability of Mandatory Subordinated Debt. Report submitted to the Congress pursuant to section 108 of the Gramm-Leach-Bliley Act of 1999. Board of Governors of the Federal Reserve System.

This report assesses whether certain depository institutions and/or depository institution holding companies that are deemed to be systemically important should be required to issue and maintain a minimum amount of subordinated debt. The five primary objectives of a subordinated debt policy would be to improve direct market discipline, improve indirect market discipline, improve transparency and disclosure at depository institutions, increase the size of the financial cushion provided to the federal deposit insurer, and reduce the tendency for depository institution supervisors to forbear resolving a troubled institution. The report concludes that mandated subordinated debt can be expected to encourage market discipline and improve transparency, although it is uncertain whether such a policy would enlarge the deposit insurance financial cushion or dissuade regulators from practicing forbearance. Thus, the Board of Governors of the Federal Reserve System and the Secretary of the Treasury do not support the implementation of a subordinated policy at this time, but they welcome further research into the topic.

Broome, Lissa L., and Jerry W. Markham. 2001. *Regulation of Bank Financial Service Activities: Cases and Materials*. West Group.

This book presents a comprehensive overview of banking regulation and law in the United States and is intended for both academics and practitioners. It covers the history of banking regulation as well as federal, state, and international regulatory issues. It has chapters on bank commercial lending; Gramm-Leach-Bliley and its regulatory implications for the securities, derivatives, and insurance operations of banks; the regulation of thrifts and credit unions; trust activities; geographic expansion, mergers, and antitrust; bank liabilities and capital; and supervision, enforcement, and failed-bank resolution.

Calomiris, Charles W. 2000. *U.S. Bank Deregulation in Historical Perspective.* Cambridge University Press.

Six previously published papers describe how a combination of momentary political bargaining and long-run path dependence has produced the history of American banking regulation and, more recently, deregulation. Papers consider regulation, industrial structure, and instability in U.S. banking in historical perspective; recent models of the origins of banking panics in light of the available evidence; the origins of federal deposit insurance; American finance and the cost of rejecting universal banking based on a comparison with the German case, 1870–1914; the evolution of market structure, information, and spreads in American investment banking; and change in U.S. corporate banking during the 1980s and 1990s and prospects for the future. (© 2002 EconLit)

Chapra, M. Umer, and Tariqullah Jeddah Khan. 2000. Regulation and Supervision of Islamic Banks. Islamic Development Bank, Islamic Research and Training Institute.

This paper considers the regulatory standards and supervisory framework needed for Islamic banks and whether existing international standards of best practice are adequate, given the differences from conventional banks arising from the need to comply with the Shari'ah. It provides background on the history, characteristics, and changing environment of Islamic finance. It addresses questions of prudential regulation and supervision, reviewing international standards and covering issues of capital adequacy and the implications of the emerging risk-weighting systems for Islamic banks, alternatives available for Islamic banks, risk management, internal controls and external audit, transparency, deposit insurance, accounting standards, and the possible establishment of an Islamic Financial Services Board and an International Islamic Rating

Agency. It discusses some of the crucial fiqhi issues that need to be resolved to facilitate the effective supervision of Islamic banks and accelerate their development. (© 2002 EconLit)

Chami, Ralph, Moshin S. Khan, and Sunil Sharma. 2003. Emerging Issues in Bank Regulation. IMF Working Paper WP/03/101. International Monetary Fund.

This paper presents an overview of changes in the banking industry brought about by technology and deregulation, and discusses the challenges faced by international regulators in implementing the bank regulatory framework envisioned by the Basel II Accord. According to the authors, finding the right balance among regulation, supervision, and reliance on market discipline is likely to be very difficult, especially in developing countries.

Das, Udaibir S., and Marc Quintyn. 2002. Crisis Prevention and Crisis Management: The Role of Regulatory Governance. IMF Working Paper WP/02/163. International Monetary Fund.

Regulatory agencies' adherence to good governance practices is a precondition of instilling good governance practices in the supervised sectors. Here, the authors view one of the defining characteristics of good regulatory governance as the capacity to manage resources efficiently and to formulate, implement, and enforce sound policies and regulations. Regulatory governance is seen to apply to those government agencies or institutions that possess the legal power to regulate, supervise, and intervene in the financial sector (including banking, insurance, securities, and payment systems). This paper explores the quality of regulatory governance by analyzing the results of financial system evaluations conducted under the auspices of the Financial Sector Assessment Programs (FSAP) of the International Monetary Fund and the World Bank. In particular, the authors examine four key components of regulatory governance: regulatory independence, accountability, transparency, and integrity. The analysis covers approximately 46 countries that participated in the FSAP effort between 1999 and 2001. On the basis of their review, the authors conclude that banking supervisors are more independent than supervisors of other sectors, while securities regulators perform better on transparency. Insurance regulators appear to be weak in all the components of regulatory governance.

Eisenbeis, Robert A., Frederick T. Furlong, and Simon Kwan, eds. 1999. Financial Modernization and Regulation. *Journal of Financial Services Research* 16, nos. 2/3. Kluwer Academic.

Twelve papers, plus comments, presented at a conference cosponsored by the Federal Reserve Banks of Atlanta and San Francisco in September 1998, identify the reasons for changes in the financial-services sector and the implications for financial supervision and regulation. Papers focus on the relation between interbank transactions and supervisory reform; implications for bank supervision of modernizing financial regulation; theory and evidence regarding the subsidy provided by the federal safety net; the effects of setting deposit insurance premiums to target insurance fund reserves; trends in organizational form and their relationship to performance in the case of foreign securities subsidiaries of U.S. banking organizations; financial regulatory structure and the resolution of

conflicting goals; regulatory distortions in a competitive financial-services industry; how offshore financial competition disciplines exit resistance by incentive-conflicted bank regulators; alternative approaches to financial supervision and regulation; financial modernization and regulation in Japan; a perspective on financial regulation from the United Kingdom; and Europe's single banking market. (© 2002 EconLit)

Elifoglu, I. Hilmi, and James W. Thompson. 2001. When May Examiners Review External Auditors' Workpapers? *Bank Accounting and Finance* 14, no. 2:51–58.

This article summarizes the key elements of the Memorandum (Transmittal 00-19), Reviews of External Auditors' Workpapers, that the FDIC issued on March 21, 2000. The memorandum provides guidance to examiners on situations in which they should review the workpapers prepared by an insured depository institution's external auditor.

Enoch, Charles, David Marston, and Michael Taylor, eds. 2002. *Building Stronger Banks through Surveillance and Resolution*. International Monetary Fund.

The 11 papers collected for this book attempt to set out some common principles of financial-sector surveillance and the resolution of banking-sector problems. The first chapter of the volume examines IMF surveillance and the best-practice standards that serve as a benchmark for judging financial systems. The second part is concerned with banking system "restructuring"—the management and resolution of banking-sector instability. Several papers in the book were subsequently revised and published in the IMF working paper series.

Federal Reserve Bank of Chicago. 2000. *The Changing Financial Industry Structure and Regulation: Bridging States, Countries, and Industries*. Proceedings of the 36th Annual Conference on Bank Structure and Competition.

Papers relevant to deposit insurance include "Bond Market Discipline of Banks," by Donald P. Morgan and Kevin J. Stiroh; "Corporate Valuation and the Resolution of Bank Insolvency in East Asia, " by Simeon Djankov, Jan Jindra, and Leora Klapper; "Are Fiscal Costs of Banking Crises Increased by Poor Resolution Policies," by Patrick Honahan and Daniela Klingebiel; and "The Role of Subordinated Debt in Bank Safety and Soundness Regulation," by Larry Wall. The conference also included panel discussions on reforming bank capital requirements, Too Big to Fail, and other safety net issues. A summary of the conference was published in a special issue of the Chicago Fed Letter (September 2000, no. 157a).

Federal Reserve Bank of Chicago. 2002. *Financial Market Behavior and Appropriate Regulation over the Business Cycle*. Proceedings of the 38th Annual Conference on Bank Structure and Competition.

Conference proceedings include topics such as Financial Market Behavior and Regulation over the Business Cycle; New Concerns in Financial Markets; Optimal Regulatory Policies; The Impact of Regulatory Practices and Regulatory Structure; Bank Capital Reform: Current Status and Open Issues; Bank Behavior and Macroeconomic

Activity; Banking Strategies;Relationship Lending; Consumer Issues; and Geographic Expansion in Banking. Papers that deal specifically with deposit insurance and regulation include "Cyclicality and Banking Regulation," by Alan Greenspan; "Preserving the Independence of Bank Supervision," by John D. Hawke, Jr.; "What Can Bank Regulators Do Better," by Donald E. Powell; "Creating Sound Supervision Practices over the Business Cycle," by Richard Spillenkothen; "An FDIC Approach to Resolving a Large Bank," by John F. Bovenzi; "The Challenges of Regulating Large, International Financial Organizations," by Mark Harding; "Deposit Insurance, Moral Hazard, and Market Monitoring," by Reint Gropp and Jukka Vesala; "Monetary Policy and Bank Supervision," by Vasso P. Ioannidou; "The Choice of Regulators in Banking," by Richard J. Rosen; and "The Basel II Approach to Bank Operational Risk: Regulation on the Wrong Track," by Richard J. Herring.

Feldman, Ron, and Mark Levonian. 2001. Market Data and Bank Supervision: The Transition to Practical Use. Federal Reserve Bank of Minneapolis *Region* 15, no. 3:11–13, 46–54.

Economic research conducted over the last several years has shown that market prices contain information on the riskiness of banking organizations. Can bank supervisors use this information to enhance their assessment of a bank's financial condition? The authors of this essay argue that they can and should. Specifically, the authors offer three ways in which market data should be routinely used in the supervisory process: (1) to help supervisors assess the overall condition of banking institutions, (2) to help them assess the quality of loans and capital, and (3) to facilitate supervisory responses to institutional risk taking. Moreover, the authors recommend that despite some inherent difficulties in using market data, bank supervisors should move quickly to broaden their use of this information so as to gain practical knowledge about the data's strengths and weaknesses and about the best way of using the data to improve the supervisory process.

Feltenstein, Andrew, and Roger Lagunoff. 2003. International versus Domestic Auditing of Bank Solvency. IMF Working Paper WP/03/190. International Monetary Fund.

Transparency in reporting financial information is widely viewed as key to reducing or preventing losses from bank insolvencies. It is unclear, however, just how such transparency is best achieved. In this paper, the authors use a game-theoretic approach to compare the effectiveness of two alternative institutional approaches for auditing bank balance sheets. The first of these is a system of central bank auditing of national banks; the second uses an international agency to facilitate information disclosure. The authors' results show that the international auditor performs at least as well as, and sometimes better than, the central bank auditors, whose performance, in turn, is better than voluntary disclosure by banks themselves.

Frexias, Xavier, and Anthony M. Santomero. 2003. An Overall Perspective on Banking Regulation. Economics Working Papers. Department of Economics and Business, Universitat Pompeu Fabra. [http://www.econ.upf.edu/docs/papers/downloads/664.pdf].

In this paper, the authors try to place in context how asymmetric information theory has affected the issues central to the theories of banking and banking regulation. First, they review the effect of imperfect information on the profession's understanding of why financial markets exist, how they operate, and how they are regulated. Next, the authors identify and discuss the types of market failures that are specific to the banking industry, and the ways in which those failures justify the existence of financial intermediaries. The authors then consider the design and effect of regulation, and they review the function of some primary regulatory instruments as well as the effect that these instruments have on banks' behavior.

Garten, Helen A. 2001. *U.S. Financial Regulation and the Level Playing Field*. Palgrave.

Why have financial modernization and regulatory reform in the United States never led to regulatory simplification? This book attempts to answer that question by examining the forces that drive the U.S. regulatory process. In particular, the author offers an explanation for the apparent contradiction between the United States'U.S.'s stated commitment to freer and more open financial markets and the fact that the nation's financial markets really do not appear all that open or free. In brief, her explanation is that regulation is legitimized to the extent that it improves the level of competitive fairness, or level playing field, that U.S. financial market players demand from their system. Several examples of how regulation is being used to further the competitive fairness of U.S. financial markets are provided.

Gilbert, R. Alton, Andrew P. Meyer, and Mark D. Vaughan. 2000. The Role of a CAMEL Downgrade Model in Bank Surveillance. Working Paper no. 2000-021A. Federal Reserve Bank of St. Louis.

This paper compares two models that seek to predict when bank supervisory ratings will be downgraded to problem status. The first is a model used by the staff of the Board of Governors of the Federal Reserve to predict bank failures; the second is a model estimated specifically to predict downgrades of supervisory ratings. Although both models seem equally effective in predicting downgrades when using historical data from the early 1990s, the downgrade model's predictive power improves over the sample time period and eventually surpasses the effectiveness of the failure model. The authors suggest that the downgrade model may be a useful addition to supervisory analysis, especially during periods in which most banks are healthy, but that it should not supplant traditional supervisory practices.

Gilbert, R. Alton, Andrew P. Meyer, and Mark D. Vaughan. 2002. Could a CAMELS Downgrade Model Improve Off-Site Surveillance? Federal Reserve Bank of St. Louis *Review* 84, no. 1:47–64.

The Federal Reserve's off-site surveillance system—used to identify banks that require closer supervisory scrutiny—includes two distinct econometric models that are known collectively as the System for Estimating Examination Ratings (SEER). One model, the risk-rank model, uses a bank's latest financial statements to estimate the probability that the particular bank will fail within the next two years. The second model, the SEER rating model, uses the same financial information to produce a "shadow" CAMELS rating for each bank. Unfortunately, because the financial data used by the SEER models is backward looking, many of the banks identified by the SEER models have already begun to deteriorate. In this paper, the authors test an alternative model that they hope will better identify banks headed for financial distress. More specifically, the authors' model is used to identify banks with composite CAMELS ratings of 1 or 2 that are likely to receive downgrades to composite ratings of 3, 4, or 5 in the subsequent two years. Over a range of two-year test windows, the authors find that their CAMELS downgrade model outperformed the SEER models by only a small margin. Their downgrade prediction model does have the potential, however, for improved predictions during the early stage of an economic contraction—when downgrades are more frequent but failures are still relatively rare.

Gilbert, R. Alton, and Mark D. Vaughan. 2000. Do Depositors Care about Enforcement Actions? Working Paper 2000-020A. Federal Reserve Bank of St. Louis.

Economists claim that public revelation of bank supervisors' formal enforcement actions will enhance market discipline, whereas supervisors fear that such public disclosure will trigger bank runs. This study examines depositors' reactions to recent Federal Reserve announcments, comparing depositors' reactions to affected banks with their behavior toward banks not named in the announcments. The results demonstrate no evidence of unusual deposit runoffs or significant increases in deposit costs at affected banks, suggesting that the disclosures do not inspire depositor panic. However, although depositors seemed to be indifferent to enforcement announcements in the 1990s, they might be more responsive to such information in a less-favorable banking environment.

Gup, Benton E., ed. 2000. *The New Financial Architecture: Banking Regulation in the 21st Century*. Quorum Books.

This book contains selected writings detailing methods of bank regulation that have been proposed to cope with the rapidly changing financial markets. Titles include "Regulating International Banking: Rationale, History, and Future Prospects," by Ronnie J. Phillips and Richard D. Johnson; "Are Banks and Their Regulators Outdated?" by Benton E. Gup; "Designing the New Architecture for U.S. Banking," by George G. Kaufman; "What Is Optimal Financial Regulation?" by Richard J. Herring and Anthony M. Santomero; "The Optimum Regulatory Model for the Next Millennium—Lessons from International Comparisons and the Australian–Asian Experience," by Carolyn Currie; "Banking Trends and Deposit Insurance Risk Assessment in the 21st Century," by Steven A. Seelig; "Supervisory Goals and Subordinated Debt," by Larry Wall; "Market Discipline for Banks: A Historical Review," by Charles G. Leathers and J. Patrick Raines; "Market Discipline and the Corporate Governance of Banks: Theory vs. Evidence," by Benton E. Gup; "Message to Basel: Risk Reduction Rather Than Management," by Johannes Juttner; and "Drafting Land Legislation for Developing Countries: An Example from East Africa," by Norman J. Singer.

Hall, Maximilian J. B., ed. 2001. *The Regulation and Supervision of Banks.* Volume 1: *The Case for and Against Banking Regulation.* Volume 2: *Deposit Insurance.* Volume 3: *The Regulation of Bank Capital.* Volume 4: *Regulation and Efficiency in Banking*. JAI Press.

This is a four-volume reference collection of articles about the regulation of banks. Volume 1 covers (a) the cases for and against banking regulation, and (b) the design of an "optimal" regulatory frame work.. Volume 2 on deposit insurance examines arguments for and against the its adoption of deposit insurance as well as the problems that may occur in implementing a deposit insurance scheme. Volume 3 explores the issue of capital adequacy assessment, touching on the role played by capital and capital regulation and on the assessment of capital adequacy at international banks. Volume 4 deals with the links between regulation and efficiency in banking.

Han, Intaek. 2002. Governing Financial Markets: Politics and Institutions in the Regulation of Financial Risk. Ph.D. diss., University of California–Berkeley.

The first of the three essays that make up this dissertation revisits the origins of state deposit insurance in the early twentieth century in the United States to understand why otherwise similar states responded to recurring banking crises differently. The author finds that Progressivism, legislative shifts, and interstate competition contributed to the adoption of deposit insurance legislation at the state level. The second essay extends the investigation by studying the adoption of deposit insurance in different countries between 1975 and 1995. By using event-history analysis, the author finds that proportional representation, along with banking crises and diffusion, helps explain deposit insurance adoption. The third essay is motivated by findings from existing studies on deposit insurance that indicate that the effect of deposit insurance on a country's financial stability is not consistent across countries. The essay therefore examines whether three structural characteristics of bank regulatory institutions—functional separation, external interference, and fragmented authority—can explain banking crises. Generally, the study finds that crises in developing countries are better explained by politics and institutions than by banking crises in developed countries.

Heinrichs, Hanna. 1999. *Barings: Leçons pour la réglementation prudentielle des banques*. Editions de l'Université de Bruxelles. [In French without English summary.]

This book dicusses the fall of Barings, focusing on how failures of internal and external controls paved the way for the bank's demise, highlighting obvious gaps in those current control mechanisms, and discussing future regulatory trends. The book begins with a general discussion of recent trends in the banking industry and the evolving goals and functions of bank regulation, especially as they relate to global financial diversification and the new need for cooperation between different regulatory authorities. The author then explains the specific complexities posed by derivatives and the challenges to regulators who seek to implement risk-management controls and capital standards. Finally, the author details the events that led to Baring's failure and draws lessons for the future, suggesting ways in which prudential regulation of banking institutions can be improved to prevent similar collapses.

Jagtiani, Julapa. 2003. Early Warning Models for Bank Supervision: Simpler Could Be Better. Federal Reserve Banks of Chicago's *Economic Perspectives* 27, no. 3:49–60.

Can computer-based models, using publicly available information, be used as off-site early warning systems (EWS) to identify banks that will become inadequately capitalized in the near future? The EWS models analyzed in this article are able to detect the early onset of financial distress one year in advance with a reasonable degree of accuracy. Although simple EWS models do as well as or better than more sophisticated ones, more sophisticated models could provide more detailed information about individual bank strengths and weaknesses. (© 2003 FRB of Chicago)

Jagtiani, Julapa, and Catharine Lemieux. 2000. Market Discipline Prior to Failure. Emerging Issues Series S&R-2000-14R. Federal Reserve Bank of Chicago.

This paper investigates how the bonds issued by bank holding companies are priced when a subsidiary is poised to fail. The findings show that during the period when the subsidy from deposit insurance is most crucial, just before a subsidiary bank's failure, bond spreads increase to indicate the subsidiary's financial deterioration. The implication is that increasing subordinated debt requirements would probably be an effective way to increase market discipline in the banking industry. This mechanism could be made even more accurate with improved and timely disclosures of information.

Jordan, John S. 2000. Depositor Discipline at Failing Banks. Federal Reserve Bank of Boston *New England Economic Review* (March): 15–28.

Uninsured depositors, whose deposits are not fully protected by federal deposit insurance, have an incentive to monitor banks' activities and impose additional funding costs on risky banks. This pricing is a form of market discipline, since the market penalizes banks for taking on greater risk. For banks that become troubled, market discipline can take a more severe form: market participants may become unwilling to supply uninsured funds at any reasonable price. This study examines the effectiveness of depositor discipline at banks that failed in New England in the early 1990s. The empirical analysis examines whether failing banks in New England faced depositor discipline as they became troubled in the early 1990s, and whether these banks attempted to shield themselves from this discipline. Failing banks in New England experienced a 70 percent decline in their uninsured deposits in their final two years of operation. The author finds that despite the magnitude of the gap to fill, and despite the presence of close regulatory scrutiny, many failing banks increased their use of insured deposits enough to offset much of the shortfall created by the decline in uninsured deposits, diminishing the effectiveness of market discipline by depositors. (© 2002 EconLit)

Kaufman, George G., ed. 2000. *Bank Fragility and Regulation: Evidence from Different Countries*. Research in Financial Services: Private and Public Policy, vol. 12. JAI Press.

Ten papers, presented at three invited sessions at the annual meeting of the Western Finance Association in Vancouver in July 2000, contribute to the understanding of the causes, symptoms, and consequences of banking problems by studying banking fragility and regulation in different countries. Papers examine the effects of bank regulation and financial structure on the likelihood and costs of banking crises in a diverse group of countries; the origin, objectives, and functioning of the European Shadow Financial Regulatory Committee and its recommendations; subordinated debt and bank capital reform; challenges to the structure of financial supervision in the European Union;

deposit rate premiums and the demand for funds by thrifts; a regulatory regime for financial stability; the 1997 Market Risk Amendment to the Basel Capital Accord, which formally incorporates banks' internal, market-risk models into regulatory capital calculations, and lessons for the development of internal models-based approaches to bank regulation and supervision; the role of a CAMEL downgrade model in bank surveillance; credit registers and early warning systems of bank fragility; and deposit insurance funding and insurer resource allocation. (© 2002 EconLit)

Kaufman, George G., ed. 2002. *Market Discipline in Banking: Theory and Evidence*. Research in Financial Services: Private and Public Policy, vol. 15. Elsevier Science Ltd.

