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The Fall of Barings: Lessons for Legal Oversight of Derivatives Transactions in the United States

Charles A. Samuelson*

Introduction

In one month, Nicholas W. Leeson, a Singapore-based trader for Barings plc, risked $29 billion speculating on the price of Japanese stocks and bonds by purchasing financial products called derivatives.1 Leeson disappeared from Singapore on February 23, 1995.2 By the end of the following day, the 227 year-old bank did not have enough assets to meet its short-term obligations.3 When Leeson appeared in Germany on Thursday, March 2, 1995, the firm's losses were over $1 billion.4 Barings' collapse was not the first event to provoke calls for increased oversight of derivatives,5 but Barings did not fail because Leeson bought derivatives. Barings failed because its managers were incompetent6 and did not properly oversee the activities of the young trader.7 The only parties Barings injured through its use of derivatives were Leeson (who pled guilty to cheating the

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2. Stevenson, supra note 1.
6. See, e.g., BANK OF ENGLAND, supra note 1, ¶¶ 2.41, 2.45 (“It may well be that I agreed to bite off more than I could chew . . . .”), 2.47, 2.54.
7. Id.
Singapore International Monetary Exchange (SIMEX) and Coopers & Lybrand),8 Barings’ managers (who lost their jobs), Barings’ shareholders (who lost their investment),9 and several other creditors of Barings (who also lost their money).10 In short, Barings’ insolvency harmed only parties that either expressly or implicitly assumed the risks that arise when private parties enter into derivatives transactions.

The forces that give rise to derivatives transactions are evidence of a well-functioning market. Parties to a derivatives transaction, such as Barings, face four different risks—market risk, legal risk, credit risk, and operations risk.11 Those who enter derivatives transactions must recognize and deal with these risks. This Note discusses how effectively current legal rules reduce transaction costs of parties to derivatives transactions by promoting certainty and providing information and proper risk allocation to market participants.12 It compares the laws that applied in Barings’ collapse to laws that apply to similar U.S. transactions.13 Part I of the Note describes the events that gave rise to Barings’ fall. Part II describes the international financial environment in which this failure took place. Part III analyzes the legal tools different nations have designed to lower transaction costs for parties who use derivatives. Part IV discusses the lessons of Barings’ collapse. The Note concludes that governments should regulate the use of derivatives only to reduce transaction costs or mitigate negative externalities.14

I. The Road to Insolvency

In 1767,15 Francis Baring ignored his mother’s advice not to enter the

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9. For a description of Barings’ shareholders, see text accompanying infra note 21.
10. Alternatively, one could argue that Barings’ collapse was not due to Leeson’s use of derivatives but was instead a manifestation of the “rogue trader” phenomenon in which a renegade employee is able to hide huge losses from a company’s managers and regulatory overseers by manipulating accounting systems. Cf. Laurie P. Cohen, Daiwa Bank Reportedly Hid News of Trading Loss from its Lawyers, WALL ST. J., Oct. 26, 1995, at B11 (describing the “rogue trader,” but not in relation to the Barings’ collapse). Though Leeson may certainly be categorized as a “rogue trader” Barings’ insolvency resulted from the use of leverage in derivatives transactions. See infra Part II.B.3. This Note does not discuss ways to curtail rogue traders per se, but rather discusses the many different risks inherent in derivatives transactions of which rogue trading is but one.
11. See infra Part II.C.1.
12. See infra Part III.
13. For example, bankruptcy laws may help a third-party bank that lends money to a counterparty in a derivatives transaction to assess the risk of the counterparty’s bankruptcy. See infra Part III.A.2.
14. Barings’ insolvency was not large enough to cause any loss to third parties. See infra Part II.C.2.
banking business. In the years that followed, Baring’s bank became a huge success, helping to finance Britain’s involvement in the Revolutionary War and the United States’ Louisiana Purchase. In recent years, the bank staked out a position in emerging, volatile markets, including Latin America and Asia. It was not until 227 years after the bank’s founding that the Barings family wished that Francis had followed his mum’s advice.

A. Barings’ Organization

Like many multinational investment banks, the organization known as “Barings” was a complex web of subsidiaries organized as separate entities under the laws of various countries. At the time of its collapse, Barings plc, a holding company, controlled the operations of the successor to the partnership that Francis Baring had organized. The executive management held Barings plc’s voting share capital (common stock). The Baring Foundation, a U.K.-registered charity, owned the non-voting share capital. Barings plc owned Baring Brothers & Co., Ltd. (BB&Co), an “authorized” bank based in London with branches in Singapore and Hong Kong. In 1984, BB&Co acquired the entity that became known as Barings Securities Ltd. (BSL) from Henderson Crotiwaite, which operated as a broker-dealer through subsidiaries in the Pacific, Latin America, New York, and London. BSL conducted stock brokerage activities out of London and was incorporated in the Cayman Islands.

BSL had several overseas operating subsidiaries, including two in Singapore: Barings Securities (Singapore) Pte Ltd. (BSS), which principally engaged in securities trading, and Barings Futures (Singapore) Pte Ltd. (BFS), which BSL formed to allow Barings to trade on SIMEX. Barings Securities (Japan) Ltd. (BSJ) was the BSL subsidiary that conducted Bar-

16. Peter Martin, When New into Old Won’t Go: An Attempt to Combine Old-Style Banking with a Freewheeling Securities Business Sealed Barings’ Fate, FIN. TIMES, Mar. 4, 1995, at 8. In a letter, she warned him,

I see you have begun in the Exchange way... [I] advise you to be careful you do not run out of your depth. I am satisfied ‘tis attended with risk, and many houses called considerable abroad have often disappointed and sometimes absolutely ruined those who have placed Confidence in them.

Id.

17. Stevenson, supra note 15; Norris, supra note 15. “We all tremble about the magnitude of the loan,” said a Barings executive at the time of the Louisiana Purchase. Id.


19. See BANK OF ENGLAND, supra note 1, ¶¶ 2.4-2.26.

20. Id. ¶ 1.1, 1.18. Throughout this Note, “Barings” refers to the operations of Barings plc and its operating subsidiaries.

21. Id. ¶ 1.19.

22. Id. ¶ 1.24. An “authorized” bank is one to whom the Bank of England has given regulatory approval to accept deposits. Cf. Banking Act, 1987, ch. 22 § 8(1) (Eng.). BB&Co was responsible for the consolidated supervision of Barings. BANK OF ENGLAND, supra note 1, ¶ 1.24.

23. BANK OF ENGLAND, supra note 1, ¶ 1.21.

24. Id. ¶ 1.20.

25. Id. ¶¶ 1.22, 2.4.

26. Id. ¶¶ 1.22, 1.33.
ings' agency and proprietary trading in Japan. Figure 1 provides a diagram of Barings plc's relevant operating subsidiaries.

![Diagram of Barings PLC and its Relevant Operating Subsidiaries]

Before 1992, Barings plc ran its banking and broker-dealer businesses separately, to the point of occupying different London offices. Only Andrew Tuckey, Deputy Chairman of Barings plc, was a member of both the BB&Co and BSL boards of directors. By the end of 1992, Tuckey and Peter Baring, the Chairman of Barings plc, decided to merge the operations of BB&Co and BSL into a single business unit. In 1993, the Board of Directors of Barings plc established a new organization, Barings Investment Bank (BIB), that combined the stock brokerage operations of BSL with the investment banking activities of BB&Co. BIB was organized with a "matrix" reporting structure, in which a product supervisor and an administrative supervisor oversaw different activities (e.g., trading). As with most such reporting schemes, product oversight could take place from anywhere in the world while administrative oversight typically occurred at the locus of the particular activity. It was precisely this joint responsibility for overseeing Leeson that allowed him to conceal his activities for an extended period of time.

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27. Id. ¶ 3.20.
28. Id. ¶ 2.5.
29. Id. ¶ 1.31, 2.5.
30. Id. ¶ 2.20.
31. Id. ¶ 2.20.
32. Id. ¶ 2.22.
33. See, e.g., infra notes 41, 47 and accompanying text (describing Leeson's dual roles).
34. See, e.g., infra notes 47-62 and accompanying text.
B. Barings' Operations

Barings engaged in a number of different activities, including investment banking, agency trading (trading for clients), and proprietary trading (trading for Barings' own account). Since mid-1992, BFS had executed financial futures contract trades on SIMEX and the Osaka Exchange: Nikkei 225 contracts, Japanese Government Bond contracts, three-month Euroyen contracts, and options related to those futures. Although BFS originally executed trades only on behalf of its clients, by mid-1993 BFS had begun to trade on its own account by taking advantage of price differences between financial products on SIMEX and the Osaka Exchange, a type of arbitrage activity known as "switching." Leeson began working for Barings in 1989. In March 1992, Barings transferred Leeson from London to Singapore. After passing local exams, he began trading on SIMEX and, by 1993, was general manager of BFS. As general manager of BFS, Leeson performed two types of activities for Barings: he managed Barings' proprietary switching business as well as the back office that reconciled proprietary and client trading. Leeson's dual responsibilities prevented the back office reconciliation process from serving as an oversight mechanism to Leeson's own activities.

In executing trades for Barings, Leeson was supposed to take advantage of price differences in identical financial instruments—futures contracts on Japanese stocks and bonds—on SIMEX and the Osaka Exchange by buying in the market with the lower price, and then immediately selling in the other market. The small spread in price between the two markets necessitated large purchases and sales for Barings to make significant profits. Because the buying and selling occurred simultaneously, such transactions were relatively low-risk.

In addition to Leeson's dual trading and managerial roles, Barings

35. BANK OF ENGLAND, supra note 1, ¶ 3.18.
36. Id. ¶ 1.37.
37. Id. ¶ 1.38.
38. Id. ¶ 2.56.
39. Id. ¶ 2.58.
40. Id. ¶¶ 2.58, 2.60.
41. Id. ¶¶ 7.10, 7.14.
42. Id. ¶¶ 3.18, 3.26-3.40. 4.1. See Stevenson, supra note 3.
43. See BANK OF ENGLAND, supra note 1, ¶¶ 3.1-3.74.
44. Stevenson, supra note 3. These transactions are called arbitrage. See CAROLYN R. GIPSON, THE McGRAW-HILL DICTIONARY OF INTERNATIONAL TRADE AND FINANCE 44 (1994). Most of the arbitrage in which Leeson engaged was based on the Nikkei Index. Stevenson, supra note 3. The Nikkei Index is the stock price index for the Tokyo Stock Exchange. Gipson, supra, at 267, 373.
45. Stevenson, supra note 3.
46. Richard W. Stevenson, A Rise and Fall and a Birthday in Hiding, N.Y. TIMES, Mar. 1, 1995, at D5. Because the transactions were supposed to be simultaneous, Leeson was not supposed to leave Barings with any open positions. Id.
placed no limits on his trading operations in Singapore.\textsuperscript{48} This was an unusual practice in the industry.\textsuperscript{49} On March 25, 1992, James Bax, head of Barings Singapore office, wrote a letter to Andrew Fraser, head of Barings' brokerage and trading group in London, suggesting that Leeson not be allowed to report directly to London but, instead, report to Simon Jones, director of Barings' Singapore office.\textsuperscript{50} In the summer of 1994, an internal audit at Barings reported that Leeson had an "excessive concentration of power" that could lead to "error and fraud."\textsuperscript{51}

In early July of 1992, Leeson opened account 88888, which he designated a "client" account, and which BFS's accounting system recognized as an error account.\textsuperscript{52} From July 1, 1992, to December 31, 1994, account 88888 built up a loss of £208 million. Leeson had apparently hidden the losses from certain authorized proprietary trades made on Barings' behalf in "client" account 88888.\textsuperscript{53}

By January of 1995, Leeson began to make increasingly larger trading bets in an attempt to recover these earlier losses.\textsuperscript{54} Although the exact sequence of events is still unclear,\textsuperscript{55} Leeson lost more money with the fall in the Japanese stock market following the Kobe earthquake on January 17, 1995.

