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# THE BARINGS COLLAPSE: A REGULATORY FAILURE, OR A FAILURE OF SUPERVISION?

*"Perhaps he did a little business he shouldn't have."*<sup>1</sup>

## I. INTRODUCTION

On February 26, 1995, Barings PLC, the oldest and arguably the most distinguished investment bank in England, collapsed after sustaining a loss of approximately \$950 million on futures and options trading.<sup>2</sup> The collapse renewed calls for greater regulation of derivatives, and raised questions about risk-management controls and oversight of trading operations within banks as well as in corporations generally.<sup>3</sup>

The Barings collapse laid bare several problems within the banking industry. The first is that internal controls are not necessarily tight enough.<sup>4</sup> Regulators had always asserted that derivatives trading had been handled by experienced traders in markets, such as the United States and Britain, where the central banks exercised control and understood exactly what was happening with given trades on a given day.<sup>5</sup> However, the failure of Barings Bank demonstrated that even a highly respected and established bank such as Barings can have faulty internal risk-management procedures.<sup>6</sup>

Second, the Barings collapse brings into question the world banking system's safety from so-called "systemic" risk. Barings, although it had a highly respected name, was a relatively small bank. If a bank far larger than Barings, with many times its net worth, had collapsed in a similar fashion, the world financial system may have been threatened by panic runs on banks and a resulting loss of liquidity.<sup>7</sup> However, "a

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1. Bank of England Governor Eddie George, commenting on Nicholas Leeson's trading losses of more than \$1 billion, which sank Barings PLC, a British investment bank. *Perspectives*, NEWSWEEK, Mar. 13, 1995, at 19.

2. See Sara Webb et al., *A Royal Mess: Britain's Barings PLC Bets on Derivatives—and the Cost is Dear*, WALL ST. J., Feb. 27, 1995, at A1.

3. See Charles M. Seeger, *How to Prevent Future Nick Leesons*, WALL ST. J., Aug. 8, 1995, at A13.

4. See *The Bank That Disappeared*, ECONOMIST, Mar. 4-10, 1995, at 11.

5. See *id.*

6. See *id.*

7. See *id.*; see also *infra* notes 121-25 and accompanying text (discussing

consensus is forming that well-publicized derivatives-related losses are more a function of poor management than inadequate regulation or 'intrinsic problems in the [OTC] derivatives market.'<sup>8</sup> Most of the problems that have occurred with derivatives, including the Barings Bank collapse, have occurred largely because of failures in management and supervision, rather than from any problems inherent in the derivatives themselves.<sup>9</sup>

Third, a greater flow of information may be needed among regulators in different parts of the world.<sup>10</sup> In 1993, U.S. Representative Henry Gonzales noted that U.S. banks had admitted that improvements in international regulatory coordination were necessary, and that there was further a "desperate need for more standardized and detailed disclosure of derivative product activities."<sup>11</sup> While much of the blame for Barings' collapse may be laid at the feet of Nicholas Leeson,<sup>12</sup> whose derivatives trades brought Barings down, there also may be a need for more information-sharing within the industry.<sup>13</sup>

This Note argues that government regulation was sufficient, and that it was not the lack of such regulation that caused Barings Bank's problems before or after Nicholas Leeson's illicit trades. Instead, better internal banking controls and improved communication among those within the industry are needed in the international trading of global derivatives in order to prevent further incidents similar to the collapse of Barings. International standardization efforts in the securities field must focus on internal controls within firms that are monitored by securities regulators.<sup>14</sup> Further, this Note exam-

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systemic risk).

8. Saul S. Cohen, *The Challenge of Derivatives*, 63 *FORDHAM L. REV.* 1993, 2019 (1995) (quoting *Economists Roundtable Calls for No New Derivatives Rules*, *REDEMPTION DIG. & SEC. INDUS. DAILY*, Oct. 3, 1994, at 2) (alteration in original).

9. See *The Beauty in the Beast*, *ECONOMIST*, May 14, 1994, at 21, 22.

10. See Nicholas Bray, *Top British Securities Regulator Seeks Closer Ties in Wake of Barings Debacle*, *WALL ST. J.*, Mar. 10, 1995, at B6A.

11. 139 *CONG. REC.* H3822 (daily ed. June 18, 1993) (statement of Rep. Gonzalez).

12. Nicholas Leeson was the 28-year old derivatives trader in Barings' Singapore office whose unauthorized trades caused losses that led to Barings' collapse. See *infra* Part II.

13. See William B. Crawford, Jr., *After Barings, Simex Repairs*, *CHI. TRIB.*, Mar. 19, 1995, at 1.

14. See *U.K. Securities Chief Cites Need for Improved Supervision*, 27 *Sec. Reg. & L. Rep.* (BNA), No. 10, at 409, 410 (Mar. 10, 1995) [hereinafter *U.K. Secu-*

ines the collapse of Barings and the problems in supervision that caused it.

Part II discusses the background of the Barings collapse, and Nicholas Leeson's role in that collapse. Part III explains derivatives and their risks. Part IV delineates the supervision problems at Barings before the collapse. Part V outlines communication problems on the exchanges that played a part in the Barings disaster. Finally, Part VI proposes a manner in which the collapse could have been avoided, and how similar collapses can be avoided in the future.

## II. BACKGROUND

In 1992, Nicholas Leeson, a 28-year old English derivatives trader for Barings PLC, arrived in Singapore, where Barings was gradually expanding a small trading operation.<sup>15</sup> Leeson had joined Barings in 1989 as a back-office clerk settling trades.<sup>16</sup> Leeson soon moved from the back office to the floor of the Singapore International Monetary Exchange (Simex).<sup>17</sup> He showed himself to be an able and aggressive trader,<sup>18</sup> and by 1993, he had graduated to general manager of Barings Futures Singapore (BFS),<sup>19</sup> the operation that ran the bank's Simex activities.<sup>20</sup>

Leeson dealt mainly in contracts tied to fluctuations of Japan's Stock Exchange.<sup>21</sup> Leeson's job was meant to be a low-risk form of arbitrage, taking advantage of price differences in the prices of Nikkei-225 futures contracts listed on the Osaka Securities Exchange (Osaka) in Japan and Simex.<sup>22</sup> Leeson would buy a futures contract in one market and sell it for a slightly higher price in the other, thus profiting on the

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15. See Bill Powell, *Busted!*, NEWSWEEK, Mar. 13, 1995, at 37, 40.

16. See Richard W. Stevenson, *Big Gambles, Lost Bets Sank a Venerable Firm*, N.Y. TIMES, Mar. 3, 1995, at A1.

17. See Peter Martin, *The Barings Collapse: Blunders That Bust the Bank*, FIN. TIMES, Mar. 24, 1995, at 24.

18. See *id.*

19. See *id.*

20. See *id.*

21. See Powell, *supra* note 15, at 37.

22. See *The Collapse of Barings*, ECONOMIST, Mar. 4-10, 1995, at 19; Stevenson, *supra* note 16, at D15; Powell, *supra* note 15, at 40.

difference in price.<sup>23</sup> When Leeson detected such a price difference, he would buy heavily in the lower-priced market and sell in the other, generating earnings for the firm, as well as for himself.<sup>24</sup> Leeson's positions were large, but this was not particularly unusual; the volumes traded by arbitrageurs are usually large because the margins on this type of trading are small.<sup>25</sup> This strategy is not particularly risky because a long position (i.e., a position that bets on a rise in the market) in one market is offset by a short position (i.e., a position that bets on a fall in the market) in the other market.<sup>26</sup> Since each purchase was effectively offset by a simultaneous sale, Leeson would rarely have had an open position that could result in a loss in the futures in which he was dealing.<sup>27</sup> Based on this apparently safe strategy, Barings believed that the trades that Leeson was making were fully matched, with no real risk to Barings.<sup>28</sup> Further, because Leeson's strategy was thought to be low-risk, he was allowed to both execute and settle his own trades, that is, he was in charge of the paperwork to account for the buying and the selling that he was doing.<sup>29</sup>

Leeson's strategy soon moved beyond arbitrage.<sup>30</sup> He did not hedge his positions, but rather, in the second half of 1994, he began to gamble on the future direction of the Japanese markets, and his unhedged positions quickly escalated.<sup>31</sup> Leeson simultaneously sold put options (which give a right to sell) and call options (which give a right to buy) on Nikkei-225 futures.<sup>32</sup> The put and call options were executed at the same strike price, i.e., the price to which the Nikkei would have to rise or fall for the buyer to exercise his option.<sup>33</sup> These deals are known as straddles, and they make profits for the seller of

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23. See Powell, *supra* note 15, at 40.

24. See Richard W. Stevenson, *Young Trader's \$29 Billion Bet Brings Down a Venerable Firm*, N.Y. TIMES, Feb. 28, 1995, at A1.

25. See *The Collapse of Barings*, *supra* note 22, at 19.

26. See *id.*

27. See Stevenson, *supra* note 16, at D15.

28. See *Three Key Reasons Why Barings Lost Its Bearings*, BUS. TIMES, July 22, 1995, at 5, available in LEXIS, Busfin Library, Curnws File [hereinafter *Three Key Reasons*].