In recent years, an international consensus has formed among regulatory agencies and academics that the safe and efficient operation of a banking system cannot be guaranteed by regulation and supervisory review alone. Rather, bank regulation needs to be supplemented by market discipline, whereby at-risk bank creditors and other stakeholders have an incentive to monitor the financial performance of the bank and to take action to influence bank management if they find such performance has become too risky or otherwise unsatisfactory. The papers in this volume discuss the advantages of market discipline. They consider the basic role of market discipline, its application to banking and to large nonbank financial institutions, the evidence of its effectiveness to date, and its potential for further integration into the supervisory and regulatory systems. The papers were all presented at special sessions at the annual meeting of either the Financial Management Association International in Dublin, Ireland, in June 2003, or the Western Finance Association in Vancouver, Canada, in July 2003. Papers include “Resolving Large Complex Financial Organizations,” by Robert Bliss; “The Impact of Supervisory Disclosure on the Supervisory Process: Will Bank Supervisors be Less Likely to Downgrade Banks?” by Ron Feldman, Julapa Jagtiani, and Jason Schmidt; “Market Discipline: A Theoretical Framework for Regulatory Policy Development,” by Paul Hamalainen, Maximilian Hall, and Barry Howcraft; “International Financial Conglomerates: Implications for Bank Insolvency Regimes,” by Richard Herring; “Market Discipline and Financial Crisis Policy: A Historical Perspective,” by Michael Bordo; “The Role of Market Discipline in Handling Problem Banks,” by David Llewellyn and David Mayes; “Do Uninsured Depositors Vote with Their Feet?” by Kathleen McDill and Andrea Maechler; “Market Discipline of Fannie Mae and Freddie Mac: How Do Share Prices and Debt Yield Spreads Respond to New Information?” by Robert Seiler, Jr.; “Netting, Financial Contracts, and Banks: The Economic Implications,” by William Bergman, Robert Bliss, Christian Johnson, and George Kaufman; “Interbank Netting Agreements and the Redistribution of Bank Default Risk,” by William Emmons; “Do Jumbo-CD Holders Care about Anything?” by John Hall, Thomas King, Andrew Meyer, and Mark Vaughan; “Bank Loan Underwriting Practices: Can Supervisors’ Risk Assessments Contribute to Early-Warning Systems?” by John O’Keefe, Virginia Olin, and Christopher Richardson.

Kwan, Simon. 2002. The Promise and Limits of Market Discipline in Banking. Federal Reserve Bank of San Francisco *Economic Letter* no. 36 (December 13).

An issue of some importance to bank regulators is how to leverage market discipline to supplement their supervisory efforts. Yet, while the concept of market discipline is promising, a number of practical concerns require careful consideration. This letter discusses the promises and limits of market discipline in banking.

Lin, Wei-Yi. 2000. The Role of the Financial Early-Warning System in Strengthening Financial Supervision and the Deposit Insurance Mechanism. Paper presented at the International Conference on Early-Warning Systems for Financial Crises, Taipei, Taiwan, January 20–21, 2000.

The author discusses the importance of establishing a financial early-warning system, the history and current operating conditions of the financial early-warning system in the Republic of China, the contribution of China's financial early-warning system to the strengthening of financial supervision and the deposit insurance mechanism in that country, the feasibility of using international cooperation to establish a regional financial early-warning system to prevent the occurrence of financial crises, the effect that strengthening the financial early-warning system may have on financial supervision and the deposit insurance mechanism in the future, and the problems that may occur.

Llewellyn, David T. 2000. Some Lessons for Bank Regulation from Recent Crises. Paper no. 51. De Netherlandesche Bank. Also 1999. Some Lessons for Bank Regulation from Recent Crises. Finance and Development Research Programme Working Paper Series, no. 11. Loughborough University. United Kingdom.

This paper discusses the concept of regulatory strategy, which involves optimizing the outcome of the regulatory regime as a whole rather than focusing on any of the particular components. Regulation is one part of the regulatory regime, but other aspects—for example, supervision—are equally important (and shareholders, managers, and the market all have a role in supervising financial firms). The author suggests an optimum "regulatory regime" that has seven key components: regulation, official supervision, incentive structures within banks, market discipline, intervention arrangements and corporate governance arrangements, and the accountability of the regulatory agencies. Since there are trade-offs between the components, effective regulatory strategy needs to focus on the overall effect of the regime and not just on regulation.

Maclachlan, Fiona C. 2001. Market Discipline in Bank Regulation: Panacea or Paradox? *Independent Review* 6, no. 2:227–34.

Central bankers often speak of the three pillars supporting the safety and soundness of the banking system: regulation, supervision, and, increasingly, market discipline. Paradoxically, many recent proposals intended to improve market discipline would in fact undermine it by giving rise to counterproductive regulatory discretion. (© 2001 EconLit)

Malloy, Michael P. 2003. *Principles of Bank Regulation*. 2nd ed. West Group.

This handbook is designed for law students studying the regulation of depository institutions. Chapters that deal specifically with deposit insurance include chapter 2, Entry Rules; chapter 5, Transactional Rules; chapter 7, Securities Regulation; chapter 8, Resolution of Institutional Failures; chapter 9, International Banking; and chapter 10, Bank Regulation and Social Policy.

Mikdashi, Zuhayr. 2003. *Regulating the Financial Sector in the Era of Globalization.* Palgrave Macmillan.

This book examines the interdependent roles that public authorities and business executives have in preventing, containing, and resolving a financial crisis. The author also examines economic, sociopolitical, and managerial factors that are important to the optimal regulation of financial institutions. The author begins with an overview of all the economic risk factors and shows that if the factors are not controlled, they will eventually result in a financial crisis. He then describes the roles that government regulation and supervision play in preventing a crisis. Different aspects of governmental safety nets are examined, as is the effect that international organizations (such as the International Monetary Fund) have on financial stabilization. He concludes with a discussion of the importance of judgment in the assessment and control of risks.

Mishkin, Frederic S. 2000. Prudential Supervision: Why Is It Important and What Are the Issues? Working Paper no. W7926. National Bureau of Economic Research.

This working paper was prepared for the NBER conference “Prudential Supervision: What Works and What Doesn’t?” held in Islamorada, Florida, January 13–15, 2000. It begins with an overview of the asymmetric information problems in the financial system and discusses how banks play a critical role in overcoming these problems. The author then explains why, giving banking institutions’ important role in the financial industry, effective supervision is crucial; and, drawing on the conference papers, he discusses how such supervision can be designed. The paper concludes with a general overview of the papers presented at the conference.

Mishkin, Frederic S., ed. 2001. *Prudential Supervision: What Works and What Doesn’t.* University of Chicago Press.

This volume contains a collection of papers and comments presented at a conference held by the National Bureau of Economic Research in January 2000. Papers include “Prudential Supervision: Why Is It Important and What Are the Issues,” by Frederic S. Mishkin; “Banking Systems around the Globe: Do Regulation and Ownership Affect Performance and Stability?” by James R. Barth, Gerard Caprio, Jr., and Ross Levine; “Supervising Large Complex Banking Organizations: Adapting to Change,” by Laurence H. Meyer; “Market Discipline in Governance of U.S. Bank Holding Companies: Monitoring versus Influencing,” by Robert R. Bliss and Mark J. Flannery; “Can Emerging Market Bank Regulators Establish Credible Discipline? The Case of Argentina, 1992–99,” by Charles W. Calomiris and Andrew Powell; “Dimensions of Credit Risk and Their Relationship to Economic Capital Requirements,” by Mark Carey; “Obstacles to Optimal Policy: The Interplay of Politics and Economics in Shaping Bank Supervision and Regulation Reforms,” by Randall S. Kroszner and Philip E. Strahan; “Synergies between Bank Supervision and Monetary Policy: Implications for the Design of Bank Regulatory Structure,” by Joe Peek, Eric S. Rosengren, and Geoffrey M. B.

Tootell; and "Did U.S. Bank Supervisors Get Tougher during the Credit Crunch? Did They Get Easier during the Banking Boom? Did Iit Matter to Bank Lending?" by Allen N. Berger, Margaret K. Kyle, and Joseph M. Scalise.

Morel, Christophe. 2000. Deposit Insurance as a Tool for Banking Supervision. *Revue d'économie financière*, no. 60:233-44. [Published in English.]

After reminding the reader of the economic justifications of bank regulation, this paper pays particular attention to one of the instruments of this regulation, the deposit insurance. While offering a protection to the depositors, the deposit insurance would allow to prevent bank runs and thus reduce the occurrence probability of a systemic crisis. The author presents the features of such a scheme identified as "optimal" in the academic literature in the sense that they avoid moral hazard and adverse selection phenomena. Thus, ideally, the system should be public and compulsory for all banks; the guarantee should be limited and all-in price; the premium paid by the banks should directly depends on each bank's risk level. (© 2002 EconLit)

Morgan, Donald P., and Kevin J. Stiroh. 2000. Bond Market Discipline of Banks: Is the Market Tough Enough? Staff Report No. 95. Federal Reserve Bank of New York.

This study uses bond spreads, ratings, and bank portfolio data on more than 4,100 new bonds issued between 1993 and 1998 to analyze the disciplinary role of markets. The findings demonstrate that the market prices of bonds serve as efficient indicators of bank risk. Investors assess not only bond ratings but also banks' loans and assets in making their decisions. The market effectively disciplines banks such that an institution undertaking riskier activities can expect to pay higher spreads. But this disciplinary mechanism is less effective for bigger or more-complex banks; the implication is that other means of disciplining bank risk-taking might be appropriate in some cases.

Mwenda, Kaoma Mwenda. 2000. *Banking Supervision and Systemic Bank Restructuring: An International and Comparative Legal Perspective*. London: Cavendish Publishers.

This book, which provides an international, comparative perspective on legal issues in banking supervision and bank restructuring, is based on the premise that banking regulation is most effective when it smoothly and rationally incorporates the legal and extralegal (economic, political, sociocultural, and financial) aspects of supervision. The book examines such contemporary topics as the design and implementation of financial restructuring, the interactions between banks and nonbank financial-service providers and the ways in which these relationships affect bank supervision, methods of preventing and containing contagion problems, and the suitability of having a single prudential regulator. The author draws on various countries' experiences with bank reform efforts to illustrate the pertinent legal issues, while also emphasizing the importance of an interdisciplinary approach to bank regulation.

Norton, Joseph J. 2001 Selective Bank Regulatory and Supervisory Trends upon Entering the 21st Century. *Essays in International Financial and Economic Law*, no. 34. London Institute of International Banking and Development Law.

The first part of this three-part essay examines the environment facing the banking industry and bank supervisors. Special attention is paid to the debate about the structural context of bank supervision, the increasingly legislative nature of modern financial sector reform, the increasing globalization of financial services, and the pursuit of an international financial architecture. The second part of the essay discusses specific supervisory trends, such as the idea of a supervisory "public-private partnership," the redefinition of the "business of banking," and the regulatory issues raised by the existence of large, complex banks. The focus of the final part of the essay is on the need to create more-advanced "portfolio credit risk" approaches to bank supervision and the challenges to doing so.

Nuxoll, Daniel A. 2003. The Contribution of Economic Data to Bank-Failure Models. Working Paper 2003-03. Federal Deposit Insurance Corporation.

The wave of bank failures during the late 1980s and early 1990s was caused partly by a series of regional recessions. This paper examines whether the FDIC can use state-level economic data to forecast bank failures. The author finds that these data do not improve failure prediction models that use only bank-level data. The paper also proposes a number of explanations for this result.

Pages, Henri, and Joaoa A. C. Santos. 2003. Optimal Supervisory Policies and Depositor-Preference Laws. Working Paper no. 131. Bank for International Settlements.

This paper examines the cost of having supervisors continuously monitor a bank in order to have accurate information about the bank's stability. The authors study the trade-off entailed in increasing the time between supervisory visits. On the one hand, increasing the time would reduce auditing costs but, on the other hand, it would increase the likelihood that bank shareholders would have to close the bank. Closings by shareholders are more costly than bankruptcies declared by supervisors. Two types of supervisors are examined: the independent supervisor who realizes only the costs of supervision and of bankruptcy, and the supervisor who also realizes the cost that bankruptcy imposes on the deposit insurance provider. The authors use the second supervisor to study the effect of depositor-preference laws. They find that the effect of these laws on the supervisor's monitoring incentives may lead to contradictory effects on the optimal time intervals between examination visits and closure policy.

Quintyn, Marc, and Michael W. Taylor. 2002. Regulatory and Supervisory Independence and Financial Stability. Working Paper 02/46. International Monetary Fund.

Financial-sector regulatory and supervisory independence (RSI) is important to financial stability. In this paper, the authors maintain that poor supervisory arrangements have been shown to deepen the effects of banking crises. They cite as an example the U.S. banking crisis of the 1990s and the influence of political issues on supervisory

authorities. The discussion focuses on four dimensions of RSI (institutional, regualatory, supervisory, and financial) and how they can be achieved.

Spencer, Peter D. 2000. *The Structure and Regulation of Financial Markets*. Oxford University Press.

This financial textbook analyzes financial products from the perspective of information theory; explains why financial markets and institutions are prone to failure; and addresses how regulation can reduce the risk of failure and how legal and regulatory constraints help shape a country's corporate and financial structures. Discusses asymmetric information in financial markets; adverse selection in the market for retail financial services; the structure and regulation of insurance markets; capital-market microstructure and regulation; information revelation, transparency, and insider regulation; security research and regulation; the equity market and managerial efficiency; the theory of financial intermediation; moral hazard in the bank loan and public bond markets, excessive risk, and bank regulation; bank runs, systemic risk, and deposit insurance; bank regulation in practice; and financial structure and regulation. Includes end-of-chapter exercises. (© 2002 EconLit)

Spong, Kenneth. 2000. *Banking Regulation: Its Purposes, Implementation, and Effects*. 5th ed. Federal Reserve Bank of Kansas City.

This book discusses the motivations and justifications for regulating banks; the history of banking regulation; the definition and structure of banks, bank holding companies, and financial holding companies; the functions of the different bank regulatory agencies; regulations for depositor protection and monetary stability; regulation consistent with an efficient and competitive financial system; regulation for consumer protection; and future trends in banking regulation. Deposit insurance is a major component of the bank regulatory structure and, as such, is thoroughly detailed throughout the book; the author recounts the history of deposit insurance, explains the major pieces of legislation that have shaped the deposit insurance system, and descibes the current purpose and functioning of the FDIC.

U.S. General Accounting Office (GAO). 2000. *Risk-Focused Bank Examinations: Regulators of Large Banking Organizations Face Challenges*. GAO/GGD-08-48. GAO.

This study assesses the new risk-focused approaches to bank examination that are now being used by the Federal Reserve and the Office of the Comptroller of the Currency (OCC). The report describes the new techniques, which assess the effectiveness of banks’ internal controls, and explains how they differ from more traditional practices, which sought to evaluate the quality of bank assets. It also compares the ways in which these two bank regulators implement the risk-focused techniques: the OCC’s large-bank supervision program is highly centralized and standardized, whereas the Federal Reserve’s program displays much less uniformity. Finally, the study looks at the challenges faced by regulators, who must examine ever-larger and more-complex banking organizations.

Walker, George Alexander. 2000. *International Banking Regulation: Law, Policy and Practice*. International Banking, Finance and Economic Law. vol.19. Kluwer Law International.

This volume addresses all aspects of international banking supervision and financial stability. The three main headings (and the subordinate headings under each) are as follows: (1) The Basel Committee on Bank Supervision (International Banking Supervision—Financial Instability and the Establishment of the Basel Committee; International Banking Supervision and the Basel Committee Framework); (2) Financial Conglomerates (Conglomerate Law and International Financial Market Control; Lead Regulation and International Financial Market Supervision); and (3) Financial Stability (International Financial Crisis and the Financial Stability Forum; Observations with Regard to the Continued Development of International Banking and Financial Market Supervision and Control).

Walker, George Alexander. 2001. *International Banking Regulation: Law, Policy, and Practice*. Kluwer Law International.

This book examines the current regulatory framework for international banks. It details the story of the collective efforts of national regulatory authorities to deal with the threats to a single global financial market and to reduce the risks of systemic crisis. It recounts the financial crises of the past 25 years and discusses the regulatory responses to them, beginning with the establishment of the Basel Committee on Banking in 1975.

Walker, David. 2002. Comprehensive Early Warning Systems and the Experience of the Canada Deposit Insurance Corporation (CDIC). South East Asian Central Banks Research and Training Centre (SEACEN).

In its role as a deposit insurer charged with minimizing its exposure to loss, the Canada Deposit Insurance Corporation (CDIC) has developed various approaches to assess its risk exposure through an early warning system (EWS) for member financial institutions. This paper sets out the development of CDIC’s early warning system. Development of the early warning system draws on the CDIC’s experience with the failure of 43 member institutions during the past three decades. The key conclusion of the paper is that a well-designed EWS can be effective for the early detection of problem institutions.

Weinberg, John A. 2002. Competition Among Bank Regulators. Federal Reserve Bank of Richmond’s *Economic Review* 88, no. 4:19–36.

When banks can choose among multiple regulators, how does the interaction of the regulators affect the performance of the banking industry? This question is addressed in the context of a bank regulation model that emphasizes the role of bank examinations used to monitor banks' choices of risky investments. (© 2002 FRB of Richmond)

White, Lawrence J. 2002. Bank Regulation in the United States: Understanding the Lessons of the 1980s and 1990s. *Japan and the World Economy* 14, no. 2:137–54**.**

This paper discusses the importance of safety-and-soundness regulation of banks. The author outlines why this type of regulation is important to maintaining stability in banking and in the U.S. economy in general. He then describes the lessons that can be learned from the lapses of safety-and-soundness regulation that occurred over the past two decades—lapses that led to the insolvency of many savings institutions and commercial banks in the 1980s and 1990s.

5. Role of Deposit Insurance in Bank Failures

Entries in this section focus on bank failures and the role deposit insurance played in those failures: the underlying causes of bank crises, failed-bank resolution methods, bank closure rules, the cost of failed-bank resolutions, and historical perspectives on the U.S. savings and loan debacle and the commercial bank crisis of the 1980s and early 1990s.

Acharya, Viral V., and Tanju Yorulmazer. 2003. Information Contagion and Inter-Bank Correlation in a Theory of Systemic Risk. C.E.P.R. Discussion Paper no. 3743. Centre for Economic Policy Research.

In this paper, the authors explore two aspects of systemic risk: first, the ex post aspect in which the failure of one bank brings down a surviving bank; and second, the ex ante aspect in which banks endogenously hold correlated portfolios that increase the likelihood of joint failure. In the authors' model, when bank loan returns have a systemic factor, the failure of one bank conveys adverse information about this systemic factor and increases the cost of borrowing for the surviving banks. Such information contagion is costly to bank owners. Given banks' limited liability, they herd ex ante and undertake correlated investments to increase the likelihood of joint survival. If depositors of a failed bank can migrate to the surviving bank, then herding incentives are partially mitigated. This, in turn, gives rise to a pro-cyclical pattern in the correlation of bank loan returns.

Andrews, Michael, and Mats Josefsson. 2003. What Happens after Supervisory Intervention? Considering Bank Closure Options. IMF Working Paper WP/03/17. International Monetary Fund.

Closing a bank often becomes necessary when other measures have failed to resolve problems at a weak bank. Bank supervisors, however, have often delayed closing failing institutions because of concerns about potential economic disruptions and a reluctance to impose losses on depositors. In this paper, the authors argue that timely, well-planned closures can mitigate most disruptions while preserving essential banking services. In addition to discussing failure resolution policies, the authors offer some guiding principles for the successful resolution of failing banks.

Ashcraft, Adam B. 2003. Are Banks Really Special? New Evidence from the FDIC-Induced Failure of Healthy Banks. Staff Report no. 176. Federal Reserve Bank of New York.

Do bank failures affect economic activity? To answer this question, the author examined the local economic effects associated with the FDIC's closure of healthy banks: in 1988 and 1992, the FDIC used its cross-guarantee authority to close healthy bank subsidiaries when the lead banks in the parent organizations became insolvent (the cases involved First RepublicBank Corporation and First City Bancorporation). In examining these cases, the author finds evidence of a significant decline in bank lending that led to a long-term reduction in real county income of about 3 percent. On the basis of this finding, the author concludes that the closure of healthy banks does have a significant and perhaps permanent effect on real economic activity.

Baltazar, Ramon, and Michael Santos. 2003. The Benefits of Banking Mega-mergers: Event Study Evidence from the 1998 Failed Mega-merger Attempts in Canada. Revue Canadienne des Sciences de l'Administration/Canadian Journal of Administrative Sciences 20, no. 3:196–208.

In this paper, the authors seek to infer the benefits of and motivations behind bank megamergers by examining the stock market's reaction to three events surrounding the 1998 failed megamerger attempts in the Canadian banking industry. Using traditional event-study methods that look for abnormal returns, the authors conclude that market power—not scale, scope, or X-efficiency economies, or access to government safety-net subsidies—was the primary benefit ascribed by shareholders to the merger proposals. The authors' finding that enhancing market power was the most likely motive for the proposed mergers is at least consistent with the rationale provided by Canadian regulators for rejecting the merger proposals.

Bennet, Rosalind L. 2001. Failure Resolution and Asset Liquidation: Results of an International Survey of Deposit Insurers. *FDIC Banking Review* 14, no. 1:1–28.

In January 2000, the FDIC surveyed 73 foreign deposit insurance agencies regarding their failure-resolution and asset-liquidation practices. This article reports on the nature and extent of those practices and compares them with the resolution policies and practices of the FDIC. The comparison indicates that the FDIC is uniquely empowered to act expeditiously in resolving bank failures, in disposing of failed-bank assets, and in reimbursing insured depositors. The author suggests that some of the failure-resolution techniques developed by the FDIC might be effectively applied in other countries.

Hoshi, Takeo. 2002. The Convoy System for Insolvent Banks: How It Originally Worked and Why It Failed in the 1990s. *Japan and the World Economy* 14, no. 2: 155–80.

This paper assesses the effectiveness of the policies of the Japanese Ministry of Finance in the 1990s regarding bank safety and soundness. More specifically, the paper examines the ministry's use of regulatory rewards to motivate healthy banks to acquire insolvent banks in Japan. The author finds that this "convoy" system worked well before the 1980s, but then financial deregulation caused regulatory rents to fade—reducing the incentive for healthy banks to acquire insolvent ones. Thus, the convoy system lost its effectiveness. In response, the Japanese government expanded the financial assistance program offered by the Deposit Insurance Corporation (DIC) to try to achieve the same goal: motivating healthy banks to acquire insolvent ones. The author uses case study methodology and regression analysis to assess the effectiveness of this policy. He concludes that the expansion of the DIC's program created a moral hazard.

Kaufman, George G. 2003. A Proposal for Efficiently Resolving Out-of-the-Money Swap Positions at Large Insolvent Banks. Working Paper no. 2003-01. Federal Reserve Bank of Chicago.

Bank regulators in the United States have experience in efficiently resolving the on-balance-sheet activities of fairly large insolvent banks. Yet regulators have little experience in resolving the so-called off-balance-sheet activities of large banks, particularly a bank's out-of-the-money swap positions. Consequently, there is a perception that rather than terminating these contracts and risking fire-sale losses that could cause excessive volatility in the financial markets, the regulatory agencies will instead transfer such positions to solvent banks. This paper develops a proposal for resolving these positions without requiring either abrupt terminations of the positions or protection of the bank's in-the-money counterparties. The proposal calls for the net swap positions to still be transferred to an assuming party, but the counterparties would be charged a fee (similar to a depositor haircut) that is equivalent to the loss rate applied to other at-risk stakeholders of the insolvent bank. This procedure would avoid adverse spillovers from abrupt termination of the swap positions, while maintaining market discipline. That is, it would ensure that swap counterparties and other uninsured claimants remained at risk.

