38. Dziobek, C. and C Pazarbasioglu (1997), "Lessons form Systemic Banking Restructuring: A Survey of 24 Countries," *IMF Working Paper*, WP/97/161, (December), 1-29.

39. Eichengreen, B. (1999), *Toward a New International Financial Architecture*, Institute For International Economics, Washington D.C.

40. Eschweiler, Bernhard (1998), "Financial Restructuring is Key to Asia's Future," *J.P.Morgan, Morgan Guaranty Trust Company, Economic Research*, (April 24).

41. Jayasankaran, S. (1999), "Changing Fortunes," *Far Eastern Economic Review*, (December 23).

42. Fernandez, David G. (1998), "Indonesia's Transition: Now and to Come," *J.P.Morgan, Morgan Guaranty Trust Company*, (October 23), 15-21.

43. Fry, Maxwell J. (1995), "Financial Development in Asia: Some Analytical Issues," *Asia-Pacific Economic Literature*, Volume. 9, Number 1 (May), 40-57.

44. Gardener, Edward P.M. (1986), "Capital Adequacy and Banking Supervision—Towards a Practical System," in Edward P.M. Garner (ed.), *UK Banking Supervision: Evolution, Practice, and Issues*, Studies in Financial Institutions and Markets, Allen and Unwin Ltd, United Kingdom, 234-256.

45. Golstein, Morris, and Philip Turner (1996), "Banking Crises in Emerging Economics: Origin and Policy Options," *Bank for International Settlements (BIS) Economic Paper*, Number 46 (October).

46. Gonzalez-Hermosillo, Brenda (1998), " Developing Indicators to Provide Early Warnings of Banking Crises," *Journal of Finance and Development*, Volume 36, Number 2 (June). Available from URL: http://wwwimf.org/external/pubs/ft/fandd/1999/06/gonzalez.htm

47. Gonzalez-Hermosillo, Brenda, Ceyla Pazarbasioglu, and Robert Billings (1997), "Determinations of Banking System Fragility: A Case Study of Mexico," *IMF Staff Papers*, Volume 44, Number 3 (September), 295-314.

48. Habir, Manggi (1995), "Bank Soundness Requirements: A Commercial Bank Perspective," in Ross H. McLeod (ed.), *Indonesia Assessment 1994: Finance as Key Sector in Indonesia's Development*, Research School of Pacific and Asian Studies, Australian National University and Institute of South-East Asian Studies, Singapore, 171-185.

49. Hagan, Sean (2000), "Promoting Orderly and Effective Insolvency Procedures," *Journal of Finance and Development* Volume 37, Number 1 (March). Available from URL: http://www.imf.org/external/pubs/ft/fandd/2000

50. Hardy, Daniel C. (1998), " Are Banking Crises Predictable," *Journal of Finance and Development*, Volume 35, Number 4 (December). Available from URL: http://www.imf.org/external/pubs/ft/fandd/1998/12/hardy.htm

51. Hardy, Daniel C. and Ashok Kumar Lahiri (1992), "Bank Insolvency and Stabilization in Eastern Europe," *IMF Working Paper*, WP/92/9, January.

52. Harrigton, R. (1987), *Asset and Liability Management by Banks*, Organization for Economic Cooperation and Development (OECD).

53. Hawkins, John (1999), "Bank Restructuring in South-East Asia," in *Bank Restructuring in Practice*, BIS Policy Papers, Number 6 (August), BIS Monetary and Economic Department, Basel, Switzerland, 197-221.

54. Hawkins, John, and Philip Turner (1999), "Bank Restructuring in Practice: An Overview," in *Bank Restructuring in Practice*, Bank for International Settlements (BIS) Policy Papers, BIS Monetary and Economic Department, Basel, Switzerland, Number 6 (August), 6-105.

55. Hendrobudiyanto (1995), "Bank Soundness Requirements: A Central Bank Perspective," in Ross H. McLeod (ed.), *Indonesia Assessment 1994: Finance as Key Sector in Indonesia's Development*, Research School of Pacific and Asian Studies, Australian National University and Institute of South-East Asian Studies, Singapore, 158-170.

56. Hills, Charles W.L. (1998), "The Asian Financial Crisis", University of Washington. Available from URL: http://weber.u.washington.edu/...chill/updates/Asia.

57. Huh, Chan and Sun Bae Kim (1994), "Financial Regulation and Banking Sector Performance: A Comparison of Bad Loan Problems in Japan and Korea," *Economic Review, Federal Reserve Bank of San Francisco*, Number 2, 18-29.