29. See Stevenson, *supra* note 16, at D15.

30. See *id.*

31. See *The Collapse of Barings*, *supra*, note 22, at 19.

32. See *id.*

33. See Martin, *supra* note 17, at 24.

the options as long as the market is less volatile than the option prices predict.<sup>34</sup> The straddle is a bet on volatility, with the trader betting that the market will not make any sharp up or down movements.<sup>35</sup> Such a gamble makes money only if the market remains stable,<sup>36</sup> if the market moves out of the trading range, quick losses result.<sup>37</sup>

In July 1992, fictitious account number 88888 had been opened, apparently at Leeson's request.<sup>38</sup> The account had supposedly been opened for a client.<sup>39</sup> At first, the account was included in copies of reports sent to Barings' head office in London.<sup>40</sup> However, the software program was later altered—again, apparently by Leeson—to exclude account number 88888 from all the reports but one.<sup>41</sup> The account, therefore, did not attract the attention of Barings in London.<sup>42</sup> Leeson conducted his unauthorized trading in futures and options through account 88888, where he put the premiums from all the unauthorized sales.<sup>43</sup> At first, the markets performed reasonably well; Leeson's options trading did not result in losses.<sup>44</sup> However, because of Leeson's trades, account 88888 ran up a loss of £208 million by the end of 1994.<sup>45</sup> Although he was racking up large losses, Leeson said, and Barings believed, that he was making profits.<sup>46</sup>

On January 17, 1995, there was an earthquake in Kobe, Japan, and the Tokyo stock market began to fall.<sup>47</sup> The earthquake continued to affect the Japanese economy adversely, and

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34. *See id.*

35. *See id.*

36. *See* Webb et al., *supra* note 2, at A7.

37. *See* Stevenson, *supra* note 16, at D15.

38. *See* Nicholas Bray, *Barings Failed To React to Warnings Preceding Collapse, Evidence Suggests*, WALL ST. J., July 7, 1995, at B3A; *The Collapse of Barings*, *supra* note 22, at 20.

39. *See* *The Collapse of Barings*, *supra* note 22, at 20.

40. *See* Louis Beckerling, *The Fall of the House of Barings*, STRAITS TIMES (Sing.), July 30, 1995, at 4, available in LEXIS, News Library, Strait File.

41. *See id.*

42. *See* *Three Key Reasons*, *supra* note 28, at 5.

43. *See* Martin, *supra* note 17, at 24.

44. *See id.*

45. *See* Beckerling, *supra* note 40, at 4.

46. *See* *Three Key Reasons*, *supra* note 28, at 5 (quoting excerpts from the Bank of England's Board of Banking Supervision's Report).

47. *See* Stevenson, *supra* note 16, at D15.

stocks continued to drop.<sup>48</sup> Leeson had been betting that the Nikkei index would stay in a trading range of around 19,000 points. By January 23, however, the index had fallen below 18,000 points.<sup>49</sup> As a result, Leeson took up a position that he believed would help support the Tokyo stock market and limit his losses: instead of buying futures contracts in Osaka and selling them in Singapore for a slightly higher price, Leeson stopped selling contracts, but continued to buy them.<sup>50</sup> Thus, instead of holding a matched position that did not expose him to losses in swings from the market,<sup>51</sup> Leeson was holding an open position, betting that the market would move up.<sup>52</sup> Leeson continued to buy futures contracts, betting that the Nikkei index would rise.<sup>53</sup> Apparently, he was single-handedly trying to hold up the market.<sup>54</sup>

Leeson also "shorted" futures on Japanese interest rates and government bonds, that is, he sold contracts that Barings did not own.<sup>55</sup> If the Nikkei fell, the value of the shorted futures would rise because the trader could deliver on the contract by buying later at the lower price, and pocketing the difference.<sup>56</sup> Leeson built up a futures position representing a \$7 billion bet that Japanese stock prices on the Nikkei would go up; his futures contracts purchases represented about \$22 billion of Japanese government bonds and Euroyen instruments, a form of short-term government debt.<sup>57</sup> The futures contracts fell in value as the Nikkei index dropped, and at the same time, interest rates fell, cutting the value of the bond futures contracts.<sup>58</sup>

Exchanges such as Osaka and Simex use margin calls to

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48. *See id.*

49. *See id.*

50. *See id.*

51. *See id.*

52. *See id.*

53. *See id.*

54. *See* Martin, *supra* note 17, at 24. Buying futures contracts can potentially shore up the market because those selling the contracts may hedge their exposure by buying the underlying asset. *See id.*

55. *See* Brad Stone, *How He Busted the Bank*, NEWSWEEK, Mar. 13, 1995, at 39.

56. *See* Louis Beckerling, *Barings: What Went Wrong—and Why*, STRAITS TIMES (Sing.), Mar. 12, 1995, at 1, available in LEXIS, News Library, Strait File.

57. *See* Stevenson, *supra* note 16, at D15.

58. *See id.*

limit the risk that traders will default.<sup>59</sup> As a result, Leeson had to pay a sum of money, called "initial margin,"<sup>60</sup> to Simex as collateral against possible losses on the exchange.<sup>61</sup> If the market value of the futures falls, the exchanges where they are purchased demand more money.<sup>62</sup> As Leeson's trading grew, and as the Tokyo market fell, the funding requirements from both Simex and the Osaka exchange increased.<sup>63</sup>

Leeson kept selling more options, using the funds that he had placed in account number 88888 to pay margin calls on his futures positions.<sup>64</sup> When there was no money left in the account, he turned to Barings in London for the money.<sup>65</sup> Leeson asked Barings to write checks for the margin calls, probably telling Barings that the trades were on behalf of a client who would deposit the funds with Barings in a few days.<sup>66</sup> Thus, Barings may have believed that the trades were agency trades on behalf of a client rather than proprietary trades on its own account. Agency trades of such a magnitude would have been out of the ordinary, but not exceptional.<sup>67</sup> Eventually, Leeson could not produce sufficient funds, and fled Singapore.<sup>68</sup> When Barings failed on February 26, it was holding more than \$6 billion in Nikkei 225 futures and was short \$20 billion in Japanese bond and interest rate futures.<sup>69</sup> Barings lost a total of more than \$1 billion on these positions.<sup>70</sup>

Although Barings could have been rescued, had the Bank of England been willing to do so,<sup>71</sup> such a rescue entailed find-

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59. See Martin, *supra* note 17, at 24.

60. See *The Collapse of Barings*, *supra* note 22, at 20.

61. See Martin, *supra* note 17, at 24.

62. See Stevenson, *supra* note 16, at D15.

63. See Martin, *supra* note 17, at 24.

64. See *The Collapse of Barings*, *supra* note 22, at 20.

65. See *id.*

66. See Paula Dwyer et al., *The Lesson From Barings' Straits: Treacherous World Markets Demand Ever-Tougher Controls*, BUS. WK., Mar. 13, 1995, at 30, 32. It is not altogether clear whether Leeson told Barings that the trades were for a client, or whether Barings thought that Leeson had hedged his positions as required by Barings trading strategy. See John Gapper et al., *Barings Transferred Cash to Dealer*, FIN. TIMES, Mar. 2, 1995, at 1.

67. See *The Charlie Rose Show* (PBS television broadcast, Feb. 28, 1995) (interview with Sir David Walker, Morgan Stanley, Europe).

68. See Dwyer et al., *supra* note 66, at 32.

69. See Stone, *supra* note 55, at 39.

70. See *id.*

71. Although the Bank of England's failure to rescue Barings has been criti-



ing enough private money to recapitalize Barings. Potential rescuers faced the possibility that Barings' open positions would continue to increase, creating huge liability for any bank that put up money.<sup>72</sup> It was possible that the Nikkei index would continue to drop and the exposures would double; prospective rescuers could not have found a way to cap the potential liability.<sup>73</sup> Because of the potential for unlimited liability, there were no rescuers willing to bail out Barings.<sup>74</sup> Nicholas Leeson was extradited to Singapore, and in December 1995 he was sentenced to six and a half years in prison.<sup>75</sup>

### III. DERIVATIVES AND THEIR RISKS

Before the collapse of Barings, most Americans had never even heard of derivatives. However, with the collapse of Barings and the bankruptcy of Orange County, California,

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cized, it has also been suggested that it was better to let Barings go into administration (roughly the British equivalent of bankruptcy) because it sent a message that the Bank would no longer come to the rescue of any bank which had failed to devise fail-safe systems for itself. Hence, banks would have to do a better job of policing their own. It was further thought to reinforce the message that the job of regulators is to contain a collapse and prevent a panic, not to make up for bad financial judgment. See generally Marc Levinson, *An Evil Virus Is Upon Us*, NEWSWEEK, Mar. 13, 1995, at 49, 50; Martin Mayer, *How the Market Regulates Derivatives Risk*, WALL ST. J., Mar. 2, 1995, at A14; John Plender, *No Time For a Rescue*, FIN. TIMES, Mar. 1, 1995, at 13.

Further, there is the problem of "moral hazard." By insulating banks from their defaults, guaranteed rescue might reduce banks' incentive to monitor their own houses closely. Banks can take great risks, knowing that they will be bailed out if they make a fatal error. See *Those Damned Dominoes*, ECONOMIST, Mar. 4-10, 1995, at 78; Mayer, *supra*, at A14. Moral hazard also is an argument against heavier regulation; firms may believe that government will not let them fail and thus may "free-ride" on the government's resources spent examining or supervising other market participants. Wendy Lee Gramm, *In Defense of Derivatives*, WALL ST. J., Sept. 8, 1993, at A12.