Kaufman, George G. 2003. Depositor Liquidity and Loss-Sharing in Bank Failure Resolutions. Working Paper no. 2003-02. Federal Reserve Bank of Chicago.

After a bank fails, uninsured depositors often face restricted access to their uninsured deposits. These liquidity-related losses are in addition to any losses suffered in the value of their deposit holdings. One way to mitigate these liquidity losses (and their potential adverse affects on real economic activity) is for the government or bank regulator to advance a payment—one equivalent to the estimated recovery value of the party's uninsured deposits before final resolution of the failed institution. This paper analyzes the pros and cons of providing quick depositor access to uninsured deposits at failed banks and concludes that the use of advance payments in the United States materially improves the ability of regulators to resolve large insolvencies without bailouts.

Kaufman, George G., and Steven A. Seelig. 2000. Post-Resolution Treatment of Depositors at Failed Banks: Implications for the Severity of Banking Crises, Systemic Risk, and Too-Big-To-Fail. Working Paper no. WP-00-16. Federal Reserve Bank of Chicago.

This paper examines the sources of potential depositor losses in bank resolutions, focusing in particular on the losses incurred when regulatory delays impede access to depositors' monies at insolvent banks. Although the possibility of such losses can induce depositors to monitor and discipline their banking institutions, it can also inspire depositors to pressure regulators to protect all deposits. In determing the optimal delay time, one must balance the potential gains from additional market discipline against the losses from increased bailout pressure. To this end, the paper assesses depositor access and funds availability at insolvent institutions as reported in a recent FDIC survey of deposit insurance practices across 64 countries. The survey indicates that the United States is one of the few countries whose deposit insurer does not freeze funds but advances monies almost immediately after a failure. In contrast, many other nations impose financial and legal restrictions that delay payments to both insured and uninsured depositors. The paper argues that the best strategy for achieving bank-system stability is to provide depositors with full and immediate access to their funds.

Krieg, John Michael. 1999. Four Essays on Deposit Insurance, Bank Branching, and Bank Performance (Profitability). Ph.D diss., University of Oregon.

This dissertation examines the effect that bank branching restrictions and deposit insurance guarantees have on bank failures and bank profitability in the United States. The work begins with an historical overview of bank branching and deposit insurance, positing that legislation designed to preclude extensive branching also prevented banks from adequately diversifying their assets and thus was a major factor contributing to the massive number of bank failures during the Great Depression. These failures, in turn, led to the establishment of the deposit insurance program, which was meant to safeguard the stability of the banking system. However, deposit insurance itself can actually contribute to bank failures, inasmuch as the safety net encourages banks to undertake riskier activities while holding less bank capital.

Morris, Roselyn E., and Jerry R. Strawser. 1999. An Examination of the Effect of CPA Firm Type on Bank Regulators' Closure Decisions. *Auditing* 18, no. 2:143–58.

This study examines whether the type of accounting firm that audits a bank influences that bank's chances of being closed by regulators. The authors find that when banks' financial and other characterisitics are held constant, the type of CPA firm (Big 6 or non–Big 6) that performs a bank's audit does in fact help determine regulators' decisions. Specifically, banks that engaged Big 6 firms were more likely to be left open. Of all banks that received modified audit opinions, the institutions that had been audited by a Big 6 firm were less likely to be closed than those that received the opinion from a non–Big 6 firm. One explanation for this result is that regulators may perceive Big 6 firms as more likely than other firms to issue modified audit opinions because the Big 6 face greater economic and legal risks (loss of clients, litigation) if they are found negligent in conducting audits or reporting results.

Olson, G. N. 2000. *Banks in Distress: Lessons from the American Experience of the 1980s*. Kluwer Law International.

In this book the author offers his perspectives on the lessons to be drawn from the U.S. banking crisis of the 1980s. The work includes an historical review of banking in the United States, with particular focus on the policies that gave rise to the crisis. The author argues that uncoordinated monetary and fiscal policies combined with haphazard implementation of bank regulatory and enforcement policies to produce the crisis. The book also highlights the critical role played by asset valuation, asset-value inflation and deflation, and capital adequacy in the development and enactment of an effective regulatory regime. Finally, the author suggests that governments need to design more transparent, coordinated, and proactive policies to ensure stability in their financial sectors.

Seidman, L. William. 2000. *Full Faith and Credit: The Great S&L Debacle and Other Washington Sagas*. 2d ed. Washington, D.C.: Beard Books.

This memoir documents the author's tenure as Chairman of the FDIC and the Resolution Trust Corporation during the U.S. savings and loan and banking crises of the 1980s. He delineates the causes of the S&L crises and details the ways in which the bank regulatory agencies—the FDIC in particular—worked to resolve the financial institutions' problems. He also provides political insight, describing his dealings with bureaucrats, lawmakers, politicians, and the press.

Sprague, Irvine H. 2000. *Bailout: An Insider's Account of Bank Failures and Rescues*. 2d ed. Washington, D.C.: Beard Books.

This book, by a former Chairman and Board member of the FDIC, examines the largest bank bailouts of the 1980s, focusing specifically on Unity Bank, Bank of the Commonwealth, First Pennsylvania Bank, and Continental Illinois. As interest rates soared in the late 1970s and early 1980s, banks and savings and loan associations suffered severely, and hundreds of financial institutions failed. In the face of this financial crisis, the author reveals the inner workings of the FDIC and provides a personal account of the Corporation's approach to bank failures, rescues, and resolutions.

6. Economics of Deposit Insurance

Entries in this section are more academic than entries in the other sections and focus on the following: bank risk taking, managerial incentives, bank stability, portfolio choice, charter values and shareholder return, and bank capital regulation. Also discussed are the costs and benefits of deposit insurance.

Bartholdy, Jan, Glenn W. Boyle, and Roger D. Stover. 2003. Deposit Insurance and the Risk Premium in Bank Deposit Rates. *Journal of Banking and Finance* 27, no. 4:699–717.

By placing a ceiling on the amount of possible depositor loss, deposit insurance should result in a lower deposit risk premium. However, this effect may be modified if either the insurance promise has low credibility or the moral hazard incentives generated by deposit insurance result in a greater probability of bank default. Using financial and institutional panel data from thirteen countries, the authors find that the risk premium is over 40 basis points higher on average in uninsured countries than in countries that offer insurance up to some pre-specified maximum. However, the risk premium has a non-linear relationship with the level of maximum insurance coverage, suggesting that the market recognizes the moral hazard potential. Moreover, the effect of deposit insurance on the risk premium is weaker in countries with strong creditor rights, consistent with the view that investors view the latter as a substitute for explicit deposit insurance. (© Elsevier Sciences B.V.)

Biswas, Rita, Donald R. Fraser, and Gregory Hebb. 2000. On the Shareholder Wealth Effects of Deposit Insurance Premium Revisions on Large, Publicly Traded Commercial Banks. *Journal of Financial Research* 23, no. 2:223–41.

This paper analyzes market responses to several deposit insurance premium change announcements. The authors find that announcements of premium changes are negatively associated with abnormal returns in banking institutions' share values. These results are generally consistent with the premium absorption theory. However, the market adjustments to deposit insurance premium revisions vary with the type of bank; large banks are more affected than smaller ones. Further, share values are more affected at banks with low equity-to-asset ratios than at well-capitalized banks. The authors suggest these differences may reflect the differing competitive nature of the markets served by individual banks in that market competitiveness may affect a bank's ability to shift the cost of deposit insurance to its loan and deposit customers.

Boyd, John H., Chun Chang, and Bruce D. Smith. 2002. Deposit Insurance: A Reconsideration. *Journal of Monetary Economics* 49 no. 6:1235–60.

This paper undertakes a simple general equilibrium analysis of the consequences of deposit insurance programs, the way in which they are priced, and the way in which they fund revenue shortfalls. In the author's model of the economy, the central issue in analyzing deposit insurance is how the government will make up any FDIC losses.

Deposit insurance premia matter only in so far as they affect the level of implied FDIC revenue shortfalls. Moreover, local variations in the magnitude of FDIC losses will generically be irrelevant for the determination of any equilibrium quantities that affect agent welfare. However, large enough changes in these losses can "matter". There is no presumption that keeping these shortfalls low is a "good idea". Finally, the authors show that multiple Pareto-ranked equilibria can be observed. The potential for multiplicity of equilibria may depend on components of FDIC policy. The analysis provides counterexamples to the following prescriptions: (1) Actuarially fair pricing of deposit insurance is always undesirable. (2) Implicit FDIC subsidization of banks through deposit insurance is always undesirable. (3) "Large" FDIC losses are necessarily symptomatic of a poorly designed deposit insurance system. (4) Risk-based deposit insurance premia can easily be used to reduce moral hazard problems associated with deposit insurance provision. (© Elsevier Science B.V.)

Carow, Kenneth A., and Edward J. Kane. 2002. Event-Study Evidence of the Value of Relaxing Long-Standing Regulatory Constraints on Banks, 1970–2000. *Quarterly Review of Economics and Finance* 42, no. 3:439–63.

In a partial-equilibrium model, removing a binding constraint creates value. However, in general equilibrium, the stakes of others parties in maintaining the constraint must be examined. In financial deregulation, the fear is that expanding the scope and geographic reach of very large institutions might unblock opportunities to build market power from informational advantages and size-related safety-net subsidies. This paper reviews and extends event-study evidence about the distribution of the benefits and costs of relaxing long-standing geographic and product-line restrictions on U.S. financial institutions. The evidence indicates that the new financial freedoms may have redistributed rather than created value. Event returns are positive for some sectors of the financial industry and negative for others. Perhaps surprisingly, where customer event returns have been investigated, they prove negative. (© 2002 Elsevier Science B.V. / 2002 Board of Trustees of the University of Illinois)

Cooper, Russell, and Thomas W. Ross. 2002. Bank Runs: Deposit Insurance and Capital Requirements. *International Economic Review* 43, no. 1:55–72.

The seminal article by Diamond and Dybvig (1983) provides a theoretical model of intermediation in which deposit insurance can eliminate socially undesirable bank runs. However, it has been shown in the literature that deposit insurance is associated with a reduction in the incentives for depositors to monitor their financial institutions, and this reduction in incentives to monitor gives rise to riskier investments by intermediaries. In this paper, the authors extend the Diamond-Dybvig model to evaluate the costs and benefits of deposit insurance in the presence of moral hazard by banks and monitoring by depositors. From the perspective of their model, the authors demonstrate that the best solution is achievable when a combination of policies is used: deposit insurance to eliminate bank runs, and capital requirements to overcome the adverse incentive problems associated with the provision of deposit insurance.

Cordella, Tito, and Eduardo Levy Yeyati. 2002. Financial Opening, Deposit Insurance, and Risk in a Model of Banking Competition. *European Economic Review* 46, no. 3:471–85.

In this paper, the authors evaluate the effect of increased competition on banks' risk-taking behavior under different assumptions about deposit insurance and information disclosure. The authors do this by using a spatial competition framework that allows for different levels of insurance coverage. Solutions to the model show how the disciplining effect of full disclosure (risk-based deposit insurance) is a negative (positive) function of the level of insurance coverage and how, in the limit, both full disclosure and risk-based deposit premiums can fully eliminate the moral-hazard problem.

Covitz, Daniel M., Diana Hancock, and Myron L. Kwast. 2002. Market Discipline in Banking Reconsidered: The Roles of Deposit Insurance Reform, Funding Manager Decisions, and Bond Market Liquidity. Finance and Economics Discussion Series, no. 2002–46. Board of Governors of the Federal Reserve System.

Bank supervisors have been studying the potential of using the risk sensitivity of the yield spread on a banking organization's subordinated debt issuances both as an indicator of an organization's health and as a potential means through which the market could discipline a firm's behavior. In this paper, however, the authors demonstrate that estimates of risk premiums on subordinated debt can be seriously biased (in both directions) because the interest-rate spreads on subordinated debt contain liquidity premiums that are partly driven by the risk sensitivity of the funding manager's decisions. In light of this finding, the authors argue that mandating the regular issuance of subordinated debt would improve the informational content of secondary market spreads by reducing the endogeneity of liquidity premiums. With the liquidity premiums minimized, interest-rate spreads would represent a cleaner signal about the health of the banking organization.

Cull, Robert, Lemma W. Senbet, and Marco Sorge. 2002. The Effect of Deposit Insurance on Financial Depth: A Cross-Country Analysis. *Quarterly Review of Economics and Finance* 42, no. 4:673–94.

Deposit insurance schemes are primarily intended to reduce the risk of systemic failure of banks and hence to stabilize the payments and financial systems. Deposit insurance is, however, a double-edged sword. The incentive problems facing depository institutions can be severe in lax regulatory environments and lead to greater systemic instability. In this paper, the authors provide an agency-theoretic framework to characterize the impact of deposit insurance and conduct an empirical study using a unique dataset provided by the World Bank. They find that where the regulatory environment is weak and the banking sector unstable, adopting explicit deposit insurance is associated with subsequent short-run declines in financial depth. Adopting explicit deposit insurance to counteract instability in the financial sector does not appear to solve the problem. Given their short time horizons and the effect that financial development may have for economic growth, policy makers may be interested in these results. As in other cases, when, where, and why authorities adopt a policy may be as important as the policy itself. (© 2002 Elsevier Science B.V. / 2002 Board of Trustees of the University of Illinois)

Dekle, Robert, and Kenneth Kletzer. 2003. The Japanese Banking Crisis and Economic Growth: Theoretical and Empirical Implications of Deposit Guarantees and Weak Financial Regulation. *Journal of the Japanese and International Economies* 17, no. 3:305–35.

An endogenous growth model with financial intermediation is used to show how government policies towards the financial sector can lead to banking crises and persistent growth slumps. The model shows how government deposit guarantees and regulatory forbearance can lead to permanent declines in the growth rate of the economy. The effects of inadequate prudential supervision on asset price dynamics under perfect foresight are also derived in the model. The policies that are used in the analysis are based on essential features of Japanese financial regulation. The implications of the model are compared to the experience of the Japanese economy and financial system during the 1990s. The authors find that the dynamics predicted by their model are generally consistent with the recent behavior of economic aggregates, asset prices, and the banking system for Japan. A policy implication of the model is that the impact on future economic growth depends upon the length of time the government fails to enforce loan-loss reserving by banks. (© 2003 Academic Press / © 2003 Elsevier Science B.V.)

Demirgüç-Kunt, Asli, and Enrica Detragiache. 2000. Does Deposit Insurance Increase Banking System Stability? An Empirical Investigation. Policy Research Working Paper no. 2247. The World Bank.

This study analyzes panel data for 61 countries during 1980–97 and concludes that explicit deposit insurance tends to be detrimental to bank stability, the more so where bank interest rates are deregulated and the institutional environment is weak. Also, the adverse impact of deposit insurance on bank stability tends to be stronger when the coverage offered to depositors is extensive, when the scheme is funded, and when it is run by the government rather than by the private sector. (© 2002 EconLit)

Diamond, Douglas W., and Philip H. Dybvig. 2000. Bank Runs, Deposit Insurance, and Liquidity. Federal Reserve Bank of Minneapolis *Quarterly Review* 24, no. 1:14–23.

This article develops a model which shows that bank deposit contracts can provide allocations superior to those of exchange markets, offering an explanation of how banks subject to runs can attract deposits. Investors face privately observed risks which lead to a demand for liquidity. Traditional demand deposit contracts which provide liquidity have multiple equilibria, one of which is a bank run. Bank runs in the model cause real economic damage, rather than simply reflecting other problems. Contracts which can prevent runs are studied, and the analysis shows that there are circumstances when government provision of deposit insurance can produce superior contracts. (© 2002 EconLit)

Dowd, Kevin. 2000. Bank Capital Adequacy versus Deposit Insurance. *Journal of Financial Services Research* 17, no.1:7–15.

This paper re-evaluates the Diamond-Dybvig analysis of deposit insurance by constructing a model in which an agent not in need of liquidity sets up a financial intermediary to sell liquidity insurance to other agents who desire such insurance. This

intermediary resembles a real-world bank in that it is financed by both demand deposits and equity. It also dominates the Diamond-Dybvig intermediary, which is funded only by demand deposits. Provided the intermediary has adequate capital, it also is perfectly safe. Deposit insurance then is both unnecessary and incapable of achieving a superior outcome to that which private agents could achieve on their own. (© 2002 EconLit)

Evanoff, Douglas D., and Larry D. Wall. 2002. Subordinated Debt and Prompt Corrective Regulatory Action. Working Paper 2002-18. Federal Reserve Bank of Atlanta.

Several recent studies have recommended greater reliance on subordinated debt as a tool to discipline bank risk taking. Some of these proposals even recommend using yield spreads on subordinated debt as additional triggers for supervisory discipline under prompt corrective action (PCA). Currently, PCA is prompted by capital adequacy measures. This paper provides a theoretical model describing how the use of a second market measure of bank risk could improve bank discipline. The authors then empirically evaluate the implications of the model. Their findings suggest that subordinated debt spreads dominate the current capital measures used to trigger regulatory actions under PCA.

Fan, Rong, Joseph G. Haubrich, Peter Ritchken, and James B. Thompson. 2003. Getting the Most Out of a Mandatory Subordinated Debt Requirement. *Journal of Financial Services Research* 24, no. 2–3:149–79.

Recent advances in asset pricing—the reduced-form approach to pricing risky debt and derivatives—are used to quantitatively evaluate proposals for mandatory bank issue of subordinated debt. The authors' results show that the credit spreads on both fixed- and floating-rate debt provide relatively clean signals of bank risk and are not unduly influenced by nonrisk factors. Fixed-rate debt with a put is unacceptable, but making the putable debt floating resolves most problems. The authors claim that their approach also helps to clarify several different notions of "bank risk". (© 2003 Kluwer Academic Publishers)

Gangopadhyay, Shubhashis, and Gurbachan Singh. 2000. Avoiding Bank Runs in Transition Economies: The Role of Risk Neutral Capital. *Journal of Banking and Finance* 24, no. 4:625–42.

In a general equilibrium model with risk neutral and risk averse agents, the authors show that if banks issue both demand deposits and equity, then free banking is run-proof and efficient. In particular, the authors obtain the first best insurance solution if there is adequate risk neutral capital. If sufficient risk neutral capital is unavailable, then a partial suspension of convertibility is optimal. In general, therefore, policies like capital adequacy norms and deposit insurance are neither necessary nor desirable. (© 2002 EconLit)

Garrett, Thomas A., Gary A. Wagner, and David C. Wheelock. 2003. A Spatial Analysis of State Banking Regulation. Working Paper 2003-044B. Federal Reserve Bank of St. Louis.

This study uses an econometric model to examine the correlation between a state's choice of banking regime and the banking regulations adopted by neighboring states. The results illustrate that spatial effects have a significant influence on individual state bank regulatory regime decisions. On the basis of their findings, the authors recommend that spatial effects be considered in other areas of state regulatory policy.

Giannetti, Mariassunta. 2003. On the Causes of Overlending: Guarantees on Deposits, Transparency, and Financial Development. CEPR Discussion Paper no. 4055. Centre for Economic Policy Research.

This paper opposes the traditional concept that overlending problems in underdeveloped financial systems are a consequence of investor moral hazard caused by government guarantees on deposits. The author refutes this idea and, instead, blames the overlending in undeveloped financial systems on the low cost of funds during the initial phases of financial liberalization. Because investors do not have concrete information about lending booms and the quality of a bank's assets, they will make deposits at low interest rates. Later, during equilibrium, they will require a risk premium when they think the bank has a positive probability of default. In response, the bank will stop renewing bad loans. This outcome does not depend on whether or not there are guarantees on deposits. The author concludes that increased transparency can improve financial stability because of the indirect effects of transparency on the structure of bank–firm relationships and on the financial markets.

Granik, Anton. 2003. Essays in Monetary Policy and Banking. Ph.D. diss., Columbia University.

The second essay of this dissertation explores the usefulness of conducting supervisory bank examinations. It surveys the recent empirical literature from two perspectives: (1) the potential contribution of supervisory bank data to macroeconomic forecasts, and (2) the adoption by the government of a more market-oriented approach to bank supervision. Findings from this review suggest that although supervisory data are of limited use for central bank forecasts of inflation and unemployment, such information might still be helpful to private forecasters. In addition, it appears that markets correctly assess changes in bank financial conditions and that government oversight generates little information that goes beyond existing public knowledge.

Grossman, Richard S. 2001. Double Liability and Bank Risk Taking. *Journal of Money, Credit and Banking* 33, no. 2:144–59.

This article examines double liability as it existed in the United States before the establishment of federal deposit insurance and assesses whether banks in states with double-liability laws undertook less risk than banks in states operating under conventional limited liability. The author finds that in times of relative financial calm, double liability was consistent with reduced bank risk taking (as evidenced by higher capital ratios and liquidity ratios) and lower failure rates. During times of severe financial disruption, however, double liability seems not to have contributed to financial stability. In fact, during tumultuous financial times, double liability seems to have been associated with greater levels of instability.

Gunther, Jeffrey W., Linda M. Hooks, and Kenneth J. Robinson. 2000. Adverse Selection and Competing Deposit Insurance Systems in Pre-Depression Texas. *Journal of Financial Services Research* 17, no. 3:237–58.

In 1910, Texas instituted a unique deposit insurance program for its state- chartered banks by providing a choice between two separate plans: the depositors guaranty fund, similar to insurance schemes in several other states, and the depositors bond security system, which required the procurement of a privately issued guarantee of indemnity. While, under most deposit insurance schemes, the incentive to monitor the financial condition of individual banks simply devolves from depositors to regulators, the bond security system established in Texas distinguished itself by attempting to reintroduce market discipline through the indemnity requirement. Using a probit model with heteroskedasticity, the authors find evidence that the choice of insurance coverage led to risk-sorting among the banks, with relatively conservative and financially secure institutions opting for the comparatively rigorous bond security system. In addition, the bank failure record indicates the risk differentials between banks in the two plans persisted over time and even possibly grew, suggesting the bond security system at least partially avoided the moral hazard incentives associated with the fixed-rate depositors guaranty plan. These findings support the general view that market discipline is effective in banking. (© 2002 EconLit)

Hanousek, Jan, and Richard Podpiera. 2001. Detekce bankovnich selhani v tranzitivnich ekonomikach: Pripad CR (Detection of Bank Failures in Transition Economies: The Case of the Czech Republic). [With English summary.] *Finance A Uver* 51, no. 5:252–64.

