

# PRUDENCE OR PARANOIA: CONSIDERING STRICTER REGULATION OF THE INTERNATIONAL OVER-THE-COUNTER DERIVATIVES MARKET

## I. INTRODUCTION

Recent reports of companies and municipalities losing millions of dollars from investments in over-the-counter (OTC) financial derivatives<sup>1</sup> have prompted foreboding headlines about derivatives,<sup>2</sup> encouraged increased scrutiny of their use,<sup>3</sup> and polarized opinions toward these misunderstood financial instruments.<sup>4</sup> While OTC and

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1. In April 1994, Procter & Gamble announced a \$157 million derivatives loss which was taken as a pre-tax charge. Paulette Thomas, *Procter & Gamble Sues Bankers Trust Because of Huge Losses on Derivatives*, WALL ST. J., Oct. 28, 1994, at A6. Metallgesellschaft, Germany's fourteenth largest industrial corporation, lost \$1.45 billion speculating in oil-based derivatives. Michael R. Sesit, *Bulls on Metallgesellschaft Say German Firm, Hurt by Trading Losses, Could Stage Rebound*, WALL ST. J., July 25, 1994, at C2. In December 1994, Orange County, California declared bankruptcy after losing approximately \$1.5 billion from derivatives products. *Bitter Fruit: Orange County, Mired In Investment Mess, Files for Bankruptcy*, WALL ST. J., Dec. 7, 1994, at A1. Barings, a venerable British bank, was recently sunk by a "rogue trader" who lost about \$900 million using derivatives instruments. *The Bank that Disappeared*, ECONOMIST, Mar. 4, 1995, at 11.

2. See, e.g., Jane Bryant Quinn, *Just When You Thought It Was Safe. . . ; Derivatives Present a New Risk, Even If You Think You're Not Involved*, CHI. TRIB., Apr. 25, 1994, at C11; Ruth Simon, *Don't Get Socked by These #@!\* Derivatives*, MONEY, Aug. 1994, at 26; Jim Gallagher, *It's a Bet: No Getting Around Derivatives' High Risk*, ST. LOUIS POST, May 26, 1994, at 1C; *First Boston Derivatives Loss Tip of Iceberg? Firm's \$40-Million Deficit Could Be Repeated by Any Asset Manager, Analysts Warn*, L.A. TIMES, July 20, 1994, at D3; Kathy Kristof, *Are You at Risk? Everything You Always Wanted to Know About Derivatives, but Were Afraid to Ask*, CHI. TRIB., Aug. 9, 1994, at C9.

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3. See, e.g., Steve Cocheo, *Derivatives Under Scrutiny*, ABA BANKING J., Dec. 1993, at 35, 35; Steven M. Roberts, *High-Profile Fiascos with Derivatives Point Up the Need for More Vigilance*, AM. BANKER, June 8, 1994, at 16; Richard C. Breeden, *Directors, Control Your Derivatives*, WALL ST. J., Mar. 7, 1994, at A14.

4. See Albert R. Karr & Steven Lipin, *Two Federal Reserve System Officials Voice Differing Views on Derivatives*, WALL ST. J., Feb. 28, 1994, at A5 (noting that Susan Phillips, a Federal Reserve Board governor, is vigorously in favor of derivatives use and feels that risk management practices in the financial world are positively affected by the scrutiny given derivatives, while William McDonough, president of the Federal Reserve Bank of New York, is seriously concerned about systemic risks attendant to the growing derivatives market). Compare Jack Egan, *Worry over Weird Investments*, U.S. NEWS & WORLD REP., Jan. 31, 1994, at 66 (stating that derivatives and their risks are not yet completely understood and "the more

exchange-traded derivatives have many features in common, most of the debate concerning derivatives and most of the recent losses in derivatives activities have been related to OTC contracts.<sup>5</sup> The spectacular growth of the OTC financial derivatives market in the past few years,<sup>6</sup> evidenced by figures measuring principal amounts of outstanding derivatives in the trillions of U.S. dollars,<sup>7</sup> has added to the debate. There is a growing fear that the global linkages common to derivatives could contribute to a worldwide failure of financial markets.<sup>8</sup> In response, legislators and regulatory agencies worldwide have formulated various proposals aimed at controlling OTC derivatives activity.<sup>9</sup>

The cry for regulatory change has been especially pronounced in the United States, where the majority of OTC derivatives transactions are based.<sup>10</sup> A recent report by the U.S. General Accounting Office (GAO) concluded that sweeping regulatory changes are needed to

worries, reports and disclosures the better") with Saul Hansell, *Derivatives as the Fall Guy: Excuses, Excuses*, N.Y. TIMES, Oct. 2, 1994, § 3, at 1 (asserting that derivatives are "efficient tools that lend greater stability to business operations") and Thomas C. Theobald, *Derivatives Aren't the Danger*, WALL ST. J., May 23, 1994, at A14 (stating that Congress should not regulate derivatives merely to insulate those few firms who make risk management mistakes).

5. Cocheo, *supra* note 3, at 35.

6. One source suggests that the derivatives market increased eight-fold in the five years prior to 1992. Saul Hansell & Kevin Muehring, *Why Derivatives Rattle the Regulators*, INSTITUTIONAL INVESTOR, Sept. 1992, at 49, 49. In its recent report, the General Accounting Office (GAO) estimates that the notional amounts of derivatives outstanding increased 145% from the end of fiscal year 1989 to the end of fiscal year 1992. UNITED STATES GENERAL ACCOUNTING OFFICE, FINANCIAL DERIVATIVES: ACTIONS NEEDED TO PROTECT THE FINANCIAL SYSTEM, 34-35 (1994) [hereinafter GAO REPORT].