72. See John Plender, *The Box That Can Never Be Shut*, FIN. TIMES, Feb. 28, 1995, at 17.

73. See *id.*

74. See John Gapper, *Risk Too Great for British Banks*, FIN. TIMES, Mar. 1, 1995, at 2. Eventually, Internationale Nederlanden Groep N.V. (ING), a Dutch banking and insurance group, bought all three of Barings' businesses—securities, asset management, and corporate finance—for an estimated £1 million. The price was so low because ING took on nearly all of Barings liability, including the huge losses that Leeson ran up. ING said it planned to inject approximately \$1 billion to bring Barings back to financial health. See Richard W. Stevenson, *Dutch Concern Is Set To Take Over Barings*, N.Y. TIMES, Mar. 6, 1995, at D5.

75. See *Singapore Court Curbs Any Leeson Media Deals*, WALL ST. J., Dec. 5, 1995, at A16.

derivatives became a more prominent feature of the financial landscape. To understand the Barings affair, one must first understand how derivatives work.

### A. Derivatives Generally

Derivatives, the products traded by Nicholas Leeson in the Barings disaster, are contracts or payment exchange agreements whose value derives from the value of an underlying asset, or from an underlying reference rate, such as an interest rate.<sup>76</sup> The contract either allows or obligates the end-user to buy or sell an asset.<sup>77</sup> Changes in the value of the underlying asset affect the value of the contract.<sup>78</sup> The contract "give[s] one party a claim on an underlying asset (or the cash value of an underlying asset) at some point in the future, and bind[s] a counterparty to meet a corresponding liability."<sup>79</sup> For example, in a futures contract, one party has a right to sell a specified underlying asset, while the other party may have the corresponding liability to buy it on the contract maturity date.<sup>80</sup> The agreement has a certain value to the parties to the contract, which may be independent of its value on an open market.<sup>81</sup> The futures contract may describe an amount of currency, a security, a physical commodity such as wheat, a series of payments, or a market index.<sup>82</sup> Both parties might be equally bound by the contract, or the contract may offer one party an option to exercise it or refrain from exercising it.<sup>83</sup> Companies or individuals can use derivatives as a type of insurance policy, locking in currency or interest rate values for long periods of time.<sup>84</sup>

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76. See GLOBAL DERIVATIVES STUDY GROUP, DERIVATIVES: PRACTICES AND PRINCIPLES 28 (Group of Thirty eds., 1993) [hereinafter DERIVATIVES: PRACTICES AND PRINCIPLES].

77. See Henry T.C. Hu, *Misunderstood Derivatives: The Causes of Informational Failure and the Promise of Regulatory Incrementalism*, 102 YALE L.J. 1457, 1464 (1993).

78. See Rebecca Leon, Note, *The Regulation of Derivatives and the Effect of the Futures Trading Practices Act of 1992*, 3 J.L. & POL'Y 321, 322 (1994).

79. *The Beauty in the Beast*, supra note 9, at 21.

80. See DERIVATIVES: PRACTICES AND PRINCIPLES, supra note 76, at 32.

81. See Thomas C. Singher, Note, *Regulating Derivatives: Does Transnational Regulatory Cooperation Offer a Viable Alternative to Congressional Action?*, 18 FORDHAM INT'L L.J. 1397, 1401 (1995).

82. See *The Beauty in the Beast*, supra note 9, at 21.

83. See *id.*

84. See Saul Hansell, *Derivatives as the Fall Guy: Excuses, Excuses*, N.Y.

The use of derivatives has grown rapidly in recent years.<sup>85</sup> In the early and mid-1980s, when information technology developed enough to allow for wider use of derivatives, only the biggest multinationals were involved with derivatives.<sup>86</sup> But more recently, smaller corporations, pension funds, insurance companies, money managers, and small- to mid-size banks have begun to use the instruments.<sup>87</sup> The growing use has been encouraged by the internationalization of capital markets, as well as by technological advances in computers and telecommunications.<sup>88</sup> It is estimated that derivatives are now a \$35-trillion worldwide market.<sup>89</sup> The increasing use of derivatives has reinforced the integration of financial markets and hence has increased the market's vulnerability.<sup>90</sup>

Two groups of people use derivatives: dealers and end-users.<sup>91</sup> Usually, derivatives dealers are commercial banks or securities firms; occasionally insurance companies and highly rated corporations such as energy firms also deal in derivatives.<sup>92</sup> These institutions contract with buyers, or end-users. End-users generally consist of "corporations, governmental entities, institutional investors, and financial institutions."<sup>93</sup>

Derivatives can serve several functions. Since the transaction costs for trading in a derivative are lower than that for actually buying the underlying asset, the derivative can be a cheaper alternative to investing in the underlying asset itself.<sup>94</sup> Further, an end-user can arbitrage differences between the price of a derivative and the price of the underlying asset, or, as Nicholas Leeson was initially doing, between prices in

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TIMES, Oct. 2, 1994, § 3, at 1.

85. See *The Beauty in the Beast*, *supra* note 9, at 21.

86. See Tracy Corrigan & Patrick Harverson, *Derivatives: Ever More Complex*, FIN. TIMES, Dec. 8, 1992, § III, at 1.

87. See *id.* Further, two-thirds of the 500 largest American companies use derivatives regularly. See Hansell, *supra* note 84, § 3, at 1.

88. See *The Beauty in the Beast*, *supra* note 9, at 21.

89. See 140 CONG. REC. S14,946, S14,947 (daily ed. Oct. 7, 1994) (statement of Sen. Mikulski).

90. See *id.*

91. See DERIVATIVES: PRACTICES AND PRINCIPLES, *supra* note 76, at 34.

92. See *id.*

93. *Id.*

94. See Hu, *supra* note 77, at 1466.

different capital markets.<sup>95</sup> Finally, derivatives allow end-users to either transfer or reduce their market risks since the derivative gives insurance against adverse movements in the market.<sup>96</sup> For example, "a derivative that rises in value if oil prices fall could protect a sheikdom, while one that rises along with oil prices will insulate an airline."<sup>97</sup>

While there is, at first glance, a large and complex array of over 1200 different types of derivatives contracts,<sup>98</sup> the array is not actually as complex as it looks. Every derivatives product can be built from two fundamental types of basic contracts: forward-type agreements or option-type agreements.<sup>99</sup> Forward-type agreements include forwards, swaps, and exchange-traded futures.<sup>100</sup> Option-based transactions include privately-negotiated options such as caps, floors, collars, and options on forward contracts.<sup>101</sup> Further, derivatives can be split into two broad categories: "those designed to manage risk—[that is], to hedge—and those designed to accept risk to create higher return—[that is], to speculate."<sup>102</sup>

An option is probably the most widely-used and familiar type of derivative. In exchange for a payment of a premium, an option contract gives the option holder the right, but not the obligation, to buy or to sell the underlying asset at a stated price, known as the strike or striking price, during a certain period or on a certain date.<sup>103</sup> The option might relate to any

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95. *See id.*

96. *See id.*

97. *Id.* (footnote omitted).

98. *See* Clarence B. Manning, *A Derivatives Primer for Corporate Counsel, or Do You Know What Your Treasurer is Doing?*, 2 AM. CORP. COUNS. ASS'N No. 13, Docket 6, Mar.-Apr. 1995, at \*8, available in Westlaw, Accadkt Database. Types of derivatives include futures, forwards, options, caps, collars, floors, swaps, and hybrids of these. *See id.*; DERIVATIVES: PRACTICES AND PRINCIPLES, *supra* note 76, at 30-34; Cohen, *supra* note 8, at 2000-02. Some of the more esoteric and intimidating forms of derivatives are "mambo combo," "strangle," "surf and turf," "swaption," "death-backed bonds," "limbo," and "heaven and hell bonds." *See* Adam R. Waldman, Comment, *OTC Derivatives & Systemic Risk: Innovative Finance or the Dance Into the Abyss?*, 43 AM. U. L. REV. 1023, 1027 & nn.15-19 (1994). The Comptroller of the Currency noted sardonically that names such as these are "obviously designed to inspire confidence." Albert R. Karr, *Bank Regulator Signals Move on Derivatives*, WALL ST. J., Apr. 21, 1994, at A3.

99. *See* DERIVATIVES: PRACTICES AND PRINCIPLES, *supra* note 76, at 29.

100. *See id.*

101. *See id.* at 29-30.

102. Cohen, *supra* note 8, at 1993 n.1.

103. *See* DERIVATIVES: PRACTICES AND PRINCIPLES, *supra* note 76, at 32. The

type of security, or to any index, currency, commodity, or other derivative contract.<sup>104</sup>

A forward-type contract, the other basic building block of derivatives, obligates one party to buy and the other to sell a specific underlying asset at a specific price and amount, and on a specific date, in the future.<sup>105</sup> Forward-type agreements hedge risk because they freeze the price of the underlying asset.<sup>106</sup> They are different from option-type contracts because the seller does not receive a premium in advance of the time that an obligation comes due.<sup>107</sup> Further, forward-type agreements oblige a party to perform, rather than giving one party the right but not the obligation to perform; neither party may decline to perform if the price moves unfavorably.<sup>108</sup>

Sellers of options take into account that the option will not be exercised, and they price the option accordingly.<sup>109</sup> Buyers' risk is limited to the premium,<sup>110</sup> which is a fraction of the cost of the underlying asset,<sup>111</sup> because the buyer of an option can choose simply to let the option expire without exercising it.<sup>112</sup> The buyer can benefit from favorable movements in the price of the underlying asset, but is not exposed to losses.<sup>113</sup> On the other hand, the seller assumes a potentially unlimited risk during the exercise period because the underlying asset might move in the wrong direction.<sup>114</sup> Thus, the seller hedges the risk either by buying offsetting options,<sup>115</sup> or by gambling that the buyer never exercises the option because it is not economical to do so, in which case the seller will take the premium as its profit.<sup>116</sup> Regulators worry about the risk to the

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right to buy the underlying asset is a *call* option, whereas the right to sell the underlying asset is a *put* option. See Manning, *supra* note 98, at 8.