\footnotesize
49. Stevenson, supra note 47.
50. Id. ("My concern is that once again we are in danger of setting up a structure which will prove to be disastrous and which we will succeed in losing either a lot of money or client good will or probably both."); Broken Bank: Barings PLC Officials May Have Been Aware of Trader's Position, WALL Sr. J., Mar. 6, 1995, at A1.
51. Stevenson, supra note 47. The auditor also said that there were "no gross limits set for arbitrage positions" and that "[t]he only constraint is that group treasury will eventually inform Barings Futures that they will cease funding requirements if they grow too large." Gapper & Denton, supra note 48.
52. BANK OF ENGLAND, supra note 1, ¶ 4.5. Exchange members use an error account to reconcile differences that arise in the course of trading on behalf of clients. Id.
53. Id. ¶¶ 3.34, 3.73, 4.3, 4.18, 4.22, 4.28.
55. Leeson had sold the Nikkei Index long (i.e., bet that the Nikkei Index would increase), sold Japanese government debt short (i.e., bet that interest rates would rise), and had sold straddles involving the Nikkei Index (i.e., bet that the Index would trade within a narrow range). It does not seem that the long and short trades were consistent with the straddles. See Anant K. Sundaram, Letter, The Long and Short of Nicky's Strategy, WALL Sr. J., Mar. 14, 1995, at A15. One explanation, which seems to make the most sense, is that Leeson had originally engaged only in the futures sales and started selling straddles to raise money to meet increasing margin calls. See Richard W. Stevenson, Barings Officials Optimistic on Finding a Buyer, N.Y. TIMES, Mar. 1, 1995, at D1.
1995. Leeson ultimately purchased $7 billion in Japanese stock market forwards, $22 billion in futures on Japanese government bonds and currency investments, and $3.8 billion in straddles on the Nikkei Index. On February 27, 1995, account 88888 showed losses of £827 million. When the markets closed on February 28, 1995, Barings' net loss stood at just over $1 billion. Within two weeks, Internationale Nederlanden Groep N.V. (ING) agreed to acquire Barings in exchange for ING's promise to pay off all depositors and creditors. ING assumed liabilities of $1.39 billion to SIMEX, the Osaka Stock Exchange, and Japanese banks that had extended credit to Barings.

II. Background

Three factors characterize the world of Barings' collapse: the use of bureaucratic organizational structures to oversee derivatives transactions; the potential for great benefits accruing to parties entering into derivatives transactions; and the particular risks to parties entering derivatives transactions.

A. Managerial Oversight Structure

Both government regulators and the organizations they oversee use bureaucracies to mobilize resources and accomplish day-to-day tasks. Despite the widespread use of bureaucracies, they are notoriously inefficient. Understanding why bureaucracies are inefficient is vital to understanding how Barings' managers and regulators were unable to detect Leeson's activities over such a long period of time.


57. Stevenson, supra note 1; Saul Hansell, The Collapse of Barings: For Rogue Traders, Yet Another Victim, N.Y. TIMES, Feb. 28, 1995, at D1; Stevenson, supra note 3.

58. Stevenson, supra note 1; Hansell, supra note 57; Stevenson, supra note 3.

59. Sheryl WuDunn, Osaka, a Venue for Making Big Bets, N.Y. TIMES, Mar. 2, 1995, at D6. Traders estimate Leeson was short 40,000 straddles (20,000 puts and 20,000 calls) with a strike price of Y19,000. Id. On January 23, 1995, the Nikkei Index fell to Y17,785.49. Stevenson, supra note 3. On March 2, 1995 the Nikkei Index was at Y16,618.71. WuDunn, supra. Recent accounts of Barings' losses do not make clear if the $3.8 billion in straddles was part of the $7 billion position in the Japanese stock market.

60. Stevenson, supra note 1. Because some of Barings' losses will be covered by the amounts in margin accounts and because market prices continue to fluctuate, the total value of Barings' unsecured losses will be difficult to value. As of Tuesday, February 28, 1995, Barings had futures contracts with an outstanding value of about $3 billion at the Osaka Stock Exchange and $330 million on deposit to cover margin calls. WuDunn, supra note 59. Officials in Osaka expected the $330 million to be enough to cover Barings' losses on that exchange. Id.

61. Richard W. Stevenson, New Barings Owner Retains the Firm's Top Executives, N.Y. TIMES, Mar. 7, 1995, at D1 (reporting that Barings bondholders, with claims of $162 billion, would receive 5% of their claims up-front and up to an additional 20% later on).

62. Id. (reporting that Barings owed $259 million to SIMEX, $145 million to the Osaka Stock Exchange, and $988 million to banks in Japan). Barings lost £927 million after liquidation. BANK OF ENGLAND, supra note 1, ¶ 4.14.
One characteristic of a well-run bureaucracy is a division of labor between different organizational units. Such a division of labor allows a firm's managers and employees to specialize and develop expertise that a firm can use in the efficient development of its human and real capital resources. The rise of corporate management of business undertakings has been linked to the efficiency inherent in the corporate form. But such efficiency comes at a cost. The scope and nature of a large organization's activities make effective oversight extremely difficult. Some form of middle management can help a large organization to oversee its activities, but the existence of middle management does not by itself produce a well-monitored organization.

Like most modern corporations, Barings was organized to delegate authority to different specialists and geographic units. Barings gave Leeson the authority to engage in certain trades likely to benefit the firm. In theory, managers in Barings' Singapore and London offices were supposed to oversee his activities. There were several levels of management between Leeson and Peter Barings, the Chairman of the Board, on February 23, 1995. Most studies of the derivatives market have recognized the importance of separating trading and clearing functions, but Barings gave Leeson responsibility for both trading and clearing.

Why did Barings allow this conflict to exist? One explanation for Barings' failure is managerial—Barings' failure resulted from poor management. Just days after Barings' collapse, some commentators had already attributed Barings' collapse to an organizational structure that had Leeson reporting to more than one person, and which consequently did not allow

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63. Because of the limits of time and resources, one person cannot become a specialist in all things. An organization of several specialists can possess a range of expertise to bring to bear on different problems. See, e.g., ALFRED D. CHANDLER, JR., THE VISIBLE HAND: THE MANAGERIAL REVOLUTION IN AMERICAN BUSINESS 6-7 (1977). The economic explanation for the managerial organization is that managerial organizations develop where the transaction costs associated with performing an activity within the organization are less than the transaction costs associated with setting up multiple contracts between organizations. Ronald H. Coase, The Nature of the Firm, 4 ÉCONOMICA 386, 395 (1937).

64. See, e.g., ROBERT C. CLARK, CORPORATE LAW § 1.1 (1986); CHANDLER, supra note 63; Coase, supra note 63.

65. Chandler argues that middle management developed to perform the oversight function. CHANDLER, supra note 63, at 7. At some point a tension develops between oversight and efficiency. This point occurs when oversight becomes intrusive and stops people from effectively performing their jobs. See, e.g., TOM PETERS, THRIVING ON CHAOS 16-17 (1987).

66. CHANDLER, supra note 63, at 7.

67. See supra Figure 1.

68. See supra notes 42-46 and accompanying text.

69. See supra note 32 and accompanying text.

70. See supra Figure 1.


72. See supra note 41 and accompanying text.
Leeson's superiors to effectively oversee the different aspects of Leeson's job. Additionally, it is not clear how Barings' management could allow Leeson to perform jobs with conflicting responsibilities after the conflict had been identified.

However, poor organizational structure, incompetent management, and Barings' employees' lack of respect for internal controls do not entirely explain Barings' failure. Barings' regulators, also part of a bureaucracy, failed to detect or prevent Leeson's unauthorized trades. This suggests that weaknesses inherent to bureaucracy allowed Leeson to cause Barings' collapse.

B. Benefits of Using Derivatives

Despite the attendant risk of derivatives, countries allow parties such as Barings to enter them because, in part, such transactions provide real benefits to the parties and the countries that engage in them. A derivative is an asset whose value is based on (derived from), the value of an underlying asset. This Section of the Note describes Leeson's transactions and provides a brief overview of the reasons why parties generally enter derivatives transactions.

1. Description of the Derivatives That Destroyed Barings

There are generally four types of derivatives: options, swaps, forwards, and futures. A call option is a contract to buy an asset in the future. A put option is a contract to sell an asset in the future. A swap is an agreement between parties to exchange cash flows over a specified period of time. The purchaser of a forward contract promises to buy a specified asset on a specific date at a known price. The terms of a forward contract are specifically negotiated, while a futures contract is purchased on an exchange.

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74. Gapper, supra note 73, at 2.

75. See, e.g., GENERAL ACCOUNTING OFFICE, No. GAO/GGD-94-133, FINANCIAL DERIVATIVES: ACTIONS NEEDED TO PROTECT THE FINANCIAL SYSTEM 24 (1994); Lee Betton, *Understanding the Complex World of Derivatives*, Wall St. J., June 14, 1994, at C1. For example, the value of an option contract is based on the difference between the asset price and the exercise price. To the buyer of a call option (someone who buys the right to purchase an asset in the future at an "exercise price"), the option is worth the difference between the asset's market value and the exercise price.

76. The General Accounting Office used this definition of derivative products in a recent report to the U.S. Congress. GENERAL ACCOUNTING OFFICE, supra note 75, at 26. Depending on one's precise definition of "derivative," the GAO definition might be over- or under-inclusive.

77. SATGJAIt DAS, SWAPS AND FINANCIAL DERIVATIVES 46 (2d ed. 1994).

78. Id.

79. Id. at 39. See also GENERAL ACCOUNTING OFFICE, supra note 75, at 28.

80. Das, supra note 77, at 44. See also GENERAL ACCOUNTING OFFICE, supra note 75, at 26.
with the exchange setting the date and time of the contract's performance.\textsuperscript{81}

Leeson purchased futures on SIMEX and the Osaka Stock Exchange.\textsuperscript{82} His fateful transactions were to buy the Nikkei 225 Index and sell Japanese government debt (respectively, to write puts and calls).\textsuperscript{83} Leeson later started writing straddles.\textsuperscript{84} A straddle is the simultaneous writing of a put and a call.\textsuperscript{85} If the price of the underlying asset goes up, the buyer of the call will exercise its option; if the price of the underlying asset goes down, the buyer of the put will exercise its option. The party selling the straddle can only make money if the price of the underlying asset remains relatively stable.\textsuperscript{86} Between January 1, 1995 and Barings' margin default on February 27, 1995, Leeson's futures trading losses arose from his position in the Nikkei 225 Index and Japanese government bonds.\textsuperscript{87}

2. Why Parties Enter Derivatives Transactions

Parties enter derivatives transactions because they are mutually beneficial.\textsuperscript{88} The type of benefit each party seeks may be different. Barings authorized Leeson to purchase certain derivatives for purely speculative purposes (i.e., to assume risk in attempting to profit from anticipating changes in market rates or prices). If Barings had sought to hedge previous positions rather than speculate on changes in the market, the risks to counterparties would have been very different. This section discusses how parties use derivatives to hedge and speculate.\textsuperscript{89}

\begin{itemize}
\item \textsuperscript{81} Das, supra note 77, at 44-45. See also General Accounting Office, supra note 75, at 26-27.
\item \textsuperscript{82} See supra notes 42-43 and accompanying text.
\item \textsuperscript{83} See supra notes 56-59 and accompanying text. For an in-depth description of the instruments Leeson bought, see Bank of England, supra note 1, ¶ 1.37, 3.47, 4.17, 4.43.
\item \textsuperscript{84} See supra note 59 and accompanying text.
\item \textsuperscript{85} Gipson, supra note 44, at 354-55.
\item \textsuperscript{86} The price must remain relatively stable only if the strike price for the call exceeds the strike price for the put. If the price does remain stable, the party that sells the straddle can earn twice as much money as if it had purchased a put on the same asset.
\item \textsuperscript{87} Bank of England, supra note 1, ¶ 4.17.
\item \textsuperscript{88} Cf. infra note 106 and accompanying text.
\item \textsuperscript{89} There are three basic reasons parties use derivatives: to hedge, to speculate, and to obtain better financing terms. General Accounting Office, supra note 75, at 25. Parties generally use derivatives to obtain better financing terms in swap transactions. Essentially, such transactions allow parties to borrow at lower interest rates than they could achieve in the regular market for debt. See, e.g., Henry T.C. Hu, Swaps, the Modern Process of Financial Innovation and the Vulnerability of a Regulatory Paradigm, 138 U. Pa. L. Rev. 333, 351 (1989); Das, supra note 77, at 12-13. Ricardo's theory of comparative advantage explains why parties in swap transactions are able to obtain these benefits from trade. See, e.g., David Ricardo, The Principles of Political Economy and Taxation 8-10 (Richard D. Irwin, Inc. 1963) (3d ed. 1821); Paul Krugman & Maurice Obstfeld, International Economics 13-33 (1988); Todd G. Bucholz, New Ideas from Dead Economists: An Introduction to Modern Economic Thought 66-67 (1989).
\end{itemize}
The use of derivatives to protect a party against market fluctuations is called a hedge.\textsuperscript{90} For example, if Barings had a long position in the Nikkei Index, it could buy puts to hedge its position. Without hedging, a decrease in the Nikkei Index would destroy the value of Barings’ investment. With hedging, although a decrease in the Nikkei Index would wipe out the value of the long position, that loss would be offset by the increase in the value of the put. After transactions costs, Barings would wind up where it started. But in real-world markets, hedges do not eliminate market risk.\textsuperscript{91} For instance, a party purchasing a hedge typically cannot find a counterparty willing to deliver an exact amount of the hedge asset at the precise dates desired by the purchaser. Consequently, it has been said that “[t]he only perfect hedge is in a Japanese garden.”\textsuperscript{92}