58. Hurt, Lew and Akos Felsovalyi (1998), " Measuring Loss in Latin American Default Bank Loans: A 27-year Study of 27 Countries," *The Journal of Lending and Credit Risk Management*, (October), 41-46.

59. International Monetary Fund (IMF), (1998). *World Economic Outlook*, (May).

60. Jomo K.S. (1998), "Introduction: Financial Governance, Liberalization and Crises in East Asia," in Jomo K.S. (ed.), *Tigers in Trouble*, Zed Books Ltd, UK.

61. Jordan, John S. (1998), "Problem Loans at New England Banks, 1989 to 1992: evidence of Aggressive Loan Policies," *New England Economic Review*, (January/February), 23-38.

62. Kane, Edward J. (1989), *The S&L Insurance Mess: How Did It Happen?* Washington: Urban Institute Press.

63. Keeton, William R. (1999), "Does Faster Loan Growth Lead to Higher Loan Losses?" *Economic Review, Federal Reserve Bank of Kansas City*, Second Quarter, Volume 84, Number 2, 57-75.

64. Keeton, William R. and Charles S Morris (1987), "Why Do Banks' Loan Losses Differ?" *Economic Review, Federal Reserve Bank of Kansas City*, Volume 72, (May), 3-21.

65. Kim, Dookyung (1999), "Bank Restructuring in Korea," in Bank Restructuring in Practice, *BIS Policy Papers*, Number 6 (August).

66. King, Stephen (1986), "Monetary Transmission: Through Bank Loans or Bank Liabilities?" *Journal of Money, Credit, and Banking*, (August).

67. Krugman, Paul (1998), "What Happened To Asia," Available from URL: http://web.mit.edu/krugman/www/disaster.htm

68. Krugman, Paul (1999), "The Return of Depreciation Economics," *Foreign Affairs*, 78-1 (January/February), 56-74.

69. Lee, Hock Lock (1992), *Regulation of Banks and Other Depository Institutions in Malaysia: A Study in Monetary, Prudential and Other Controls*, Butterworths, Singapore.

70. Lim, Linda Y.C. (1998), "The Challenges for Government Policy and Business Practice". Available from URL: http://www.stern.nyu.edu/~nroubini/asia/AsiaHomepage.html

71. Lindgren, C.J., T.J.T. Balino, C. Enoch, A.M.Gulde, M.Quintyn, , and Leolie Teo, (1999), *Financial Sector Crisis and Restructuring: Lessons from Asia*, Occasional Paper Number 188, Internal Monetary Fund, Washington D.C.

72. Lui, Cecil and Wicky W.K. Tam (2000), *Malaysian Banking After the Storm: Institutional Resolution and Comments*, City University of Hong Kong, Unpublished Paper, PhD Thesis.

73. *Manual of Examination Policies* (1975), Division of Bank Supervision. Federal Deposit Insurance Corporation (Revision through 1975).

74. McKinnon, Ronald I. (1993), "Monetary Stabilization in LDCs," in Krause, Lawrence B., and Kihwan, Kim (eds.), *Liberalization in the Process of Economic Development*, University of California Press, Berkeley and Los Angeles, 366-400.

75. Meeker L.G. and L. Gray (1987), "A Note On Nonperforming Loans As an Indicator of Asset Quality," *Journal of Banking and Finance*, Volume 11, 161-168.

76. Mody, Ashoka and K. Patro Dilip (1996), "Valuing and Accounting For Loan Guarantees," *The World Bank Research Observer*, Volume 11, Number 1 (February), 119-142.

77. Montgomery, John (1997), "The Indonesia Financial System: Its Contribution to Economic Performance, and Key Policy Issues," *IMF Working Paper*, WP/97/45, (April).

78. Morgan, Donald P. (1990), "Bank Credit Commitments: Protection from a Credit Crunch?" *Economic Review, Federal Reserve Bank of Kansas City*, Volume 75, Number 5 (September/October), 51-59.

79. Nakamura, Leonard I. (1991), "Lessons on Lending and Borrowing in Hard Times," *Business Review, Federal Reserve Bank of Philadelphia*, (July/August), 13-21.

80. Nasution, Anwar (1995), "Banking Sector Reforms in Indonesia, 1983-93," in Ross H. McLeod (ed.), *Indonesia Assessment 1994: Finance as Key Sector in Indonesia's Development*, Research School of Pacific and Asian Studies, Australian National University and Institute of South-East Asian Studies, Singapore, 130-157.