104. See Manning, *supra* note 98, at 8.

105. See DERIVATIVES: PRACTICES AND PRINCIPLES, *supra* note 76, at 30.

106. See Hu, *supra* note 77, at 1467.

107. See Manning, *supra* note 98, at 8.

108. See *id.* at 9.

109. See *The Beauty in the Beast*, *supra* note 9, at 22.

110. See *id.*

111. See Manning, *supra* note 98, at 8.

112. See DERIVATIVES: PRACTICES AND PRINCIPLES, *supra* note 76, at 32.

113. See *id.*

114. See Hu, *supra* note 77, at 1469; Stanley J. Poling, Federal Deposit Insurance Corporation, *Examination Guidance for Financial Derivatives*, 1994 FDIC Interp. Ltr., May 18, 1994, available in LEXIS, Bankng Library, Fdic File.

115. See *The Beauty in the Beast*, *supra* note 9, at 22.

116. See Manning, *supra* note 95, at 8.

financial institutions that sell options; specifically, concern is that in emerging markets, there are few providers for such offsetting options.<sup>117</sup>

### B. Risks

Derivatives, unlike simple conventional securities trades, have an inherent future obligation,<sup>118</sup> a bargain will continue between two parties since the obligations or liabilities of the parties do not come into effect for a period of months or years after a deal is made. When performance of an obligation or liability is called for, one of the parties may find itself unable to fulfill its obligation under the contract.<sup>119</sup> This possibility links companies together for a long period over which it is difficult to assess the risk.<sup>120</sup> For example, a company that is booming and well able to perform its obligations at the time that it enters into a derivatives contract might see its fortunes fall in the next five or ten years, thus hindering its ability to perform under the contract at that time.

Further, it is possible that a party's inability to fulfill its obligations under a contract would cause other parties to default on their obligations as well.<sup>121</sup> This potential failure has been referred to as "systemic risk."<sup>122</sup> Systemic risk is a danger because most derivatives transactions are not fully secured, and derivatives traders often rely on payments coming in from one contract to pay another.<sup>123</sup> If payments from one contract should stop, then the user or dealer will have no way of meeting her own payment obligations on another contract.<sup>124</sup> Thus, there may be a domino effect wherein failure of one contract leads to failure of many other contracts. The likelihood that this scenario will play itself out increases when derivatives are traded among a fairly small number of partici-

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117. See *The Beauty in the Beast*, *supra* note 9, at 22.

118. See *id.* at 24.

119. See *id.* This type of risk may be referred to as "credit risk." Cohen, *supra* note 8, at 2012.

120. See *The Beauty in the Beast*, *supra* note 9, at 24.

121. See Singher, *supra* note 81, at 1417.

122. *Id.*; see *supra* text accompanying note 7; see also *The Bank that Disappeared*, *supra* note 4, at 11.

123. See Waldman, *supra* note 98, at 1055.

124. See *id.*

pants.<sup>125</sup> Currently, derivatives trading is limited to a relatively small number of traders.<sup>126</sup> Since each entity carries on such a large percentage of the dealing, a failure by one bank is more likely to have a major effect upon the financial system.

In addition, derivatives may be highly leveraged, allowing derivatives traders to take great risks with comparatively small amounts of capital.<sup>127</sup> *The Economist* gives the following example:

A futures investor might put \$100,000 down on a contract committing him to buy \$1 [million] worth of bonds in three months' time. He then stands to make ten times the profit, or ten times the loss, that he might make by buying \$1 [million] worth of bonds outright today and holding them for three months.<sup>128</sup>

Moreover, the scale of leverage in derivatives is great. Since banks often trade in derivatives on their own account and not for clients, there is leverage at two levels. First, there is financial leverage in the bank's balance sheet, and second, there is leverage in the structure of the derivative itself.<sup>129</sup> When these two types of leverage are multiplied, the risk also multiplies.

### C. Positive Effects of Derivatives

While derivatives can be risky, they can also increase financial markets' efficiency in several ways.<sup>130</sup> First, derivatives allow firms that use them to be more selective in the risks they bear, because the derivatives allow a redistribution of those risks, thus making the financial system more resilient.<sup>131</sup> Derivatives also make financial transactions less cost-

125. *See id.*

126. *See* Manning, *supra* note 98, at 8 n.4. In the United States, for example, "derivatives dealing is concentrated among seven domestic banks (which trade more than 90% of [derivatives] among all domestic banks), and five securities firms (which trade more than 87% of [derivatives] among all domestic securities companies) . . ." *Id.* These amounts account for approximately half of all global trading in derivatives. Further, this concentration is compounded by inter-bank borrowing throughout the world. *See id.*

127. *See The Beauty in the Beast*, *supra* note 9, at 22.

128. *Id.*

129. *See* Plender, *supra* note 72, at 17.

130. *See A Walk on the Wild Side*, *ECONOMIST*, Oct. 7, 1995, Survey, at 24, 25.

131. *See id.*

ly because they are cheaper to use than the cash markets,<sup>132</sup> and a user can buy an option contract for far less than he would pay for the actual underlying asset.<sup>133</sup> Furthermore, derivatives may be more efficient and less risky because, unlike cash instruments, derivatives can be customized to meet the specific investment goals of the user, and the user can hedge risk in a manner closely resembling the actual risk.<sup>134</sup> This type of customization is not possible with ordinary securities.<sup>135</sup> Thus, the user is provided with the most cost-effective and risk-averse vehicle for investment.<sup>136</sup>

Second, derivatives also increase liquidity in financial markets by expanding the opportunities for trading, hedging, and investing, thus increasing opportunity for profit and easing the way for certain transactions to occur.<sup>137</sup> For example, exporters would be less likely to accept large orders if they could not take out forward contracts setting in advance exchange rates for their foreign revenues, and investment funds might not put as much money in securities markets if they could not buy stock and bond options to protect their portfolios.<sup>138</sup>

Third, derivatives make it easier for users to arbitrage across different markets; this increases opportunity for profit, thus increasing the possibility that traders will continue to trade and keep the markets liquid.<sup>139</sup> This is the type of trading in which Nicholas Leeson was engaging; before the trades went awry, Leeson brought in large profits for Barings.

Fourth, by using contracts that lock in current prices,

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132. *See id.*

133. *See* Hu, *supra* note 77, at 1465-66.

134. *See* Waldman, *supra* note 98, at 1030.

135. *See id.*

136. *See Derivative Financial Markets: Hearing Before the Subcomm. on Telecomms. and Fin. of the House Comm. on Energy and Commerce*, 103d Cong. 5 (1994) (statement of Peter Vinella, Senior Consultant, Smith Barney Shearson).

137. *See A Walk on the Wild Side*, *supra* note 130, at 25.

138. *See Time to Call the Risk-Busters*, ASIaweek, Mar. 17, 1995, at 18, available in LEXIS, Asiawc Library, Asiawc File.

139. *See A Walk on the Wild Side*, *supra* note 125, at 25; *see also Risk Management of Financial Derivatives*, Office of the Comptroller of the Currency Banking Circular No. 277, 5 Fed. Banking L. Rep. (CCH) ¶ 62,152, at 71,703-04 (Oct. 27, 1993) [hereinafter Banking Circular No. 277]. It is, of course, devoutly to be hoped that arbitrageurs will have more luck in this endeavor than Nicholas Leeson did.



users of derivatives can reduce exposures to interest rate changes or currency fluctuations.<sup>140</sup> For example, if a bank finances the exports of a Silicon Valley chip manufacturer, the bank may agree to accept payment six months later in Japanese yen. Currency forwards will allow the bank and the manufacturer to make the commitment without bearing currency risk because the exchange rate can be locked in.<sup>141</sup> Thus, derivatives can be used to stabilize cash flows, which in turn encourage greater long-term investment, helping markets to function more easily.

Finally, derivatives lessen volatility by efficiently shifting risk from parties less able or willing to bear it to others with the resources to more readily absorb such risk in exchange for a potential profit.<sup>142</sup> This shifting can give users greater flexibility in managing risk, since the users can separate different types of risks in financial instruments and transfer certain risks to the parties better able or better willing to take them.<sup>143</sup> Considering all the advantages of derivatives, they should actually make financial markets work better, rather than making them more volatile.

#### IV. PROBLEMS IN SUPERVISION

There are varying points of view as to the reasons for Barings' downfall. Some commentators have proposed an increase in regulatory controls in the wake of Barings. For example, Congressman Edward Markey stated that the Barings episode

underscored the risks inherent in failing to assure that regulators have adequate tools on hand to minimize the potential for OTC derivatives to contribute to a major disruption in the financial markets, either through excessive speculation and overleveraging, or due to inadequate internal controls and risk management on the part of major derivatives dealers or end users.<sup>144</sup>

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140. See Banking Circular No. 277, *supra* note 139, ¶ 62,152, at 71,704.