b. Using Derivatives to Speculate

Leeson did not, in fact, purchase straddles and futures as hedges. Rather, he was betting that Japanese stocks would increase in price while the price of Japanese government bonds fell.\textsuperscript{93} Had he been correct, Barings would still be in existence today. Unfortunately for Leeson and Barings, the markets did not move in the direction he predicted. The fact that Leeson could lose so much money reveals two aspects of derivatives that distinguish them from more conventional assets. First, the value of a derivative can often be more easily wiped out than the value of a conventional asset.\textsuperscript{94} Second, most derivatives, including those Leeson purchased, are leveraged (i.e., purchased with borrowed money).\textsuperscript{95} Although leverage increases the pay-off of a transaction that earns a higher return than the cost of financing the leverage, it also means that, like Barings, a party may lose more than its investment. That is why Barings had to increase its margin payments as the value of its derivatives fell.\textsuperscript{96}

\textsuperscript{90} Richard A. Brealey & Stewart C. Myers, Principles of Corporate Finance ch. 25 (1988). Although Leeson’s transactions did not help Barings obtain better financing terms, this Note includes a description of such transactions to provide the reader with a complete description of the range of transactions that motivate parties to use derivatives.

\textsuperscript{91} See infra Part II.C.1.a.


\textsuperscript{93} See supra notes 57-59 and accompanying text.

\textsuperscript{94} Unlike the value of a conventional asset (e.g., corporate stock), the value of a derivative is directly related to the terms of the agreement between the parties. If a derivative expires at 12:00 p.m. on Tuesday, the derivative has no value at 12:01 p.m. on Tuesday. A share of corporate stock merely represents a fixed claim whose terms are not negotiated between the parties.

\textsuperscript{95} For example, by putting a $300 deposit on a $10,000 futures contract, a buyer will lose $200–66% of the deposit—if the value of the contract drops just 2%, to $9,800. See infra Part II.B.3.

\textsuperscript{96} See id.
3. The Effect of Buying Derivatives on Margin

Leeson bought contracts on margin on Barings' behalf, the standard practice whereby a buyer borrows money to buy a financial product. When buying a future or option on margin, a buyer typically supplies collateral, the initial margin, and then increases the margin payment if there is an adverse movement in the price of the derivative. SIMEX and the Osaka Exchange required different margins for proprietary trades as opposed to trades executed on behalf of a client.

Buying on margin gave Barings' relatively small switching business the chance to make huge profits on the small differences in the price of futures contracts on SIMEX and the Osaka Exchange. The business was very profitable, which may account for some or all of the reluctance of Barings' top management to investigate the operation's flawed internal controls. In 1994, the division responsible for Barings' switching business accounted for 17.8% of Barings' operating profits, which was a greater contribution to operating profits than all of BIB. Nevertheless, the use of closed positions (simultaneous purchase and sales) in margin trades does not give rise to significant risk. Leeson, however, was conducting unauthorized trades in open positions, which left Barings subject to the risk of financial ruin from significant adverse price movements. Japanese banks financed most of BSJ's switching-related margin, and the total value of bank loans to BSJ exceeded £500 million by mid-February of 1995. In addition to the significant funds BSJ received from third-party creditors, the total funding provided to BFS (largely to meet required margin with SIMEX) increased from £39 million on January 7, 1994, to £221 million on December 31, 1994, and to £742 million on February 24, 1995. As a practical matter, it could be said that Barings' collapse occurred when its creditors feared that the total margin they had provided Barings was insufficient to meet likely losses.

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97. A contract is defined differently for different products on different exchanges. For example, a Nikkei 225 Index futures contract is 1,000 times (¥) the Nikkei 225 Index price on the Osaka Exchange but only 500 times (¥) the Nikkei 225 Index price on SIMEX. BANK OF ENGLAND, supra note 1, app. V. For a complete description of the futures Leeson traded, see id.

98. See BANK OF ENGLAND, supra note 1, ¶¶ 3.3, 6.4. For example, if Leeson purchased one Nikkei 225 Index contract at ¥17,500, the 10% margin that the Osaka Exchange required for members' proprietary purchases would be eliminated by a ¥1,750 fall in the index.

99. See supra notes 95-96 and accompanying text.

100. BANK OF ENGLAND, supra note 1, ¶¶ 3.51-3.52.

101. Id. ¶ 4.1.

102. Id. ¶ 6.9.

103. Id. ¶ 6.15, Fig. 6.2.

104. Id. ¶ 6.20, Fig. 6.4.
4. Benefits of International Derivatives Transactions in a Global Economy

International financiers use derivatives for the same reason that any other contract is used—the contracting parties believe that performance of the contract will make them better off than they would be without making the exchange of promises. Over the last few years the world's economies have become increasingly interconnected. For instance, Barings benefited from its ability to purchase large quantities of assets in two different markets simultaneously, exploiting price differences between SIMEX and the Osaka Stock Exchange. Such authorized trades made by Leeson also benefitted to members of the world community because they made world markets more efficient. The existence of parties that take advantage of such arbitrage opportunities provides market participants with a degree of certainty that they are not over-paying for a product.

The benefits from such financial trades are no different from the benefits arising from trade in manufactured goods or raw materials. In a free international economy, trade results from the comparative advantage of various market participants, and trade makes both parties better off than they otherwise would be. Further, a party with relatively few desirable resources can be made better off through trade, as may other parties better themselves by trading with relatively less efficient players in the world economy. The costs of government efforts to prevent the free flow of financial products between nations are similar to the costs imposed on consumers when governments impose tariffs on real goods—the national economy becomes less productive, and certain segments of the population are left behind. Because derivatives transactions arise in an environment where market participants use their comparative advantage to engage traders of other nations, any unilaterally-imposed government regulation that seeks to prevent certain domestic trades also prevents domestic market participants from benefitting from the efficiencies of trade.

C. Risks of Derivatives Transactions

All transactions entail risks. For example, SIMEX and the Osaka Stock

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106. See generally JACk HIRShLEiFFER, PRICE THEORY AND APPLICATIONS 78-89 (4th ed. 1988) (describing the gains from trade generally); KRUGMAN & OBSTFELD, supra note 89, at 21-24 (describing the gains from international trade).

107. KRUGMAN & OBSTFELD, supra note 89, at 314-15. The notional value of all interest rate and currency swaps increased from $1,048,504 million in 1987 to $3,506,322 million in 1992. DAS, supra note 77, at 5. Over that period, the percentage of such swaps between U.S. parties or involving a U.S. counterparty decreased from 67.2% to 44.1%. Id. The General Accounting Office puts the total notional value of derivatives transactions at $17,643,000 million for 1992, up from $7,198,000 million in 1989. GENERAL ACCOUNTING OFFICE, supra note 75, at 36.

108. See supra note 43 and accompanying text.

109. Cf. BREALEY & MYERS, supra note 90, at 163-64.

110. Swaps (a form of derivative, see supra Part II.B.1) extend the theory of comparative advantage to the world's capital markets. DAS, supra note 77, at 13. See also Hu, supra note 89, at 333, 351.

111. See infra Part III.B. For a description of the economic effects of a tariff, see KRUGMAN & OBSTFELD, supra note 89, at 204-07.
Exchange risked Barings' default. 112 This section describes two types of risk inherent to derivatives transactions—risks to the immediate parties and risks to third parties.

1. Risks to Immediate Parties

A party's determination of risk drives its decision to enter a transaction. 113 The importance of a particular risk is tempered by its probability of occurrence. 114 To the extent that a party overestimates the true risk in a transaction, it will consider the cost of that transaction to be relatively high and will engage in fewer such transactions. 115 Although such a miscalculation may prevent the company from earning a profit (and may eventually threaten its survival), a company that overestimates the risk of a transaction only forgoes potentially profitable opportunities. In contrast, a party that underestimates true risk considers the cost of the transaction to be relatively lower than it actually is, and will engage in relatively more of such transactions than it otherwise would. Its survival is immediately threatened by such a miscalculation.

The important risks in a derivatives transaction are those that would prevent the derivative from serving its purpose as a hedge, as a speculative investment, or as a way to obtain better financing terms. There are four types of risk that may detract from a derivative's ability to help a party meet its objectives: market risk, legal risk, credit risk, and operations risk. 116

a. Market Risk

Market risk arises from an instrument's exposure to the possibility of financial loss due to unfavorable movements in interest and currency rates, or equity and commodity prices. 117 For instance, Leeson thought Japanese interest rates would go down, but instead they went up. 118 As a result, adverse unanticipated market movements caused Barings' loss.

The total market risk in a derivatives transaction depends largely on the nature of the derivative. A hedge insulates the participant from market risk. Banks that purchase derivatives products as end-users are usually hedging against an existing risk, and, therefore, are usually reducing overall risk exposure. 119 Leeson, however, was behaving speculatively. 120 Because his transactions left Barings with an "open" or unhedged position,
Barings was left subject to the full range of market risk inherent in the financial instruments he purchased. Any transaction that parties enter for reasons of comparative advantage\(^1\) (e.g., interest rate swaps) provides the parties (e.g., the fixed- and floating-rate payors) with otherwise unobtainable advantages from trade, but without necessarily insulating them from market risk. Only a hedge will protect a party from market risk.

b. Legal Risk

Legal risk results from exposure to the possibility that a court, a regulatory body, or a legislative body will invalidate a derivatives contract and cause a financial loss.\(^2\) Legal risk in derivatives transactions exists only because a legal body has decided that, for one or more reasons, particular transactions have characteristics that do not deserve legal protection. For example, certain derivatives may be illegal gambling instruments.\(^3\) Such a finding rests on the basis that any transaction that meets certain formal requirements is itself gambling and consequently illegal, even if the transaction had certain benefits as well.\(^4\)

To assess risk exposure accurately, counterparties must develop an understanding of issues relating to the legal enforceability of derivatives contracts.\(^5\) The likelihood that a body will find a derivatives contract legally invalid is relatively small in a jurisdiction with settled law and experienced lawmakers. Of greater concern is that parties who claim to have been harmed by a transaction will seek redress.\(^6\) For example, Deutsche Bank, A.G. sued Barings for entering a $49.7 million swap after Barings knew that it was insolvent.\(^7\) Additionally, there are many legal risks that arise in international derivatives transactions from bankruptcies, and often a mere technical default can bring into effect legal rules that entirely change the responsibilities of the parties.\(^8\)

c. Credit Risk

Credit risk is exposure to the chance of financial loss as a result of a counterparty's failure to meet its financial obligations.\(^9\) Corporate finan-

\(^{121}\) See supra note 89.
\(^{122}\) General Accounting Office, supra note 75, at 64.
\(^{123}\) See infra text accompanying notes 195-208.
\(^{124}\) See infra Part II.A.3.
\(^{125}\) Fed's Phillips Gives Update on Int'l Coordination on Derivatives Activities, 63 Banking Rep. (BNA) 62, 62 (1994) (quoting Federal Reserve Board Governor Susan Phillips). For convenience, this Note puts all "legal risk" arising from international derivatives transactions into two categories: regulatory risk (see infra Part III.B) arising from the fact that certain transactions may run afoul of a legal rule promulgated by a body charged with oversight of financial transactions; and transactional risk (see infra Part III.A) resulting because a transaction between two parties may not be legally enforceable. Of course, either of these legal risks can be eliminated by changing or waiving a regulation, signing a treaty, or modifying existing law.
\(^{126}\) See infra Parts III.A.2 and III.A.3.
\(^{128}\) See infra Part III.A.2.
\(^{129}\) General Accounting Office, supra note 75, at 52.
cial managers say that their greatest concern in using derivatives is credit risk. Though the reasons for counterparty default vary, the primary consideration is a party’s ability to assess and plan for the risk of default. One means by which a corporate financial manager could minimize credit risk is to only enter transactions with AAA-rated institutions. While such practices do theoretically minimize credit risk, they also severely limit the field of potential counterparties. Credit risk may be eliminated through an exchange of guaranteed cash flows; credit exposure only exists when a derivatives transaction is not guaranteed. In the United States, most derivatives-related transactions conducted on exchanges are processed by clearinghouses, which guarantee payments between counterparties. Most credit exposure on U.S. derivatives-related transactions results from OTC trades. Likewise, the credit risk in Barings’ fateful transactions turned out to be minimal because its margin deposits apparently covered many of its losses.

d. Operations Risk

Exposure to the possibility of financial loss resulting from inadequate systems, management failure, faulty controls, fraud, or human error creates operations risk. Barings’ collapse was a classic case of operational failure. Operations risk arises from the inherent inefficiency of bureaucracies. Although the Group of Thirty has identified weaknesses in derivatives dealers’ management of operations risks, it is not clear that those weaknesses are unique to derivatives trading. Barings’ difficulties in monitoring derivatives transactions were similar to the difficulties that any large organization faces in overseeing far-flung operations.