7. The GAO report estimated the global notional amount of derivatives outstanding at the end of fiscal 1992 was at least \$12.1 trillion. GAO REPORT, *supra* note 6, at 34.

8. See Carol J. Loomis, *The Risk That Won't Go Away*, FORTUNE, Mar. 7, 1994, at 40, 41; MICHAEL R. DARBY, OVER-THE-COUNTER DERIVATIVES AND SYSTEMIC RISK TO THE GLOBAL FINANCIAL SYSTEM 8 (National Bureau of Economic Research Working Paper No. 4801, 1994).

9. See, e.g., GAO REPORT, *supra* note 6, at 14-16; OTC DERIVATIVES OVERSIGHT: STATEMENT OF THE SECURITIES AND EXCHANGE COMMISSION, THE COMMODITY FUTURES TRADING COMMISSION AND THE SECURITIES AND INVESTMENT BOARD, March 15, 1994, reprinted in Daniel P. Cunningham et al., *An Introduction to OTC Derivatives*, in SWAPS AND OTHER DERIVATIVES IN 1994, at 297-306 (PLI Corp. Law and Practice Handbook Series No. B-848, 1994); Baie Netzer, *Are Derivatives a Blessing or a Burden? Regulators Want to Know More*, INT'L HERALD TRIB., Oct. 4, 1994, available in LEXIS, Nexis Library, IHT file (predicting that the proposed legislation by Representatives Edward J. Markey, Henry B. Gonzalez, and James A. Leach is unlikely to be enacted this year but will probably be reintroduced before Congress in 1995).

10. As of December 1991, eight U.S. bank dealers accounted for 56% of the worldwide notional amount of interest rate and currency swaps. GAO REPORT, *supra* note 6, at 36.

guard against the potential dangers posed by OTC derivatives.<sup>11</sup> Other commentators have downplayed the risks of derivatives, suggesting that the current regulation of derivatives is sufficient.<sup>12</sup> Because the United States is the world leader in derivatives,<sup>13</sup> other countries with large derivatives markets are following American events carefully. Any change in the United States' regulation of OTC derivatives will have a profound impact on the regulation of derivatives worldwide.

Those caught between adamant critics and vigorous proponents of additional derivatives regulation are left with many questions: What are derivatives and how are they different from other financial instruments? Are the risks of OTC derivatives different from the risks of exchange-traded derivatives? Do derivatives substantially increase the likelihood of a system-wide financial crisis? Can derivatives be sufficiently controlled through existing regulatory frameworks? What would be the consequences of over-regulating derivatives? Focusing on over-the-counter (OTC) derivatives, this Note addresses these questions and, using the U.S. derivatives market as an example, examines whether more regulation of these instruments is necessary. Part II explains what derivative instruments are and how they work. Part III analyzes recent regulatory proposals and examines the current regulation of the U.S. derivatives markets. Part IV examines the debate concerning additional derivatives regulation and outlines the most appropriate regulatory action. Part V concludes that the fears of system-wide financial disruption are overblown and do not justify additional regulation of the OTC derivatives market.

## II. DERIVATIVES BASICS

### A. Derivatives Defined

A derivative instrument is a financial contract whose value is based on, or derived from, the level of some agreed-upon benchmark.<sup>14</sup> The value of derivatives can be based on stocks, bonds,

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11. *Id.* at 14-15.

12. *See, e.g., LaWare Reiterates Stand on Derivatives Rules*, AM. BANKER, Dec. 8, 1994, at 22.

13. *See Loomis, supra* note 8, at 41.

14. *See GAO REPORT, supra* note 6, at 3; Peter A. Abken, *Over-the-Counter Financial Derivatives: Risky Business?*, FED. RESERVE BANK OF ATLANTA ECON. REV., Mar.-Apr. 1994, at 1, 2; Loomis, *supra* note 8, at 40; Lee Berton, *Experts Shed Light on the Murky and Complex World of Derivatives*, WALL ST. J. EUR., June 16, 1994, available in WESTLAW, WSJ-EURO

commodities, currencies, government or corporate debt, home mortgages, interest rates, exchange rates, indexes that reflect the value of some bundle of financial products, or any combination of these.<sup>15</sup> The rate, index, or price upon which the derivative's value is based is known as the "underlying."<sup>16</sup> Changes in the value of the underlying affect the value of the derivative.<sup>17</sup>

The following example illustrates the basic mechanics of a derivative. An investor purchases an option which gives him the right, but not the obligation, to buy a particular share of stock for ten dollars within the next thirty days.<sup>18</sup> The option in this example is a derivative—its value is based on, or derived from, the price of the underlying stock. If, after thirty days, the stock price drops to less than ten dollars, the option will have a value of zero, and the investor will have lost the amount paid for the option. The investor will not exercise the option because the stock could be purchased for less on the open market. If, however, the price of the stock increases to fifteen dollars within thirty days, the option is worth five dollars (the amount the investor can save by exercising the option.) The investor can realize his five dollar derivative gain in either of two ways: he can exercise the option, purchase the stock for ten dollars, and then immediately sell the stock for fifteen dollars for a gain of five dollars; or he can sell the option itself to an interested party for five dollars.<sup>19</sup>

## B. Exchange-Traded and Over-the-Counter Derivatives

Derivative instruments may be traded off-the-shelf through organized exchanges or negotiated "over-the-counter" (OTC) between two counterparties.<sup>20</sup> While exchange-traded and OTC derivatives

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15. See GAO REPORT, *supra* note 6, at 3 n.1; Berton, *supra* note 14.