141. See *Recent Derivatives Losses: Hearing Before the House Comm. on Banking, Fin. and Urban Affairs*, 103d Cong. 73 (1994) (testimony of Lewis Teel, Executive Vice President, Bank of America).

142. See Banking Circular No. 277, *supra* note 139, ¶ 62,152, at 71,704.

143. See *id.*

144. 141 CONG. REC. E447 (daily ed. Feb. 27, 1995) (statement of Rep.

Also, two weeks after the Barings collapse, the chairman of England's Securities and Investments Board Chairman called for more effective global oversight by securities regulators in order to prevent further incidents such as that at Barings.<sup>145</sup> However, the collapse of Barings does not support the argument that there should be tighter regulation of derivatives, or an outright ban on their use.<sup>146</sup> As mentioned previously, derivatives can actually increase market efficiency.<sup>147</sup> Regardless of derivatives' potential risks, Barings' collapse can be more easily attributed to lack of proper internal controls than to a lack of regulatory controls.

#### A. Weaknesses in Controls

The complexity of products such as derivatives makes it possible for the actions of one trader with too much power and too little oversight to damage any financial institution, even a highly respected and apparently stable one such as Barings.<sup>148</sup> The complexity of derivative instruments makes supervision difficult, and thus, the top levels of supervision may be unable to detect improprieties easily. As can be seen in the managerial failure at Barings and its disastrous results, "self-policing" plays a critical role in increasingly complex financial markets.<sup>149</sup> That derivatives' problems, at least partially, result from basic failures of management is evident from the problems that other firms have had with derivatives.<sup>150</sup> Kashima Oil lost \$1.5 billion trading foreign-exchange derivatives;<sup>151</sup> Procter & Gamble lost \$102 million in a gamble on interest-rate movements;<sup>152</sup> Metallgesellschaft, a German

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Markey).

145. See *U.K. Securities Chief*, *supra* note 14, at 410. The Chairman also called for better internal controls at investment firms. See *id.*

146. See *The Collapse of Barings*, *supra* note 22, at 21.

147. See *supra* Part III.C.

148. See Gerald H. Silk, *Supervisory Responsibilities of the Broker-Dealer: Self-Regulation of the Regulated* 2 n.5 (May 1995) (unpublished paper on file with author).

149. See *id.*

150. See *The Beauty in the Beast*, *supra* note 9, at 22.

151. See *id.* Kashima Oil did not hedge the foreign-exchange risk associated with importing oil priced in dollars into Japan, where it was sold in yen. See *id.*

152. See *id.* at 21; Dwyer et al., *supra* note 66, at 30-31. Procter & Gamble itself admitted that the derivatives on which it lost money were inappropriate to its needs and replaced its own treasurer. See *The Beauty in the Beast*, *supra* note

commodities conglomerate, lost \$1.4 billion on oil derivatives;<sup>153</sup> and Kidder Peabody lost \$100 million when its chief government bond trader manufactured false bond trading profits by entering non-existent trades into its computer system.<sup>154</sup> Most of these problems were caused by a lack of management controls in the firms, and not from unavoidable problems with the derivatives themselves.<sup>155</sup>

The most obvious failure contributing to the Barings collapse was the managerial failure on the part of Barings itself. In an interview, Nicholas Leeson said, "It was advantageous to me that the . . . senior people in London that were arranging these payments, didn't understand the basic administration of futures and options, and that was probably the biggest failing; they wanted to believe."<sup>156</sup> Because of the incredible profits

9, at 22; see also Kelley Holland et al., *The Bankers Trust Tapes*, BUS. WK., Oct. 16, 1995, at 106, 110.

153. See *The Beauty in the Beast*, supra note 9, at 22. Metallgesellschaft sold long futures contracts and hedged the exposure with short futures contracts; however, the price of the long contracts rose and the price of the short contracts fell. See *id.* Metallgesellschaft also purchased 120 times the number of futures contracts it needed to offset its exposure. See Waldman, supra note 98, at 1042 n.128.

154. See *Trading into Disaster*, N.Y. TIMES, Sept. 27, 1995, at D6.

155. See *The Beauty in the Beast*, supra note 9, at 22. A disturbing addendum to the Barings affair occurred in September 1995, when the Daiwa Bank of Japan lost \$1.1 billion because of unauthorized bond trading in its New York office. See Saul Hansell, *Big Japanese Bank Says Trader Lost \$1.1 Billion on Deals in U.S.*, N.Y. TIMES, Sept. 26, 1995, at A1. In the Daiwa incident, Toshihide Iguchi, an executive vice-president of Daiwa, made approximately 30,000 unauthorized trades over a period of 11 years. See *id.* In order to cover up the losses from the trades, he illicitly sold securities belonging to the bank and its customers. See Peter Truell, *A Japanese Bank Is Indicted in U.S. and also Barred*, N.Y. TIMES, Nov. 3, 1995, at A1 [hereinafter Truell, *Japanese Bank Indicted*]. Daiwa, however, with \$313 billion in assets, was a far larger bank than Barings, and was able to sustain the loss, although the loss likely wiped out almost all of Daiwa's profit for the first half of the 1995 fiscal year. See Hansell, supra, at A1. Eventually, it transpired that Daiwa had conspired with Iguchi to hide the trading losses from U.S. officials by, among other things, failing to record losses on its book and submitting false balance sheets to the federal reserve. See Truell, *Japanese Bank Indicted*, supra, at A1; see also John R. Wilke et al., *In a Signal to Japan, U.S. Bars Daiwa Bank and Indicts Institution*, WALL ST. J., Nov. 3, 1995, at A1. As a result, the federal reserve terminated Daiwa's U.S. operations and filed criminal charges against the company. See *id.* However, the federal reserve itself was faulted for failing to "ask the right questions" and expose the cover-up earlier. Peter Truell, *Fed Missed Big Opportunity on Daiwa, Ex-Officials Say*, N.Y. TIMES, Oct. 19, 1995, at A1. The case has parallels with that of Barings; Iguchi, as well as Leeson, was allowed both to conduct trades and record them, thus allowing him to conceal his losses and unauthorized transactions. See Andrew Pollack, *U.S. Holds Trader in Bank's Big Loss*, N.Y. TIMES, Sept. 27, 1995, at A1.

156. Agis Salpukas, *Barings Trader Questions Monitoring by His Superiors*,

that Leeson was making, "they weren't willing to question, or they were less inclined to question."<sup>157</sup> Moreover, the weakness of internal control at Barings went unnoticed by internal and external auditors, as well as the authorities in Singapore. Even the Bank of England, which was responsible for supervising the Barings Group, failed to observe the weakness of internal control at Barings.<sup>158</sup> Had the failure been noticed, Barings might have tightened controls, and thus might have been quicker to notice the huge positions that Leeson was taking, allowing it to withdraw from the market and cut its losses.

Another glaring problem was that Barings allowed Leeson to engage in functions that created a fundamental conflict of interest. Leeson was both trader and manager, and settled his own trades.<sup>159</sup> When Barings allowed Leeson to fulfill both of those functions it violated the Osaka exchange rules, as well as industry practice, which keeps traders separate from back-office staffers who confirm transactions and write checks.<sup>160</sup> Barings was well aware that allowing Leeson to wear two hats—that is, to be in charge of both trading and accounting for his trades—was not considered proper practice.<sup>161</sup> A possible explanation for the lack of controls was stinginess in management.<sup>162</sup> In fact, cost cutting was Barings' stated reason for allowing Leeson to both conduct and settle trades.<sup>163</sup> While chief executives do not have objections to heavy spending on traders and trading systems, because those things add

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N.Y. TIMES, Sept. 11, 1995, at D4.

157. *Id.*; see also *The Collapse of Barings*, *supra* note 22, at 20 (suggesting that Barings was happy to give Leeson more money to meet margin calls because the "client" had earlier given them so much commission, and concluding that "this suggests a cavalier attitude to customers as well as to internal controls").

158. See Plender, *supra* note 72, at 17. The Bank of England gave the main reasons for Barings' collapse as "unauthorized and concealed trading activities within Baring Futures Singapore" and "a serious failure of controls and managerial confusion within Barings." *Three Key Reasons*, *supra* note 28, at 5.

159. See Dwyer et al., *supra* note 66, at 32. Apparently, Barings allowed Leeson to clear trades because he had previously been a settlement clerk at Morgan Stanley & Co. See *id.*

160. See *id.*

161. See Saul Hansell, *A U.S. Look for Lessons In Barings*, N.Y. TIMES, Mar. 6, 1995, at D1.

162. See *id.*

163. See Mark Clifford, *Baring Down: In British Bank's Collapse, a Warning to Others*, FAR E. ECON. REV., Mar. 9, 1995, at 61, 61.

to the bottom line, they object to spending money on proper controls, because they see controls simply as expendable overhead.<sup>164</sup> In other words, "You see lots of securities firms that give \$5 million bonuses to traders. You'll have to look very hard to find a securities firm that pays a \$5 million bonus to its internal auditor . . ." <sup>165</sup> Because Barings chose the cheapest and least complicated path, allowing Leeson to perform both trading and clearing functions, it could not possibly assure that trading functions were properly overseen. There was nothing hindering Leeson from making any trades that he wanted, and thus, his unsupervised trades brought about the bank's downfall.