While derivatives transactions may not present unique operations risks, they may magnify the potential downside from such organizational failure. For example, fraud committed in a leveraged transaction may have

130. Cheever, supra note 117, at 29.
131. Id.
132. Id.
133. Id.
134. See Das, supra note 77, at 1141-49 (citing three swap practices that reduce credit risk: netting exposures, collateralization, and insurance); Cheever, supra note 117, at 32.
135. GENERAL ACCOUNTING OFFICE, supra note 75, at 56. The exchanges where such trades take place require parties to pose margin to limit the risk to the exchange when clearing the trade. See, e.g., 12 C.F.R. § 220.4 (1996) (requiring posting of margin for banks, broker-dealers, and others, respectively).
136. GENERAL ACCOUNTING OFFICE, supra note 75, at 56.
137. Cf. supra note 60.
138. GENERAL ACCOUNTING OFFICE, supra note 75, at 66.
139. Id.; GROUP OF THIRTY, DERIVATIVES: PRACTICES AND PRINCIPLES 50 (1993). The Group of Thirty is an international financial policy organization whose members include representatives of central banks, international banks and securities firms, and academia. GENERAL ACCOUNTING OFFICE, supra note 75, at 36 n.5.
140. But see GROUP OF THIRTY, supra note 139, at 50 (arguing that complexity of derivatives transactions merits special focus on involvement of senior management, documentation, independent risk-management functions, and independent internal audits).
a greater potential downside than fraud committed in the conduct of an organization's day-to-day activities. Additionally, an adverse market can wipe out the entire value of many derivatives, unlike conventional assets. Operations risk posed by derivatives transactions is of even greater concern to banking regulators than is the establishment of adequate capital standards.141

Finally, derivatives transactions may create unique operations risks.142 Even for a sophisticated financial institution, a system of internal controls and oversight mechanisms that would be adequate for non-derivatives transactions may not suffice to control the many complex facets of derivatives transactions. New people, new training, and new systems might be needed to manage the risks inherent to such transactions.

2. Risks to Third Parties

Although a contract presumptively benefits both parties,143 performance of a derivatives contract may create external costs ultimately borne by third parties who did not agree to take on any of the risks of the exchange.144 There are two instances where international derivatives transactions may create such externalities. First, a single institution could conceivably borrow on margin to finance the purchase of derivatives of sufficiently great cost to threaten the liquidity of the international financial system. In the early stages of Barings' insolvency, there was some concern that its failure could threaten other institutions.145 Ultimately, the Bank of England's decision not to save Barings reflected its belief that closing the bank would not threaten the health of the British or international financial systems, or cause heavy losses for small depositors.146 British regulators decided not to risk public money when there was no reason to fear a panic.147 Second, a party may be found to be without legal capacity to enter into derivatives transactions,148 forcing other parties to unknowingly assume the risks of

142. Brandon Becker, Director of the Securities and Exchange Commission's Division of Market Regulation, said that effective management controls have become a "unifying theme of the regulatory response to derivatives." Becker Calls Management Controls "Unifying Theme" in Derivatives Response, Banking Daily (BNA), Sept. 26, 1994, at 1.
143. The notion of mutually beneficial exchange is fundamental to understanding why parties create agreements (contracts). See Hirshleifer, supra note 106.
144. For a discussion of the imposition of such costs on third parties in other settings, see, e.g., Hirshleifer, supra note 106, at 472-74; Ronald H. Coase, The Problem of Social Cost, 3 J. LAW & ECON. 1, 4-6 (1960).
145. Stevenson, supra note 15.
147. Id. Once a liquidity risk does arise, the response of central bankers becomes paramount. If central bankers do not provide enough funds in the face of such a panic, a severe contraction may result. See Milton Friedman & Anna J. Schwartz, A Monetary History of the United States: 1867-1960, at 339-41 (1963) (describing the U.S. economy's reaction to the Federal Reserve Board's monetary policies following the crash of 1929).
148. See infra text accompanying notes 189-94.
the transaction.

Some U.S. regulators have said that banks and thrifts should not engage in speculative\textsuperscript{149} activities with insured deposits, but that hedging is different\textsuperscript{150} because it does not present a risk to government-insured deposits. Instead, hedging eliminates some of the risk that insured deposits would otherwise face. Deposit insurance is a classic "moral hazard" that encourages bank managers to risk depositors' money in a way they would not be likely to do in the absence of such insurance.\textsuperscript{151} Depositors at an uninsured bank have an incentive to oversee the bank's lending practices that is not shared by depositors at insured banks. The government pays for the cost of any improvident lending practices. Conversely, the owners of an insured bank will be relatively aggressive in the pursuit of new business opportunities because the potential benefits to the banks from high-risk lending strategies outweigh the potential downside.

III. Analysis

This Part evaluates the extent to which current efforts to oversee derivatives transactions help the parties to such contracts allocate risks of the type involved in the collapse of Barings.

A. Transactional Law

By transactional law, this Note refers to the positive law that governs relations between parties, including matters regarding enforceability of contract terms,\textsuperscript{152} the application of a particular sovereign's law to a contract,\textsuperscript{153} and rules of decision governing how a law applies to a particular set of facts.\textsuperscript{154} Every day, international travellers cash travellers checks, obtain foreign exchange, and make credit card purchases\textsuperscript{155} with little or no interference from government officials. An American in Rome might use an American Express card to pay for a hotel room, certain that the hotel will accept her card. The hotel is equally confident of securing payment from American Express.

This degree of certainty does not exist to the same extent in the world of derivatives transactions. Parties are not so sure of what they are buying.

\begin{itemize}
  \item \textsuperscript{149} See \textit{supra} Part II.B.2.b. for a discussion of Leeson's speculative use of derivatives.
  \item \textsuperscript{150} \textit{Bank Regulators Recommend Four Changes to Derivatives Bill in House Subcommittee, supra note 119.}
  \item \textsuperscript{151} \textit{See, e.g., Posner, supra note 113, § 15.9, at 448; Jonathan R. Macey & Geoffrey P. Miller, Banking Law and Regulation 265 (1992).}
  \item \textsuperscript{152} For example, many swaps contain a limited two-way payment provision that allows a non-defaulting party to abandon its obligation. There is some question as to whether such terms constitute unjust enrichment.
  \item \textsuperscript{153} For example, many swaps purport to apply the law of New York State. See \textit{infra} note 163 and accompanying text.
  \item \textsuperscript{154} For example, England prohibits municipalities from speculating with swaps on public policy grounds. See \textit{infra} notes 189-94 and accompanying text.
\end{itemize}
and lawyers are not yet sure how different nations' courts will enforce the terms of different derivatives contracts. In the United States, Gibson Greetings recently sued Bankers Trust Co. for allegedly causing them to enter into "improper" derivatives transactions. In contrast to such well publicized actions challenging the enforceability of complex instruments, Leeson's unauthorized trades were relatively straightforward and did not implicate issues of enforceability. Currently existing rules of transactional law adequately address the types of trades involved in Barings' failure. This Section discusses the effect of three areas of transactional law on derivatives transactions: choice of law, bankruptcy, and gambling and public policy.

1. Choice of law

In theory, choice of law questions arise whenever people in a derivatives transaction are located in different jurisdictions. Choice of law in a dispute concerning a derivatives contract turns on whether the parties selected the law of a particular sovereign to govern their transaction. Courts will generally apply the law of the state chosen by the parties to govern their rights and duties, but will apply standard choice of law rules in determining which law should apply to the terms of a particular contract. In the absence of an effective selection, U.S. courts typically


157. The Statute of Frauds has also proven to be an issue in derivatives trading, requiring that agreements to be performed more than a year after execution be evidenced by a writing. See, e.g., N.Y. GEN. OBLIG. LAW § 5-701 (McKinney 1989); Statute of Frauds, 1677, 29 Chas. 2, ch. 2, § 4 (Eng.). Under Singapore law, the English version of 1677 controls. See GROUP OF THIRTY, DERIVATIVES: PRACTICE AND PRINCIPLES app. II, at 281-82 (1993). Because Leeson's SIMEX futures trades were to be performed within one year after execution, the Statute of Frauds was inapplicable. Cf. BANK OF ENGLAND, supra note 1, app. V. New York has even amended its Statute of Frauds to exclude certain derivatives. See N.Y. GEN. OBLIG. LAW §5-701(b)(1) (McKinney Supp. 1997) ("An agreement, promise, undertaking . . . is not void for lack of a . . . writing . . . provided that such agreement, promise, undertaking or contract is a qualified financial contract").

158. Although no reported case has decided the issue with respect to enforceability of a choice of law provision in a derivatives contract, the choice of law questions that arise in any international contract dispute are comparable. See, e.g., Bank Itek N.V. v. J. Henry Schroeder Bank & Trust, 612 F. Supp. 134, 141 (S.D.N.Y. 1985) (applying New York law when the parties in an international transaction "clearly expressed their intention that the law of New York control the interpretation and enforcement of their contract"); Northrop Corp. v. Triad Fin. Est., 593 F. Supp. 928, 940 (C.D. Cal. 1984) (holding that California law applied to agreement with a California choice of law provision).

159. See RESTATEMENT (SECOND) CONFLICT OF LAWS § 186 (1971) ("Issues in contract are chosen by the law chosen by the parties"). Under the original Restatement, parties did not have any power to choose the applicable law. Id. at 558.


apply the law of the sovereign with the most significant relationship to the transaction.\textsuperscript{162} Derivatives contracts such as the standard form for OTC swap transactions contain choice of law provisions that allow the parties to choose whether New York or English law governs the agreement.\textsuperscript{163}

Assuming, arguendo, that the parties to a sophisticated derivatives transaction will always make an explicit choice of law selection in their agreement,\textsuperscript{164} there still could arise a number of different instances where one party has reason to argue that an explicit contractual provision should not apply.\textsuperscript{165} This was the argument presented by Deutsche Bank, which tried to rescind a swap transaction with Barings by arguing that, since Barings was insolvent when they entered the swap, the transaction was void.\textsuperscript{166} Such an argument would seem even more likely to apply in an international transaction where a sovereign might have a particularly strong interest in protecting certain policies.\textsuperscript{167} For instance, a choice of law clause in a derivatives contract would not apply to a void or voidable

\begin{footnotesize}
\textsuperscript{162.} \textsc{Restatement (Second) Conflict of Laws § 188 (1971).} See, e.g., \textit{Trinh v. Citibank}, N.A., 850 F.2d 1164, 1176 (6th Cir. 1988) (applying Vietnamese law in a suit by depositors to recover deposits lost when the bank's Saigon office closed before the city fell to the North Vietnamese). Although older law focused on the location of the contract, the freedom of commercial parties to choose the law governing their contract is supported by authorities going back at least two centuries. \textsc{Peter North, Private International Law Problems in Common Law Jurisdictions 104 (1993)} (pointing out that party autonomy can be traced to the sixteenth century French jurist, Dumoulin).