81. Nazatul, Izma (1998), "Paying the Price," *Malaysian Business*, (September 1).

82. OECD (1985), *Committee on Financial Markets: Expert Group on Banking*, Organization for Economic Corporation and Development (OECD).

83. Pantalone, Coleen C. and Marjorie B Platt. (1997), "Predicting Commercial Bank Failure Since Deregulation," *New England Economic Review*, (July/August), 37-47.

84. Park, Yung Chul and Dong Won Kim (1994), "Korea Development and Structural Change of the Banking System," in Patrick, Hugh T. and Park, Yung Chul (eds.), *Financial Development of Japan, Korea, and Taiwan; Growth, Repression, and Liberalization*, Oxford University Press, New York, 188-221.

85. Pecchioli, R.M. (1987), *Prudential Supervision in Banking*, Organization for Corporation and Development (OECD).

86. Peek, Joe and, Eric S. Rosengren (1999), "Japanese Banking Problems: Implications for Lending in the United States," *New England Economic Review, Federal Reserve Bank of Kansas City*, Volume 75, Number 5 (May), 3-21.

87. Peristiani, S. (1996), "Evaluating the Post Merger X-efficiency and Scale Efficiency of U.S. Banks," *Federal Reserve Bank of New York*, Working Paper.

88. Rajan, Raghuram G. (1994), "Why Bank Credit Policies Fluctuate: A Theory and Some Evidence," *Quarterly Journal of Economics*, (May).

89. Rennhack, Robert (2000), "Banking Supervision," Finance and Development, Volume 37, Number 1 (March). Available from URL: http://wwww.imf.org/external/pubs/ft/fandd/2000/03/rennback.htm

90. Sachs, J and, S. Radelet. (1999), "What Have We Learned So Far, From The Asian Financial Crisis?" Available from URL: http://www.stern.nyu.edu/~nroubini/asia/AsiaHomepage.html

91. SEACEN (1983), *Report on the Seminar on Country Risk and Treatment of Nonperforming Loans, November 16-18, Kathmandu, Nepal.* The South-East Asian Central Banks Research and Training Centre (SEACEN) Kuala Lumpur.

92. SEACEN (1987), *The Role of External Auditors in the Supervision of Financial Institutions in Malaysia,* The South-East Asian Central Banks Research and Training Centre (SEACEN) Kuala Lumpur, Occasional Paper Number 3 (October), 1-11.

93. Shamsudin Ismail (1987), "Problem Loans: Causes, Detection and Prevention," *Banker's Journal of Malaysia*, Number 39 (February), 47-50.

94. Sheng (1989), "Bank Restructuring in Malaysia 1985-88," *Policy Planning and Research Working Paper*, The World Bank, (September).

95. Shiller, Robert J. (1989), *Market Volatility*, Cambridge, Mass: MIT Press

96. Soon, Cho (1994), *The Dynamics of Korean Economic Development, Institute for International Economics*, Washington D.C., (March).

97. Spong, Kenneth (1983), *Banking Regulation: Its Purposes, Implementation and Effects. Division of Bank Supervision and Structure*, Federal Reserve Bank of Kansas City, Kansas City, MO, 41-42.

98. Stevenson, Bruce G. (1994), "Research Report...Capital Flows and Loan Losses in Commercial Banking," *Journal of Commercial Lending*, (September), 18-26.

99. Stiglitz, Joseph E. (1990), "Symposium on Bubbles,' *Journal of Economic Perspectives*, Volume 4 (Spring), 13-18.

100. Syron, Richard F. (1991), "Are We Experiencing a Credit Crunch?" *New England Economic Review*, (July/August), 3-10.

101. Temzelides, Ted (1997), "Are Bank Runs Contagious?" *Business Review, Federal Bank Of Philadelphia*, (November/December), 3-14.

102. *The Star*, "It's 10 Banks: Bank Negara names anchor for mergers," 15 February 2000.

103. Thillainathan, R. (1997), "The Malaysian Banking Crisis and the Way Forward," *Malaysian Journal of Economic Studies*, Volume 34, Number 1 and 2 (June/December).

104. Walter, John R. (1991), "Loan Loss Reserves," *Economic Review, Federal Reserve Bank of Richmond*, Volume 77/4 (July/August), 20-30.

105. Ware, Derrick (1996), *Basic Principles of Banking Supervision, Central For Central Banking Studies*, Bank of England, Handbook in Central Banking, London, Number 7.

106. Whited, Toni (1990), "Debt, Liquidity Constraints, and Corporate Investment: Evidence From Panel Data," *Federal Reserve Board Finance and Economic Discussion Series*, (March).