The real problem in the Barings collapse was in the internal supervision, rather than in the instruments being used.<sup>166</sup> Although Barings has contributed to a fear of derivatives, most of the fear comes from extremely complex types of derivatives or from derivatives that are traded over the counter, not from derivatives traded on an exchange, where trades are backed by their members' resources.<sup>167</sup> The derivatives that Nicholas Leeson traded were basic types of exchange-traded derivatives; they were not particularly complex derivatives, as were the derivatives that caused problems for Procter & Gamble,<sup>168</sup>

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164. See Hansell, *supra* note 161, at D2.

165. Levinson, *supra* note 71, at 50.

166. See *The Collapse of Barings*, *supra* note 22, at 21.

167. See *id.*

168. Procter & Gamble lost \$102 million on interest rate swaps, a particularly complex type of derivative wherein a company that is paying a fixed rate on a bond issue is relieved of the duty to pay it, instead agreeing to pay a floating rate. See Floyd Norris, *Procter's Tale: Gambling in Ignorance*, N.Y. TIMES, Oct. 30, 1994, § 3, at 1; Holland, *supra* note 152, at 107. Interest rate swaps are more complex and more risky than the "plain vanilla" derivatives on which Leeson lost money. See *id.* Further, Procter & Gamble admitted that its own internal procedures were not followed when it agreed to this derivative. See Richard Lapper, *International Capital Markets: Study Calls for Exchange to Clear OTC Contracts*, FIN. TIMES, Nov. 17, 1994, at 29; Saul Hansell, *A Bad Bet for P. & G.*, N.Y. TIMES, Apr. 14, 1994, at D6. Thus, Procter & Gamble's loss was probably caused, at least partially, by management failure; the company reassigned two of the employees involved with the derivatives, and its treasurer, who was also reassigned, took early retirement. See Holland, *supra* note 152, at 110. Further, Procter & Gamble alleged that Bankers Trust, which sold them the derivatives, engaged in a systemic scheme to defraud its clients, causing huge losses to those clients, and has filed suit against Bankers Trust claiming \$195.5 million in damages. See *id.* at 108-09. Thus, it seems that a combination of fraudulent practice and the failure of management, not failure of derivatives per se, were responsible for Procter & Gamble's losses.

nor were they traded over the counter. Exchange-traded derivatives are less risky than over-the-counter derivatives because customers must put up money in order to trade. That was done in the Barings disaster; Leeson put up money first from account number 88888, in which he had deposited premiums acquired through unauthorized trades, and when that ran out, he put up money that Barings had supplied to him without making the proper inquiries.<sup>169</sup> Furthermore, on exchanges, traders are required to mark their contracts to market (i.e., to revalue the contracts up or down, in line with closing prices) each day.<sup>170</sup> Therefore, there was no real problem with the methods or instruments being used to trade. If the discipline of marking to market did not work in this case, it was likely because of concealment by Leeson.<sup>171</sup> Given the lax management at Barings, Leeson could just as easily have run up large losses in the cash markets as in the derivatives markets.<sup>172</sup>

Moreover, since derivatives are a relatively new tool, management in most firms does not fully understand how derivatives work. It is suspected that management does not fully understand how to manage the risks that derivatives pose.<sup>173</sup> This failure of management was part of the reason that Nicholas Leeson was allowed to engage in unauthorized trading on a huge scale, thus bringing about Barings' collapse. At the time that new instruments were entering the market, some regulators worried that neither the securities houses that designed the instruments nor the corporate customers who used them fully understood the risks.<sup>174</sup> As simpler, more established products declined and more complex derivatives with higher yields came to the forefront, some securities houses and banks rushed into using the instruments because the returns were higher; however, the risks were not well-understood.<sup>175</sup> And

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169. See *supra* note 157 and accompanying text.

170. See Plender, *supra* note 72, at 17.

171. See *id.*

172. See Marc Levinson, *Derivatives? What Are Derivatives?*, NEWSWEEK, Mar. 13, 1995, at 50.

173. See Stevenson, *supra* note 16, at D15 (interviewing Anthony W.G. Lord, a former chief executive of Baring's, who noted, "Management these days in most firms did not [grow] up learning about derivatives as part of their ABC's, and most—99 percent—don't fully understand [them].").

174. See Patrick Harverson, *It's Time to Know What's Going On*, FIN. TIMES, Dec. 8, 1992, § III, at 11.

175. See *id.*

in 1992, a senior regulator in England commented presciently, "We feel that some directors are not wholly comfortable with derivatives, and they don't know anybody who they can trust. There is a gulf between the top and medium level that is not being wholly bridged."<sup>176</sup> Although Leeson was using a simple type of derivative rather than a complex one, management at Barings does not appear to have been fully cognizant of what Leeson was doing; the report of the Board of Banking Supervision confirmed that the executives at Barings "did not adequately understand their own business."<sup>177</sup>

The weakness of control was not endemic only to Barings. A partial confirmation of directors' discomfort with derivatives comes from a 1994 survey by the Group of Thirty, which noted that many directors of derivatives dealer firms do not fully understand the uses and risks of derivatives.<sup>178</sup> Many boards of directors appear to have some knowledge of derivatives, but rely heavily on the next level of management for derivatives deals.<sup>179</sup> Only a relatively small percentage of directors appear to have a "good" understanding of the concepts and risks behind derivatives, and some directors apparently have "little" understanding of them.<sup>180</sup> This survey lends support to the notion, expressed by one former regulator, that "[t]he one thing we need more of, to put it succinctly, is gray hair."<sup>181</sup> Before

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176. *Id.*

177. Nicholas Denton, *Managers "Did Not Understand Their Business,"* FIN. TIMES, July 19, 1995, at 6.

178. See Anne Schwimmer, *Derivatives Survey Measures Lack of Understanding at Top,* INVESTMENT DEALERS' DIG., Apr. 4, 1994, at 4.

179. See *id.*

180. See *id.* The exact percentages in the study are: 65% percent of directors in derivatives dealer firms said that their board of directors have "some knowledge but rely heavily on the next level of management on the use of derivatives"; 28% said their directors have "a good understanding of the concepts and risks"; 8% said their directors have "little understanding of them." *Id.*

181. Hansell, *supra* note 161, at D2 (interviewing E. Gerald Corrigan, chairman of Goldman Sachs International Advisers). The remark is meant to suggest that many of the derivatives traders, like Leeson, are young men who are not averse to taking risks; if more experienced people became familiar with derivatives, unnecessary risk-taking might be reduced. It has also been suggested that "[t]hirty-year-olds manage mutual funds for the same reason we sent 20-year-olds to fight our wars—they don't realize they could get killed out there." Po Bronson, *The Young and the Reckless,* N.Y. TIMES, Mar. 3, 1995, at A27. In addition, Barings' older management may have wanted Leeson to take risks because "they had lived through too many financial swings to take the risks themselves." *Id.*; see also Saul Hansell, *For Rogue Traders, Yet Another Victim,* N.Y. TIMES, Feb. 28, 1995, at D1

directors can control derivatives, they must learn how derivatives work and how to control their risks.

Even when Barings did finally become aware of defects in control, top management still did not take sufficient action. Barings evidently had been warned in the summer of 1994 about the internal accounting flaws that enabled Leeson to hide his illicit trades.<sup>182</sup> In a memo to senior Barings PLC officials, Baring Securities Ltd.'s former treasurer specifically raised the possibility that Leeson had the opportunity to commit fraud because he played "too dominant a role looking after both trading . . . and settlement aspects of the business . . ."<sup>183</sup> Further, the treasurer noted that the level of margin calls paid by Barings in London was a concern, since it did not know precisely on whose behalf the cash was paid.<sup>184</sup> However, Barings officials neither took any action to fix the shortcomings, nor did they mention those shortcomings in an internal audit report that was delivered to the bank's operating departments.<sup>185</sup> In addition, in December 1994, Simex alerted Barings officials to account 88888 and queried an apparent shortfall in margin payments; however, Barings did not immediately respond because external auditors were in the process of examining the Singapore unit's books, and Barings officials did not want to draw attention to something that might cause problems with the audit.<sup>186</sup> Instead, the Singapore Finance Director told Simex that discrepancies could be explained by adding together the bank's proprietary trading and its trading on behalf of clients.<sup>187</sup> This is just another example of the laxity of controls at Barings, for no matter how vigilant auditors are, they cannot possibly be effective if they are ignored, as they were in the Barings case.

Not only were the formal controls at Barings a problem, but Barings was also strikingly unaware of what the rest of the market was saying.<sup>188</sup> For example, in 1994, an internal

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(suggesting that a common problem is a "financial generation gap" and that senior managers who are supposed to be monitoring do not understand derivatives and take a laissez-faire attitude toward young financial traders).

182. See Bray, *supra* note 38, at B3A.

183. *Id.* (interviewing Ron Baker, Barings' derivatives chief).

184. See *id.*

185. See *id.*

186. See *id.*

187. See *id.*

188. See Peter Martin, *When New into Old Won't Go: An Attempt to Combine*



memo within a rival bank pointed to Barings' trading strategy in Nikkei futures as potentially risky.<sup>189</sup> If a source outside Barings' own management could see that Barings' positions exposed them to the possibility of losses, it is surprising that Barings' management did not take steps to reduce the risk to which it was being exposed.