16. See Terence P. Pare, *Learning to Live with Derivatives*, FORTUNE, July 25, 1994, at 106, 107. Accordingly, the term "underlying" will be used as a noun in the remainder of this Note in place of "underlying asset, price, rate, or index."

17. Henry T. C. Hu, *Misunderstood Derivatives: The Causes of Informational Failure and the Promise of Regulatory Incrementalism*, 102 YALE L.J. 1457, 1464-65 (1993).

18. The price of an option is usually a small fraction of the underlying asset's value. Berton, *supra* note 14.

19. Presumably, the person who buys the option from the investor believes it is worth five dollars or more. If, for example, the buyer of the option believes the stock price will rise further before the option expires, this buyer will value the option at a price greater than five dollars.

20. GAO REPORT, *supra* note 6, at 4.

are similar in terms of risk management,<sup>21</sup> they differ in several important respects. First, exchange-traded derivatives are openly arranged through organized futures or options exchanges. OTC contracts, on the other hand, are negotiated between the two counterparties with financial institutions acting as intermediaries.<sup>22</sup> Second, exchange-traded derivatives are standardized in amount and duration. OTC derivatives, however, are tailored to the specific needs of the purchasers.<sup>23</sup> Third, exchange-traded derivatives are heavily regulated by federal government agencies while OTC derivatives remain largely unregulated.<sup>24</sup> Fourth, exchange-traded derivatives contracts are guaranteed by the exchange or related clearing organization.<sup>25</sup> There is no such guarantee in OTC derivatives transactions. As a result, OTC derivatives users scrutinize the creditworthiness of their counterparties.<sup>26</sup> Because most of the debate concerning derivatives centers on the OTC variety,<sup>27</sup> this Note focuses on the regulation of OTC derivatives.

### C. Types of Derivatives

Derivatives fall into two basic categories,<sup>28</sup> option-type contracts and forward-type contracts.<sup>29</sup> Option-type derivatives, or "options," give the buyer the right, but not the obligation, to buy or sell the underlying at a specified price within a certain time period.<sup>30</sup> Forward-type derivatives are agreements that fix prices between

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21. Abken, *supra* note 14, at 2.

22. *Id.*

23. *Id.*

24. *Id.*

25. FEDERAL DEPOSIT INS. CORP., DERIVATIVE PRODUCT ACTIVITIES OF COMMERCIAL BANKS, in JOINT STUDY CONDUCTED IN RESPONSE TO QUESTIONS POSED BY SENATOR RIEGLE ON DERIVATIVE PRODUCTS 4 (Jan. 27, 1993) [hereinafter JOINT STUDY].

26. *Id.* at 5.

27. Cocheo, *supra* note 3, at 35.

28. Some commentators divide derivatives into three categories: options, forwards, and swaps. See, e.g., GAO Report, *supra* note 6, at 4-5. But since swaps are, in effect, a series of forward contracts, they could be classified as "forward-type" derivatives. See *infra* note 30 and accompanying text.

29. See Berton, *supra* note 14; Loomis, *supra* note 8, at 43; Thomas Lee Hazen, *Rational Investments, Speculation, or Gambling?—Derivative Securities and Financial Futures and Their Effect on the Underlying Capital Markets*, 86 NW. U. L. REV. 987, 989 (1992); BASLE COMMITTEE ON BANKING SUPERVISION, BANK FOR INTERNATIONAL SETTLEMENTS, RISK MANAGEMENT GUIDELINES FOR DERIVATIVES, July 27, 1994, reprinted in Fed Sec. L. Rep. (CCH) 85,410, at ¶ 85,557 (Aug. 10, 1994) [hereinafter BASLE COMMITTEE].

30. See Berton, *supra* note 14.

parties for some future date.<sup>31</sup> Forward-type derivatives include futures, forwards, and swaps. Futures and forwards are contracts that obligate the holder to buy or sell a certain quantity of an underlying at a specified price on a certain day in the future.<sup>32</sup> Futures are traded on organized exchanges while forwards are traded over the counter. Swaps are OTC contracts in which counterparties agree to make periodic payments to each other for a certain length of time.<sup>33</sup> The amounts of the periodic payments are determined by applying the relevant rate (such as an interest rate or a foreign exchange rate) to some agreed upon level of hypothetical principal, called a notional amount.<sup>34</sup> For example, in one of the most common swaps, an interest-rate swap, Company A agrees to make monthly payments based on a floating interest rate in exchange for Company B's promise to make payments based on a fixed interest rate. The amount upon which the interest payments are calculated (the fictional principal) is the notional amount.<sup>35</sup> By entering into this contract, Company A has effectively swapped its fixed rate interest obligation for Company B's variable rate interest rate obligations.

The basic building blocks of derivatives are options and forwards,<sup>36</sup> but so called "rocket scientists" in the financial world have combined these basic products to produce more complex derivative instruments, often called exotic derivatives.<sup>37</sup> There are currently hundreds of types of derivative instruments,<sup>38</sup> many with strange, high-tech names.<sup>39</sup>

31. GAO REPORT, *supra* note 6, at 5; Berton, *supra* note 14.

32. GAO REPORT, *supra* note 6, at 26.

33. *Id.* at 28. Each of the swap's periodic payments can be viewed as a forward contract. The swap, then, is a series of forward contracts, with each forward contract maturing one period after the previous contract matured. Loomis, *supra* note 8, at 43 ("In effect, [a swap] sets up a series of forward contracts, each covering [a single period.]"); Abken, *supra* note 14, at 3 (Swaps are "sequences of forwards with successively longer maturities . . .").