This paper studies bank-failure models in the context of transition economies. In order to capture the default risk of banks, data on the structure of retail deposit rates is used to improve the prognostic quality of bank-failure prediction. The Czech bank crisis of 1994-1996, during which 14 banks failed, is used to verify the suggested approach. It is shown that banking supervision did not have—most likely given the low quality of the available accounting data—better information with respect to foretelling bank failures than the general public did via retail interest rates. In addition, the combination of balance-sheet and interest-rate data significantly improves the quality of bank-failure prediction. Thus, the utilization of information related to interest rates can increase the efficiency of banking supervision and can provide early warning signals of bank failures. (© 2001 EconLit)

Hovakimian, Armen, and Edward J. Kane. 2000. Effectiveness of Capital Regulation at U.S. Commercial Banks, 1985 to 1994. *Journal of Finance* 55, no. 1:451–68.

Unless priced and administered appropriately, a governmental safety net enhances risk-shifting opportunities for banks. This paper quantifies regulatory efforts to use capital requirements to control risk-shifting by U.S. banks during 1985 to 1994 and investigates how much risk-based capital requirements and other deposit-insurance reforms improved this control. The authors find that capital discipline did not prevent large banks from shifting risk onto the safety net. Banks with low capital and debt-to-deposits ratios overcame outside discipline better than other banks. Mandates introduced by 1991 legislation have improved but did not establish full regulatory control over bank risk-shifting incentives. (© 2002 EconLit)

Huizinga, Harry, and Gaetan Nicodeme. 2003. Deposit Insurance and International Bank Deposits. CEPR Discussion Paper no. 3244. Centre for Economic Policy Research.

This paper examines how international depositors respond to national deposit insurance policies. Countries with explicit deposit insurance are found to be relatively attractive to international nonbank depositors. Schemes characterized by co-insurance, a private administration, and a low deposit insurance premium appear to be particularly favored by these depositors. The sensitivity of nonbank deposits to deposit insurance policies opens up the possibility of international regulatory competition in this area. The EU directive on deposit insurance imposes minimum standards on national deposit insurance policies. However, the authors note that this directive is silent on several important features of deposit insurance, such as the level of the deposit insurance premium. Hence, they argue, the directive may not preclude regulatory competition in Europe.

Jagtiani, Julapa, and Catharine Lemieux. 1999. Stumbling Blocks to Increasing Market Discipline in the Banking Sector: A Note on Bond Pricing and Funding Strategy Prior to Failure. Working Paper no. S&R-99-8R. Federal Reserve Bank of Chicago.

This paper seeks to discern whether market forces can successfully discipline banking firms during the period before bank failure. The analysis finds that bond prices do seem to reflect risks as early as six quarters before failure, when the banking institution's financial condition and credit rating worsen and this find implies that increasing subordinated debt would be an effective way to increase market discipline. However, as a bank's finances deteriorate, the bank is increasingly likely to rely on insured deposits, which represent an increased liability to the FDIC insurance fund; thus, responsibility for disciplining bank management is shifted from the market to the bank regulator. Proposals to increase market discipline must therefore contain provisions to limit the failing institution's ability to replace market funding with insured funding. Further, although the bond spreads could potentially serve as market indications of a bank's condition, the authors suggest that such information might not add value to the information that is already routinely collected in the supervisory process.

Kangpenkae, Popon. 2000. Three Essays in Financial Economics: Partial Deposit Insurance; Strategic Nonperforming Loans; Debt Auctions. Ph.D diss., Queen's University at Kingston, Ontario.

The first of these three essays models partial deposit guarantees to discern banks' optimal funding strategies under different deposit insurance schemes, and examines the influence that regulations and ownership structure can have on bank risk-taking. The study shows that the deposit rate is an endogenous variable, determined by the riskiness of a bank's activities. One policy implication is that the fair premium rate for deposit insurance should vary directly with the uninsured deposit rate. (The second and third essays do not address deposit insurance.)

Kahn, Charles M., and João A. C. Santos. 2001. Allocating Bank Regulatory Powers: : Lender of Last Resort, Deposit Insurance, and Supervision. BIS Working Papers no. 102. Bank for International Settlements.

In this paper the authors examine the institutional allocation of the regulatory functions of lender of last resort, deposit insurance, and supervision. The authors argue that because these functions are interrelated, they require coordination among regulatory agencies whose mandates may be in conflict. By focusing on the interplay between the allocation of these powers and the design of both the deposit insurance scheme and the lending contract used by the lender of last resort, the authors find that having these functions performed by a single regulator leads to insufficient bank monitoring and suboptimal bank investment in loans. It may also lead to too much forbearance. Under alternative structures, however, the authors' model shows that it is feasible to specify an optimal arrangement of regulatory authority that overcomes these problems.

Khorassani, Jacqueline. 2000. An Empirical Study of Depositor Sensitivity to Bank Risk. *Journal of Economics and Finance* 24, no. 1:15–27.

This paper tests the hypothesis that during the mid-1980s and early 1990s depositors did not react to bank risk. It has been suggested that high deposit insurance limits, along with an informal policy of protecting all deposits in large-bank failures, have made depositors almost completely indifferent to bank risk. To assess the effect of deposit insurance on depositors' behavior, the author regresses the natural log of bank deposits on bank risk (measured by the probability of bank failure) and a set of control variables. The coefficient, which reveals the sensitivity of deposits to risk, shows that depositors did indeed base their decisions on banks' risk profiles.

Kocherlakota, Narayana R. 2000. Risky Collateral and Deposit Insurance. Research Department Staff Report no. 274. Federal Reserve Bank of Minneapolis.

This paper provides a new rationalization for deposit insurance and systemic disintermediations. The author considers an environment in which borrowers face no penalty for failing to repay obligations except the loss of their collateral. The author assumes that this collateral has aggregate risk. For a subset of the exogenous parameters, the author demonstrates that an optimal arrangement features deposit insurance. For a strictly smaller set of parameters, it is optimal in some states of the world to have systemic disintermediation and concomitant falls in real output. (© 2002 EconLit)

Kocherlakota, Narayana R. 2001. Risky Collateral and Deposit Insurance. *Advances in Macroeconomics* 1, no. 1:1–18.

This paper provides a new rationalization for deposit insurance and systemic disintermediations. The author considers an environment in which borrowers face no penalty for failing to repay obligations except the loss of their collateral under the assumption that this collateral has aggregate risk. For a subset of the exogenous parameters, the author demonstrates that an optimal arrangement features deposit insurance. For a strictly smaller set of parameters, it is optimal in some states of the world to have systemic distintermediations and concomitant falls in real output. (© 2001 EconLit)

Kopcke, Richard W. 2000. Deposit Insurance, Capital Requirements, and Financial Stability. Working Paper no. 00-3. Federal Reserve Bank of Boston.

This paper uses a modified capital asset pricing model to analyze equilibrium returns on assets and intermediaries' capacity to bear risk; the model allows the intermediaries and the public to have different assessments of risks and returns on some assets. The model also incorporates the effects of deposit insurance and capital requirements on the risk premiums that intermediaries incur on their liabilities. Specifically, the extent of intermediation can contract as capital requirements are imposed, but can increase when deposit insurance systems are in place. When the yields of assets fall significantly, however, both insurance and capital requirements can encourage disintermediation and precipitate financial crises, especially when intermediaries must maintain their scale of operations in order to earn their rent.

Kupiec, Paul. 2002. Internal Models-Based Capital Regulation and Bank Risk-Taking Activities. Working Paper no. 02/125. International Monetary Fund.

Advocates for internal model-based capital regulation argue that this approach will reduce costs and remove distortions created by rule-based capital regulation. This paper uses a Merton-style model of deposit insurance to examine these claims. The analysis shows that internal model-based capital estimates are biased by the funding subsidies generated by the government's safety net. When regulatory requirements for market and credit risk are set using bank internal model estimates, these subsidies convey to bank stakeholders. But these subsidies are not uniform across the risk spectrum. Consequently, internal model-based regulatory capital requirements will cause distortions in bank lending behavior.

Lane, Philip R., and Selen Sarisoy. 2000. Does Deposit Insurance Stimulate Capital Inflows? *Economics Letters* 69, no. 2:193–200.

The authors empirically investigate the relationship between explicit deposit insurance and private capital inflows to developing countries during the 1990s. The results do not indicate a significant relationship between explicit deposit insurance and the scale of capital inflows. (© 2002 EconLit)

Lóránth, Gyöngyi, and Alan Morrison. 2003. Multinational Bank Regulation with Deposit Insurance and Diversification Effects. CEPR Discussion Paper no. 4148. Centre for Economic Policy Research.

In this paper, the authors present a model in which bank deposits are insured and there is an exogenous cost of bank capital. The former results in bank over-investment, and the latter in under-investment. Regulatory capital requirements introduce investment distortions, which are a constrained optimal response to these market imperfections. The authors also show that capital requirements that are constrained optimal for banks result in under-investment by multinational banks. The extent of the under-investment depends on the home bank's readiness, the extent of international diversification, and the liability structure (branch or subsidiary) of the multinational. In concluding, the authors relate their findings to observed features of multinational banks and discuss the possible existence of a multinational bank channel for financial contagion.

Luzio-Antenzana, Rodolfo Santiago. 2001. Market Discipline, Asymmetric Information and Banking Regulation: An Application to Bolivia. Ph.D. diss., University of Chicago.

This dissertation examines whether market supervision by depositors could control risk taking and play an important role in government regulatory policy. Data from Bolivian banks is used to study the heterogeneity of deposit interest rate premia and net flows across banks in the presence of deposit insurance. The author traces the heterogeneity to fundamental attributes of banks that determine the risk exposure of deposits to the possibility of bank default. A private information model of bank asset and liability management is developed that helps to explain the heterogeneity of deposit interest rates and flows across banks in the context of asymmetric information between depositors and bank insiders when partial deposit insurance is present. The author finds that "good" banks signal their status as "good" by holding a large portion of low-risk, liquid assets. This not only differentiates them from "bad" banks but also lowers their financing costs and results in their getting a higher share of deposits. Empirical evidence supporting the presence of adverse selection in the market for bank debt in Bolivia is also presented.

MacDonald, Roderick Hanlon, Jr. 2002. The Dynamics of Federal Deposit Insurance: A Feedback View of System Behavior. Ph.D. diss., State University of New York at Albany.

This study focuses on the endogenous incentives faced by bank owners and managers—namely, principal–agent and moral-hazard problems—that historically have been among the major causes of bank failures. The thesis develops a highly aggregated system dynamics model of a single commercial bank that exhibits the aforementioned negative incentives; the thesis also examines the feedback mechanisms underlying the regulatory policies implemented through the Federal Deposit Insurance Corporation Improvement Act of 1991 (FDICIA). These policies include risk-based deposit insurance, dividend suspension, required recapitalization, and portfolio limitations. The model identifies bank risk as endogenous, arising from internal mechanisms such as mispriced deposit insurance, principal–agent problems, and incentives that reward bank managers for short-term performance. The model is then subjected to exogenous shocks that simulate an economic downturn. The behavior of the principal–agent bank is then observed with and without the FDICIA policies of interest. Findings from the structural and simulation analyses indicate that the FDICIA provisions are implemented too late to produce behavioral changes that might positively affect the survival chances of the modeled bank. However, the policies do result in reduced losses at the bank. These reductions, though, are not very substantial.

Marini, François. 2003. Bank Insolvency, Deposit Insurance, and Capital Adequacy. *Journal of Financial Services Research* 24, no. 1:67–78.

This paper extends the Dowd (2000) model by introducing a risky investment technology. This assumption allows the introduction of the possibility of an insolvency crisis. A banker may earn a positive expected profit by insuring depositors against the technological risk. If the bank has adequate capital, the insurance is credible and an insolvency crisis cannot occur. A public safety net may be unnecessary to prevent insolvency crises. (© 2003 Kluwer Academic Publishers)

Martin, Antoine. 2001. Liquidity Provision vs. Deposit Insurance: Preventing Bank Panics without Moral Hazard? Working Paper no. RWP 01-05. Federal Reserve Bank of Kansas City.

It is widely recognized that deposit insurance can lead to excessive risk taking by banks—a problem known as moral hazard. This paper develops a model to analyze whether a central-bank policy of providing liquidity to banks during panics can prevent bank runs without causing moral hazard. The model contains three key features: (1) bank panics may occur in equilibrium, (2) moral hazard can occur, (3) the central bank can create more money that is readily held. The results show that a central-bank repurchase policy provides liquidity to the banking system that can prevent panics without causing moral hazard. In contrast, the results also indicate that deposit insurance, although capable of preventing runs, does create moral hazard.

McKinnon, Ronald I. 2003. On the Risks of Banking and Bank Regulation. Ph.D. diss., Stanford University.

Recent financial crises in Asia and Latin America have raised a number of questions about the effectiveness of international banking regulation in curbing the risks faced by banks in emerging markets. Do overly generous deposit insurance systems increase bank risk taking during volatile times? Are current capital rules sufficient, given the potential adverse effects of correlated credit and foreign exchange risks? Should bank regulation increase its reliance on official ratings, given their mixed record in terms of accuracy, timeliness, and comparability? This dissertation examines these questions from both a theoretical and an empirical perspective. One of the key findings is that current standards in banking regulation in developed countries may not be as effective in countries with emerging economies. In poorly regulated and highly volatile credit markets, for example, deposit insurance appears to negatively affect the risk appetite of banks' equity holders. Additionally, a historical default-rate analysis provides some warnings against allowing bank regulation to depend too heavily on official credit ratings.

Miles, William. 2001. Can Money Market Funds Provide Sufficient Liquidity to Replace Deposit Insurance? *Journal of Economics and Finance* 25, no. 3:328–42.

Narrow banking is an arrangement in which deposit-taking and lending functions are separated and performed by different institutions. This separation is aimed at avoiding panics at uninsured banks, without the moral hazard associated with deposit insurance. Money Market Mutual Funds (MMMFs) are promoted as replacements for bank deposits. For MMMFs to compete with banks, they must be able to withstand a monetary shock without losing shareholders in a flight to quality at government-insured institutions. VAR analysis indicates that MMMFs increase share issue subsequent to a monetary tightening.

This bolsters the case that liquidity can be provided in a narrow banking framework. (© 2001 EconLit)

Morgan, Donald P., and Adam B. Ashcraft. 2003. Using Loan Rates to Measure and Regulate Bank Risk: Findings and an Immodest Proposal. *Journal of Financial Services Research* 24 no. 2–3:181–200.

There is strong evidence that the interest rates charged by banks on the flow of newly extended commercial and industrial (C&I) loans predict future loan performance and CAMEL rating downgrades by bank supervisors. While internal risk ratings have little explanatory power for future loan performance, they do predict future CAMEL downgrades. These findings suggest that supervisors might consider using interest rates in the off-site surveillance of banks. At the same time, the authors propose that reformers consider basing capital requirements and deposit insurance premia on loan interest rates instead of (or in addition to) internal risk ratings and models. (© 2003 Kluwer Academic Publishers)

Nozaki, Masahiro. 2003. Three Essays in the Economics of Banking. Ph.D. diss., Brown University.

Over the last two decades bank regulatory authorities have gradually introduced interbank competition while relying on bank capital to regulate the banking sector. Yet, during that time, the world economy has experienced a number of banking crises. This study examines these developments from a theoretical perspective, with a focus on the properties of a laissez-faire financial system and the effects of governmental prudential policies. The third essay analyzes the interaction between bank runs and bank riskiness. The author shows that, in a laissez-faire financial system, banks do not seek excessively risky lending because they abhor bank runs. While deposit insurance can prevent bank runs, it eliminates market discipline. Additional government intervention is then necessary to prevent excessively risky lending. In this model, depositors may be worse off in the regulated regime than in the laissez-faire regime.

Pennacchi, George G. 2002. Bank Deposit Insurance and Business Cycles: Controlling the Volatility of Risk-Based Premiums. Working Paper. Department of Finance, University of Illinois.

This paper outlines a deposit insurance contract in which insurers pay no subsidy to the bank, the stability of the insurance rate can be maintained by lengthening the average length of the contract, and finally, the insurance rate can be updated as new information about a bank is collected. This type of contract differs from a short-term contract in that it may prevent the instability of a bank's insurance rates and prevent extremely high insurance premium payments. With a sample of 42 banks from 1987 to 1996 that used this type of contract and with a risk-based insurance pricing model, the author calculates the actual insurance premiums for banks under this moving-average structure. He finds that, although the volatility of insurance rate was helped by the contract, banks still paid an extremely high premium. He concludes that the distribution of fair insurance rates was skewed.

Peria, Maria Soledad Martinez, and Sergio L. Schmukler. 2001. Do Depositors Punish Banks for Bad Behavior? Market Discipline, Deposit Insurance, and Banking Crises. *The Journal of Finance* 56, no. 3:1029–51.

This paper empirically investigates two issues largely unexplored by the literature on market discipline. Specifically, the authors evaluate the interaction between market discipline and deposit insurance and the impact of banking crises on market discipline. Focusing on the experiences of Argentina, Chile, and Mexico during the 1980s and 1990s, the authors find that depositors discipline banks by withdrawing deposits and by requiring higher interest rates. Deposit insurance does not appear to diminish the extent of market discipline. Aggregate shocks affect deposits and interest rates during crises, regardless of bank fundamentals, and investors' responsiveness to bank risk taking increases in the aftermath of crises. (© 2001 EconLit)

Perotti, Enrico C., and Javier Suárez. 2001. Last Bank Standing: What Do I Gain If You Fail? Discussion Paper no. 2933. Center for Economic Policy Research.

Banks' attitude towards speculative lending is typically regarded as the result of trading-off the short-term gains from risk-taking against the risk of loss of charter value. In this paper, the authors study the trade-off between stability and competition in a dynamic setting where charter value depends on future market competition. Promoting the takeover of failed banks by solvent institutions results in greater market concentration and larger rents for the surviving incumbents. This converts banks' speculative lending decisions into strategic substitutes, granting an additional incentive to remain solvent. Entry policy may subsequently serve to fine-tune the trade-off between competition and stability. (© 2001 EconLit)

Samartin, Margarita. 2002. Suspension of Convertibility versus Deposit Insurance: A Welfare Comparison. *European Finance Review* 6, no. 2:223–44.

This paper introduces risk-averse preferences in Chari and Jagannathan (1988). A first motivation for this extension is to give a positive role for a financial intermediary in the economy, who offers risk-sharing contracts to liquidity-seeking individuals. In this framework, both information-induced and pure panic runs will occur. The second motivation is to complete Chari and Jagannathan's welfare analysis by comparing suspension of convertibility and deposit insurance, given their relative benefits and costs (of randomization in meeting liquidity needs or deadweight taxation). It is shown that the choice between the two contracts depends on the level of risk aversion, the intertemporal discount factor, and the attributes about the underlying technology. (© 2002 Kluwer Academic Publishers)

Schumacher, Liliana. 2000. Bank Runs and Currency Runs in a System without a Safety Net: Argentina and the "Tequila" Shock. *Journal of Monetary Economics* 46, no. 1:257–77.

This paper tests the random-withdrawals vs. informed-based theories of bank runs in the context of the bank panic that took place in Argentina as a consequence of the Mexican devaluation of December 20, 1994. This evidence is unique in several ways: it is the case of a contemporary banking system with virtually no explicit safety net (a currency board with no deposit insurance scheme) and a case in which the bank runs were triggered by a currency run. The findings of the paper provide support to the informed-based theories and show that depositors are concerned with the impact of a currency run on bank solvency. (© 2002 EconLit)

Sheehan, Kevin P. 2003. Catastrophe Securities and the Market Sharing of Deposit Insurance Risk. FDIC *Banking Review* 15, no.1:1–16.

The FDIC and the property/casualty insurance industry have both faced a considerable increase in concentration risk over the past several decades. Property/casualty insurance companies have attempted to address their increased exposure through reinsurance, using either conventional reinsurers or innovative market instruments. The author examines a number of issues the FDIC will face if it takes a similar approach to reducing its exposure to large-bank failure.

Sorge, Marco. 2003. On the Risks of Banking and Bank Regulation. Ph.D. diss., Stanford University.

Recent financial crises in Asia and Latin America have raised a number of questions about the effectiveness of international bank regulation in controlling the risks faced by banks in emerging markets. For example: Do overly generous deposit insurance systems increase the risk appetite of banks during volatile times? Do current capital requirements provide a sufficient buffer to withstand the possible adverse effects of correlated credit and foreign exchange risks? Is the increasing reliance on debt ratings by bank regulators justified? This study addresses these questions from both theoretical and empirical points of view. One of the key results is that the regulatory standards currently in place in many industrialized countries do not necessarily apply with the same effectiveness in emerging countries. Of particular note is the finding that deposit insurance appears to negatively affect the risk appetite of banks' equity holders, especially in poorly regulated and highly volatile credit markets.

Souma, Toshiyuki. 2001. Efficient Lending and a New Aspect of Government Deposit Insurance Agency. *Osaka Economic Papers* 3, no. 1:1–21.

The number of insolvent banks in Japan has increased substantially in recent years. Common wisdom is that insolvent banks should be liquidated immediately. This paper questions the wisdom of immediate liquidation of insolvent banks because it results in a loss of funding not only for projects with negative net present values but also for projects with positive present values. To determine what types of agents must loan funds to an insolvent bank in order to prevent the bank from engaging in inefficient lending, tThe author uses a model in which an insolvent bank borrows funds and lends, regardless of a project's return, to determine what type of agents must loan funds to an insolvent bank in order to prevent the bank from engaging in inefficient lending. The author shows that financing from a government deposit insurance agency (GDIA) can make a bank's lending efficient. This finding contradicts those from a number of other studies in which the existence of a GDIA encouraged a bank to take too much risk. The paper also shows that efficient lending can be achieved regardless of the total deposits to be insured.

The World Bank Group. 2000. Deposit Insurance Conference, Washington, D.C., June 8–9, 2000.

In June 2000, The World Bank hosted a conference on issues relating to deposit insurance design in developing countries. No formal proceedings were published but the agenda, papers, data, presentation slides, discussant comments, and a video link to the conference are available *via* The World Bank's Web site [http://www.worldbank.org/research/interest/confs/upcoming/deposit_insurance/home.htm]. Also available is a synthesis paper by Asli Demirgüç-Kunt and Edward Kane, entitled "Deposit Insurance around the Globe: Where Does It Work?" (June 2001). Individual papers presented at the conference include: "Adjusting Financial Safety Nets to Country Circumstances," by Edward Kane; "Does Deposit Insurance Increase Banking System Stability? An Empirical Investigation," by Asli Demirgüç-Kunt and Enrica Detragiache; "Deposit Insurance Design and Bailout Costs," by John Boyd and Bruce Smith; "Market Discipline and Financial Safety Nets Design," by Asli Demirgüç-Kunt and Harry Huizinga; "Can Emerging Market Bank Regulators Establish Credible Discipline? The Case of Argentina," by Charles Calomiris; "Do Depositors Punish Banks for "Bad" Behavior? Market Discipline, Deposit Insurance, and Banking Crises," by Maria Soledad, Martinez Peria, and Sergio Schmukler; "Deposit Insurance as Private Club: The Case of Germany," by Thorsten Beck; "Deposit Insurance and Financial Development," by Robert Cull, Lemma Senbet, and Marco Sorge; "Evidence of Safety-Net Support for Banks during Economic Development in Canada, the U.K., and the U.S.: A Progress Report," by Edward Kane and Berry Wilson; and "Quantifying the Cost of Blanket Deposit Insurance and Other Ex Post Rescue Strategies," by Patrick Honohan and Daniela Klingebiel.