107. World Bank (1997), *Development in Selected Emerging Markets Banking Systems*. Available from URL: http://www.imf.org/search97cgi/s97is.dll.

108. World Bank (1998), *East Asia: The Road to Recovery*, The International Bank for Reconstruction and Development, Washington D.C.

109. World Bank (1999), "Building Effective Insolvency Systems: Business and financial Sectors," *Working Group Report Business and Financial Sectors Contributors*, (September 14-15). Available from URL: http://www1.worldbak.org/legal/insolvency_ini/WGS-paper.htm

110. Wu, Hsiu-Kwang (1969), "Bank Examiner Criticisms, Bank Loan Defaults, and Bank Loan Quality," *The Journal of Finance*, Volume 24, 697-705.

111. Ye, Than (1992), *Globalization of Financial Markets: Its impact on the SEACEN Countries*, The South-East Asian Central Banks Research and Training Centre (SEACEN), Staff Papers No. 43, Kuala Lumpur, (March).

112. Yeats, Kevin J. (1991), "A Return to Profitability: The Performance of Eleventh District Commercial Banks," *Economic Review, Federal Reserve Bank of Dallas*, (July), 15-29.

APPENDICES

APPENDIX A

Prudential regulations and requirements set by the Basle Committee are as follows (Basle 1997):

(a) Banking supervisors must set prudent and appropriate minimum capital adequacy requirements for all banks. Such requirements should reflect the risks that the banks undertake, and must define the components of capital, bearing in mind their ability to absorb losses. At least for internationally active banks, these requirements must not be less than those established in the Basle Capital Accord and its amendments.

(b) An essential part of any supervisory system is the evaluation of a bank's policies, practices and procedures related to the granting of loans and making of investments and the ongoing management of the loan and investment portfolios.

(c) Banking supervisors must be satisfied that banks establish and adhere to adequate policies, practices, and procedures for evaluating the quality of assets and the adequacy of loan loss provisions and loan loss reserves.

(d) Banking supervisors must be satisfied that banks have management information systems that enable management to identify concentrations within the portfolio and supervisors must set prudential limits to restrict bank exposure to single borrowers or groups of related borrowers.

(e) In order to prevent abuses arising from connected lending, banking supervisors must have in place requirements that banks lend to related companies and individuals on an arm's length basis, that such extensions of credit are effectively monitored, and that other appropriate steps are taken to control or mitigate the risks.

(f) Banking supervisors must be satisfied that banks have adequate policies and procedures for identifying, monitoring and controlling country risk and transfer risk in their international lending and investment activities, and for maintaining appropriate reserves against such risks.

(g) Banking supervisors must be satisfied that banks have in place systems that accurately measure, monitor and adequately control market risks; supervisors should have powers to impose specific limits and/or a specific capital charge on market risk exposures, if warranted.

(h) Banking supervisors must be satisfied that banks have in place a comprehensive risk management process (including appropriate board and senior management oversight) to identify, measure, monitor and control all other material risks and, where appropriate, to hold capital against these risks.

(i) Banking supervisors must determine that banks have in place internal controls that are adequate for the nature and scale of their business. These should include clear arrangements for delegating authority and responsibility; separation of the functions that involve committing the bank, paying away its funds, and accounting for its assets and liabilities; reconciliation of these processes; safeguarding its assets; and appropriate independent internal or external audit and compliance functions to test adherence to these controls as well as applicable laws and regulations.

(j) Banking supervisors must determine that banks have adequate policies, practices, and procedures in place, including strict "know-your-customer" rules, that promote high ethical and professional standards in the financial sector and prevent the bank being used, intentionally or unintentionally, by criminal elements.

APPENDIX B

The following are some of the guidelines on public disclosures, given by the Basle Committee on Banking Supervision (Basle 1998):

(a) Users of a bank's financial reports need information on the institution's credit risk exposure and risk management practices, the quality of the loan portfolio, its profitability and the impact of losses on the financial position and performance of the bank. Disclosure in a bank's annual financial report should include clear and concise information on the matters discussed below.

(b) Institutions should be encouraged to provide as much of the information listed below as possible in audited financial statements, i.e., primary financial statements and supporting notes. In particular, disclosure of accounting policies should be in the audited part of the financial report.