\textsuperscript{164.} For the law when such a selection is not made, see \textit{supra note 162 and accompanying text.}

\textsuperscript{165.} Under the Restatement's approach, even the law of the state chosen by the parties does not apply if the particular issue could not have been resolved by a particular provision in the agreement and the law of the state chosen by the parties does not have a:

\begin{quote}
substantial relationship to the parties or the transaction and there is no other reasonable basis for the parties' choice, or . . . application of the law of the chosen state would be contrary to a fundamental policy of a state which has a materially greater interest than the chosen state in the determination of the particular issue.
\end{quote}

\textsc{Restatement (Second) Conflict of Laws § 187(2) (1971).}

\textsuperscript{166.} \textit{See supra note 127 and accompanying text.}

\textsuperscript{167.} For example, the United Kingdom does not allow municipalities to enter into swaps to speculate. \textit{See infra} notes 189-94 and accompanying text. The interest in preventing borough councils from entering into certain contracts would outweigh another jurisdiction's claim to enforcement.

Where a party lacks legal capacity to contract, the incapacitated party does not legally enter into a contract, and there is no choice of law provision for a court to enforce. \textit{See, e.g., Arthur Linton Corbin, Corbin on Contracts § 227 (1963)} (pointing out that, at common law, contracts of an infant are voidable). In such a circumstance, a court will likely apply the law of the sovereign with a significant relationship to the transaction. \textit{See supra} note 162 and accompanying text. As an officer of BSL, Leeson was an agent who had apparent authority to bind the bank. \textsc{Restatement (Second) of Agency § 7 (1984).} His transactions were prima facie enforceable under agency theory.
\end{footnotesize}
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contract, or if the clause itself was sufficiently offensive to a materially-
interested sovereign to render the choice of law selection void.

2. Bankruptcy

In international bankruptcy, a sovereign has strong incentives to apply its
own law to resolve the affairs of a bankrupt party. As a result, an intern-
ational bankruptcy arising from the actions of rogue traders such as
Leeson can create havoc for scores of creditors, both governmental and
private sector, seeking to recover their investments. Nations often claim
plenary power over assets located within their borders. Some commen-
tators have referred to such an exercise of power as "territoriality." A jurisdic-
tion's insistence on applying principles of territoriality to adjudi-
cate creditors' claims in international bankruptcy protects the debtor's
assets from foreign claims and protects domestic creditors against foreign
creditors. Commentators have criticized the territoriality principle for
contravening the principle of creditor equality and encouraging a race to
the courthouse. Barings' transfer of funds for margin calls could have led to a mad scramble for Barings' cash in England, Japan, and Singa-
pore. Whether a foreign creditor may recover the payments that are due
under a contract is determined by applying the bankruptcy law of the
sovereign with authority over the assets of the bankrupt. For example,
under Japanese bankruptcy law, "[a] bankruptcy adjudged in a foreign
country shall not be effective with respect to properties existing in
Japan." Japanese law thus provides Japanese courts with exclusive judi-
cial authority to determine creditors' rights to the property of a bankrupt

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168. A contract would be void or voidable when it violates the public policy of a significantly interested sovereign, as in Hazell v. Hammersmith and Fulham London Borough Council, [1992] 2 L.R.A.C. at 1.

169. A court might refuse to apply a choice of law clause when a bankrupt counterparty seeks protection under its sovereign's insolvency laws. See infra Part III.A.2. In such a case, the court has a strong incentive to disregard the contract's provisions.


172. Id.

173. Honsberger, supra note 170, at 634-35.

174. Id. at 635. See also Westbrook & Trautman, supra note 171, at 656-57. Westbrook & Trautman believe that Japanese law represents an extreme version of territoriality. Id. at 655 n.2.

175. See infra notes 321-22 and accompanying text.

176. Over many transactions, the likelihood that a party will become insolvent bears some relation to its credit risk. See supra Part II.C.1.e. After insolvency occurs, however, the creditor's goal is to minimize the loss resulting from the other party's default. Of course, the likelihood of default is influenced by the penalties associated therewith.


party located in Japan. In contrast, U.S. law, particularly with respect to swap transactions, seeks to ensure the equal distribution of assets among creditors.\textsuperscript{179}

3. \textit{Illegality}

Governments could certainly outlaw all derivatives transactions. But while this would likely have prevented Barings from engaging in any harmful international derivatives transactions, it also would have prevented scores of other companies from realizing the benefits that derivatives afford.\textsuperscript{180} Such an approach would limit the freedom of parties to contract and, because no country would be willing to say that every international derivatives transaction is illegal, promote uncertainty by raising the possibility that any particular transaction falls under the terms of a prohibition.\textsuperscript{181}

Although international derivatives often involve relatively sophisticated transactions,\textsuperscript{182} two issues resolve their legality: first, whether the substantive law of illegality of a particular state applies to the terms of a particular contract;\textsuperscript{183} and second, whether the derivatives are actually illegal under that nation's law. This section focuses on this second issue. In Barings' case, there was little possibility that the derivatives were illegal per-se. The laws of Singapore\textsuperscript{184} and England\textsuperscript{185} make explicit provision for the legal trading of certain derivatives. Leeson's futures are explicitly included in the list of financial instruments authorized for trading under the laws of both these countries.


\textsuperscript{180} See supra Part II.B. for these benefits.

\textsuperscript{181} The reader may ask why opportunities to argue whether any international derivatives transaction falls under a statutory prohibition do not exist. While such opportunities do exist, the incentives for lawyers to make such arguments are relatively small in free societies that ordinarily allow a wide range of commercial transactions. In a closed society (such as one that would ban all international derivatives transactions), a party faces a large windfall if it is given the right to engage in an otherwise prohibited activity. In such a society, lobbying and other attempts to acquire exclusive legal rights (i.e., rent-seeking) would be pervasive. \textit{See generally} James Buchanan, \textit{Public Finance in Democratic Process} 67 (1967) (arguing that political actors develop policy separately from direct oversight of taxpayers); George Stigler, \textit{The Theory of Economic Regulation}, 2 \textit{BELL J. ECON. \\& MGMT. SCI.} 1 (Spring 1971), reprinted in \textit{CHICAGO STUDIES IN POLITICAL ECONOMY} 209, 209 (George Stigler ed., 1989).

\textsuperscript{182} Robert Citron, the former treasurer of Orange County, California, has blamed $2 billion in derivatives trading losses on his "inexperience." Sarah Lubman \\& John R. Emshwiller, \textit{Before the Fall: Hubris and Ambition in Orange County}, \textit{WALL ST. J.,} Jan. 18, 1995, at A1.

\textsuperscript{183} This is a question of international choice of law. See supra Part III.A.1. For example, P(1), a resident of C(1), alleges that the option she sold to P(2), a resident of C(2), was an illegal gambling instrument under the laws of C(3), a country whose laws were expressly supposed to apply to the terms of the option contract. Will a court in C(2) grant P(1)'s request for a declaratory judgment stating that the contract is void?

\textsuperscript{184} Futures Trading Act, 1985, ch. 116, § 3 (Sing.).

\textsuperscript{185} Financial Services Act, 1986, ch. 60, §§ 1 \\& 3, sched. 7-9 (Eng.).
By way of contrast, the International Swap Dealers Association (ISDA) Master Agreement allows an essentially non-prejudicial termination of an agreement,\textsuperscript{186} or allows the party for whom the transaction has become illegal to transfer the obligation to an unaffiliated subsidiary without incurring a technical default.\textsuperscript{187} But the ISDA's protection mechanism might not always offer protection to counterparties.\textsuperscript{188} For example, in 1987 and 1988, a town council in England entered into a number of swap transactions to both speculate\textsuperscript{189} and hedge\textsuperscript{190} on the movement of market interest rates.\textsuperscript{191} The council was held to have legal capacity to enter into contracts "calculated to facilitate the discharge of the local authority's function of borrowing."\textsuperscript{192} The court held that the swaps transactions were beyond the scope of the authority granted to the town council by statute.\textsuperscript{193} Further, the court held that swaps were so far beyond the powers authorized by statute that a council could not even enter into swaps to minimize previously acquired exposure to interest rate fluctuations.\textsuperscript{194}

In addition to the possibility that a court will hold that a counterparty lacks the necessary legal capacity to enter into a derivatives contract, the nature of derivatives transactions themselves subjects the contracts to the possibility of falling under certain nations' prohibitions against gambling. For example, certain derivatives may be illegal gambling contracts under the laws of Brazil, a civil law jurisdiction that has dealt with the gambling issue very differently than the common law jurisdictions of the United States and England.\textsuperscript{195} Under Brazil's Civil Code, wagering contracts are unenforceable,\textsuperscript{196} and contracts of sale in which settlement is either based on some difference between an agreed-upon price and a market price,\textsuperscript{197} or in which the parties have no real intent to deliver any merchandise,\textsuperscript{198}

\textsuperscript{186} International Swap Dealers Association, Master Agreement (1992), reproduced in Ian Wallace, Legal and Documentation Issues of Swaps and Financial Derivatives, in Das, supra note 77, § 6(b)(iv), at 1369.
\textsuperscript{187} Id. § 6(b)(ii), at 1368.
\textsuperscript{188} A court could refuse to enforce transfer provisions such as those contained in the ISDA Master Agreement, see supra note 186, but such an occurrence only raises choice of law issues, such as those discussed supra Part III.A.1.
\textsuperscript{189} See supra Part II.B.2.b.
\textsuperscript{190} See supra Part II.B.2.a.
\textsuperscript{191} Hazell v. Hammersmith and Fulham London Borough Council, [1990] 2 Q.B. 697, 708-09.
\textsuperscript{193} Id. at 37.
\textsuperscript{194} Id. There are several other instances where certain organizations lack the capacity to enter derivatives transactions. Australia prohibits building societies and credit unions from entering into certain derivatives transactions, and England grants only limited authority to building societies to enter swaps. Wallace, supra note 163, at 1353-54.
\textsuperscript{195} General Accounting Office, supra note 75, at 65.
\textsuperscript{196} Código Civil [C.C.] §§ 1477-79 (Braz.); Group of Thirty, supra note 157, app. II, at 72.
\textsuperscript{197} This would be the case in a swap transaction. See supra text accompanying note 79.
\textsuperscript{198} This would be the case with a futures contract. See General Accounting Office, supra note 75, at 26.
are considered wagering contracts. Despite the language of such provisions, the Central Bank of Brazil has expressly authorized the Brazilian private sector to engage in swaps, caps, floors, and collars to hedge against international market risk. As a result of the Central Bank's action, there is a category of international derivatives transactions that are outside the reach of the Civil Code's prohibitions. All transactions that do not fall within the Central Bank's exceptions continue to be illegal.

In contrast to Brazil, England has explicitly exempted a list of derivative financial instruments from the application of its gambling statute. Investments excluded from application of gambling laws include options, futures, and "any other contract the purpose or pretended purpose of which is to secure a profit or avoid a loss by reference to fluctuations in the value or price of property of any description or in an index or other factor designated for that purpose in the contract." As a result, the Financial Services Act provides an exemption from application of English gambling laws to international derivatives transactions entered into by approved investors.

In the United States, there is yet a third approach to avoiding the characterization of derivatives as gambling instruments. Under New York law, "[a]ll contracts for or on account of any money or property, or thing in action wagered, bet or staked . . . shall be void." Although option contracts are not illegal gambling contracts in New York, the New York courts have distinguished an illegal wager from a legal investment on the following grounds:

The difference is that the investor does something or attempts to do something to influence the favorable outcome of the venture, while the gambler passively awaits . . . the happening of a fortuitous event. The absence of a working investment, with money passing only after the event, is one of the indicia of an illegal wager.

Nevertheless, given this analysis it seems possible that a New York court could find a bilateral netting arrangement in an interest rate swap to be akin to a passive roll of the dice (a "fortuitous event") on the direction of future interest rates.