Yorulmazer, Tanju. 2003. Essays on Bank Runs, Contagion, and Systemic Risk. Ph.D. diss., New York University.

The first of three essays investigates whether herd behavior by depositors causes bank runs. The author shows that a central bank that acts as a lender of last resort can alleviate some of the costs associated with bank runs but cannot prevent runs on healthy banks in the absence of perfect information. Rather, higher levels of depositor welfare can be achieved by having a deposit contract that allows for runs than by having a contract that eliminates runs completely. The second essay examines factors that determine the severity of bank runs and suggests policies that might dampen a run. Among the findings is that the more information economic agents can expect to have about an ongoing financial crisis, the more willing they are to refrain from withdrawing their funds from banks. The second essay also shows that deposit insurance, even of a limited type, can help to diminish the severity of runs. The third essay examines the interaction among banks when they choose the correlation of their investment portfolios and the implications these choices have on systemic risk. The essay shows that if depositors of a failed bank can migrate to surviving banks, the herding incentives faced by banks when making their investment decisions are mitigated. This result gives rise to a pro-cyclical pattern in the correlation of bank loan returns.

Zhu, Haibin. 2001. Bank Runs, Welfare and Policy Implications. BIS Working Paper no. 107. Bank for International Settlements.

> The banking sector is naturally vulnerable to bank runs because banks issue liquid liabilities but invest in illiquid assets. This paper puts forward a model in which bank runs are closely related to the condition of the business cycle. In a market economy, the basic model shows that bank runs result in welfare costs. Extensions of the model examine the welfare effects of certain government policies aimed at preventing bank runs. The results show that an interest-cap deposit insurance scheme is an efficient policy for the prevention of bank runs, whereas other policies (such as the suspension of convertibility, an interest-rate penalty on short-term deposits, or a full coverage deposit insurance scheme) result in adverse side effects.

7. Deposit Insurance and Moral Hazard, Risk, and Incentives

Entries in this section deal with the moral-hazard problem caused by the provision of deposit insurance, methods of mitigating the problem, the effect of deposit insurance on bank risk-taking behavior and on the incentives of bank management, and the principal–agent problem in bank regulation.

Barajas, Adolfo, and Roberto Steiner. 2000. Depositor Behavior and Market Discipline in Colombia. Working Paper no. WP/00/214. International Monetary Fund.

This study of Colombia's banking market tests how bank depositors choose which institutions to patronize, and whether depositors discipline their banks. The findings demonstrate that customers are concerned with measures of both risk and return. Depositors tend to favor state banks and larger banks; these show more significant deposit growth than other banking institutions. Depositors also prefer banks with stronger performance fundamentals; these institutions can charge higher rates on loans and pay lower rates on deposits. This latter finding implies that market discipline is a factor in the Colombian banking market. Depositors assess bank statistics, especially capital-asset ratios and loan-loss provisions. Their subsequent willingness or reluctance to offer deposits sends signals to banks, which then adjust their fundamentals accordingly. Although this result may be attributed to the Colombian deposit insurance system's ability to limit moral hazard in favor of market discipline, the authors point out that banks' behavioral adjustments might be the product of compliance with regulatory mandates.

Bisignano, Joseph R., William C. Hunter, and George G. Kaufman, eds. 2000. *Global Financial Crises: Lessons from Recent Events*. Kluwer Academic Publishers.

Forty papers, presented at a conference held in Chicago in the fall of 1999, examine worldwide banking and currency crises between 1970 and 1995, identifying and analyzing lessons from these crises that could be used to prevent or mitigate the magnitude of future financial crises. Papers focus on lessons from the Asian crisis; lessons from recent global financial crises; review of recent financial crises; review of policy responses; what has been learned from the crises and policy responses; redesign of capital regulations; deposit insurance reform and moral hazard and agency problems; nonbank financial institutions, too big to fail, and state ownership; the role of supervision and regulation; and the future of official international organizations. (© 2002 EconLit)

Note: Part VI contains deposit insurance–related papers, including "Notes on Market-Based Bank Regulation," by Peter M. Gaber; "Moral Hazard and Reform of the Government Safety Net," by Frederic S. Mishkin; "Banks' Fragility and the Lender of Last Resort," by Jean-Charles Rochet; "Moral Hazard and Reform of the Government Safety Net: A Comment," by Gerard Caprio, Jr.; and "Moral Hazard in Banking: The Recent Argentine Experience," by Guillermo J. Escude.

Bliss, Robert R., and Mark J. Flannery. 2000. Market Discipline in the Governance of U.S. Bank Holding Companies: Monitoring vs. Influencing. Research Department Working Paper Series, no. 2000-03. Federal Reserve Bank of Chicago.

For market discipline to be a valid regulatory tool, security holders must be able to monitor a bank's condition accurately and influence managerial decisions accordingly. This study tests whether changes in the prices of U.S. bank holding companies' securities can affect managements' behavior. The evidence reveals that stock and bond holders do not seem to be able to influence bank management, a finding implying that market discipline may not be an effective tool and that regulators and supervisors must maintain responsibility for directing managerial activities as necessary.

Blum, Jurg M. 2002. Subordinated Debt, Market Discipline, and Banks' Risk Taking. *Journal of Banking and Finance* 26, no. 7:1427–41.

This paper demonstrates the ambiguous impact of subordinated debt on the risk-taking incentives of banks. It is shown that in comparison with full deposit insurance, subordinated debt reduces risk only if banks can credibly commit to a given level of risk. If, however, banks are not able to commit, subordinated debt leads to an increase in risk. This is because due to limited liability banks always have an incentive to increase their risk after the interest rate is contracted in order to reduce the expected costs of debt. Rational debt holders anticipate this behavior and accordingly require a higher risk premium ex ante. The higher interest rates in turn further aggravate the excessive risk-taking incentives of banks. (© Elsevier Science B.V.)

Bossone, Biagio. 2002. Should Banks Be Narrowed? Working Paper no. 254. Levy Economics Institute, Bard College.

Proposals for "narrow banks" would essentially prevent banks from lending to the private sector and funding risky investments with demand deposits. This paper reviews the literature on narrow banking and discusses the effects that implementing such proposals would have on the financial markets and the real economy.

Bossone, Biagio. 2002. Should Banks Be "Narrowed"? An Evaluation of a Plan to Reduce Financial Instability. Public Policy Brief no. 69:7–32. Levy Economics Institute, Bard College.

The author discusses the concept of "narrow" banking and the effect it would have on the financial system. Narrow-banking proposals vary in degree but mainly consist of requiring banks to invest fully in government securities—so as to have liquid assets to back liquid liabilities. This would solve the moral-hazard problem of excessive risk taking by banks. However, the author concludes that it is precisely the mismatch—liquid liabilities backed by illiquid assets—that contributes to market efficiency. He argues that this efficiency gain outweighs the stability enhancements associated with narrow banking.

Gropp, Reint, and Jukka Vesala. 2001. Deposit Insurance and Moral Hazard: Does the Counterfactual Matter? European Central Bank Working Paper Series no. 47. European Central Bank.

This paper analyzes the relationship (for European banks) between deposit insurance and, debt-holder monitoring, bank charter values, and risk taking for European banks. Using cross-sectional and time-series variation about deposit insurance schemes in the European Union, the authors find that the establishment of explicit deposit insurance significantly reduces the risk taking of banks. This finding is in sharp contrast to the long-standing belief that deposit insurance induces moral hazard. The authors explain this anomaly by suggesting that even though European banking systems formerly did not have explicit deposit insurance schemes, they were characterized by strong implicit deposit insurance operating through expectations of public intervention during times of distress. Hence, the introduction of an explicit system may imply a de facto reduction in the scope of the financial safety net. In addition, the authors test hypotheses about the interaction between deposit insurance and debt-holder monitoring, charter values, and "too big to fail" and find that banks with lower charter values and more subordinated debt and lower charter values reduce risk taking more after the introduction of explicit deposit insurance. "Too-big-to-fail" problems, however, are not found to be mitigated after the introduction of explicit deposit insurance, however, was not found to mitigate "too-big-to-fail" problems.

Gueyie, Jean-Pierre, and Van Son Lai. 2003. Bank Moral Hazard and the Introduction of Official Deposit Insurance in Canada. *International Review of Economics and Finance* 12, no. 2: 247–73.

The authors investigate the belief that independent flat-rate deposit insurance induces excessive risk taking by banks. They test the moral hazard associated with flat-rate deposit insurance by studying the effect of deposit insurance on Canadian commercial banks. Flat-rate deposit insurance was introduced to the Canadian banking industry in 1967. The authors find that there was an increase in total risk of equity, market risk, and the implicit volatility of assets. Although these characteristics are necessary for the presence of moral hazard, they are not sufficient conditions for inducing risk shifting from banks to the Canadian Deposit Insurance Corporation.

Hooks, Linda M., and Kenneth J. Robinson. 2002. Deposit Insurance and Moral Hazard: Evidence from Texas Banking in the 1920s. *Journal of Economic History* 62, no. 3:833–53.

Using Texas bank data from 1919 to 1926, the authors find that deposit insurance in state-chartered banks increases the likelihood of a bank's failure. The authors analyze the banks' balance sheets and find that insured institutions engaged in more risky activities after experiencing declines in their capital positions than did uninsured national banks or Texas state banks that operated before deposit insurance was established. The authors conclude that there is evidence from Texas banking in the 1920s that, when banks have deposit insurance, moral hazard increases a bank's riskiness.

Laeven, Luc. 2002. Bank Risk and Deposit Insurance. World Bank *Economic Review* 16: no.1:109–37.

This article investigates the relationship between risk taking by banks and their corporate governance structure. Laeven uses a sample of 14 economies to study this relationship. He finds that concentrated ownership seems to result in more risk taking, whereas dispersed ownership results in less risk taking. He also believes that the implicit cost of deposit insurance can be used to some degree in predicting bank failures because the cost of insuring deposits for a risky bank is higher.

Maechler, Andrea M., and Kathleen M. McDill. 2003. Dynamic Depositor Discipline in U.S. Banks. Working Paper 03/226. International Monetary Fund.

This paper studies the relationship between a bank's poor performance and depositors' motivation to punish the bank by withdrawing uninsured deposits. Banks may increase interest rates to induce depositors to refrain from withdrawing funds. The authors use a generalized-method-of-moments (GMM) model to study the presence of depositor discipline. They find that banks can increase uninsured deposits by increasing the interest rates to a high price. Also, for a given interest rate, sound banks attract more uninsured deposits than average banks, while unsound banks may not be able to raise uninsured deposits at all. Overall, the authors find that depositor discipline is present, but its actual effect on reducing a bank's risk taking cannot be determined.

Nichita, Radu. 2003. Garantie des dépôts à vue et double responsabilité: L'effet sur les incitations (Insurance for Demand Deposits and Double Liability: The Effect on Incentives). *Journal des Economistes et des Etudes Humaines* 13, no.1:21–61.

In French without English summary.

Osborne, Dale K., and Seokwon Lee. 2001. Effects of Deposit Insurance Reform on Moral Hazard in US Banking. *Journal of Business Finance and Accounting* 28, nos. 7–8:979–92.

Previous empirical studies have found that larger banks and banks with lower charter values or capital levels tend to increase the riskiness of their portfolios when deposit insurance is present. Reforms enacted as part of FDICIA (enacted in 1991 and fully implemented in 1993) were designed to combat such moral-hazard behavior. In this article, the authors test the effect of deposit insurance reform on the moral-hazard behavior of banks. Specifically, the authors compare the pre- and post-reform associations between bank risk taking and bank charter value, bank size, and bank capital—three variables previously found to play an important role in the moral hazard induced by deposit insurance. As hypothesized, the authors find found that the associations between systematic risk and charter value and asset size are significantly weaker after deposit insurance reform. The association between systematic risk and capital is was also found to be weaker, but the change is was not statistically significant. The authors see this finding as evidence that reform has indeed reduced the moral hazard created by government-provided deposit insurance.

Prescott, Edward Simpson. 2002. Can Risk-Based Deposit Insurance Premiums Control Moral Hazard? Federal Reserve Bank of Richmond's *Economic Quarterly* 88, no. 2:87–100.

It is commonly thought that risk-based deposit insurance premiums can control the moral hazard inherent in deposit insurance. That view is wrong; other devices—such as state-contingent payments and supervisory exams—are needed as well. (©2002 FRB of Richmond)

8. Safety Nets, Deposit Insurance, and Subsidies

Entries in this section include works on bank safety nets in general and deposit insurance in particular. Also covered are the costs of official government safety nets, their benefits, the existence and competitive implications of safety net–related banking subsidies, and policies for containing such subsidies.

Brock, Philip L. 2000. Financial Safety Nets: Lessons from Chile. *The World Bank Research Observer* 15, no. 1:69–84.

> This article explores issues of safety-net design and implementation in small, open economies, using Chile's experiences in the 1980s as a case study. Safety nets are the result of a government decision to assume risk that would otherwise be borne by depositors and shareholders. Society, especially in small, open economies, benefits from the expansion of banks and bank lending (financial deepening) associated with this protection, but excessive expansion can occur if the government does not limit the amount of risk it assumes. The authors argue that governments in these small economies would be wise to create a strong supervisory and regulatory framework to limit the size of the safety net. However, these governments should also recognize the value of encouraging financial deepening to promote domestic lending and economic growth.

Carnell, Richard Scott. 2001. Federal Deposit Insurance versus Federal Sponsorship of Fannie Mae and Freddie Mac: : The Structure of Subsidy. In *The Financial Safety Net: Costs, Benefits, and Implications for Regulation, Proceedings of the 37th Annual Conference on Bank Structure and Competition,* 118–32. Federal Reserve Bank of Chicago.

> The Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac) are government-sponsored enterprises (GSEs)—privately owned profit-oriented corporations with federal charters and a public mission to develop and improve the secondary market for residential mortgage loans. Because of their public mission, these GSEs receive a variety of government benefits, including exemption from federal corporate income taxes. More importantly, the GSEs derive a cost-of-funds advantage that stems from capital market participants' perception that the securities issued by the GSEs carry an implicit government guarantee. This article describes the federal government's sponsorship of Fannie Mae and Freddie Mac and recounts the firms', recent attempts—by depicting federally insured depository institutions as GSEs—to deflect the criticism that the government gives these GSEs overly generous benefits . The article then outlines six structural reasons that federal sponsorship of Fannie Mae and Freddie Mac, with their perceived implicit guarantee, tends to impart a greater net government subsidy than does explicit federal deposit insurance.

Cerda, Oscar, Elijah Brewer III, and Douglas D. Evanoff. 2001. The Financial Safety Net: Costs, Benefits, and Implications. The Federal Reserve Bank of Chicago. *Chicago Fed Letter* (Special Issue), no. 171a.

On May 9–11, 2001, the Federal Reserve Bank of Chicago hosted its 37th annual Conference onf of Bank Structure and Competition. This year's conference focused on the implications of the various explicit and implicit financial safety nets, ranging from deposit insurance and subsidies to government-sponsored enterprises (GSEs) to the notion that some financial institutions are "too big to fail." This *Letter* summarizes some of the issues discussed at the conference by the keynote speaker and by special discussion panels composed of subject-matter experts from academia and government regulatory agencies.

Federal Reserve Bank of Chicago. 2001. *The Financial Safety Net: Costs, Benefits, and Implications for Regulation,.. Proceedings of the 37th Annual Conference on Bank Structure and Competition.* Federal Reserve Bank of Chicago.

Conference proceedings include topics such as Financial Safety Net Issues; GSEs: Their Impact on Markets; The Effects of Bank Consolidation and Expansion; The Role of Banking Relationships; Bank Business Strategies; Bank Risk and Capital Issues; Financial Crisis and Contagion; Perusing Regulatory Reform; Regulatory Incentive Alignment; and Alternative Deposit Insurance Structures. Papers related to deposit insurance include "Community Banking Institutions, Deposit Insurance Reform, and Too Big to Fail," by Kenneth A. Guenther; "Controlling the Safety Net," by Laurence H. Meyer; "Recommendations for the Changes in the Way Federal Deposit Insurance Is Funded," by Arthur J. Murton; "Deposit Insurance and Moral Hazard," by Asli Demirgüç-Kunt and Enrica Detragiache; "Issues in Deposit Insurance Reform," by James A. Wilcox; "Allocating Bank Regulatory Powers: Lender of Last Resort, Deposit Insurance, and Supervision," by Charles M. Kahn and João A. C. Santos; "Developing Effective Deposit Insurance Systems," by J. P. Sabourin; "How Good Are EU Deposit Insurance Schemes?" by Maximilian J. B. Hall; "Designing Financial Safety Nets for Countries in Different Circumstances," by Edward J. Kane; and "Estimating Fair Deposit Insurance Premiums for a Sample of Banks under a New Long-Term Insurance Pricing Methodology," by George G. Pennacchi.

Halme, Lisa, Christian Hawkesby, Juliette Healy, Indrek Saapar, and Farouk Soussa. 2000. *Financial Stability and Central Banks: Selected Issues for Financial Safety Nets and Market Discipline*. Bank of England.

This volume collects four papers written as a follow-up to the academic workshop "Central Bank Responsibility for Financial Stability," held by The Bank of England's Centre for Central Banking Studies in September 1999. The papers all concern the financial safety net's ability to promote market discipline. "Too Big to Fail: Moral Hazard and Unfair Competition?" by Farouk Soussa, contains a theoretical and empirical investigation of the rationale behind the too-big-to-fail principle. Soussa finds that too-big-to-fail banks take on no more risk than smaller banks, but contends that there still may be a moral-hazard problem. "Bank Corporate Governance and Financial Stability," by Liisa Halme, stresses the importance of good bank corporate governance to financial stability, and uses legal and economic theories to frame a discussion of the design and

implementation of incentive structures that would encourage sound regulation and supervision. "Financial Conglomerates: Implications for the Financial Safety Net," by Indrek Saapar and Farouk Soussa, discusses the increasing trend toward consolidation and conglomeration in the financial-services industry, focusing particularly on the policy implications for deposit insurance and lender-of-last-resort mechanisms. Finally, Christian Hawkesby's "Central Banks and Supervisors: The Question of Institutional Structure and Responsibilities" assesses the costs and benefits of various financial supervisory structures and identifies factors that might make a country particularly well suited to having a single prudential supervisor outside of the central bank system.

Hovakimian, Armen, Edward J. Kane, and Luc Laeven. 2003. How Country and Safety-Net Characteristics Affect Bank Risk-Shifting. *Journal of Financial Services Research* 23, no. 3:177–204.

Risk-shifting occurs when creditors or guarantors are exposed to loss without receiving adequate compensation. This paper seeks to measure and compare how well authorities in 56 countries controlled bank risk-shifting during the 1990s. Although significant risk-shifting occurs on average, substantial variation exists in the effectiveness of risk control across countries. The authors find that the tendency for explicit deposit insurance to exacerbate risk shifting is tempered by incorporating loss-control features such as risk-sensitive premiums, coverage limits, and coinsurance. Introducing explicit deposit insurance has had adverse effects in environments that are low in political and economic freedom and high in corruption. (© 2003 Kluwer Academic Publishers)

Kane, Edward J. 2000. Designing Financial Safety Nets to Fit Country Circumstances. Domestic Finance Working Paper no. 2453. The World Bank Group.

Countries vary significantly with respect to their informational and contracting environments, and financial safety nets should be designed accordingly. In particular, banks in different countries afford depositors varying levels of transparency and deterrence, so safety nets should be expected to differ in terms of the enforceability of private contracts. In cases where a country's technological, ethical, and corporate governance is weak, a government safety net that fully and explicitly guarantees deposits can undermine, instead of strengthen, bank safety and stability. As technological, ethical, and corporate conditions change over time, a country's safety net should also evolve. Regulators' capacities for valuing banking institutions, assessing and disciplining risk-taking, and promptly resolving failures should be critical determinants of a safety net's design and operation. Above all, political accountability is required to ensure the effective and efficient performance of these tasks.

Kane, Edward J. 2001. Financial Safety Nets: : Reconstructing and Modeling a Policymaking Metaphor. *Journal of International Trade and Economic Development* 10, no. 3:237–73.

This paper explains that financial safety nets exist because of difficulties in enforcing contracts and shows that elements of deposit-insurance schemes differ substantially across countries. It shows that differences in the design of financial safety nets correlate significantly with differences in the informational and contracting environments of individual countries and that a country's GDP per capita is correlated with proxies for a country's level of: (1) informational transparency, (2) contract enforcement and deterrent rights, and (3) accountability for safety net officials. The analysis portrays deposit insurance as a part of a country's larger safety net and contracting environment. This means that there is no universal method for preventing and resolving banking problems and that the structure of a country's safety net should evolve over time with changes in private and government regulators' capacity for valuing financial institutions, disciplining risk taking and resolving insolvency promptly, and for being held accountable for how well they perform these tasks. (© 2001 EconLit)

Kane, Edward J. 2001. Using Disaster Planning to Optimize Expenditures of Financial Safety Nets. *Atlantic Economic Journal* 29, no. 3:243–53.

Using a multiperiod model, this paper offers a benchmark standard for efficient safety net management. This standard embodies a market-mimicking strategy for identifying, preventing, and resolving bank insolvencies. Around the world, governmental reluctance to acknowledge weaknesses in their crisis prevention efforts supports an underinvestment in contingent plans for handling financial disaster. The model features the hypothesis that this underinvestment misserves taxpayers by increasing the ability of stakeholders in insolvent banks to extract implicit and explicit subsidies when and as the threat of an actual crisis intensifies. (© 2001 EconLit)

Kaplan, Idanna. 2000. The Financial Crisis in Southeast Asia: Measuring the Size of Implicit Deposit Insurance Guarantees (Indonesia, Malaysia, Singapore, Korea, Thailand). Ph.D diss., University of Washington.

This dissertation investigates the 1997 financial crisis in Southeast Asia, looking specifically at the Indonesian, Malaysian, Singaporean, South Korean, and Thai banking sectors to determine the role that implicit government guarantees played in weakening of these financial systems. Because deposit insurance makes bank deposits less risky, it decreases the compensation rate required by depositors and thus represents a subsidy to banking institutions. Deposit insurance can therefore lead to moral-hazard problems. Using an option-pricing model, the author computes the size of the Asian governments' contingent liabilities relative to their banking systems before 1997. The author finds that in all cases the deposit insurance subsidies were substantial and varied with the severity of a country's subsequent crisis. The author also assesses the value of using option-pricing models to analyze emerging markets and shows that such models are superior to traditional macroeconomic techniques, which did not predict banking system weaknesses as accurately as the options-pricing approach. The final section of the dissertation, a study of the five countries' banking institutions, concludes that moral-hazard incentives may have worsened the financial crisis inasmuch as they encouraged banks to exploit the government subsidy that deposit insurance provides.