34. See GAO REPORT, *supra* note 6, at 28; Cocheo, *supra* note 3, at 35-36. For further discussion of notional amounts, see *infra* notes 119-128 and accompanying text.

35. JOINT STUDY, *supra* note 25, at 8.

36. See DARBY, *supra* note 8, at 3; BASLE COMMITTEE, *supra* note 29, ¶ 85,558; Hu, *supra* note 17, at 1466-67.

37. GAO REPORT, *supra* note 6, at 4.

38. One source estimates that there are more than 1,200 different kinds of derivatives on the market. Berton, *supra* note 14. *But see* Dean Tomasula, *Software Seen Helping Manage Exotic Swaps' Risk*, AM. BANKER, Sept. 9, 1994, at 24 (estimating the number of derivatives instruments at between 300 and 400).

39. The strange names of some derivative products are enough to worry people. Some derivatives are named after their functions: caps, floors, collars, lookbacks, and spread locks. Some combine the names of more basic derivatives: swaptions, captions, floortions, spreadtions,

## D. Participants in the Derivatives Markets

Those who participate in the derivatives markets are known as end-users and dealers.<sup>40</sup> End-users include banks, securities firms, insurance companies, governmental units, mutual and pension funds, and commercial firms.<sup>41</sup> End-users utilize derivatives to hedge risk, to reduce the cost of financing, or to enhance returns by speculating on the movements of the market.<sup>42</sup> Dealers are end-users who also buy derivatives from, and sell derivatives to, other end-users and dealers.<sup>43</sup> Derivatives dealers include the largest commercial banks, securities firms, investment banks, and insurance companies.<sup>44</sup>

## E. Uses of Derivatives Products

Companies can use derivatives to control business risks associated with the volatility of financial markets, to speculate on the direction of market changes,<sup>45</sup> or to reduce financing costs.<sup>46</sup> Most companies use derivatives to control business risks by "hedging".<sup>47</sup> End-users hedge by purchasing derivatives whose values offset any change in the value of the company's assets, liabilities, or required raw materials.<sup>48</sup> For example, a company that uses widgets as a raw material can purchase a derivative that increases in value as widget prices rise. The increased value of the derivative will offset the

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warrants, circuses. Still others use acronyms: ELKS (equity-linked securities), YEELDS (Yield-enhanced equity-linked securities) CHIPS (common-linked higher-income participation securities), REMICs (real estate mortgage-investment conduits). See Darby, *supra* note 8, at 3; Loomis, *supra* note 8, at 40; *Taming the Derivatives Beast*, *ECONOMIST*, May 23, 1992, at 81; John Rothchild, *How the Big Game Began*, *TIME*, Apr. 11, 1994, at 32; George Melloan, *Whitewater, Derivatives and the Urge to Regulate*, *WALL ST. J. EUR.*, Mar. 15, 1994, available in WESTLAW, WSJ-EURO Database.

40. GAO REPORT, *supra* note 6, at 29; Loomis, *supra* note 8, at 40.

41. GAO REPORT, *supra* note 6, at 29; Loomis, *supra* note 8, at 40-41.

42. GAO REPORT, *supra* note 5, at 29.

43. *Id.*; Loomis, *supra* note 8, at 41.

44. Abken, *supra* note 14, at 4; GAO REPORT, *supra* note 6, at 29-30; Loomis, *supra* note 8, at 40.

45. In practice, it is difficult to clearly distinguish a business use of derivatives from a speculative use. Rita Koselka, *Safe When Used Properly*, *FORBES*, Aug. 15, 1994, at 47, 47-48.

46. GAO REPORT, *supra* note 6, at 25.

47. See Vineeta Anand, *Controlling Risk is Primary Task*, *PENSIONS & INVESTMENTS*, Aug. 8, 1994, at 8 (citing a survey in which three-fourths of financial executives surveyed said they use derivatives to hedge against foreign currency and interest rate fluctuations); Berton, *supra* note 14; Hansell, *supra* note 4, at 6 ("The most common use of derivatives . . . is as a form of financial insurance.").

48. JOINT STUDY, *supra* note 25, at 3.

increased widget price, thereby hedging the company against the risk of an abrupt jump in the price of raw materials. By utilizing derivatives a company can hedge against unfavorable turns in interest rates, exchange rates, or commodity prices. This allows the company to remain focused on its particular line of business.<sup>49</sup>

Derivatives allow end-users to speculate on the movements of the market.<sup>50</sup> Companies can use derivatives to place bets on the direction of prices, interest rates, or exchange rates. A speculating company that has no particular need for a certain stock or commodity may buy a derivative based on that stock or commodity in an attempt to cash in on market fluctuations. For example, although a company may not require widgets to conduct its business, it may believe widget prices are going to rise in the near future. In an attempt to cash in on this hunch, the company can purchase a derivative whose value is directly related to the price of widgets. If widget prices rise, the trader can sell the derivative for a profit. If widget prices decline, the derivative product may obligate the trader to buy widgets at a price higher than the market price, resulting in a loss. Many of the recent losses related to derivatives are the result of similar speculative activity.<sup>51</sup>

Companies use derivatives to obtain more favorable financing rates.<sup>52</sup> Derivatives can reduce borrowing costs in two ways. First, counterparties can take advantage of the different rates at which they borrow money. For example, a company with a poor credit rating may be able to obtain lower financing costs by entering into an interest rate swap with a more highly rated company.<sup>53</sup> Second, by

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49. Berton, *supra* note 14,; Hazen, *supra* note 29, at 1007.