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199. GROUP OF THIRTY supra note 157, app. II, at 72.
200. Id. at 74.
201. Id.
202. Financial Services Act, 1986, ch. 60, § 63 (Eng.) ("No contract to which this section applies shall be void or unenforceable by reason of . . . section 18 of the Gaming Act of 1845").
203. Financial Services Act, 1986, ch. 60, sched. 1, ¶ 7-9 (Eng.).
208. This question is discussed in Ronald L. Cheng, Note, Legal Doctrines Restricting the Secondary Market in Interest Rate Swaps, 26 COLUM. J. TRANSNAT'L L. 313, 325-27
Typically, regulatory law does not tell parties how to undertake a transaction, but instead imposes conditions on those parties that decide to undertake certain transactions. For example, the Bank of England’s requirement that Barings report any transfer of assets with a value of more than 25% of its capital was based on regulatory law. Regulatory law is normally created to have some effect on costs that would otherwise be borne by someone not a party to a particular transaction. Regulatory law that could affect derivatives transactions includes the capital adequacy standards and deposit insurance applicable to banks, as well as other restrictions on bank activities and general corporate securities laws.

Laws arising from a single nation’s unilateral imposition of restrictions on derivatives transactions either force market participants to externalize the costs of regulation or force the participants to drop out of the market altogether. To prevent the unwanted departure of market participants engaged in activities that tend to benefit a host economy, an international consensus that recognizes the harmful side-effects of imposing unilateral regulation seems to be emerging. Nations are starting to cooperate to create uniform legal rules of universal applicability that allow individual nations to control the negative externalities that international derivatives transactions may create. This Section examines unilateral and universal regulations in banking and corporate law that apply to international derivatives transactions.

1. Deposit Insurance and Capital Adequacy

BB&Co was a bank subject to the Bank of England’s regulatory authority. The Bank of England was responsible for consolidating the supervision of BB&Co and was the “lead regulator” of all Barings’ activities pursuant to a Memorandum of Understanding with the Securities and Futures Authority (SFA). The SFA is a Self-Regulatory Organization (1988). For an overview of the application of various nations’ gambling laws to derivatives transactions, see generally Group of Thirty, supra note 157.

For the purposes of this Note, regulatory law refers to the positive law that governs relations between a party and the state.

See infra note 256 and accompanying text.

In theory, government could also use the tax code to control the risk of financial transactions in general, and of derivatives transactions in particular. For example, a 100% tax on the net benefit of an interest-rate swap would prevent such an activity from taking place. Although government could tax those parties that put government money at risk in order to reimburse government for incurring that risk, such tools as insurance premiums are more efficient. To the extent that government decides to use a derivatives tax to raise money, the transactions would be subject to the implications identified by the Laffer Curve: at some point an increase in marginal tax rates would decrease revenues. For a discussion of the Laffer Curve, see generally Rüdiger Dornbusch & Stanley Fischer, Macroeconomics 600-01 (4th ed. 1987).

Banking Act, 1987, ch. 60, § 1(1) (Eng.) (“The Bank of England has ... the duty generally to supervise the institutions authorised by it ...”).

Bank of England, supra note 1, ¶ 12.6-12.7.

Id. ¶ 12.12.
SRO) organized under the Financial Services Act of 1987. SFA believed itself to have authority only to monitor BSL’s financial resources and to protect BSL’s customer assets and was under no duty to regulate the business of non-member subsidiaries of BSL. But the Bank of England had two means to constrain these risks: capital requirements and deposit insurance.

a. Capital Requirements

Capital adequacy regulations are intended to deter banks from engaging in activities with excessive risks. Since some of an even providently managed bank’s investments (e.g., loans) will fail and at least some depositors will withdraw money at an uncertain time in the future, a bank must maintain at least some capital reserves to insure its liquidity. In England, the Bank of England must approve the capital structure of “authorized” banks. In the United States, all depository institutions are subject to capital adequacy rules based upon leverage ratios and risk-adjusted capital guidelines. However, recent international agreements have created more uniform capital adequacy rules among nations.

Increasing bank capital requirements to offset the perceived risks of derivatives transactions would merely force banks to externalize this new cost. Increasing capital requirements would cause banks to engage in riskier activities to earn the same return on their capital as earned by similarly-situated foreign banks with lower capital requirements. Domestic banks would be at a competitive disadvantage, and governments might face a higher rate of bank failure. Thus, there is no reason to suppose that an increase in Barings’ capital requirements would have prevented its collapse. If anything, higher capital requirements might have caused Barings to engage in even riskier activities.

b. Deposit Insurance Premiums

Because Barings was an authorized bank, a deposit protection fund was obligated to protect the deposits of its small creditors. One reason for regulators to be concerned about derivatives-related activities of banks is that bank failures jeopardize the deposits of small creditors, who could be wiped out by such a failure. While there are many different justifications

217. Id. ¶ 12.106.
218. Macey & Miller, supra note 151, at 284.
219. Id. at 47-49.
221. Macey & Miller, supra note 151, at 284-87. Leverage ratios compare capital to assets, without any adjustment for risk. Id.
222. Id.
223. The cost of a higher capital requirement is effectively an increase in the bank’s cost of capital.
224. See generally Coase, supra note 144 (describing the imposition of external costs).
225. See supra note 22.
for deposit insurance, commentators agree that there are persuasive reasons for its use in protecting small depositors.\footnote{227}

In England, banking institutions that accept deposits are required to contribute to a "depositor protection fund"\footnote{228} based on the value of deposits. The fund only protects deposits that mature in less than five years.\footnote{229} The protection extends to the first £20,000 of a depositor's funds.\footnote{230} By contrast, the U.S. government currently insures deposits in federally-insured institutions for up to $100,000.\footnote{231}

Such guarantees obviously benefit the banks\footnote{232} by attracting conservative investors. To cover the risk of loss, the U.S. government charges banks an insurance premium based on the probability of loss with respect to the types and concentrations of a bank's assets and liabilities.\footnote{233} In contrast, England charges a fixed premium regardless of the risk created by a bank's lending practices, creating a perverse incentive for risky behavior.

Like capital standards, the unilateral imposition of deposit insurance premiums that bear no relation to the risk of a bank's assets causes a bank to externalize the costs of the regulatory requirement.\footnote{234} If a deposit insurance premium is not risk-based, the premium will act like a tax on insured institutions. To earn a return equivalent to the return earned by other banks that do not pay an FDIC premium (i.e., non-U.S. banks), U.S. banks must earn a higher pre-premium return on their assets.\footnote{235} Imposing an

\footnote{227} See, e.g., FRIEDMAN & SCHWARTZ, supra note 147, 440.

\footnote{228} Banking Act, 1987, ch. 60, § 52(1) (Eng.); MARK HAPGOOD, PAGE'S LAW OF BANKING 18 (10th ed. 1989).

\footnote{229} Banking Act, 1987, ch. 60, § 60(6); HAPGOOD, supra note 228, at 19.

\footnote{230} Banking Act, 1987, ch. 60, § 60(1); HAPGOOD, supra note 228, at 19.


\footnote{232} Milton Friedman believes that deposit insurance has succeeded in preventing banking panics. FRIEDMAN & SCHWARTZ, supra note 147, at 440.


\footnote{234} It is uncertain to what extent the FDIC's "risk-based insurance premiums" accurately reflect the riskiness of a bank's assets. Under recent FDIC proposals, see supra note 233, 90% of 11,000 banks covered by the Bank Insurance Fund would receive the fund's highest ("safest") rating. Robert D. Hershey, Jr., F.D.I.C. Plans to Cut Fee Banks Pay for Insurance, N.Y. TIMES, Feb. 1, 1995, at D2. If all banks were to receive the same rating, the ratings would be of doubtful accuracy.

\footnote{235} For example, a bank with an initial balance sheet of $100 of assets, $90 of debt, $10 of equity, and no obligation to pay deposit insurance premiums must earn a return of 10% on its assets to double shareholder's equity to $20. A bank with a similar initial balance sheet that also pays a 33% deposit insurance premium must earn a return of 15% on its assets to provide its shareholders with the same after-premium return.

Notwithstanding the consequences of the unilateral imposition of non-risk-based costs on FDIC-insured institutions, some believe that deposit insurance should be regulated by a series of rules that ignore the risk of the underlying transactions. Representa-
increased and non-risk-based deposit insurance premium on England's banks would only increase risky behavior. It would not prevent a collapse such as Barings'.

c. The Basle Accord

Leverage ratios are a crude instrument to use in setting capital adequacy standards. The alternative to requiring leverage ratios is requiring banks to keep in reserve a percentage of capital that reflects the relative risk of the loans in its portfolio. In 1988, the Basle Committee on Banking Regulation and Supervisory Practices (Basle Committee) reached an agreement (the Agreement) for broad-based capital adequacy standards based upon the riskiness of a bank's assets. In theory, such an approach does not create an incentive to increase the riskiness of the loans in bank portfolios and, in a nation that insures deposits, externalize the costs of the change in behavior.

But the effect of leverage ratios becomes more problematic as banking becomes a truly international activity and assessing the riskiness of a bank's portfolio becomes a more difficult task. In a world where banks from country A compete with banks from country B to lend money to firms in country C, capital requirements do not impose any discipline upon banks. A bank located in a country with relatively lower capital require-

Charles Schumer (D-N.Y.) has stated that banks engaging in derivatives transactions should be at a disadvantage because of the "special burden" of their deposit insurance. Bank Regulators Recommend Four Changes to Derivatives Bill in House Subcommittee, supra note 119. Schumer would require banks to set up separate subsidiaries for derivatives trading activities. Id. But Federal Reserve Board Chairman Alan Greenspan disagrees, saying that "requiring banks to confine their proprietary trading activities to separately capitalized subsidiaries or affiliates" could increase "the risk these activities pose to the financial system," and hurt the competitiveness of U.S. banks. Hold Off on Derivatives Law for Now, Administration Working Group Recommends, 63 Banking Rep. (BNA) 113, 114 (1994). Greenspan apparently believes that Schumer's firewall would impose a cost on bank activities that bears no relation to their risk. For a description of how the "proper" calculation of insurance premiums avoids creating externalities, see MACEY & MILLER, supra note 151, at 265. In addition, no proponent of using insurance premiums to regulate derivatives has explained why such transactions differ substantively from any other banking activities. While it is certain that there is some bank-specific risk related to derivatives transactions, the level of risk depends upon the extent of the market, legal, credit, and operations risks arising from derivative transactions. See supra Part II.C.

See supra Part III.B.1.a.

See, e.g., MACEY & MILLER, supra note 152, at 285.

See MACEY & MILLER, supra note 151, at 285. The Basle Committee, which meets at the Bank for International Settlements, is comprised of representatives from the central banks and supervisory authorities of the Group of Ten and Luxembourg. The Group of Ten includes Belgium, Canada, France, Germany, Italy, Japan, Netherlands, Sweden, Switzerland, the United Kingdom, and the United States. General Accounting Office, supra note 75, at 36 n.11.

In practice, it may be very difficult to assess the relative risk of different loan portfolios.

See MACEY & MILLER, supra note 151, at 285.
ments has a competitive advantage over banks located in other countries. As long as nations wish to impose some sort of capital requirement on their banks, pressures of international competition require that nations adopt a risk-based capital adequacy standard.

New rules concerning the imposition of risk-based capital adequacy regulations were coordinated along with the adoption of the Agreement.\textsuperscript{241} The Agreement sets risk weights for assets with five different categories of risk, requiring reserves to reflect the relative riskiness of each asset category, increasing from 20\% for the safest assets to 100\% for the riskiest.\textsuperscript{242} The Agreement then requires a target ratio of capital to weighted-risk assets of 8\%.\textsuperscript{243} As a result, a bank's total asset requirements are determined by multiplying its total risk-adjusted assets by 8\%.\textsuperscript{244} By adjusting a bank's required capital to the relative risk of its assets, the Agreement reduces a bank's incentive to engage in risky activities. The reward such a bank would otherwise expect from engaging in higher risk activities is offset by the requirement that such a bank must hold a greater amount of capital in reserve.