Laeven, Luc. 2000. Banking Risks around the World: The Implicit Safety Net Subsidy Approach. Policy Research Working Paper no. 2473. The World Bank Group.

This study examines a sample of banks from 12 countries around the world to determine whether a bank's corporate governance influences its level of risk- taking. Risk-taking is operationalized as the gross safety-net subsidy extended to the bank; the implicit subsidy is calculated as a one-year put option on the value of the bank's assets. The author finds that throughout the 1990s, banks were generally subsidized by their governments. The gross subsidies were highest for banks with concentrated ownership arrangements—for example, institutions owned by a single company, financial institution, family, or individual. Large subsidies, and therefore excessive risk-taking, were also associated with banks that (1) were affiliated with business groups, (2) were small and/or had high credit growth, or (3) were located in countries with low per capita GDP, high inflation, inadequate legal systems, low bank concentration, and low foreign-bank penetration. These findings suggest that the distortions inherent in governmental deposit insurance programs vary across banks with different ownership arrangements and institutional environments.

Repullo, Rafael. 2000. Who Should Act as Lender of Last Resort? An Incomplete Contracts Model. *Journal of Money, Credit and Banking* 32, no. 3:580–610. [With comments by Patrick Bolton.]

This paper presents a model of a bank subject to liquidity shocks that require borrowing from a lender of last resort. Two government agencies may perform this function: a central bank and a deposit insurance corporation. The agencies share supervisory information, which provides a nonverifiable signal of the bank's financial condition, and use it to decide whether to support it. It is shown that the optimal institutional design involves the two agencies: the central bank dealing with small liquidity shocks, and the deposit insurance corporation with large shocks. Furthermore, except for very small shocks, they should lend at penalty rates. (© 2002 EconLit)

Seguro de Depósitos Sociedad Anónima. (SEDESA). 2003. *Fourth Annual Symposium on Deposit Insurance: Safety Net*. Seguro de Depósitos S.A., República Argentina.

Continuing with the tradition established in 1999, this SEDESA-organized symposium on deposit insurance focuses on how a deposit insurance system should best be integrated with the broader financial safety net. Included among the subjects covered in presentations and workshops were the definition, functions, objectives, and basic premises of a financial safety net; the role of the lender-of-last-resort within the financial safety net; deposit insurance within a fractionary banking regime; deposit insurance and banks' capital; least-cost resolutions; and the recovery of assets in resolutions.

Seguro de Depósitos Sociedad Anónima (SEDESA). 2002. *The Deposit Insurance System: A Compendium Based on the Symposia of SEDESA.* Seguro de Depósitos S.A., República Argentina.

This book is a compendium of addresses presented at the first three annual symposia hosted by SEDESA—the administrator of the deposit insurance system in Argentina. Major chapters cover a range of topics, including: the deposit insurance system (DIS) as part of the safety net; objectives of a deposit insurance system; basic conditions for the proper functioning of a DIS; types of deposit insurance systems; the relationship between deposit insurance and banking regulation and supervision; and financial crises and bank restructuring.

Sleet, Christopher, and Bruce D. Smith. 2000. Deposit Insurance and Lender-of-Last-Resort Functions. Federal Reserve Bank of Cleveland *Proceedings* 32, no. 3, pt. 2:518–79. [With comments by Ed Stevens.]

The authors consider issues concerning the design of a banking system "safety net" when both a deposit insurer and a lender of last resort are present. In their model both entities have a role to play. Moreover, issues related to deposit insurance pricing are relatively unimportant in this context, whereas issues related to discount window access and pricing are not. They discuss when and why (or why not) a lender of last resort should lend liberally but charge high rates of interest. And, the authors raise the possibility that discount window policy may enhance or reduce the scope for multiplicity of equilibria. (© 2002 EconLit)

The Financial Services Rountable. 1999. *Refuting the Federal Safety Net "Subsidy Argument."* The Financial Services Roundtable.

This collection of commissioned papers supports the Roundtable's position that a net federal safety-net subsidy does not exist. Among the papers are "Banks Do Not Receive a Federal Safety Net Subsidy," by Bert Ely; "The Issue of the Federal Safety Net Subsidy: Evidence from the Pricing of Banking Company Subordinated Debt," by Gerald A. Hanweck; "Fact, Fiction and Fuzzy Logic: Is There a U.S. Commercial Bank "Safety Net Subsidy"? Evidence from Canadian Banking," by Zagros Madjd-Sadjadi and C. Daniel Vencill; "Is There a Safety Net Subsidy? Some Evidence Based on Non-Bank Entry into Banking," by Donald J. Mullineaux; "The Cost of Regulation: A Review of the Evidence," by Gregory Elliehausen.

Walter, John R., and John A. Weinberg. 2002. How Large Is the Federal Financial Safety Net? *Cato Journal* 21, no. 3:369–93.

This article begins by defining the financial safety net and estimating its size. The estimate includes "explicit" liabilities that are guaranteed (such as insured deposits) and also "implicit" liabilities that, on the basis of past government action, are expected to be covered. Their calculations lead the authors to estimate the federal financial safety net to be in the range of $9.2 trillion. The authors explain that the safety net can hinder efficiency by causing resources to flow toward areas of the economy with protection rather than toward areas with no guarantee at all. Eventually, they argue, this would result in less than optimal growth in wealth and income.

9. Country- or Region-Specific

Entries in this section focus on deposit insurance in a specific country or region and cover the following: country-specific descriptions of deposit insurance systems, comparative surveys, international experiences with deposit insurance systems, and banking and deposit insurance reforms outside of the United States.

Association pour la garantie des dépôts Luxembourg (AGDL). 2000. The Deposit Guarantee and Investor Compensation Scheme in Luxembourg. AGDL.

This handbook details depositors' rights under the Deposit Guarantee Association of Luxembourg (AGDL). The AGDL administers a mutual guarantee system covering deposits and claims resulting from investment transactions. Members of the AGDL are credit institutions, that is, banks and investment firms. The purpose of the guarantee scheme is not just to compensate savers for their losses, but to expedite the procedure by paying the customer all or part of the savings before liquidators are able to do so. In addition to explaining the AGDL's statutes and by laws, the publication illustrates how to apply the coverage rules.

Bonnet, Jorge Edwardo Narvaez. 2002. *El Contrato de Seguro en El Sector Financiero (The Insurance Contract in the Financial Sector).* Bogota: Ediciones Libreria del Profesional.

In Spanish without English summary.

Central Deposit Insurance Corporation, Legal Department. 2000. Case Studies on Strengthening the Mechanism of Handling the Problem Financial Institutions. Central Deposit Insurance Corporation, Taiwan, Republic of China. [In Chinese.]

This paper discusses the definition, the realities, and effects of problem financial institutions in Taiwan and examines current supervisory issues related to capital management, safe-and-sound practices, and prompt corrective action. In reviewing some specific cases from the past 15 years, the paper points out deficiencies in the traditional methods by which authorities handle problem financial institutions. The paper also proposes that changes be made to Taiwan's financial regulations and supervisory standards to adjust the financial safety net and establish a mechanism for phasing failed financial institutions out of the market in an orderly manner.

Cornut, Charles. 2000. The French System of Deposit Insurance: Interview. *Revue d'économie financière,* no. 60:215–19. [Published in English.]

The author presents the French system of deposit insurance. This system has recently been modified: it should take a greater role in the French prudential regulation system in the years to come. (© 2002 EconLit)

Dar, Humayon A., Maximilian J. B. Hall, and Dadang Mujawan. 2001. A Strategic Design of Islamic Banking Regulations. Middle East Business and Economic Review 13, no. 2:28–38.

> It is important for sound operation of an Islamic banking system to have a set of prudential regulations that not only protect and promote fundamentals of Islamic banking but also bridge the gap between Islamic and conventional banking styles. There is a lot in common between the two systems, which makes it easy to apply some principles of western banking supervision to Islamic banks. The regulators should also recognize the difference between theory and practice of Islamic banking while devising regulatory framework for Islamic banks. This paper proposes that prudential regulations for Islamic banks should aim at achieving two objectives. First, they should accommodate the issue of practicality in order to promote soundness of Islamic banking operations, which have moved away from its perfect paradigm. Second, they should provide right incentives so that the players are encouraged to embrace the perfect paradigm of Islamic banking in the future. (© 2001 EconLit)

Deposit Insurance Fund (DIF) of Bulgaria. 1999. Deposit Insurance in Bulgaria in the Period of Transition to a Market Economy. DIF.

> This study is included in the appendix to the 1999 Annual Report of the DIF and describes the various deposit insurance initiatives taken in Bulgaria as part of the post-1989 political and economic reforms in that country. The study explains the laws and regulations that were put in place to govern deposit insurance; discusses the Law on Bank Deposit Guaranty, which established the DIF in 1999; and details the current structure and functioning of the DIF, as well as the deposit insurance coverage rules.

Deposit Insurance Fund (DIF) of Bulgaria. 2000. Deposit Insurance in Central and East European Countries Negotiating for EU Accession: Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, and Slovenia. DIF.

> This study is included in the appendix to the 2000 Annual Report of the DIF. Deposit insurance has been a particularly important requirement for countries applying for European Union (EU) accession. This short paper describes the EU directive that seeks to harmonize members' deposit insurance practices. It also summarizes each country's deposit insurance system and coverage rules.

Dimitrova, Kalina, and Nikolay Nenovsky. 2003. Assurance des dépôts bancaires durant l'accession à l'UE (Deposit Insurance during Accession to the EU). Revue d'Economie Financiere no. 72:123–40.

> In French without English summary.

Hahm, Sang-moon. 2002. Restructuring of the Public Enterprise after the Crisis: The Case of Deposit Insurance Fund. Working Paper. School of Public Policy and Management, Korean Development Institute.

This paper provides an assessment of the Korean Deposit Insurance Corporation. The author finds that the deposit insurance fund, already with a negative balance of W49 trillion won and with an expected liability increase of W19.1 trillion, cannot be fixed on its own. The author outlines a strategy that will fix the deposit insurance fund: the strategy includes setting a target zone and establishing a premium structure based on CAMELS ratings and market signals.

Hall, Maximilian J. B. 2001. How Good Are EU Deposit Insurance Schemes in a Bubble Environment? In *Research in Financial Services: Private and Public Policy*, edited by George G. Kaufman, vol. 13, 145–93. JAI Press.

In the wake of the EU member states' adoption in 1994 of the EC Deposit Guarantee Schemes Directive, most EU member states were forced to either introduce a deposit insurance system or modify their existing scheme to comply with the new community legislation. This article examines the main features of the deposit insurance schemes now operated in the 15 members states of the European Union and assesses the extent to which, individually, they comply with "best-practice" rules for explicit deposit insurance systems as promulgated by the International Monetary Fund. Using what he the author describes as a "relatively crude but nevertheless objective measure of the extent of such compliance," the author ranks the member states are ranked and compareds the results with the ratings achieved by the deposit insurance systems operating in the United States and Japan. The comparison indicates that all schemes operated by mMember sMember States compare poorly with their North American counterpart. The main factors responsible for depressing the EU scores are the failure to adopt prompt corrective action provisions, the failure of most nations to impose co-insurance on depositors, overgenerous levels of protection, and the failure to commit to the recommended timetable for reimbursing depositors. The author submits, however, that some of these failings partly reflect the errors and omissions contained in the guiding EC directive.

He, Guanghui. 2003. *Cun Kuan Bao Xian Zhi Du Yan Jii* (Analysis of the Deposit Insurance System). Beijing Shi: Zhongguo Jin Rong Chu Ban She.

In Chinese without English summary.

Hellenic Deposit Guarantee Fund. 2000. Hellenic Deposit Guarantee Fund.

This publication provides depositors and researchers with comprehensive information about the role and functions of the Greek deposit insurance scheme, the Hellenic Deposit Guarantee Fund (TEK). The publication explains the management of the TEK, sources of financing and revenue, coverage levels and eligible deposits, obligations of participating credit institutions, supervision of the TEK, cooperation with the deposit guarantee schemes of other countries, and the current status of and future outlook for the TEK.

Hellenic Deposit Guarantee Fund (TEK). 2001. *Hellenic Deposit Guarantee Fund*. TEK.

This publication provides depositors and researchers with comprehensive information about the role and functions of the Greek deposit insurance scheme, the Hellenic Deposit Guarantee Fund (TEK). The publication explains the management of the TEK, sources of financing and revenue, coverage levels and eligible deposits, obligations of participating credit institutions, supervision of the TEK, cooperation with the deposit guarantee schemes of other countries, and the current status of and future outlook for the TEK. (© 2001 EconLit)

Honda, Esturo. 2003. Financial Deregulation in Japan. *Japan and the World Economy* 15, no. 1:135–40.

This paper discusses the Financial Big Bang of 1996 in Japan and the structural reform of the financial system by the Koizumi administration, and how these two events changed the financial sector in Japan. These two occurrences greatly reduced the amount of financial regulation the Japanese government imposed on banks. The author argues that regulation of the financial sector is important, and believes that when deregulation occurs, wrong incentives and moral hazard can occur if certain aspects, like the speed and time sequence of deregulation, are not taken into account.

Hong Kong Monetary Authority. 2002. Introducing Deposit Insurance in Hong Kong. Consultation Paper. Hong Kong Monetary Authority.

This paper makes recommendations about the implementation of a deposit insurance system in Hong Kong. Among the areas covered are the type and amount of insurance coverage, the criteria to be used during an insurance payout, and the composition of the board of directors of the insurance authority. The intent of the paper is to generate feedback before the preparation of legislation that would establish a deposit insurance system in Hong Kong.

Hong Kong Monetary Authority. 2003. Deposit Protection Scheme Bill. Hong Kong Monetary Authority *Quarterly Bulletin* (June): 41–45.

In December 2000, the Legislative Council of Hong Kong passed a motion urging the government to expeditiously implement a cost-efficient deposit protection scheme for the purpose of protecting small depositors. In addition to being cost-effective, the scheme was to be easy for depositors to understand. After much study, the Hong Kong Monetary Authority developed a set of proposals on how to best structure the deposit insurance scheme. These proposals were reflected in the Deposit Protection Scheme Bill that was introduced into the Legislative Council in April 2003. This article describes the major provisions of the legislation and the rationale behind them.

Hoontrakul, Pongsak, and David Walker. 2002. Transitioning from Blanket to Limited Deposit Guarantees: Thailand Policy Considerations. Occasional Papers no. 32. South East Asian Central Banks Research and Training Centre (SEACEN).

The authors discuss the transition from blanket deposit guarantees to an explicit deposit insurance system that has been underway in many Asian countries since the 1997 Asian financial crisis. Focusing on Thailand, the authors argue that for this transition to be effective, it must begin only when the banking system is stable and the economy is favorable. Moreover, the authors suggest a two-sided model for the deposit insurance system in Thailand. The first side mimics the deposit insurance system in the United States while keeping deposit insurance coverage relatively low. The second mimics the system in Germany, where higher coverage is available on a voluntary basis.

Hwange, Dar-Yeh, Jung-Chu Lin, and Ching-Chung Lin. 2003. A Study on Desigining a Financial Supervisory Institution in Taiwan. *Review of Quantitative Finance and Accounting* 20, no. 1:81–106.

This paper investigates world trends in financial supervision, including the separation of treasury and finance and the shift from departmental regulation to functional regulation. Based on the trend toward integration in financial supervision and examination, this paper proposes the adoption of a functional approach to financial supervision and the problems that may occur when the financial supervisory framework in Taiwan is restructured. This paper also discusses various financial institution supervisory models and weighs their advantages and disadvantages. Finally, it advances other issues concerned with the restructuring of the financial supervisory system, including the repositioning of the Central Deposit Insurance Corporation (CDIC), and adjustments in the powers conferred upon the Central Bank to conduct examinations. (© 2003 Kluwer Academic Publishers)

Kane, Edward J., and Tara Rice. 2000. Bank Runs and Banking Policies: Lessons for African Policymakers. Working Paper no. W8003. National Bureau of Economic Research.

This paper examines the near-constant stresses that have plagued African banking systems over the last 20 years and seeks to explain the sources of the persistent crises. The author's central hypothesis is that stress comes predominantly from unbooked losses and that the level of unbooked losses that a banking system can accumulate depends on its information environment and on the effectiveness of government efforts to supervise and guarantee bank solvency. To wit, the authors' present evidence that over the 1980–99 period the average length of time an African banking system spent in crisis increased with the level of government corruption. The paper concludes with recommendations on how African policy makers can reduce incentive conflict and improve the allocation of economic resources. Among these recommendations are calls for imposing adequate disclosure protocols on banks, improving the ways in which regulators analyze bank-level data, and developing sufficient administrative capacity throughout the various systems to allow for the efficient absorption of an economic or financial shock.

Kaplan-Appio, Idanna. 2002. Estimating the Value of Implicit Government Guarantees to Thai Banks. *Review of International Economics* 10, no. 1:26–35.

The paper estimates the contingent liability of the Thai government to their banking system prior to the 1997 financial crisis by maximizing a likelihood function that utilizes the established result that deposit insurance can be modeled as a put option on the value of bank assets. The results show that the estimated value of the government guarantee was large and statistically greater than the premium banks paid for this guarantee, suggesting that guarantees provided a subsidy to Thai banks. Additionally, the estimates are able to identify weak banks before the crisis emerged. These results suggest that the estimated value of implicit deposit guarantees can serve as an early warning indicator of banking crises. The paper contrasts the option pricing results with traditional balance sheet indicators, and demonstrates that these alternative indicators are unable to identify weaknesses in the Thai banking systems before the crisis. (© 2002 Blackwell Publishing)

Kopecky, Ondrej. 2001. Bankovni regulace v mezivalecnem Ceskoslovensku (Banking Regulation in Czechoslovakia 1918–1938.) [With English summary.] *Finance a Uver* 51, no. 5:280–98.

The article surveys the establishment of a legislative framework providing for banking regulation in Czechoslovakia during 1918-38. The state intervened in bank sanitation twice during economic recessions in the early 1920s and 1930s. The shocks resulted in the adoption of banking laws to strengthen the stability of the banking sector. The laws interfered with the internal organization of banks, compelled personal responsibility on the part of bank management, protected creditors, and supported inexpensive credit. The Ministry of Finance supervised and pursued license policies. Other control activities were delegated to autonomous professional institutions. The article goes into great detail in describing the development of the areas mentioned above, and concludes in presenting an estimate of state assistance related to sanitation waves. (© 2001 EconLit)

Kuwayama, Patricia Hagan. 2000. Postal Banking in the United States and Japan: A Comparative Analysis. *Monetary and Economic Studies* 18, no.1:73–104.

This paper analyzes the experience of the U.S. postal savings system, and compares it to Japan's experience, with a view to assessing the past and potential future role of the postal savings system in Japan. It finds that demand for postal savings deposits is explained, in both countries, mainly by two variables: price (interest differentials) and confidence in private banks. Geographical accessibility in rural areas is of less, and diminishing, importance. It is argued that postal banking should be viewed as an alternative to publicly sponsored deposit insurance, as a means to ensure households' access to safe and convenient savings and payment services. Accordingly, the reforms undertaken in the next few years under the outline set out by the 1998 Basic Law on the Reform of Central Government Ministries and Agencies might best aim to restructure postal savings as a "narrow bank," whose services are priced to fully reflect costs and risks incurred. (© 2002 EconLit)

Mackey, Michael M. 1999. Report on the Comprehensive Evaluation of the Operations and Functions of the Fund for the Protection of Bank Savings “FOBAPROA” and Quality of Supervision of the FOBAPROA Program 1995–1998. Report to the Congress of Mexico. Institute for the Protection of Bank Savings, Mexico.

This report was requested by the Congress of Mexico so that the lawmakers would be better equipped to evaluate a 1998 proposal to recognize the debt of the Fund for the Protection of Bank Savings (FOBAPROA) as public debt. To this end, the author analyzes how well FOBAPROA and the entities charged with supervising it fulfilled their mandates during the restabilization of the Mexican financial sector. The report also provides background information on the establishment of FOBAPROA, a description of the regulatory and supervisory framework in which the fund operated, a review of FOBAPROA's sources and uses of funding, and a calculation of the fiscal costs incurred by FOBAPROA's rehabilitation programs. The report concludes that although the fund's operations were costly and structurally deficient, FOBAPROA did succeed in protecting depositors and, at least partially and temporarily, did mitigate the problems engendered by Mexico's weak and inadequately capitalized banking system.

Manukyan, Artak. 2003. A Deposit Insurance System for Armenia. Working Paper 0306. Federal Reserve Bank of Cleveland.

In this paper the author outlines the official deposit guarantees for the Republic of Armenia. The main features discussed are the limited coverage of deposits, extended liability of banks for losses incurred by the insurance fund, and separation from the central bank. This proposed design is consistent with the Armenian economic structure and financial system.

Matherat, Sylvie, and Vichett Oung. 2000. An Overview of France's New Deposit Insurance System. *Revue d'économie financière*, no. 60:221–32. [Published in English.]

Although deposit insurance schemes are theoretically redundant with capital adequacy standards, experience showed that a system combining both approaches was necessary in maintaining financial stability. Applications of regulation on the subject vary in countries concerned. As regards deposit insurance schemes however, models implementing risk-related premiums—more effective but more costly to maintain—are developing. The new French deposit insurance scheme is in line with this trend, by establishing deposit insurance premia that are based not only on deposits but also on the level of risk specific to each credit institution. The level of risk is determined by different parameters that are solvency, profitability, risk diversification and transformation. (© 2002 EconLit)

Mayes, David. 2000. A More Market Based Approach to Maintaining Systemic Stability. Occasional Paper no. 10. [New Zealand] Financial Services Authority.

This paper reviews the new and innovative system of banking supervision that New Zealand implemented in 1996. The system gives bank managers and directors the responsibility for maintaining individual banks' vitality, while the bank regulator concentrates on maintaining stability in the financial system as a whole. The system contains a network of incentives to ensure that bank shareholders, directors, managers, depositors, and analysts all focus on risk management. To this end, extensive disclosure is required. The system also controls the structure, ownership, and management of banks so as to encourage prudential behavior. Finally, the system grants the Reserve Bank ample powers to take swift action in case of bank crises, including the power to place insolvent banks under statutory management as necessary. The paper discusses ways in which these principles can be applied in the EU countries. One obstacle to the transferability of the New Zealand system, however, is the fact that New Zealand has no explicit deposit insurance scheme.

Monetary Authority of Singapore. 2002. Deposit Insurance Scheme. Consultation Paper. Supervisory Policy Department, Monetary Authority of Singapore.