In addition, Barings did not appear to have informal communication links with exchanges, which may have allowed it to detect surging trade volumes.<sup>190</sup> Barings also lacked random checks to see how well personnel were following Barings' rules, nor did Barings have any independent risk-management units, as do some investment banks such as Merrill Lynch.<sup>191</sup> Since the value of derivatives contracts can fluctuate widely even on small movements in the underlying asset, it was vital that Barings employ independent controls where derivatives were concerned in order to control risk.<sup>192</sup> Barings failed to do this.

Bank supervisors traditionally rely on "people, controls, capital, and liquidity" to provide internal checks and balances.<sup>193</sup> In Barings' case, there were obviously problems with people and controls. Even if regulators had placed more stringent controls on capital and liquidity within Barings, such controls would have made no difference without internal control over the first two categories of people and controls. "[C]apital discipline was meaningless,"<sup>194</sup> because Leeson actively tried to conceal losses from Barings' management.<sup>195</sup> Additionally, "the liquidity discipline of margin calls was neutered by a strategy of Mr. Leeson's which would appear to have been fraudulent."<sup>196</sup> Thus, because Leeson effectively evaded management, Barings fell.

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*Old-Style Banking with a Free-Wheeling Securities Business Sealed Barings' Fate*, FIN. TIMES, Mar. 4, 1995, at 8.

189. *See id.*

190. *See* Dwyer et al., *supra* note 66, at 32.

191. *See id.*

192. *See id.*; *see also infra* Part VI.B.

193. Plender, *supra* note 72, at 17.

194. *Id.*

195. *See id.*

196. *Id.*

### B. Present Regulatory Structures Are Adequate

As one commentator has noted, "systemic risks are not appreciably aggravated [by the use of derivatives], and supervisory concerns can be addressed with the present regulatory structures and approaches."<sup>197</sup> Moreover, government and industry groups have studied derivatives and have "uniformly concluded that their use is no riskier than investing in the underlying stocks or bonds themselves."<sup>198</sup> The main difference is the speed with which derivatives can increase the value of an investment portfolio.<sup>199</sup> A study by the Group of Thirty concluded that "[d]erivatives by their nature do not introduce risks of a fundamentally different kind or of a greater scale than those already present in the financial markets."<sup>200</sup>

### V. PROBLEMS WITH INTER-INDUSTRY COMMUNICATIONS

Although present regulatory structures are adequate, the performance of the exchanges in Osaka and Singapore might have been improved.<sup>201</sup> Neither of them tried to find out why Barings was taking such large positions.<sup>202</sup> This likely indicates that there is a need for better information sharing between exchanges, and a need to pool information.<sup>203</sup>

Barings' demise shook investor confidence in the Simex. Although the Barings collapse did not lead to a world-wide panic or collapse of markets, failure of an exchange member could potentially engulf the exchange and wreak havoc throughout the international financial system.<sup>204</sup> While no regulatory system can completely eliminate the possibility of fraud or mismanagement, there is a need for more cooperation and information sharing within the industry in order to avoid potentially dangerous problems in the international financial system.<sup>205</sup>

One issue raised by the Barings collapse is the need for

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197. *Id.*

198. Hansell, *supra* note 161, at D2.

199. *See id.*

200. Plender, *supra* note 72, at 17.

201. *See The Collapse of Barings, supra* note 22, at 21.

202. *See id.*

203. *See id.*

204. *See Crawford, supra* note 13, at 7.

205. *See id.*

better communication between international regulators.<sup>206</sup> Leeson was trading huge amounts of Japanese stock contracts in two markets, Singapore and Osaka. Since the Osaka exchange never communicated with Barings about Barings' positions, regulators in both markets did not know whether Leeson was properly covering his exposure in the other market.<sup>207</sup> In fact, the two exchanges rarely communicate at all.<sup>208</sup> With the expansion of global markets, "a regulatory framework based on individual countries is increasingly ineffectual at a time when the operations of large financial institutions are becoming more global,"<sup>209</sup> and there should be more self-policing.<sup>210</sup> In addition, where cross-border trading is involved, markets should take it upon themselves to communicate with markets across the border of their own countries.<sup>211</sup> Communication between the Singapore and Osaka markets might have exposed Leeson's activities sooner, and thus might have reduced the damage to Barings.

Further, intra-exchange communication should be more effective. For example, the problems at Barings were exacerbated by the fact that key staff could not be contacted for forty-eight hours, because their home phone numbers were not available.<sup>212</sup> It also would have been helpful for Simex to have taken more definite steps to ensure that dealers did not take charge of settlements, as Nicholas Leeson was doing, and Simex should also have made sure that proprietary traders did not also handle customer business.<sup>213</sup> In the wake of the Barings disaster, Simex did undertake to add these precautions,<sup>214</sup> and most exchanges reviewed their own policies and

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206. See Paul Blustein, *For Singapore, It's a Sling: Barings Case Shakes Image of Nation Known for Probity*, WASH. POST, Mar. 3, 1995, at F1.

207. See *id.*; Martin, *supra* note 17, at 24. The senior executive governor at the Osaka exchange says that the exchange will not try to communicate with a financial institution if it has large positions in the future, preferring instead to give priority to market forces. See *id.* This, obviously, may render better communication somewhat difficult.

208. See Martin, *supra* note 17, at 24. Apparently, officials from the Singapore and Osaka exchanges have met together only three times. See *id.*

209. *Spot the Smoking Receivable*, ECONOMIST, Oct. 21-27, 1995, at 79, 80.

210. See Blustein, *supra* note 206, at F2.

211. See *id.*

212. See Richard Lapper, *Report Calls for Broad Reform of Derivatives*, FIN. TIMES, June 20, 1995, at 25.

213. See Peter Montagnon & Kieran Cooke, *Prompt Treatment for Futures Shock*, FIN. TIMES, Mar. 3, 1995, at 17.

214. See *id.* It has also been suggested that Simex may have been lulled into

assessed their own controls.<sup>215</sup>

In addition, exchanges, regulators, and futures trading firms have called for an international harmonization of rules, as well as information sharing, to prevent another failure based on faulty assumptions or misinformation.<sup>216</sup> For example, Japanese regulations should have required that customers' accounts on the Osaka exchange be separated from Barings' own, as do regulations in many other countries.<sup>217</sup> Some regulators say that wider disclosure of Barings' large positions might have called attention to the situation from outside of Asia, thus preventing Barings' collapse.<sup>218</sup> Elizabeth Sam, Chairwoman of Simex, also acknowledged that officials could take a tougher approach with firms that take large positions, like those Barings took.<sup>219</sup>

The Basle Committee on Banking Supervision, a committee of banking supervisory authorities,<sup>220</sup> and the International Organization of Securities Commissions (IOSCO),<sup>221</sup> issued a joint statement to help harmonize derivatives practices across borders and industries.<sup>222</sup> The report recommends appropriate oversight by boards of directors and senior management, adequate risk management and monitoring processes, accurate and reliable management information systems, and thorough audit procedures.<sup>223</sup> Additionally, the guidelines establish recommended written policies and procedures outlin-

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complacency by the fact that Leeson had a very good relationship with it; Leeson was by far the biggest trader of Nikkei contracts, and he had advised Simex on its own settlements systems. See *Hu-bris*, *ECONOMIST*, Mar. 4-10, 1995, at 72, 73.

215. See *Faith in Futures*, *ASIaweek*, May 19, 1995, at 53.

216. See Crawford, *supra* note 13, at 7.

217. See Suzanne McGee, *Reform Sought to Prevent Future Barings*, *WALL ST. J.*, Mar. 17, 1995, at C1.

218. See *id.*

219. See *id.*

220. See Singher, *supra* note 81, at 1462 n.494. The primary aim of the committee is "to promote gradual transnational convergence of supervisory practices governing financial institutions." *Id.*

221. IOSCO is a commission formed to provide a forum for securities regulators from different countries to promote transnational cooperation in the development of securities laws. See *id.* at 1462 & n.495.

222. See *HK Issues Basle/IOSCO Guidelines for Consultation*, Reuters, Aug. 1, 1994, available in LEXIS, Asiapc Library, Reibus File [hereinafter *Basle/IOSCO Guidelines*].

223. Basle Comm. & IOSCO Tech. Comm., *Basle Committee on Banking Supervision*, News Release 94-79, July 27, 1994, at 1 (joint press statement, on file with the *Brooklyn Journal of International Law*).

ing management guidance that the board of directors must approve. The guidelines are non-binding, but the Basle Committee was hopeful that the guidelines would facilitate a prudent supervisory approach to banks' risk management.<sup>224</sup> These guidelines might be used by financial markets in other countries to help standardize practices in derivatives markets.

## VI. METHODS FOR PREVENTION

As mentioned above, reining in derivatives is probably not the answer to risk management of derivatives. One view—albeit a cynical one—is that “[t]he world’s schemers are not so limited in imagination that they would be put off by a ban on a particular instrument which happens to have been used to perpetrate a fraud.”<sup>225</sup> Although it is true that schemers will always find a way to circumvent regulations, the exchanges or investment firms using derivatives need to adopt a system of financial safeguards.<sup>226</sup> Institutions that use derivatives should make clearly-communicated decisions as to the use of their derivatives activity, implement strong control policies, adopt a system of financial safeguards, and change their compensation systems that will help control the risks inherent in the use of derivatives.