50. GAO REPORT, *supra* note 6, at 25.

51. *Derivatives: The Beauty in the Beast*, ECONOMIST, May 14, 1994, at 21, 21-22.

52. GAO REPORT, *supra* note 6, at 25.

53. Suppose Company A wants to borrow at a fixed rate to protect against the possibility of increasing interest rates. Because of its poor credit rating, Company A can only borrow at a fixed rate of 10% and a variable rate of 6%. Company B, a company with a good credit rating, has obligations that require interest payments at a fixed rate of 8%. If Company B's income is highly dependent on interest rates, it would like to protect against the possibility that falling interest rates will make payment of the fixed rate more burdensome. Thus, Company A and B may wish to enter into an interest rate swap. Company A would save 2% on a fixed rate obligation, and Company B would no longer be locked into fixed payments. The difference in interest rates among companies and markets provide opportunities for both parties to benefit from a swap. See GAO REPORT, *supra* note 6, at 28-29.



using derivatives to hedge their market risks, end-users can enhance their credit ratings and receive more favorable financing terms.<sup>54</sup>

### III. REGULATION OF DERIVATIVES

#### A. Various Guidelines and Proposals Advanced by International Groups

Due to the interconnectedness of derivatives transactions, regulation of derivatives must be viewed from a worldwide perspective. Without agreement on basic regulatory approaches, attempts at regulation only serve to chase derivatives transactions to different locales.<sup>55</sup> The serious worldwide implications of derivative losses<sup>56</sup> have prompted various national agencies, international groups, and trade associations to advance guidelines or sponsor proposals related to derivatives risk control and regulation.<sup>57</sup>

While most proposals focus their comments toward firms' internal activities,<sup>58</sup> a few groups did give recommendations for regulators. These recommendations center on establishing new accounting standards, requiring adequate capital levels, encouraging international regulatory cooperation, and reviewing firms' internal risk control mechanisms.

A report issued by the U.S. General Accounting Office recommended updating accounting standards to better reflect derivative exposure.<sup>59</sup> These improved standards would require a more

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54. For example, Moody's and Standard and Poor's, which provide credit risk ratings for corporate bonds, find derivatives to be a source of income stability for commercial banks. Abken, *supra* note 14, at 5; *See also* GAO REPORT, *supra* note 6, at 25.

55. *See infra* notes 157-159 and accompanying text.

56. Because only a few major OTC derivatives dealers account for a large portion of trading in world markets, the abrupt failure from one of these dealers could "undermine stability in several markets simultaneously, which could lead to a chain of market withdrawals, possible firm failures, and a systemic crisis." GAO REPORT, *supra* note 6, at 12.

57. Groups that have spoken on the regulation of derivatives include the Basle Committee on Banking Supervision, the Group of Thirty, the U.S. House Committee on Banking, Finance, and Urban Affairs Minority Staff, the SEC, the CFTC, the U.K.'s Securities and Investment Board, and the U.S. General Accounting Office.

58. The recommendations directed at firms included increasing managerial oversight, devoting adequate risk-control resources, and adopting clear policies for monitoring, reporting, and controlling derivatives risks. *See, e.g.*, BASLE COMMITTEE, *supra* note 29, ¶ 85,559. The focus on firms rather than on regulators suggests that internal monitoring may play a more significant role in controlling the dangers of derivatives than regulatory measures. *See* Nicholas Bray, *Basel Banking Panel Considers Using Traders' Risk Models for Derivatives*, WALL ST. J., June 10, 1994, § A, at 5D.

59. GAO REPORT, *supra* note 6, at 16.

accurate evaluation of derivative risks and allow investors, regulators, and market analysts to better assess a company's use of derivatives.

Some commentators feel that capital adequacy requirements would help control the risks associated with derivatives.<sup>60</sup> The difficulty, however, is determining what those requirements should be. The firms that participate in the derivatives market are very diverse. Rigid standards would be overly burdensome for some firms, yet insufficient for others.<sup>61</sup>

Various groups emphasize the need for international cooperation if the regulation of OTC derivatives is to be effective.<sup>62</sup> If one country's regulation is especially onerous, the locus of derivatives transactions will simply move to countries with less stringent requirements. The systemic risk to the financial system will have been shifted, but not reduced, and regulating countries will be put at a competitive disadvantage.

Other commentators, including Federal Reserve Board Chairman Alan Greenspan, suggest that regulators should assess a firm's level of compliance according to the effectiveness of their risk-control system.<sup>63</sup> Because firms have the most sophisticated risk management systems, it is not imprudent to rely on these internal controls to protect against derivatives' risks.

## B. Current Regulation of U.S. OTC Derivatives Markets

An examination of the current U.S. regulation of OTC derivatives provides a relevant model for the discussion of how derivatives should be regulated internationally. In the United States, OTC derivatives may be regulated through two avenues. First, the instrument itself may be regulated. Instruments are normally

60. The Comptroller of the Currency and other federal financial regulators advocate the expansion of capital-adequacy requirements to deal with the risks associated with derivatives. *U.S. Plans Changes In Capital-Risk Rules Related to Derivatives*, WALL ST. J., Sept. 1, 1994, at A2.

61. See Abken, *supra* note 14, at 19.

62. The Securities and Exchange Commission, the Commodity Futures Trading Commission and the British Securities and Investment Board agreed to seek common standards for OTC derivatives and share information about firms using OTC derivatives. See *U.S., Britain Reach Accord on Oversight Of OTC Derivatives*, WALL ST. J., Mar. 16, 1994, at C12.