The Agreement resolves some of the difficulties that arise from the unilateral regulation of banking activities by promoting the consistent application of capital requirements across nations. The Basle Committee cited three advantages to its risk-based approach: making comparisons between banking systems fairer, allowing off-balance sheet activities to be incorporated more easily into measures of capital adequacy, and not deterring banks from holding low risk assets.\textsuperscript{245} For countries committed to some form of capital adequacy requirement, the Agreement's risk-based

\begin{footnotesize}
\textsuperscript{241} Wallace, supra note 163, at 1356.
\textsuperscript{242} Risk weights were assigned to off-balance sheet activities (including derivatives):
1. Direct credit substitutes, e.g., general guarantees of indebtedness (including standby letters of credit serving as financial guarantees for loans and securities) and acceptances (including endorsements with the character of acceptances) 100\%[;]
2. Certain transaction-related contingent items (e.g., performance bonds, bid bonds, warranties and standby letters of credit related to particular transactions) 50\%[;]
3. Short-term self-liquidating trade-related contingencies (such as documentary credits collateralised by the underlying shipments) 20\%[;]
4. Sale and repurchase agreements and asset sales with recourse, where the credit risk remains with the bank 100\%[;]
5. Forward asset purchase, forward deposits and partly-paid shares and securities, which represent commitments with certain draw-down 100\%[;]
6. Note issuance facilities and revolving underwriting facilities 50\%[;]
7. Other commitments (e.g., formal standby facilities and credit lines) with an original maturity of over one year 50\%[;]
8. Similar commitments with an original maturity of up to one year, or which can be unconditionally cancelled at any time 80\%.
\textsuperscript{243} Id. \textsuperscript{244} See Macey & Miller, supra note 151, at 285-87.
\textsuperscript{245} The Basle Accord, supra note 238, \textsuperscript{2}28.
\end{footnotesize}
standards will change bank behavior less than a crude leverage ratio. Agreements like the Basle Accord can also help to minimize legal risk by facilitating understanding between countries and by promoting equal treatment of similar transactions in different countries.

Although the Agreement addresses several of the concerns that would be raised if a nation unilaterally imposed its own capital requirements, several capital adequacy and related bank safety issues remain. It has been argued that the Agreement's capital requirements have led certain marginal banks to withdraw from the derivatives business and have led non-bank financial institutions (which are unaffected by the Agreement) and banks with high credit ratings to enter the derivatives market. The Agreement provides regulators with two alternative ways to value certain derivatives transactions. One method (mark-to-market, or current exposure) allows a bank to add the replacement cost of derivatives contracts on which it owes money to an amount for future credit exposure based upon a small percentage of the derivative contract’s notional value. The second method (original exposure) allows a bank to multiply the derivative's notional principal amount by a conversion factor. At least one commentator believes that the heavier weights for longer term and multi-currency transactions have led organizations to stop entering into such transactions, apparently reasoning that organizations would not have engaged in fewer longer term and multi-currency transactions after implementation of the risk-weighted standards if the weights accurately reflected the additional risk of such transactions. Alternatively, this change in behavior could be explained by arguing that implementation of the risk-adjusted derivatives' weights removed a subsidy that derivatives-trading banks previously enjoyed. Longer-term and multi-currency transactions do involve more risk than transactions that do not contain either or both of these elements. The change in bank behavior that Das observed after implementation of the Agreement’s capital adequacy guidelines for interest rate and foreign currency transactions could merely reflect the rules having their intended effect.

246. Compared to a leverage ratio, which contains no “penalty” for acquiring a risky obligation, a risk-based standard imposes a burden on banks that is theoretically equal to the increased risk of loss associated with the risky obligation. See supra Part III.B.1.a. Of course, this holds true only to the extent that the risk weights corresponding to the asset categories reflect the actuarial risk associated with the assets that comprise the category.

247. For a discussion of “legal risk,” see supra Part II.C.1.b.

248. Das, supra note 77, at 1181-82.

249. The Basle Accord specifies criteria for determining the value of “foreign exchange and interest rate related contingencies.” Basle Accord, supra note 238, Annex 3.

250. Id.

251. Id.

252. Das, supra note 77, at 1181.

253. Ceterus paribus, risk of default increases over time. Long-term transactions should be more heavily weighted than short-term transactions. Likewise, in a transaction involving only a bank’s domestic currency, there is no currency risk. Introduction of a
Although the Agreement’s provisions may tend to make a bank more risk averse than it would be with the requirement of a pure leverage ratio, it does not seem that any sort of broad-based capital requirement could serve to stifle the determined efforts of a rogue trader. But the Agreement’s inability to prevent the actions of another Leeson need not be seen as a drawback; the Agreement does serve to limit the risk exposure of a well-managed bank. Barings failed because of its managerial imperfections. Thus, to the extent that the management of a properly-managed bank can keep the bank in compliance with the Agreement, the bank will be better able to protect government’s contingent liability from the type of default that Barings’ managers allowed to occur.

2. Activities Restrictions on Banks

In both England and the United States, banks are regulated entities. The following describes various aspects of this regulation as well as how these regulations affected Barings.

a. Asset Transfers

Given Barings’ collapse, it is neither clear that banks undertaking derivatives transactions impose costs on third parties, nor that governmental oversight is likely to prevent unauthorized escapades such as Leeson’s. England’s banking law does require a parent company to notify the Bank of England if the parent transfers an amount greater than 25% of its capital to a subsidiary. It is likely that Barings’ margin payments to SIMEX and the Osaka Stock Exchange exceeded 25% of its capital, and that Barings violated English law by failing to notify the Bank of England. The English statute requiring governmental oversight of parent corporations risking a significant portion of their assets did not stop Leeson from engaging in unauthorized activities. Given the existence of a reporting requirement that would prevent Barings from engaging in overly risky endeavors, it might seem that lax governmental oversight was one cause of Barings’ failure. On the other hand, increased vigilance by regulators would only shift responsibility for proper managerial oversight of the firm to government, which has less incentive than the corporation itself to manage the corporation’s affairs effectively. After all, the Barings family paid a high price—the loss of their firm—for its inability to control the actions of its company’s employees. Further, regulatory reporting requirements, such as that of the Banking Act of 1987, do nothing to improve the management of a corporation’s activities. The division of oversight responsibilities

254. See BANK OF ENGLAND, supra note 1, ¶ 12.10-12.11.
257. See supra note 61.
for Leeson’s activities was a managerially dubious proposition.\textsuperscript{258} It splintered authority to the point where no one person was responsible for certain vital activities, such as ensuring that Leeson was performing his job in accordance with applicable rules. When third parties are not at risk, there is no reason for the government to concern itself with such oversight.

In contrast to English law, which creates a regulatory reporting requirement, U.S. law creates no affirmative corporate duty to inform regulators of permissible activities in which bank holding company subsidiaries engage. Instead, U.S. law prohibits transfers from a parent to a subsidiary when such transfers exceed 20% of the capital stock of the member bank.\textsuperscript{259} Unlike the Bank of England’s reporting requirement, the Federal Reserve Board relies on its examinations of bank holding companies to determine the scope of a holding company’s activities.\textsuperscript{260} If the Board determines either through its examinations or other means that certain practices pose a “serious risk” to sound banking practices, the Board can require the holding company to stop such activities after notice and an opportunity for hearing.\textsuperscript{261}

The affirmative reporting requirement of the 1987 Banking Act would not have prevented Barings from intentionally engaging in unsafe practices. If Leeson’s managers were simply incompetent, the Banking Act’s reporting requirement did not serve its purpose. Although U.S. law largely relies on government bank examiners to identify unsafe practices, it also relies on the vigilance and timeliness of examiners to prevent bank employees from engaging in unsafe practices; there is no guarantee that an examiner will come along just as a Nick Leeson is about to gamble billions of a U.S. bank’s money. Additionally, the U.S. law’s black-letter proscription of certain transfers\textsuperscript{262} may provide a bank’s management with a rule that is easier to enforce than England’s, which allows for regulatory approval. England’s law requires management to establish a procedure for the bank to seek regulatory approval in certain circumstances.\textsuperscript{263} U.S. law merely requires management to enforce an outright ban.\textsuperscript{264} And certain legal rules may be more effective at promoting sound management practices than others.\textsuperscript{265} In the end, strong and effective bank management is the best way for banks to stop employees from engaging in unauthorized activities.

b. Other Restricted Activities

Although Barings was subject to the Bank of England’s regulatory author-

\textsuperscript{258} C\textsuperscript{f.} supra note 73 and accompanying text.
\textsuperscript{260} 12 U.S.C.A. § 1844(c) (West 1989).
\textsuperscript{261} 12 U.S.C.A. § 1844(e) (West 1989).
\textsuperscript{262} 12 U.S.C.A. § 371c(a) (West 1989).
\textsuperscript{263} C\textsuperscript{f.} BANK OF ENGLAND, supra note 1, ¶¶ 12.10-12.
\textsuperscript{265} A single, clearly stated goal is more easily monitored than many vaguely defined goals. CLARK, supra note 64, § 16.2 (citing Milton Friedman, The Social Responsibility of Business Is To Increase Profits, N.Y. TIMES, Sept. 13, 1970 (Magazine), at 33).
There were no per-se restrictions on the sort of proprietary futures trading activities that led to Barings' collapse. Certain of Barings' subsidiaries' activities were subject to SFA's regulatory authority (i.e., were not subject to the Bank of England's regulatory authority). In contrast, in the United States there are restrictions on the activities of banks and bank affiliates. Preventing banks and affiliates from engaging in derivatives transactions would not have prevented Barings' collapse. If anything, such restrictions would have caused Barings to engage in even riskier activities in the search for a return that would allow it to compete with its unburdened competitors.

3. Securities Law and Other Disclosure Requirements

Futures are securities under the laws of the United States, England, and Singapore. All three nations regulate securities transactions by requiring disclosure of information that could affect a well-informed party's decision to enter a transaction with an issuer. Disclosure requirements are intended to provide a corporation's creditors with information important in evaluating the company. In addition to national disclosure systems which may give rise to the problems associated with unilateral regulation, the International Institute of Finance's (IIF) Global Information Framework (the Framework) is an example of universal disclosure regulation.

a. National Disclosure Requirements

National disclosure requirements fall into two categories. First is the familiar system of periodic disclosure, which provides shareholders with information about a corporation's activities. In England, companies with public shares must prepare an annual report that includes certain statutorily required disclosures. In Singapore, certain companies must similarly...

Currently, however, there is no legal requirement (outside of general financial statement disclosures) for publicly-held companies in the United States, England, or Singapore to disclose derivatives transactions in particular. In the United States, there are currently several proposals that would require certain disclosures of derivatives-related activity. For example, the SEC is considering a new rule concerning mark-to-market accounting for derivatives. This rule would require corporations to post "losses" due to derivatives transactions on their books when an adverse change in the market affects the value of a derivatives contract. In theory, such rules would help investors to value derivatives holdings at any point in time but would not help investors to value derivatives over the longer-term. Meanwhile, the Financial Accounting Standards Board (FASB) has implemented many different plans to require certain disclosures relating to financial instruments in annual reports.

274. Companies Act, 1990, ch. 50, §§ 197-98 (Sing.).
277. See supra note 276 and accompanying text.
278. See infra note 282.
279. For a discussion of the possible consequences of these proposals, see infra notes 285-89 and accompanying text.
281. The rule would not apply to swap contracts the institution can prove are being used as a hedge. Schultz & Taylor, supra note 281. The SEC is also considering mandating disclosure of equity swaps. Warren Getler, Equity Swaps Now Require SEC Filing, WALL ST. J., Sept. 28, 1994, at C1. Equity swaps are, as the name implies, swaps of equity securities by corporate insiders with large holdings, the sale of whose stock would require disclosure. Cf. id. Typically, equity swaps take place when an investor, with a large holding, swaps that holding (and retains voting rights) in return for the income stream from an agreed-upon diversified portfolio. Id.

Inclusion of more data in a bank's trading statements could even be misleading, in that creditors, investors and counterparties may be tempted to overlook other
The disclosure requirements of the Securities Exchange Act and the Companies Act are largely backward-looking and do not significantly help investors assess a publicly-owned corporation's future prospects. Disclosure requirements relating to derivatives transactions could contribute to the market's ability to value a firm's assets to the extent that such disclosure requirements reflect future risks and the likelihood of future payoffs. Mandating disclosure is only appropriate when market participants cannot effectively obtain such information on their own and disclosure is nevertheless least likely when it is adverse to a company's interests. For example, proposed regulations in the United States requiring mark-to-market accounting are only useful to the extent they could reflect a firm's ability to meet future obligations. These mark-to-market accounting rules represent information that could help investors value derivatives transactions undertaken by a firm. In effect, they would lower the risk of investing in a company that engaged in international derivatives transactions. While mark-to-market accounting rules could not prevent the activities of rogue traders like Leeson, they could help to inform investors of their investment's potential exposure if corporate management proves itself incompetent.