This paper rationalizes the need for deposit insurance in Singapore by describing in general terms the role deposit insurance plays in depositor protection and the specific objectives it will achieve in Singapore—primarily protecting small depositors and reducing the moral hazard of an implicit government guarantee. The paper then outlines the main features of the proposed deposit insurance scheme. Membership will include all banks and finance companies; coverage will include all dollar deposits held by residents and by nonresident individuals (no corporate deposits or interbank placements will receive coverage), and coverage will be S$20,000 on a per depositor, per institution basis (rather than on each deposit account); funding will be provided through premium contributions from members, and the deposit insurance target fund should be 30 basis points of total insured deposits; risk-based premiums will be based on a bank's supervisory rating and asset maintenance (AM) ratio (this ratio is for foreign banks). The paper also includes a technical addendum that explains how the features of the proposed Singapore deposit insurance scheme were developed and what model was used to analyze the various features.

Okeahalam, Charles C., and Tudor Maxwell. 2001. Deposit Insurance Design and Bank Regulation in South Africa. *Journal of Financial Regulation and Compliance* 9, no. 2:139–50.

Many nations have established explicit deposit insurance systems to prevent bank runs and to mitigate the economic costs associated with individual bank failures. Experience has shown, however, that explicit deposit insurance can increase the risk-taking behavior of banks. In this article, the authors explore the implications of the relationship between deposit insurance design and bank system stability. They then relate this to the recent history of bank failure in South Africa. Finally, they describe the development and testing of a model of the proposed South African Deposit Insurance Scheme (SADIS).

Padierna, Dolores. 2000. *La Historia Oculta del FOBAPROA* (The Hidden History of the FOBAPROA). Mexico: Ediciones Biblioteca Plural. [In Spanish without English summary.]

This book recounts the story of the Mexican banking crisis of the mid–1990s and the fall of the FOBAPROA (Fund for the Protection of Bank Savings), an insurance fund then in place to assist banks and cover their liabilities. After describing the conditions and events that led to the banking collapse and the policies implemented to rescue the industry, the author concentrates on the political context of the crisis and subsequent bailout, identifying each of the individuals and groups that had a role in financial sector management, regulation, and policymaking.

Reserve Bank of India. 1999. Report on Reforms in Deposit Insurance in India. Reserve Bank of India.

This is the report of the Working Group on Reforms in Deposit Insurance in India. The Working Group makes recommendations in the areas of institutional coverage, types of deposits covered, level of deposit insurance coverage, the deposit insurance fund, the premium system, the capitalization of the Deposit Insurance Corporation (DIC), the DIC's tax status, and inspection and supervision programs, the corporation's role as liquidator and receiver, and the deposit insurance public-awareness program.

Riechel, Klaus-Walter. 2001. Financial Sector Regulation and Supervision: The Case of Small Pacific Island Countries. Policy Discussion Paper 01/6. International Monetary Fund.

This paper discusses financial-sector regulation and supervision in Pacific Island countries, with a focus on supervision of both traditional banks and nonbank financial intermediaries. One of the important findings is that more cooperation between all areas of financial supervision and regulation is needed to ensure the soundness of bank and nonbank financial institutions. In light of this finding, the author reviews recent proposals that strengthen regional cooperation and also discusses areas that need further attention.

Rodriguez, Vega, Francisco Javier, Salvador Vega, and Luz Elvira Quiroz. La singular historia del rescate bancario mexicano de 1994 a 1999, y el relevante papel del Fobaproa: Un analisis del papel del "prestamista de ultima instancia." [In Spanish without English summary.]

The financial crisis that began with the devaluation of the Mexican peso in December 1994 eventually led to the collapse of that country's entire financial sector; the international financial community helped Mexico rescue its banks, but the crisis still took an enormous toll on the country's economy. This book recounts the dramatic story of the Mexican banking industry's rescue from financial crisis. It begins with an historical overview of banking crises around the world and background on the Mexican banking system, including a comprehensive economic, political, and social history of the Mexican financial sector. It then focuses on the Mexican banking crisis, addressing the peso's devaluation, the FOBAPROA's (Fund for the Protection of Bank Savings) catastrophic absorption of bad loans, and the subsequent creation of the Instituto para la Protección al Ahorro Bancario, or IPAB (the Bank Savings Protection Institute).

Rosales, Ricardo Solis, ed. 2000. Del FOBAPROA al IPAB: Testimonios, analisis y propuestas. Mexico, D. F: Plaza y Valdes Editores: Universidad Autonoma Metropolitana, Iztapalapa. [In Spanish without English translation.]

This collection presents testimonies, analyses, and proposals regarding the transition of the Mexican deposit insurance system from the FOBAPROA to the Bank Savings Protection Institute (IPAB).

Shim, Young. 2000. *Korean Bank Regulation and Supervision: Crisis and Reform*. Boston: Kluwer Law International.

This work analyzes Korea's current bank regulatory scheme, identifies the weaknesses that persist in the wake of the financial crisis of 1997, and discusses possible reforms, focusing particularly on who should assume the role of regulator, what supervisory standards the regulator should apply, and how these standards should be implemented. The suggested regulatory approach is that the supervisory system be allowed to operate within a competitive market environment while being shielded from excessive governmental and/or political influences that may interfere the safety-and-soundness objectives of the bank regulator. This new degree of independence would have to be balanced, however, by a heavy emphasis on transparency and accountability, with appropriate monitoring and enforcement mechanisms in place to ensure adherence to the primary policy objectives of bank regulation.

Spiegel, Mark M. 2000. Bank Charter Value and the Viability of the Japanese Convoy System. *Journal of the Japanese and International Economies* 14, no. 3:149–68.

This paper compares the performance of a convoy banking system, similar to that which prevailed in Japan, to a fixed-premium deposit insurance regime. While neither regime is generally preferable over the other, the performance of the convoy system is shown to be more sensitive to changes in bank charter values and the overall health of the banking system under fairly general conditions. The recent breakdown of the convoy system may therefore be partly attributable to adverse movements in these characteristics in Japan. (© 2002 EconLit)

Szapary, Gyorgy. 2001. Banking Sector Reform in Hungary: Lessons Learned, Current Trends and Prospects. NBH Working Paper no. 2001/5. National Bank of Hungary.

Hungary was the first of the Central and Eastern European Countries to begin reforming its banking system. This paper first reviews the history of reform and current trends in the Hungarian banking system and then draws some lessons that may be useful for countries in the early stages of the reform process. The paper makes the specific point that, when state enterprises are in poor condition, it is essential that the restructuring of banks be concurrent with the restructuring of state enterprises.

Thomson, Di, and Malcolm Abbott. 2001. Banking Regulation and Market Forces in Australia. *International Review of Financial Analysis* 10, no. 1:69–86.

The purpose of this paper is to use Kane's notion of the regulatory dialectic to analyze the changing nature of bank regulation in Australia. Throughout Australia's economic history, economic regulation of the Australian banking system has not been static but has responded to changes in technology, market forces, and the behavior of regulated institutions. From this analysis, some inferences about general banking principles and policy can be made. (© 2001 EconLit)

Tirapat, Sunti. 2002. Risk-Based Deposit Insurance: An Application to Thailand. *Review of Pacific Basin Financial Markets and Policies* 5, no. 2:149–79

This paper uses option pricing to estimate deposit insurance premiums for Thailand from 1992 to 1996. The author uses two models in his calculations: the Black-Scholes model and the barrier model of Boyle and Lee (1994). He argues that the latter model is more suitable for Thailand's newly developed financial structure because it does not assume that asset volatility is endogenous. He finds that deposit insurance premiums are higher for institutions that failed than for nonfailed institutions. He also finds that option premium pricing varies over time and is lower than the premiums charged by Thialand's Financial Institutions Development Fund.

Walker, David, and Pongsak Hoontrakul. Transitioning from Blanket to Limited Deposit Guarantees: Thailand Policy Considerations. *Sasin Journal of Management* 7, Supplement.

This article proposes a two-tiered tier deposit insurance system model for Thailand's banking system similar to those used by the Canada Deposit Insurance Corporation (CDIC) and the Federal Deposit Insurance Corporation (FDIC). The first tier of the system would be compulsory and publicly administered and would provide deposit protection for low levels of bank deposits in the same manner as with the FDIC and CDIC do.. The second tier would be similar to the public/private system that is used in Germany to provide voluntary additional protection for high-coverage-level bank deposits not covered by the public system.

Yang, Jiacai. 2001. *Cun Huan Bao Xian Zhi Du Ji Zhongguo Mo Shi*. Zhonggu Jin Ron Chu Ban She.

This book explores whether China has the market basis for the establishment of a deposit insurance system. The first chapter examines the theoretical foundation for deposit insurance systems. The second chapter is an overview of the operating characteristics and achievements of deposit insurance systems in other countries and territories. The third chapter explains market foundations for developing a deposit insurance system in China. The fourth chapter proposes a design for a deposit insurance system with Chinese characteristics, and the fifth chapter addresses moral hazard and the moral corruption that could result from the adoption of such a system.

Yilmaz, Rasim. 2003. Bank Runs and Deposit Insurance in Developing Countries: The Case of Turkey. Ph.D. diss., The American University, Washington D.C..

This study uses the recent banking crisis in Turkey as a case study to determine if, how, and to what extent deposit insurance might play a role in such a crisis. In the first part of the study, the author empirically investigates the reasons for bank failures in Turkey and tests the hypothesis that the presence of full-coverage deposit insurance after 1994 worsened the financial condition of Turkish banks. Using a two-stage approach, the author first constructs a probit model to analyze selected determinants of commercial bank failures in Turkey. In the second stage, the author investigates the effects of moral hazard and adverse selection by examining the financial ratios of the Turkish banking sector before and after the implementation of full-coverage deposit insurance. The results indicate that bank failures in

Turkey were positively and strongly correlated with the presence of full-coverage deposit insurance. Although these results suggest that full-coverage deposit insurance may not be beneficial in a developing country, results from a follow-up microstudy of a recent bank run in Turkey demonstrate that the removal of deposit insurance coverage can exacerbate problems with bank runs. Apparently small depositors are unable to distinguish between solvent and insolvent banks during a run. Thus, the author concludes that at least some deposit insurance coverage is needed to protect unsophisticated small depositors and to reduce contagion effects.

10. Deposit Insurance Reform in the United States: Pre-FDICIA

The Federal Deposit Insurance Corporation Improvement Act was passed in December 1991. Entries in this section were published before or soon after the act's passage and describe the problems and weaknesses of the pre-FDICIA deposit insurance system. Highlighting the need for reform, these entries contain numerous recommendations for reforming, if not abolishing or privatizing, deposit insurance.

No entries.

11. Deposit Insurance Reform in the United States: Post-FDICIA

Entries in this section were published after passage of the FDICIA reform legislation in December 1991. They include overviews of the law; periodic assessments of its application and effectiveness, its weaknesses and shortcomings, and its effect on bank operations and incentive structures; discussions of continuing problems with bank regulation and deposit insurance; and recommendations for additional reforms.

Akhigbe, Aigbe, and Ann Marie Whyte. 2001. The Impact of FDICIA on Bank Returns and Risk: Evidence from the Capital Markets. *Journal of Banking and Finance* 25, no. 2:393–417.

> This study examines the effect of the Federal Deposit Insurance Corporation Improvement Act (FDICIA) of 1991 on bank stock returns and risk. The authors find that FDICIA had a generally positive effect on bank stock returns and resulted in a significant reduction in bank risk. The extent of the risk reduction varies based on the capitalization, size, and credit risk of the institutions with poorly capitalized, large, and high credit risk banks experiencing the greatest risk reduction. The results obtained using two separate control groups also bolster the conclusion that FDICIA's passage resulted in a significant decline in bank risk. (© 2001 EconLit)

Eisenbeis, Robert A., and Larry D. Wall. 2002. Reforming Deposit Insurance and FDICIA. Federal Reserve Bank of Atlanta *Economic Review* 87, no. 1:1–16.

> Ongoing discussions about deposit insurance reform center on several issues, including the appropriate insurance premium structure, the appropriate size of the insurance fund, and the appropriate amount of coverage—all issues that reflect a concern with how to allocate the losses arising from bank failures. The authors of this article argue that such issues, although important, do not affect the performance of the deposit insurance system, nor should they be the focus of deposit insurance reform. Rather, the authors contend, reform efforts should be directed toward strengthening the incentives to enforce the least-cost resolution provisions of the Federal Deposit Insurance Corporation Improvement Act of 1991 (FDICIA).

Evanoff, Douglas D., and Larry D. Wall. 2000. Subordinated Debt as Bank Capital: A Proposal for Regulatory Reform. Federal Reserve Bank of Chicago *Economic Perspectives* 25, no. 2:40–53.

> This article outlines an approach to help limit the government's safety net by enhancing market discipline with the use of subordinated debt. The authors argue that subordinated debt can be a useful mechanism for providing market discipline and that it can be particularly effective when combined with the prompt corrective action and least-cost resolution provisions contained in the FDIC Improvement Act of 1991 (FDICIA). The

author's plan provides for a phased implementation of a subordinated-debt requirement for large banks that allows for future modifications, should they be necessary. In its final form, the author's plan calls for a minimum sub-debt requirement of at least 3 percent of risk-weighted assets that would be applicable to the nation's 25 largest banks. The paper also summarizes some of the existing subordinated debt proposals and responds to some of the concerns raised about the viability of subordinated-debt proposals

Federal Deposit Insurance Corporation (FDIC). 2000. *Deposit Insurance Options Paper*. FDIC.

This document assesses the FDIC's ability to maintain the safety and soundness of the nation's banking system during the next decade as industry consolidation, globalization, expanded service provision, and new technologies continue to change the nature and operation of the industry. Three areas for reform are emphasized: (1) pricing risks, (2) funding insurance losses, and (3) setting coverage limits. First, given the premise that insurance should be priced to reflect the risk that an individual bank presents to the deposit insurance system, the report discusses methods of implementing expected loss pricing and analyzes the types of information on which such risk differentiations could be based. Next, it explores options for funding deposit insurance losses. One option is to use a fee system in which banks have no claim on past premiums; another is a mutual approach in which banks would have some claims on past payments, either in the form of rebates when the insurance fund is too large or as direct claims on the insurance fund, similar to mutual fund shares. Finally, the report addresses the trade-off between stability and market discipline in establishing coverage levels, and discusses various methods for setting these levels. The relative merits of the current system of *ad hoc* statutory adjustments are compared with structures that would index coverage for inflation, limit a specified coverage amount to one account per person, provide higher coverage to municipal and other public deposits, increase reliance on private insurance, and introduce new types of excess insurance.

Furlong, Fred, and Simon Kwan. 2002. Deposit Insurance Reform—When Half a Loaf Is Better. Federal Reserve Bank of San Francisco *Economic Letter*, no. 2002–14, May 10.

In mid-February 2002, both houses of U.S. Congress introduced deposit insurance reform legislation that were broadly similar in that they reflected the same choice of options from among those put forward in the FDIC's *Options Paper* on deposit insurance reform (2001). In this letter, the authors review the major provisions of the legislation and argue that the provisions that (1) would give the FDIC more flexibility in setting deposit insurance premiums and (2) would merge the bank insurance fund with the savings association insurance fund, are positive steps toward reform. On the other hand, the authors also make a case against provisions that would raise insurance coverage and index the current insurance limits to the rate of inflation. As of June 2005, similar versions of this legislation were still being debated in the Congress.

Isaac, William M. 2000. Financial Reform's Unfinished Agenda, A Look at Deposit Insurance Funds. Federal Reserve Bank of Minneapolis *The Region* 14, no. 1:34–37.

The author, Chairman of the FDIC from 1981 to 1985, believes that Congress should reexamine the federal financial safety net and the financial-service industry's regulatory structure, with the goal of reforming the deposit insurance system. He thinks that the Bank Insurance Fund and the Savings Association Insurance Fund should be merged, the Office of Thrift Supervision and the Office of the Comptroller of the Currency should be combined, and the FDIC should be removed from the federal budget. The author also believes that banks and thrifts have not borne the cost of the deposit insurance system and that they should be required to pay more. Note: This article is a condensed version of the author's testimony on February 16, 2000, before the Subcommittee on Financial Institutions and Consumer Credit of the House Committee on Banking and Financial Services (see entry below for U.S. House).

Jackson, William D. 2003. Federal Deposit and Share Insurance: Proposals for Change. Report for Congress (September 4). Congressional Research Service.

The provisions of the Federal Deposit Insurance Reform Act of 2003 are discussed. This act proposes changes to the FDIC's structure and the pricing of deposit insurance. It also seeks to increase coverage for individual accounts (from $100,000 to $130,000) and for municipal accounts. The proposed act was never passed by congress.

Kaufman, George G. 2001. Reforming Deposit Insurance—Once Aagain. Federal Reserve Bank of Chicago. *Chicago Fed Letter* 171

In 2001 the FDIC published two papers on deposit insurance reforms. The first singled out provisions of the current deposit insurance structure that the FDIC believed needed to be revisited, and the second presented the FDIC's recommendations for changes to those provisions. This *Chicago Fed Letter* describes the current structure of deposit insurance and discusses some of the provisions that the FDIC wanted reexamined.

Kaufman, George G. 2002. FDIC Reform: Don't Put Taxpayers Back at Risk. *Policy Analysis* no. 432 (April 16). Cato Institute.

As currently structed,, the FDIC is privately funded (by the banking industry) yet is a government-managed institution. This structure may be changed if proposals before the U.S. Congress are enacted. These proposed changes include not requiring the FDIC to increase insurance premiums sufficiently and quickly enough when one of the insurance funds falls below the designated reserve ratio (1.25% of insured deposits), increasing the guaranteed coverage above the current level of $100,000, and not having bank insurance premiums reflect the riskiness of the bank. The author argues that if adopted, these proposed changes would decrease market discipline and promote regulatory forebearance. In other words, these changes would allow banking regulation and supervision to revert to their pre-FDICIA state. Before FDICIA, losses to the FDIC-administered deposit insurance funds were funded by the taxpayer.

Kaufman, George G., ed. 2002. *Prompt Corrective Action: 10 Years Later*. Research in Financial Services: Private and Public Policy, vol. 14. Elsevier Science Ltd.

In 1991, Congress passed the Federal Deposit Insurance Corporation Improvement Act (FDICIA). Among the act's key reforms to the deposit insurance system was a provision requiring prompt regulatory corrective actions (PCA) that regulators have to apply as an insured depository institution's financial health progressively deteriorates. Since its introduction in the United States, PCA has been adopted in many other countries. How well has it worked? The papers collected in this volume attempt to answer this question for both the United States and other countries. Several of the papers also propose techniques or policies that could reinforce or provide alternatives to some of PCA's key provisions. All the papers in this volume were presented by the authors and commented on by the discussants at invited sessions at the annual meeting of the Western Economics Association in Seattle, Washington, in July 2002. The papers are "Subordinated Debt and Prompt Corrective Regulatory Action," by Douglas Evanoff and Larry Wall; "Can Feedback from the Jumbo-CD Market Improve Off-Site Surveillance of Community Banks," by R. Alton Gilbert, Andrew Meyer, and Mark Vaughan; "Did FDICIA Enhance Market Discipline on Community Banks? A Look at the Evidence from the Jumbo-CD Market," by John Hall, Thomas King, Andrew Meyer, and Mark Vaughan; "The Major Supervisory Initiatives Post-FDICIA: Are They Based on the Goals of PCA? Should They Be?" by Robert Eisenbeis and Larry Wall; "Differentiating among Critically Undercapitalized Banks and Thrifts," by Lynn Shibut, Tim Critchfield, and Sarah Bohn; "Pricing Bank Distress: Before and after FDICIA," by Gerald Hanweck and Lewis Spellman; "Do Depositors Discipline Swiss Banks?" by Urs Birchler and Andrea Maechler; "PCA in International Practice," by Aristóbulo de Juan; and "When Does Financial Liberalization Make Banks Risky? An Empirical Examination of Argentina, Canada, and Mexico," by William Gruben, Jahyeong Koo, and Robert Moore.

Kaufman, George G., and Peter J. Wallison. 2001. The New Safety Net. *Regulation* 24, no. 2:28–35.

Following the costly banking and thrift crises of the 1980s and early '90s, the United States dramatically reformed the federal government safety net for depository institutions, which economists blamed for the outbreak and high cost of the crises. The reforms, highlighted by the 1991 Federal Deposit Insurance Corporation Improvement Act, curtailed poor agency behavior by federal regulators, curtailed the notion that the federal government would "bail out" uninsured depositors of large or politically well-connected banks, and decreased abuse of Fedwire and Federal Reserve Lending. However, other reforms are still needed to limit moral hazard behavior and to make the banking industry, itself, responsible for the health of individual banks. (© 2001 EconLit)

Martin, Antoine. 2003. A Guide to Deposit Insurance Reform. Federal Reserve Bank of Kansas City's *Economic Review* 88, no. 1:29–53.

Currently, both houses of Congress are debating new ways to reform deposit insurance. The view of many in the banking industry is that currently deposit insurance has a number of flaws. In this paper, the author provides a guide to key issues in the current deposit insurance debate. He gives a brief history of deposit insurance, exploring the roots of the problems that concern the industry today. Next, he provides an overview of the current reform proposals as they relate to three issues: the size of the fund, the structure of insurance premiums and rebates, and insurance coverage. (© 2003 FRB of Kansas City)

Murphy, Michael J. 2000. *Washington Public Deposit Protection Commission Manual*. Washington Public Deposit Protection Commission.

This document delineates the operations of Washington State's Public Deposit Protection Commission, which extends insurance coverage to public funds that exceed the FDIC coverage limits. Beginning in 1969, full protection of public funds has been achieved through the concept of "mutuality of responsibility" where all participating banks in the State of Washington collectively assure that no loss of public funds will be suffered by any public treasurer or custodian of public funds.

Thomson, James B. 2000. Raising the Deposit-Insurance Limit: A Bad Idea Whose Time Has Come? Federal Reserve Bank of Cleveland *Economic Commentary* (April 15).

This article examines the potential costs and benefits of doubling the deposit insurance coverage limit, raising it to $200,000 from the current $100,000 and substantially extending the federal financial safety net. The author argues that the average depositor will not benefit from a higher deposit insurance ceiling because the $100,000 coverage currently provided is sufficient to meet the average depositor's requirements. According to the author, less than 2 percent of depositors need an increase in coverage. In addition, the current deposit insurance limit provides a level of coverage that is well in excess of the real coverage granted in 1934. Thus, the author finds no compelling reason to increase the insurance coverage limit and suggests that reducing the ceiling may in fact be more appropriate.

Thomson, James B. 2000. Two Deposit Insurance Funds Are Not Necessarily Better Than One. Federal Reserve Bank of Cleveland *Economic Commentary* (October 15).

This commentary examines the question of merging the two separate insurance funds that exist for banks and savings associations. Many arguments have been made in support of a recent reform proposal to join the funds: a fund merger would lower the FDIC's administrative costs, reduce the paperwork processed by banks and thrifts that currently have deposits covered by both funds, and decrease the taxpayer risk associated with federal deposit guarantees. However, merging the insurance funds can also stifle regulatory competition and expose banks and housing finance lenders to risks they would not normally bear. The author concludes that the benefits associated with maintaining separate funds are minimal and that the proposal to combine the funds should be seriously considered.