63. See Christi Harlan, *Greenspan Suggests Derivatives Require New Kind of Oversight*, WALL ST. J., May 26, 1994, at B4. The Basel Committee on Banking Supervision and the International Organization of Securities Commissions emphasized that regulators must ensure that banks and securities firms have adequate controls over the risks inherent in their derivative trades. Nicholas Bray, *Two Agencies Issue Guidelines On Derivatives*, WALL ST. J., July 27, 1994, at A6.

regulated to protect the investing public and to allow the markets to work in an orderly fashion.<sup>64</sup> Second, the institution from which the derivative instrument originates may be regulated. Institutions are regulated in order to protect the soundness of securities firms and the financial system.<sup>65</sup>

1. *Instrument-Specific Regulation.* The derivative instrument itself may be regulated according to its particular attributes. The current U.S. regulations for financial instruments appear to have been designed to separate all instruments into neatly distinguishable categories of "securities" and "commodities." Thus, the characterization of a derivatives product as a security or a commodity determines the applicable regulatory environment.<sup>66</sup> Unfortunately, attempting to determine whether a particular hybrid instrument is governed by securities laws or commodities laws is like "decid[ing] whether tetrahedrons belong in square or round holes."<sup>67</sup>

Generally speaking, if the derivative is deemed a security, it is subject to federal regulation by the Securities and Exchange Commission (SEC) under the Securities Act of 1933 and the Securities Exchange Act of 1934.<sup>68</sup> If the derivative is deemed a commodity, it is subject to regulation by the Commodity Futures Trading Commission (CFTC) pursuant to the Commodities Exchange Act.<sup>69</sup> If the derivative is deemed neither a security nor a commodity, the instrument is generally not federally regulated.<sup>70</sup>

a. *OTC Options.* Options on commodity futures and futures contracts on government securities and stock indices are considered commodity options, falling under the authority of the CFTC.<sup>71</sup> The CFTC has promulgated regulations generally prohibiting over-the-counter commodity option transactions.<sup>72</sup> Options on securities

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64. See GAO REPORT, *supra* note 6, at 85.

65. *Id.* at 69.

66. Charles E. Dropkin et al., *Regulation Concerning Derivatives, An International Guide: United States*, INT'L. FIN. L. REV., Jan. 1992, (Special Supplement), at 38.

67. *Chicago Mercantile Exchange v. Securities and Exchange Commission*, 883 F.2d 537, 539 (7th Cir. 1989) (Easterbrook, J.).

68. Dropkin et al., *supra* note 66, at 38.

69. *Id.*

70. *Id.*

71. *Id.* at 48.

72. 17 C.F.R. § 32.1 (1994). The CFTC has, however, excepted from its general prohibition, certain dealer and trade options transacted with commercial commodity end users. 17 C.F.R. § 32.4 (1994); Dropkin et al., *supra* note 66, at 48.

(including common stock, stock indices, and government debt securities) and options on foreign currency fall under the auspices of the SEC.<sup>73</sup> Options on swaps (swaptions) and options on interest rate protection agreements (captions and floortions) are generally not subject to either CFTC or SEC regulation.<sup>74</sup>

*b. OTC Forwards.* The Commodities Exchange Act excludes privately negotiated forward contracts from the jurisdiction of the CFTC.<sup>75</sup> To clarify the forward/future distinction, the CFTC issued a statutory interpretation granting a safe harbor for instruments that are not deemed to be futures.<sup>76</sup> To qualify for the safe harbor, the instrument: (1) must have individually tailored terms, (2) must not be subject to exchange-style offset, (3) must not be executed through a clearing-house or mark-to-market margining system, (4) must be entered into in conjunction with the parties' line of business, and, (5) must not be marketed to the general public.<sup>77</sup> The statutory interpretation stresses that the principal distinguishing characteristic between a future and a forward is the ability to require physical delivery of the commodity.<sup>78</sup> A court of appeals decision clarified the statutory interpretation, holding that as long as a contract creates a binding delivery obligation, a subsequent agreement to settle outstanding obligations by offset will not prevent the contract from being deemed a forward.<sup>79</sup>

Under some circumstances, a securities forward could be considered a security and be subject to the SEC. However, because forwards are not publicly offered, they are transactions which are exempt from the SEC registration requirements.<sup>80</sup>

*c. OTC Swaps.* Swaps are not securities, and the Securities Act and the Securities Exchange Act are not applicable to them.<sup>81</sup> Although swaps are similar to futures in many aspects, the CFTC has issued a policy statement asserting that most swaps are not appropri-

73. Dropkin et al., *supra* note 66, at 48.

74. *Id.*

75. Commodity Exchange Act, 7 U.S.C. § 2 (1988); Dropkin et al., *supra* note 66, at 44.

76. Statutory Interpretation Concerning Forward Transactions, 55 Fed. Reg. 39,188 (1990); Dropkin et al., *supra* note 66, at 44.

77. 55 Fed. Reg. 39,188; Dropkin et al., *supra* note 66, at 44.

78. 55 Fed. Reg. 39,188, 190-91.

79. *Krommenhoek v. A-Mark Precious Metals Inc.*, 945 F.2d 309 (9th Cir. 1991).