(c) A bank should give information about all significant accounting policies for the accounting for loans, loan impairment and related allowances (including the accounting for the effect of changes in those policies), and the methods employed to apply those policies. It should disclose information about its policies for:

- Basis of measurement for unimpaired loans at their initial recognition and subsequently;
- Income recognition on unimpaired loans (e.g., effective interest rate method)
- Determining how and when to recognize impairment in a loan and the basis of measurement for impaired loans;
- Determining allowances (specific and general)

- Determining when loans are considered past-due for accounting and disclosure purposes (number of days in arrears);
- Charging off loans;
- Accounting for recoveries;
- Determining when the cease accruing interest on a loan;
- How it recognizes income form impaired loans, including interest recognition and the treatment of fees and expenses.

(d) A bank should disclose information on the risk management and control policies and practices adopted by the bank relating to credit risk of the loan portfolio.

(e) A bank should disclose geographical information about loans, impaired loans and past due loans including the related amount of specific and general allowances.

(f) A bank should disclose balances of loans, impaired loans and past due loans by major categories of borrowers and the amounts of specific general allowances established against each category. A bank should disclose information about the composition of the loan portfolio based on a meaningful categorization of borrowers (e.g., commercial loans, consumer loans, and related parties). For each major category of borrowers and for the overall loan portfolio, there should be separate disclosure of:

- Total loans, before and after allowances;
- Total impaired loans, showing separately those that are past-due (e.g., 90 days or more);
- Unimpaired past-due loans (e.g., 90 days or more)

- General allowances (General allowances include allowances against impairment that has been determined to be present in a group of loans that share common identifiable characteristics).
- Specific allowances;

(g) If there is a portion of the general allowance that is not allocated to a major category of borrowers, the amount of the unallocated allowance should be disclosed separately. Institutions are encouraged to disclose other meaningful measures of deterioration of credit quality in the loan portfolio.

(h) A bank should disclose commercial loans by significant industry sector (e.g., real estate, mining).

(i) It can be also appropriate to give summary information about the composition of the loan portfolio categorized by type of loan (e.g., mortgage loans, credit card loans, finance leases), type of collateral (e.g., residential property, commercial property, government guaranteed, unsecured) and/or creditworthiness (e.g., based on internal or external ratings).

APPENDIX C

(1) Centralized Asset Management Companies

Centralized asset management companies are typically state-owned. A key objective of a state-owned centralized asset management company is to buy NPLs from banks and thus help banks clean up their balance sheets as fast as possible. Centralized asset management companies have been used in Korea, Malaysia, and more recently in Indonesia.

The advantages and disadvantages of a centralized public asset management company are as follows (Lindgren, Balino, Enoch, Gulde, Quintyn, and Teo 1999: 39):

- **Advantages**

1. Serves as a vehicle for getting NPLs out of troubled banks based on uniform valuation criteria.
2. Allows government to attach conditions to purchases of NPLs in terms of bank restructuring.
3. Centralizes scarce human resources (domestic and foreign).
4. Centralizes ownership of collateral, thus providing more leverage over debtors and more effective management.
5. Serves as a third party for insider loans (Indonesia).
6. Can better force operational restructuring of troubled banks.
7. Can be given special legal powers to expedite loan recovery and bank restructuring.

- **Disadvantages**

1. Management is often weaker than in private structure, reducing the efficiency and effectiveness of its operations.
2. Such agencies are often subject to political pressure.
3. Values of acquired assets erode faster when they are outside a banking structure.
4. NPLs and collaterals are often "parked" long-term in an asset management company, not liquidated.
5. If not actively managed, the existence of a public asset management company could lead to a general deterioration of credit discipline in financial system.
6. Cost involved in operating an asset management company may be higher than a private arrangement company.
7. If dealing with private banks, determining transfer prices is difficult.

(2) Decentralized Asset Management Companies

A decentralized approach that encourages each bank to set up its own asset management company allows arrangements to suit each bank's conditions. Thailand followed such a route, encouraging banks to set up their own asset management companies to which they can transfer assets at market value. The advantages and disadvantages of decentralized asset management companies are exhibited below:

a. Within banks

- **Advantages**

1. Knowledge of the borrower may facilitate debt restructuring.
2. Access to borrower through branch network.

- **Disadvantages**

1. Lack of skills for restructuring of NPLs, operations of companies, debt entity swaps, etc.
2. Hampers "normal" banking functions (lending activities), particularly if the NPL portfolio is large.
3. Less loss recognition up front. Does not clean up the bank's books.

b. In private asset management companies

- Advantages

1. Specialized skill mix. Focus on restructuring function.
2. Creation of an asset management industry and secondary market for distressed assets.
3. Loss recognition up-front.
4. Cleans up the bank's books.

- Disadvantages

1. Lack of knowledge of the borrower.
2. Bank may not have sufficient capital to recognize losses up front.