### A. *Decisions as to Purpose of Derivatives Use*

The governing body of the derivative-using institution must make a decision as to the purpose and the extent of derivatives activity, and must unambiguously communicate its decision to senior management.<sup>227</sup> The institution should have exhaustive written policies and procedures to govern its use of derivatives.<sup>228</sup> Such policies should govern issues such as managerial responsibilities, scope of activities, scope of acceptable risks, and risk reporting processes.<sup>229</sup> In addition, senior management must take steps to educate those who are

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224. See *Basle/IOSCO Guidelines*, *supra* note 222.

225. John Sandner, *Don't Make Derivatives the Scapegoat*, FIN. TIMES, Mar. 3, 1995, at 17.

226. See *id.*

227. See Roger D. Blanc, *Developing Internal Controls to Manage Derivatives*, INSIGHTS, Apr. 1995, at 7, 9.

228. See Banking Circular No. 277, *supra* note 139, ¶ 62,152, at 71,705.

229. See *id.*

responsible for carrying out the institution's derivatives policies.<sup>230</sup> Moreover, senior management should be responsible for reviewing the adequacy of these policies and procedures as business and market circumstances change.<sup>231</sup> In this way, the derivatives-using institution will have a clear goal for its derivatives practices, and senior management will bear the ultimate responsibility for overseeing the procedures and practices for derivatives use.

Senior management also must be able to understand the financial strategy of the institution and the manner in which it will be implemented.<sup>232</sup> Furthermore, management should understand all the complex financial instruments that the institution chooses to employ, rather than simply relying on the knowledge of those who deal directly in derivatives.<sup>233</sup> Without this understanding, management cannot possibly make proper decisions about the purposes and extent of the activity of derivatives. Indeed, management's lack of understanding was a problem in the Barings affair. As the Board of Banking Supervision's report charged, Barings' management "did not understand their business,"<sup>234</sup> but if they had more knowledge of Leeson's activities, they would have realized that arbitrage alone could not generate profits as large as Leeson claimed he was making.<sup>235</sup> Since they were unfamiliar with the workings of derivatives, Leeson was able to hide the trades from senior management.

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230. See Blanc, *supra* note 227, at 9; see also Paul Allen Schott, *Derivatives: A Primer on Bank Agency Actions for Managing Risks*, 14 No. 7 BANKING POL'Y REP., at 1, available in LEXIS, News Library, Bankpol File.

231. See Banking Circular No. 277, *supra* note 139, ¶ 62,152, at 71,705; DERIVATIVES: PRACTICES AND PRINCIPLES, *supra* note 76, at 9.

232. See *Recent Derivatives Losses: Hearing Before the House Comm. on Banking, Fin. and Urban Affairs*, 103d Cong. 12 (1994) (testimony of Lewis Teel, Executive Vice President, Bank of America).

233. See *id.*

234. Denton, *supra* note 177, at 6. The report also noted that "controls [were] ineffective," and that the lack of internal controls led to the unauthorized activities which brought down Barings. *Id.* In fact, the head of the group to which Leeson reported admitted, "My lack of experience in the area was a contributing factor." *Id.* (interviewing Ron Baker).

235. See *Spot the Smoking Receivable*, *supra* note 209, at 80.

*B. Internal Controls*

Institutions must implement a system to ensure that its officers and employees are following the institution's policies. If the employees fail to follow those policies, senior management should respond swiftly and definitively to make necessary corrections.<sup>236</sup> Thus, the function of senior management should be to define, and possibly to limit, the permissible uses of derivatives instruments to serve the company's business purposes.<sup>237</sup> The institution must also have a system that leads to the prompt detection of financial and operational weaknesses, and must back up any system they put in place with frequent and—more importantly—*independent* monitoring.<sup>238</sup> For example, an independent monitor with less of a vested interest in Barings' bottom line might have more readily pointed out that it was unwise to allow Leeson to settle his own trades, or that Leeson was not hedging his positions properly. Those people who measure, monitor, and control the risk for the bank should be managed independently of those who do the trading and create the risk.<sup>239</sup> They should also have sufficient experience and authority to make and direct critical decisions, if necessary, and their powers should be wide-ranging.<sup>240</sup> Unusual changes in a firm's trading activity, large open positions, accumulated losses, or margin requirements should trigger action to inquire whether something is amiss.<sup>241</sup> Risk management personnel should also be experienced enough to appreciate the suitability of certain types of risk, and should be able to communicate honestly and effectively with senior management so that management is able to react to potentially dangerous situations before those situations go too far for correction.<sup>242</sup>

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236. One commentator has also suggested that even the board itself should intervene in certain instances. See Blanc, *supra* note 227, at 7.

237. See *id.*

238. See Sandner, *supra* note 225, at 17.

239. See Banking Circular No. 277, *supra* note 139, ¶ 62,152, at 71,705; Schott, *supra* note 230, at 19.

240. See Banking Circular No. 277, *supra* note 139, ¶ 62,152, at 71,705; Sandner, *supra* note 225, at 17.

241. See Sandner, *supra* note 225, at 17.

242. As mentioned above, many managers who are involved with derivatives do not fully understand them. See *supra* notes 173-77 and accompanying text. As also mentioned, some have suggested that lack of proper controls is due partially to what may properly be termed a "generation gap." See *supra* note 181 and accom-

None of these monitoring functions were in effect at Barings. Leeson's back-office functions were ineffectively monitored and Barings Futures Singapore was operated almost entirely by Leeson alone. Barings' senior management took no steps to ensure that the appropriate degree of supervision was in place.<sup>243</sup> Because Leeson had responsibility for both the front office and the back office, all reconciliations and other detailed control procedures in Barings Futures Singapore were rendered ineffective.<sup>244</sup> Since there were no proper management controls, Leeson was able to accumulate massive unauthorized positions, and by the time the positions were discovered, it was too late to save Barings.<sup>245</sup>

### C. Banks Should Adopt Systems of Financial Safeguards

The institution trading in derivatives must ensure that sufficient resources are available to cover future obligations and that accumulation of losses is prevented.<sup>246</sup> Barings did not take sufficient steps to prevent losses, and, in fact, heavily contributed to them. Leeson regarded the Barings office in London as a cash cow and his opinion was justified, since the London office continued to send money to Singapore, supposedly to cover margin, even though Leeson should not have been making such large reported profits while using a trading method that was supposed to be low risk.<sup>247</sup> Further, any system implemented by derivatives users must ensure the prompt detection of any financial or operational weaknesses.<sup>248</sup> These safeguards were not in place at Barings, where Leeson built up tens of thousands of Simex and Osaka Securities Exchange contracts and exposed the bank to liability in an amount approximately twice its net worth.

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panying text; see also *The Charlie Rose Show* (PBS television broadcast, Feb. 27, 1995) (interview with Mark Brickell, Vice Chairman of the International Swaps and Derivatives Association).

243. See *Three Key Reasons*, *supra* note 28, at 5.

244. See *Out of Control: Greater Supervision is Urged by the Report Into the Barings Fiasco*, *BANKER*, Aug. 1995, at 15, 15 [hereinafter *Out of Control*].

245. See *id.*

246. See Sandner, *supra* note 225, at 17.

247. See *Out of Control*, *supra* note 244, at 16.

248. See Sandner, *supra* note 225, at 17. The Chicago Mercantile Exchange, for example, has such protections in place. See *id.*



*D. Banks Should Change Their Compensation Systems*

Barings encouraged a win-at-all-costs environment, as do other organizations, such as securities firms.<sup>249</sup> A different system of compensation for its traders might ameliorate this type of environment. Leeson had made a large amount of money in bonuses because of the high profits that he had made in Singapore, which likely encouraged him to make more money for Barings, regardless of the risk.<sup>250</sup> Meanwhile, Barings was so intent on continuing its profits from Singapore that it was reluctant to impose tight controls.<sup>251</sup> In addition, Barings did not provide incentives, such as bonuses that included a comparison of profit made with risks taken, which would allow for bonuses based upon how prudent a trader had been; this lack of incentives contributed to Barings' downfall.<sup>252</sup> Banks should consider forgoing a commission type of pay structure for its traders, like the one that was in place at Barings, and instead implementing a system of salary plus bonus.<sup>253</sup> Thus, firms would be able to adjust traders' bonuses to reflect the means by which they achieved favorable results,<sup>254</sup> rather than simply reflecting how much money they had made, regardless of the risk they took. Such a step would counteract the type of "ends justifies the means" atmosphere that was present at Barings. This type of system would actually allow for a negative adjustment in a trader's bonus if a trader produced high returns but did so by using methods that exposed the firm to unacceptably high risks.<sup>255</sup> A system of this type must, of course, be supported by a "clearly articulated and enforced investment philosophy."<sup>256</sup>

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249. See Donald D. Gallo, *How to Succeed in Business Without Betting the Bank*, N.Y. TIMES, Apr. 9, 1995, § 3, at 10.

250. See *id.*

251. See Marcus W. Brauchli et al., *Barings PLC Official May Have Been Aware of Trader's Position*, WALL ST. J., Mar. 6, 1995, at A1.

252. See Seeger, *supra* note 3, at A13.

253. See Gallo, *supra* note 249, at 10.

254. See *id.*

255. See *id.*; see also Seeger, *supra* note 3, at A13. Seeger suggests that management might use the value-at-risk method (VAR). As Seeger explains, "VAR measures how much of a firm's money is at risk each day in its various derivatives contracts and other investment strategies. . . . Using rudimentary probability analysis, it generates a single number to quantify with high probability the outer limits of what could be lost on any given trading day." *Id.*

256. Gallo, *supra* note 249, at 10.