80. Dropkin et al., *supra* note 66, at 46.

81. *Id.* at 38.

ately regulated under the CEA.<sup>82</sup> This policy statement grants swaps a safe harbor from CFTC regulation. To qualify for the safe harbor, the swap must be (1) individually tailored in its material terms, (2) terminable only with the consent of the counterparty without an exchange-style offset, (3) unsupported by a clearing organization or margin system, (4) undertaken in conjunction with each party's line of business, and (5) not marketed to the general public.<sup>83</sup> This safe harbor is available for all swaps and options on swaps.<sup>84</sup>

2. *Dealer-specific Regulation.* Derivatives may also be subject to federal oversight through the regulation of institutions that act as dealers. Such institutions include banks, securities firms, investment banks, and insurance companies.<sup>85</sup>

a. *Banks.* Federal regulators are responsible for overseeing all bank activities, including derivatives trading.<sup>86</sup> Banks are the most strictly regulated of the different categories of derivatives dealers. The purposes of the federal regulatory agencies may explain the difference. The SEC and CFTC are primarily focused on protecting the investing public and maintaining orderly markets.<sup>87</sup> In contrast, one of the main purposes of federal banking regulation is to protect not only the safety and soundness of individual banks, but also the stability of the entire U.S. financial system.<sup>88</sup> Banking regulation, therefore, puts a great deal of emphasis on the institutions themselves.

Banks with national charters are regulated by the Office of the Comptroller of the Currency (OCC) while banks with state charters are regulated by the Federal Reserve and by state banking authorities.<sup>89</sup> In order to monitor banks' risk levels and financial health in general, regulators require banks to periodically disclose information on their operations. As a part of these reporting requirements, banks must disclose the following information concerning their derivatives activities: total notional/contract amounts of derivatives contracts, total aggregated derivatives-related credit exposure, and total

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82. Policy Statement Concerning Swap Transactions, 54 Fed. Reg. 30,694 (1994).

83. *Id.* at 30,696-767.

84. Dropkin et al., *supra* note 66, at 40.

85. See *supra* notes 40-41 and accompanying text.

86. GAO REPORT, *supra* note 6, at 69.

87. *Id.* at 85.

88. *Id.* at 69.

89. *Id.*

aggregated trading-related earnings from derivatives and other trading activities.<sup>90</sup>

*b. Securities Firms, Futures Firms, and Investment Banks.* The SEC and the CFTC are the only sources of regulation for all non-bank firms that deal in derivatives.<sup>91</sup> The SEC and the CFTC are authorized to regulate the trading of securities and commodities and only have jurisdiction over firms that trade these specific products.<sup>92</sup> Generally, neither agency regulates OTC products (or the dealers of those products) unless the instruments are traded in an institution that also trades securities or commodities.<sup>93</sup>

The SEC regulates the trading activities of “broker-dealers”—firms that buy and sell securities for themselves and as agents for their customers. The U.S. securities laws, which grant the SEC its authority, do not necessarily apply to the entire organizational structure of a securities firm. Because its jurisdiction relates only to securities, the SEC does not regulate affiliates of broker-dealers whose activities are limited to non-securities products. As a result, many holding companies and other affiliates of securities firms are not controlled by U.S. securities laws. Most major securities firm derivatives dealers conduct their OTC derivatives business through affiliates in order to avoid the regulation of the SEC or CFTC.<sup>94</sup>

The CFTC regulates the activities of various market participants, including futures commissions merchants (FCM)—firms that buy and sell futures contracts as agents for customers. The CFTC requires that all futures contracts be traded on CFTC designated exchanges. Under the Futures Trading Practices Act of 1992,<sup>95</sup> the CFTC granted exemptions to this requirement for certain OTC contracts, including nonequity swaps, energy-based commodity contracts, and hybrid contracts (contracts that combine features of futures and securities). While they must follow some reporting requirements, OTC derivatives dealers that are affiliates of securities and futures firms are subject to very little regulation.

90. *Id.* at 70.

91. *Id.* at 85.

92. *Id.*

93. *Id.*

94. *Id.* at 87.

95. Futures Trading Practices Act of 1992, Pub. L. No. 102-546, 106 Stat. 3590.

#### IV. THE DEBATE OVER STRICTER REGULATION OF OTC DERIVATIVES

Like all financial instruments, OTC derivatives have their dangers. Critics claim that derivatives facilitate highly leveraged speculation,<sup>96</sup> that senior managers do not understand the derivatives used by their companies,<sup>97</sup> that new entrants in the derivatives market increase derivatives risks,<sup>98</sup> and that the interconnectedness of derivative instruments could increase the risk of a market-wide financial crisis.<sup>99</sup> But even those most adamant about tightening derivatives regulation admit that these instruments serve some important functions in the financial markets, such as managing market risks,<sup>100</sup> reducing transaction fees,<sup>101</sup> and lowering financing costs.<sup>102</sup>

##### A. The Argument for Stricter Regulation

1. *Leverage.* Derivative instruments can give end-users a high degree of leverage<sup>103</sup> compared to holders of the underlying.<sup>104</sup> This leverage allows end-users to take huge speculative risks using very little capital.<sup>105</sup> It is this type of leverage that magnified the losses of companies like Procter & Gamble and Metallgesellschaft.<sup>106</sup> Some commentators worry that this temptation to speculate makes it far too easy for financial whiz kids to put large sums of money at risk.

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96. Loomis, *supra* note 8, at 41.

97. *Id.* at 40.

98. Cocheo, *supra* note 3, at 37.

99. Abken, *supra* note 14, at 2.

100. See Darby, *supra* note 8, at 3; Loomis, *supra* note 8, at 41.

101. See Darby, *supra* note 8, at 3; Hu, *supra* note 17, at 1466.

102. See GAO REPORT, *supra* note 6, at 25.

103. In this context, leverage means "the volatility of the value of the derivative relative to the underlying asset." Andrew Davidson, *Comment: The Meaning of 'Derivative' Has Been Lost in Controversy*, AM. BANKER, July 8, 1994, at 19.