Thomson, James B. 2001. Who Benefits from Increasing the Deposit Insurance Limit? Federal Reserve Bank of Cleveland. *Economic Commentary* (September).

This article explores issues related to the notion of raising the federal deposit insurance limit to $200,000, and particularly the issues of which parties would benefit from increases in the limit and would the benefits be consistent with the social objectives of deposit insurance. Potential benefits to three groups are examined: stakeholder-depositors, community banks, and taxpayers. The author argues that if the social objective of deposit insurance is to protect small savers, there is little justification for raising the coverage limit. However, raising the coverage limit might have positive social-welfare effects if the objective is to level the playing field between small and large banks. The author also contends that there is little evidence that taxpayers would benefit from increases in the limit;, the experience of the 1980s suggests they might even be harmed. Finally, in summarizing, the author raises the question of whether government intervention is still necessary, given all the advances in information and technology and the financial markets reforms enacted in the 1990s.

U.S. House. 2000. Subcommittee on Financial Institutions and Consumer Credit of the Committee on Banking and Financial Services. *Merging the Deposit Insurance Funds: Hearing*. 106th Cong., 2d sess., February 16.

This congressional hearing focused on the feasibility of merging the FDIC's two deposit insurance funds, the Bank Insurance Fund and the Savings Association Insurance Fund, which provide insurance coverage for banks and thrifts, respectively. The hearing also considered two related questions: should a merged fund include an upper cap on its growth, and should the fund pay rebates. The witnesses included Donna Tanoue, Chairman, FDIC; Gregory Baer, Assistant Secretary for Financial Institutions, Department of the Treasury; Hjalma Johnson, Chairman and CEO, East Coast Bank Corporation, on behalf of the American Bankers Association; William Fitzgerald, Chairman and CEO, Commercial Federal Bank, on behalf of America's Community Bankers; Thomas Sheehan, President, Chairman, and CEO, Grafton State Bank, on behalf of the Independent Community Bankers of America; William Isaac, Chairman, the Secura Group and Secura Burnett Company; Martin Mayer, Guest Scholar, the Brookings Institution; Kenneth Thomas, Lecturer on Finance, the Wharton School, University of Pennsylvania.

U.S. House. 2001. Subcommittee on Financial Institutions and Consumer Credit of the Committee on Banking and Financial Services. *Deposit Insurance Reform: Hearing*. 107th Cong., 1st sess., May 16.

Witnesses include David Bochnowski, Robert I. Gulledge, James E. Smith, and Hon. Donna Tanoue.

U.S. House. 2001. Subcommittee on Financial Institutions and Consumer Credit of the Committee on Banking and Financial Services. *Viewpoints of Select Regulators on Deposit Insurance Reform: Hearing*. 107th Cong., 1st sess., July 26.

Witnesses include Hon. Sheila C. Blair, Hon. John D. Hawke Jr., Hon. Laurence H. Meyer, and Hon. Ellen Seidman.

U.S. House. 2001. Subcommittee on Financial Institutions and Consumer Credit of the Committee on Banking and Financial Services. Viewpoints of the FDIC and Select Industry Experts on Deposit Insurance Reform: Hearing. 107th Cong., 1st sess., October 17.

Witnesses include Richard S. Carnell, Nolan L. North, Hon. Donald E. Powell, and Kenneth H. Thomas.

U.S. House. 2003. Federal Deposit Insurance Reform Act of 2003. Report 108-50, Committee on Financial Services. 108th Cong., 1st sess., March 27.

This report refers the Federal Deposit Insurance Reform Act of 2003 (H.R. 522) to the Committee of the Whole House. Among other things, the legislation would have merged the Bank Insurance Fund (BIF) with the Savings Association Insurance Fund (SAIF); increased the standard maximum deposit insurance limit from $100,000 to $130,000 and indexed the limit for inflation; doubled the limit for certain retirement accounts; and increased coverage for certain municipal accounts. It would also have authorized the FDIC to set the ratio of reserves to estimated insured deposits within a range of 1.15 to 1.40 percent; and would have removed legal constraints on the FDIC's authority to charge risk-based premium assessments. The bill would have required assessments to be returned to qualified insured depository institutions in the form of refunds, credits, and dividends whenever specified reserve ratios were exceeded.

U.S. Senate. 2001. Subcommittee on Financial Institutions, Committee on Banking, Housing, and Urban Affairs. Comprehensive Deposit Insurance Reform: Responses to the FDIC's Recommendations for Reform. Hearing. 107th Cong., 1st sess., August 2.

The financial services industry responds to the FDIC's recommendations for reform of the deposit insurance system. Witnesses include Robert I. Gulledge (Independent Bankers of America), Jeff L. Plagge (American Bankers Association), and Curtis L. Hage (America's Community Bankers).

U.S. Senate. 2001. Committee on Banking, Housing, and Urban Affairs. *Protecting Retirement Savings: Federal Deposit Insurance Coverage for Retirement Accounts.* 107th Cong., 1st sess., November 1.

Witnesses include L. Williams Seidman (Chief Commentator, CNBC-TV, and Former Chairman of the Federal Deposit Insurance Corporation), Howell E. Jackson (Professor of Law, Harvard Law School), and Glenn C. Dahlke (President, Dahlke Financial Group).

U.S. Senate. 2002. Committee on Banking, Housing, and Urban Affairs. *The Federal Deposit Insurance System and Recommendations for Reform*. 107th Cong., 2nd sess., April 23.

Witnesses include Donald E. Powell (Chairman, Federal Deposit Insurance Corporation), Alan Greenspan (Chariman, Board of Governors, Federal Reserve System), Peter R. Fisher (Under Secretary for Domestic Finance, U.S. Department of the Treasury), John D. Hawke, Jr.(Comptroller of the Currency, U.S. Department of the Treasury), and James E. Gilleran (Director, Office of Thrift Supervision, U.S. Department of the Treasury).

U.S. Senate. 2003. Committee on Banking, Housing, and Urban Affairs. *The Federal Deposit Insurance System*. 108th Cong., 1st sess., February 26.

This hearing assesses the current state of the U.S. deposit insurance system and proposed reforms. Witnesses include Alan Greenspan, Peter R. Fisher, Donald E. Powell, John D. Hawke, Jr., and James E. Gilleran.

Vaughan, Mark D., and David C. Wheelock. October 2002. Deposit Insurance Reform: Is It Déjà Vu All Over Again? Federal Reserve Bank of St. Louis *Regional Economist* 5–14.

This paper discusses proposed deposit insurance reform legislation that would increase coverage for individual accounts from $100,000 to $130,000. The authors begin by providing a history of deposit insurance in the United States and explaining why deposit insurance was first enacted. They then present arguments for and against the proposed increase in coverage and argue that the increase would exacerbate the problem of moral hazard and lead to increased risk taking by banks.

Wilcox, James A. 2001. MIMIC: A Proposal for Deposit Insurance Reform. *Journal of Financial Regulation and Compliance* 9, no. 4:338–49.

In this article the author proposes a mutual insurance model with incentive compatibility (MIMIC). The MIMIC model is an alternative model for deposit insurance that emulates the incentives and procedures of a mutual insurance organization in order to better align the incentives of banks and the FDIC with those of the government and taxpayers. The main characteristics of the MIMIC model are annual, fully risk-based premiums; payments by the FDIC to the Department of the Treasury for its line of credit and catastrophe insurance; rebates to banks when the reserve ratio exceeds a risk-based ceiling; surcharges for banks when the reserve ratio falls below a risk-based floor; dilution fees on deposit growth to maintain the reserve ratio; and refunds to maintain the reserve ratio when deposits shrink. Adopting the features of the MIMIC model would result in the deposit insurance system's embracing the policies and practices of a private sector mutual insurance organization.

12. Legal Aspects of Deposit Insurance

This section contains entries that are more legal in nature, including but not limited to works dealing with national depositor preference, liability issues in bank-failure cases, case studies from bank-failure resolutions, and legislative histories.

U.S. General Accounting Office (GAO). 2003. *Federal Deposit Insurance Act: FTC Best among Candidates to Enforce Consumer Protection Provisions*. GAO-03-971.

This mandated report responds to congressional concerns that provisions in section 43 of the Federal Deposit Insurance Act (FDI Act) are not being enforced. Since 1991, section 43 has required, among other things, that depository institutions lacking federal deposit insurance shall conspicuously disclose that deposits in these institutions are not federally insured. Rather than looking at all "institutions that are not federally insured," the GAO limited the scope of this report to state-charted credit unions that purchase private primary deposit insurance. To determine the extent of compliance with section 43 among these institutions, GAO staff conducted unannounced site visits to 57 locations of privately insured institutions in Alabama, California, Illinois, Indiana, and Ohio. From these visits, the GAO determined that some privately insured credit unions did not adequately disclose that they were not federally insured. During its investigation, the GAO also found that no federal agency was enforcing compliance with section 43. The Federal Trade Commission—the agency statutorily responsible for enforcing section 43—requested and was granted a prohibition against spending appropriated funds to enforce the section. The GAO identified this lack of oversight as a matter for congressional consideration.

13. Too Big to Fail

Entries in this section deal specifically with the implicit bank regulatory policy known as "too big too fail" (TBTF): its origins; its economic consequences; its effects on bank behavior and risk taking, on banks' cost of funds, and on deposit behavior; and corrective policy prescriptions.

Athavale, Manoj. 2000. Uninsured Deposits and the Too-Big-to-Fail Policy in 1984 and 1991. *American Business Review* 18, no. 2:123–28.

In this paper, an examination is made of changes in the FDIC's TBTF policy regime and the market assessment of default risk in the pricing of uninsured certificates of deposit. Specifically, the author examines changes in the deposit regimes that occurred in 1984 and 1991, using a time series of observations on the interest rates applicable to uninsured certificates of deposit. The results suggest that the pricing of uninsured certificates of deposit has reflected a reduction in default risk over time, implying that market participants believe that regulators will continue to rely on a TBTF policy.

Bastidon, Cecile, and Philippe Gilles. 2001. Prêteur en dernier ressort et statut de "too big to fail" d'un emprunteur souverain: Le "jeu de faux-semblants" appliqué à la crise finançière russe. (When the International Lender of Last Resort Faces a "Too Big to Fail" Sovereign Borrower: The Russian Financial Crisis. With English summary.) *Economie Appliquée* 54, no. 2:129–51.

This paper aims to analyze the moral hazard relationship between Russia and the IMF. The model used, which is original, is one with a multilateral lender, whose utility depends on the stability of the International Financial System (IFS), and a borrowing country, whose debt threatens this stability. For this reason, lending can be optimal for the IMF, knowing that the loans will not be repaid. (© 2001 EconLit)

Bordo, Michael D., and Anna J. Schwartz. 2000. Measuring Real Economic Effects of Bailouts: Historical Perspectives on How Countries in Financial Distress Have Fared with and without Bailouts. Working Paper no. W7701. National Bureau of Economic Research.

The authors offer an historical perspective on financial crises around the world and discuss the types of aid that have been extended, and the policy changes that have been made, in the wake of such crises. The study addresses the question of how bailouts and rescues affect borrowers' incomes and broader macroeconomic measures, such as inflation and interest rates. Empirical analysis focusing on Latin American and Southeast Asian nations tests how macroeconomic variables behaved before, during, and after the countries' bank, debt, or currency crisis. Countries that received IMF or other financial assistance are contrasted with those that did not receive such aid. The model is then refined to account for a self-selection bias that might drive some countries to seek assistance whereas others do not. Results suggest that the performance of countries that obtained IMF assistance during crises was worse than that of countries receiving no assistance.

Kane, Edward J. 2001. Dynamic Inconsistency of Capital Forbearance: Long-Run vs. Short-Run Effects of Too-Big-to-Fail Policymaking. *Pacific-Basin Finance Journal* 9, no. 4:281–99.

This paper begins by reviewing the costs and benefits that fully informed creditors would consider in deciding whether to recapitalize or liquidate an insolvent corporation. It goes on to identify the additional concerns and conflicts of interest that incompletely informed taxpayers face when short-horizoned government regulators manage the insolvency of giant banks. Regulatory decisions may exhibit dynamic inconsistency because opportunistic forbearance offers personal and bureaucratic rewards and officials who confront bank insolvency in a timely way are threatened with substantial reputational and career penalties. However, the model also indicates that dynamically inconsistent capital forbearance could emerge because current taxpayers believe they can shift the costs of resolving bank insolvencies to future taxpayers. (© 2001 EconLit)

Kaufman, George G. 2002. Too Big to Fail in Banking: What Remains? *Quarterly Review of Economics and Finance* 42 no. 3:423–36.

This paper traces the history and evolution of the too-big-to-fail policy in banking. Following that, the author presents a proposal for resolving the failures of large, complex banks—a proposal that avoids unduly disrupting financial markets or significantly reducing the potential market discipline exerted by large off-balance-sheet creditors (primarily swap counterparties). Specifically, the proposal calls for all swap counterparties to large banks to enter into a master contract with the FDIC providing that, if the insured counterparty bank fails, they will be assessed a pro rata share of the loss. This arrangement would be expected to (1) reduce the probability that a large-bank failure would have extreme adverse effects on the economy, and (2) avoid the economic need to use resolution techniques very different from those normally used in resolving the failures of smaller banks.

Kaufman, George G., and Steven A. Seelig. 2002. Post Resolution Treatment of Depositors at Failed Banks: Implications for the Severity of Banking Crises, Systemic Risk, and Too Big to Fail. Federal Reserve Bank of Chicago *Economic Perspectives* 26:27–41.

This article begins by describing the scenerios that could result in losses to depositors in bank failures and policies that could help reduce these losses. The authors outline current FDIC procedures and analyze the pros and cons of the “full and immediate access” that depositors have to their claims. The authors then develop a model to find the optimal delay time, and conclude by recommending best practices for depositor access to funds in failed banks.

Penas, Maria Fabiana. 2001. Bank Mergers and Too-Big-to-Fail Policy. Ph.D. diss., University of Maryland.

It is believed that most governments follow an implicit too-big-to-fail policy of protecting unsecured creditors of large insolvent banks in order to prevent a failure that could trigger a contagious crisis throughout the financial system. This dissertation introduces a model that analyzes a bank's risk and funding decisions within a framework that includes both deposit insurance and a bailout policy. Contrary to conventional wisdom, the model predicts that it is possible for risk to decrease after an increase in the probability of a bailout, and vice versa. The dissertation also provides empirical evidence that an important motivation for bank mergers is to become too big to fail. For example, merging banks' bond-adjusted returns were found to be positive and significant in pre-merger and announcement months, and the acquiring banks' credit spreads on new debt issues were lower after the merger. Also, cross-sectional regression results (after the effects of diversification, changes in leverage, and asset quality are controlled for) show that the increase in size resulting from the merger is a significant determinant of the positive bond returns and the decline in credit spreads. However, these results are significant only for medium-sized banks, which are the group most likely to attain too-big-to-fail status after a merger.

Spiegel, Mark M., and Nobuyoshi Yamori. 2000. The Evolution of "Too-Big-to-Fail" Policy in Japan: Evidence from Market Equity Values. Pacific Basin Working Paper Series, no. PB00-01. Federal Reserve Bank of San Francisco.

This study uses equity return data to assess bank investors' behavior during the years 1995–1998, a particularly turbulent period for the Japanese financial industry. Equity prices reveal that a bank's regulatory status was an important determinant of investors' beliefs about whether the institution would be considered TBTF. When a bank failure occurred, excess negative returns accrued to other banks in the same or lower regulatory category as the failed bank. Investors' beliefs about which types of banks would be protected changed throughout the sample period; it was initially believed by investors that the government would allow only the smallest banking institutions to fail (Credit Cooperatives). But as the government's regulatory policy evolved, so did investors' behavior. Eventually, investors reacted as if all banks, even the larger regional and city banks, were susceptible to failure. Once all banks were deemed vulnerable, there was no measurable difference in the excess returns between banks of different regulatory classes; investors no longer behaved as if bank deposits were guaranteed.

Stern, Gary H. 2000. Thoughts on Designing Credible Policies after Financial Modernization: Addressing Too-Big-to-Fail and Moral Hazard. Federal Reserve Bank of Minneapolis *The Region* 14, no. 3:2–4, 24–29.

In this essay, the author argues that modernization efforts have the potential to expand the financial safety net and exacerbate the moral-hazard problem. He suggests that regulators can limit these consequences only by enacting credible policies to control moral hazard. The author categorizes and discusses different means of establishing credibility. One group of policies consists of legal restrictions that prohibit bailouts and thus force regulators to ignore the incentives to expand the safety net. Another suggested approach would be for lawmakers to pass legislation that explicitly penalizes regulators for providing bailouts. Or regulators themselves can take steps to reduce the incentives to bail out creditors. Finally, the author recommends that the executive branch and lawmakers appoint regulators who would resist pressures to enact bailouts.

U.S. General Accounting Office (GAO). 2000. *Responses to Questions Concerning Long-Term Capital Management and Related Events*. GAO/GGD-00-67R. GAO.

In this document, the GAO responds to 14 questions posed by U.S. senators regarding Long-Term Capital Management (LTCM), its near failure, and its recapitalization in September 1998. When the failure of LTCM seemed imminent, the Federal Reserve Bank of New York (FRBNY) was highly concerned about the likely systemic implications and worked to facilitate a private-sector resolution. Market observers became concerned that large banking institutions might be inspired to assume riskier positions, believing that the Federal Reserve would always intervene to prevent disruptive liquidations. Federal Reserve and industry officials contend that the Federal Reserve acted as an "honest broker" and did not discuss the terms or conditions of the agreement devised by LTCM's creditors. The senators' questions attempt to clarify the exact role of the FRBNY.

Wolgast, Michael. 2001. "Too Big to Fail": Effects on Competition and Implications for Banking Supervision. *Journal of Financial Regulation and Compliance* 9, no. 4:361–72.

Since the 1980s, there have been increasing discussions about the potential consequences of government intervention to prevent a large bank from failing. One basic concern is that large banks may be receiving a competitive funding advantage from the public's belief that, were problems to arise, a large bank would not be allowed to fail. This concern has been echoed by Germany's public sector banks, which claim that, because of TBTF, major (private sector) banks—against which they compete—enjoy "implicit guarantees" similar to their own "explicit" state guarantees. In this article, the author argues that under realistic assumptions, especially with respect to incentives for bank management and shareholders, TBTF does not lead to excessive risk taking by large banks. Nor, he contends, does the advantage bestowed by TBTF surpass or even approach the financing advantages enjoyed by public sector banks in Germany. The author suggests, however, that with banking becoming increasingly global, TBTF does have substantial implications for international banking supervisory arrangements and suggests that one possible counter to cross-border systemic risk would be a lender of last resort serving the entire European Union.

14. FDIC-Administered Insurance Funds

Entries in this section relate specifically to the structure, status, and future condition of the bank insurance funds administered by the Federal Deposit Insurance Corporation. Entries also discuss the merits of maintaining separate insurance funds for thrifts and commercial banks, and the effects of the industry's continuing consolidation on the exposure of the insurance funds.

Federal Deposit Insurance Corporation (FDIC). 1999. *The Financial Institution Employee's Guide to Deposit Insurance*. FDIC.

This manual outlines current FDIC deposit insurance rules. It is a reference guide that can help employees of insured institutions respond better to depositors' questions about FDIC insurance coverage. The topics covered include FDIC insurance basics, general principles of insurance coverage, account ownership categories, and procedures to be followed when an institution fails. It also includes in-house seminar materials that insured institutions can use in offering training programs on deposit insurance.

Federal Deposit Insurance Corporation (FDIC). 2000. *Questions and Answers about Your Insured Deposits from the Federal Deposit Insurance Corporation*. FDIC.

This document explains the insurance coverge that the FDIC provides depositors. It details the basic objectives of the coverage regulations and limits, and describes how the FDIC establishes ownership of funds. The booklet identifies the various categories of accounts and explains how the coverage limits apply in each case. Many examples illustrate how an individual account holder's insurance coverage is determined.

U.S. General Accounting Office (GAO). 2000. *Financial Audit: Federal Deposit Insurance Corporation's 1999 and 1998 Financial Statements*. GAO/AIMD-00-157. GAO.

This document presents the GAO's opinions on the financial statements of the Bank Insurance Fund, the Savings Association Insurance Fund, and the FSLIC Resolution Fund for 1998 and 1999. It also presents the results of audits of the effectiveness of the FDIC's internal controls and the FDIC's regulatory and legal compliance. The audits found the financial statements to be fairly prepared in accordance with generally accepted accounting principles and determined that the FDIC's financial reporting is generally under effective internal control, although information systems control could be strengthened. The FDIC was found to be in compliance with all tested laws and regulations. The funds' financial statements and accompanying notes are presented.

U.S. General Accounting Office (GAO). 2001–2002. *Federal Deposit Insurance Corporation Funds' 2002 and 2001 Financial Statements.* GAO-03-543.

In the GAO's opinion, the FDIC fairly presented the 2001 and 2002 financial statements for the three funds it administers—the Bank Insurance Fund, the Savings Association

Insurance Fund, and the FSLIC Resolution Fund. The GAO also found that, although certain controls should be improved, the FDIC had effective control over financial reporting and compliance. Although the FDIC had made progress in response to previous reports, the GAO found weaknesses in control over information systems. For example, information system controls did not adequately ensure that (1) users had only the access needed to perform their assigned duties, (2) the FDIC's network was secure from unauthorized access, or (3) unusual or suspicious access would be identified.

U.S. General Accounting Office (GAO). 2002. *FDIC Information Security: Improvements Made but Weaknesses Remain*. GAO-02-689.

This report summarizes weaknesses in information system controls over the FDIC's computer systems. This work was done in connection with the GAO's calendar-year 2001 financial audit of the deposit insurance funds. The GAO concluded that although the FDIC had made progress in correcting its information security weaknesses, the Corporation still did not have adequate security systems in place to safeguard critical financial and other information. The GAO recommends that the FDIC move quickly to establish and implement a comprehensive Corporate program to manage computer security.

U.S. General Accounting Office (GAO). 2003. *FDIC Security Information: Progress Made but Existing Weaknesses Place Data at Risk*. GAO-03-630.

As part of the GAO's 2002 financial statement audits of the three FDIC funds, the agency assessed (1) the FDIC's progress in addressing the computer security weaknesses found in the GAO's 2001 audit, and (2) the effectiveness of the FDIC's internal controls. Although the GAO found that the FDIC had made progress in correcting information system controls, the audit identified 29 new computer security weaknesses. According to the GAO, the key reason for the FDIC's weaknesses in this area is that the Corporation has not yet fully developed and implemented a comprehensive Corporate program for assessing and managing risk on a continuing basis, or for evaluating the effectiveness of established controls.