Second, laws in England and Singapore do impose certain record-keeping requirements on futures dealers. In England, futures dealers must prepare financial statements that reflect their position. Singapore's record-keeping requirement imposes a duty on futures dealers to accurately report their futures contract activity to the government, but this requirement only imposes liability on Barings for Leeson's activities after-the-

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284. The value of a security depends upon the future prospects of the firm issuing them. See generally Brealey & Myers, supra note 90, at 49-52 (describing why the value of a firm equals the value of expected future dividend payments plus the expected future company growth).
285. There are two qualifications to this potential for disclosure of derivatives activity to benefit firms engaging in such transactions. First, it assumes zero or de minimis compliance costs. Second, it assumes the transactions are somehow speculative. Disclosure of the existence of a hedge is only beneficial to the extent the market cannot adequately value an unhedged transaction.
286. Langevort, supra note 284, at 781.
287. Id. at 785. For an argument that firms will also disclose bad news to preserve a reputation for candor, which helps in raising capital, see Frank H. Easterbrook & Daniel R. Fischel, Mandating Disclosure and the Protection of Investors, 70 Va. L. Rev. 669, 683 (1984).
288. See supra note 280 and accompanying text.
289. See supra note 281 and accompanying text.
291. Futures Trading Act, 1985, ch. 116, § 25(1)(a) (Sing.) (requiring futures dealers to keep records that "will sufficiently . . . reflect the financial position of the business of trading in futures contracts carried on by [the dealer]").
fact. Obviously, Singapore's record-keeping requirement was not sufficient to stop Leeson from hiding his trades.

In the United States, the Commodities Futures Trading Commission (CFTC) regulates exchange-traded futures contracts. The CFTC requires the reporting of open positions of a certain size. At least one commentator has argued that the CFTC's reporting requirement would have prevented Leeson from perpetrating his fraud in the United States.

Markets are capable of assessing whether a firm's level of derivatives trading activity is so high as to give rise to an unnecessary risk of rogue trading. Under these circumstances, there is no justification for increased regulation of derivatives, because creditors would account for the risk of a Barings-like collapse by demanding higher returns.

b. The Global Information Framework

Regulation does not by itself resolve the risks inherent in oversight of complicated financial transactions. Regulators and market participants cannot fully grasp the implications of derivatives transactions without first gaining a deeper understanding of the market itself. To this end, the IIF developed a framework for public disclosure of derivatives-related activities. This framework has two goals: "the development of a meaningful international industry standard for public disclosure of derivatives-related credit exposures and activity levels in a firm's annual reports . . . [and] to contribute to the global public policy debate concerning derivatives-related transparency issues." Like any disclosure requirements, the framework recommends the use of specific forms for reporting qualitative and quantitative information. The IIF believes that its framework will improve the quality and quantity of information available for use in the risk management process, allay concerns about certain derivatives-related activities, and contribute to informed policy-making. To the extent that a non-mandatory disclosure regime is capable of realizing these objectives, the framework can facilitate future oversight of international derivatives transactions.

The IIF framework establishes guidelines for the substance and form of derivatives-related reporting. The recommended substantive disclosures

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292. A broker who fails to keep records as required by the Futures Trading Act is subject to imprisonment of one year and a fine not exceeding $10,000. Futures Trading Act, 1985, ch. 116, § 25(6) (Sing.).
294. 17 C.F.R. § 15.00(b) (1996).
295. Bair, supra note 71, at 5.
298. INSTITUTE OF INTERNATIONAL FINANCE, INC., supra note 297, at 14-18. For a reporting example, see id. at 49-68.
299. Cf. id. at 1.
involve quantitative and qualitative information. Quantitative disclosures include credit exposure and activity levels. Qualitative disclosures include discussion of accounting practices, netting policies, management's understanding of risk, and key sectors of derivatives-related activity. The framework's formal reporting requirements provide a methodology for incorporating representation of derivatives-related activity into annual reports. Although the framework does not carry the force of law, it does provide prima facie evidence that organizations involved in derivatives-related trading activities have considered the different pieces of information that knowledgeable people require to evaluate derivatives-related activities. Furthermore, in common law jurisdictions the failure of members of professional organizations to follow standards promulgated by those organizations can lead to a presumption of negligence.

One could imagine a situation where an investor in a corporation brought suit against a corporation that failed to disclose its position in derivatives-related transactions according to the IIF framework's standards. The investor would argue that the framework established the reasonable standard for disclosing derivatives-related activity, that the corporation's failure to follow the framework prevented the investor from learning of certain money-losing activities in which the corporation was engaged, and that the corporation's failure to disclose harmed the investor. Would the investor's recovery in such a suit promote better derivatives reporting practices? While it is beyond the scope of this Note to discuss the relative merits of imposing common law duties on allegedly negligent parties, the benefits of any increased disclosure resulting from the imposition of such a duty should certainly be weighed against the possible chilling effect that such a duty could have on the future promulgation of reporting standards. Courts should be aware that using the framework as the basis for a corporate duty to disclose derivatives-related activity could serve to prevent corporations from developing any disclosure framework in the future. The absence of a disclosure framework would prevent the dissemination of information and the concomitant increased understanding that disclosure

300. Id. at 39.
301. Id. Credit exposure includes counterparties' credit ratings, Basle Accord credit categories, and replacement values. Id. at 39-40.
302. Activity levels are aggregated by product type (e.g., interest rate products, foreign exchange products), notional amount, maturity structure (i.e., term), and market value. Id. at 40.
303. Id. at 39.
304. See id. at 49-68.
306. See CLARK, supra note 64, § 15.
is designed to foster.\textsuperscript{308}

IV. Lessons

The great lesson to be learned from Barings' well-publicized collapse is that the world's international financial markets prevented the imposition of costs on third parties. Barings' collapse was notable not for the holes that it exposed in the system of regulatory oversight, but for the inability of Barings' managers to discover the fraud in time to save their jobs. This Section discusses why the fraud occurred, as well as who was hurt by Barings' subsequent collapse.

A. Preventing Fraud and Incompetence

The likelihood of preventing fraud is proportional to the competence and expertise of managers and regulators as well as the size of the fraud. One explanation of Barings' collapse is managerial—the incompetence of Barings' managers allowed the collapse to take place.

Nick Leeson caused Barings' collapse by making certain trades that exposed Barings to excessive risk. For whatever reason, his superiors allowed those trades to take place. Barings did not have the necessary internal controls in place to allow responsible oversight of Leeson's activities. He allegedly transferred 60,000 futures contracts worth $5.6 billion to an account that executives in London did not know existed.\textsuperscript{309} That account showed a loss of £827 million as of February 27, 1995.\textsuperscript{310}

Given Barings' managerial structure, it should come as no surprise to learn that Leeson was able to hide his activities from his managers. A more interesting question is whether the apparent ease with which Leeson concealed his activities is an appropriate cause for concern. There were no costs imposed on third parties, and Leeson's unauthorized $29 billion in trades did not threaten the stability of the world's financial system. Whether a rogue trader could cause a firm to take a sufficiently large stake in the world's financial markets to threaten worldwide liquidity is debatable. It would be difficult for a firm to amass a sufficiently large position before discovery by the world's regulators and financial markets. The

\textsuperscript{308} See supra note 285 and accompanying text.

\textsuperscript{309} Richard W. Stevenson, Fraud Inquiry on Barings in Britain, N.Y. Times, Mar. 4, 1995, at 33, 45. Singapore also issued a criminal complaint alleging Leeson forged a confirmation that an $81 million payment had been made to Barings. Stevenson, supra note 3. The complaint alleged that Leeson "had forged the signature of Richard Hogan, a managing director of Spear, Leeds & Kellogg, a specialist firm that makes a market in stocks on the New York and American Stock Exchanges." Richard W. Stevenson, Public Relations Enters Barings Case, N.Y. Times, Mar. 8, 1995, at D2. The complaint alleged that documents in Mr. Leeson's office suggested that he had been practicing Richard Hogan's signature and that "the forged letter from Spear, Leeds stated that the firm had executed a call option on the Nikkei index of 225 Japanese stocks and [would] pay Barings ¥7.8 billion, or about $80 million." Id. "The complaint also said Mr. Leeson had forged a document purporting to be a confirmation by Citibank that Baring Futures in Singapore had been credited with the money." Id.

\textsuperscript{310} Stevenson, supra note 1.
response of the world’s financial markets to Barings’ collapse is evidence that a rogue trader could not, without assistance, amass a large enough position to threaten worldwide liquidity. This is not to say that a large institution could not enter into trades that would (unlike Barings) wreak havoc on the world’s financial markets. And the problem of large traders maintaining oversight of their employees continues to present managerial challenges. But Barings’ collapse indicates that current procedures are sufficient to prevent the use of derivatives from leading to certain types of catastrophe.

B. Identifying the Parties Hurt by Barings’ Collapse

Barings’ collapse did not harm third parties because Leeson did not risk enough money to undermine the security of the international financial system. There is ample evidence that Barings’ regulators and even its own managers knew or could have known of Leeson’s activities before Barings became insolvent on February 24, 1995; traders in Asian markets had known at least since early February that Barings had taken a large position on the direction of Japanese stock prices and executives at Barings knew something of the firm’s exposure at least two weeks before Barings’ collapse. On February 8, 1995, Barings’ officials told officials from SIMEX that Barings was aware of Leeson’s trades and that Barings had sufficient money to cover them. In addition, Barings continued to meet its margin calls from SIMEX and the Osaka exchange throughout February, suggesting that Barings’ officials responsible for approving payment of the margin calls knew of the magnitude of the transactions entered into by Leeson. Further, Barings borrowed some of the $890 million (including $200 million in the week of February 17-24 alone) needed to meet its margin calls. SIMEX’s increasing margin calls throughout February is evidence that it also knew of the magnitude of Barings’ position. However, Singapore’s Financial Minister, Richard Hu, has said that Barings led SIMEX to believe that Barings’ open positions were for arbitrage trading purposes, which are less risky than pure speculation.

Leeson’s trades were not prevented because, in the big scheme of things, they were so small. Notwithstanding bureaucratic inefficiencies, it is implausible, perhaps impossible, for one person to engage in a sufficient number of trades to cause harm to innocent third parties without existing regulatory systems identifying such transactions before they are allowed to be executed. Who was actually hurt? Certainly, Leeson’s managers were

311. See supra Part II.C.2.
312. Stevenson, supra note 3.
313. Stevenson, supra note 15.
314. Stevenson, supra note 47.
315. Id.
317. Stevenson, supra note 47. There are some reports that Barings borrowed in the belief that Leeson was buying and selling on behalf of clients. Stevenson, supra note 3.
318. Gargan, supra note 316.
hurt. The incompetence of Barings’ managers cost many their jobs and cost the Barings’ family control of a once-proud merchant bank. This was a fitting result as there were many banks in 1995 that executed similar trades without making Barings’ mistakes. The market rewarded good managers and punished bad ones.

Conclusion

In regulating economic transactions, governments should create legal rules only to reduce transaction costs or mitigate negative externalities. Derivatives transactions have developed to help international investors engage in mutually beneficial trades. The laws regulating the type of transaction that led to Barings’ insolvency gave Barings and its creditors the chance to realize significant potential gain. Derivatives transactions provide great benefits by increasing the efficiency of the world’s financial markets and by providing investors with tools to hedge against some of the uncertainties that arise in a truly global economy. The laws that regulate such transactions allocate risk and, although imperfect, are of some utility to market participants.

Barings collapsed largely from the failure of its management to monitor its own activities, and only resulted in harm to Barings itself and to some of its creditors. Although existing legal rules cannot prevent a rogue trader from bankrupting an ineffectively managed employer, existing legal rules do help prevent losses to creditors who bear some of the risk from such trading activities. Barings’ failure represents the imposition of market discipline on a firm that did not operate in accordance with practices likely to promote long run success.