104. See Loomis, *supra* note 8, at 41; *Derivatives: The Beauty in the Beast*, *supra* note 51, at 22. The example in section IIA, in which an investor purchases an option to buy a security for \$10 within the next 30 days, illustrates how leverage is gained from a derivative. Assume the price of the security subsequently increases to \$15. If the investor purchased the option for \$1, the \$5 gain would represent a 500% increase on the investment. To a person who purchased a share of stock for \$10, however, the \$5 gain is only a 50% increase on the investment.

105. For example, the derivatives that hurt Procter & Gamble were such that they magnified the movements of interest rates by 10 times or more. Berton, *supra* note 14; Simon, *supra* note 2, at 26.

106. See Berton, *supra* note 14.

It is important, however, to look at the other side of the coin. Leverage, by itself, is neither good nor bad. It can work for or against an end-user. The leverage inherent in derivatives is one of the factors that makes a derivative less expensive to trade than its underlying. These lower transaction costs make derivatives a favored method for controlling market risks. In addition, leverage is not exclusive to derivatives. Other trading activities, such as buying on margin, allow investors to face the same risks from leverage.

2. *Management Personnel do not Understand Their Companies' Derivatives Activities.* There is a great deal of concern that most directors and officers do not fully understand the derivatives their companies use.<sup>107</sup> It is argued that because the senior managers do not understand the instruments, they do not understand the risks associated with those instruments. Senior managers are therefore unable to effectively monitor the risk levels of their companies, the argument goes.

The lack of knowledge on the part of management personnel may be somewhat overstated, however. Like people using an advanced computer system, managers can effectively use and manage derivatives without completely understanding how they work. Managers need only know their objectives, how those objectives can be met through derivatives, and the general risks posed by derivatives. In the past, management personnel may have been somewhat lacking in their understanding of derivatives, but the recent losses in derivatives have prompted investors to scrutinize companies' use of derivative products. This scrutiny has pressured corporate officers to increase their oversight of derivatives activities. Future losses in the derivatives market are more likely the result of poor managerial oversight rather than any danger inherent to derivatives.

3. *New Entrants In the Market.* There is growing concern that the new, less experienced players in the derivatives markets may use derivatives without fully understanding their risks.<sup>108</sup> These new players are mostly larger regional institutions which have recently expanded their derivatives activities in order to provide dealer services to their corporate customers.<sup>109</sup> By becoming dealers, these

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107. See Loomis, *supra* note 8, at 40; Hansell & Muehring, *supra* note 6, at 50; Cocheo, *supra* note 3, at 38.

108. See Cocheo, *supra* note 3, at 37.

109. *Id.*



reckless market players may increase the risk for all derivatives users.<sup>110</sup> One commentator summarizes as follows: "In manufacturing, market price is set by the smartest guy with the best, cheapest productions process . . . . In securities markets the price is set by the dumbest guy with the most money to lose."<sup>111</sup> Consequently, the smaller, less sophisticated users frequently end up being the losers in derivatives.<sup>112</sup>

Certainly new market participants are less experienced than veteran derivatives dealers, but credit ratings will also reflect this inexperience. In the end, the investors will sift the financially sound dealers from the unsound.<sup>113</sup> Even the most experienced derivatives dealers were once beginners. Rather than artificially restricting those who can become derivatives dealers, regulators and legislators should allow budding companies to be either approved or rejected by market forces.

4. *Systemic Risk.* The greatest concern about OTC derivatives products concerns systemic risk—the risk that the failure of one firm could lead to the failure of many other firms or even the entire financial system.<sup>114</sup> The fears that derivatives contribute to systemic risk generally stem from four areas of concern: (1) the size and complexity of derivative instruments,<sup>115</sup> (2) the concentration of derivatives instruments among a few large institutions,<sup>116</sup> (3) the transparency of derivatives on balance sheets,<sup>117</sup> and (4) market linkages resulting from derivatives trading.<sup>118</sup>

a. *Size and Complexity of Derivative Positions.* The sheer size of the derivatives market is a cause of concern to many.<sup>119</sup> Some believe the derivatives market has grown so large that prices are

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110. There is "a rapidly growing number of smaller outfits anxious not to miss the boat [on derivatives], who . . . attempt to keep up with the play and get their share of the market with limited regard to the dangers." Hansell & Muehring, *supra* note 6, at 54.

111. *Id.* (quoting William Heyman, the SEC's head of market regulation).

112. Hazen, *supra* note 29, at 1006.

113. See JOINT STUDY, *supra* note 25, at 5.

114. Abken, *supra* note 14, at 2; Loomis, *supra* note 8, at 41; Hansell & Muehring, *supra* note 6, at 57.

115. Darby, *supra* note 8, at 12.

116. *Id.*; GAO REPORT, *supra* note 6, at 7.

117. Darby, *supra* note 8, at 13.

118. *Id.*; GAO REPORT, *supra* note 6, at 7.

119. See Jerry W. Markham, "Confederate Bonds," "General Custer," and the Regulation of Derivative Financial Instruments, 25 SETON HALL L. REV. 1, 28, 39 (1994).

pulled in line with the derivatives rather than the other way around.<sup>120</sup> Understandably, it is difficult for most to comprehend a market with outstanding positions whose notional amounts take up fourteen digits.<sup>121</sup>

It is important to remember, however, that notional amounts, while relatively easy to measure, are not a good indication of the actual risks of derivatives.<sup>122</sup> The notional amount of a derivative is the face value of the underlying contract upon which a derivative is based.<sup>123</sup> For example, if parties enter into an interest rate swap based on principal of \$100,000, the notional amount is \$100,000 even though the actual cash flows are much less.<sup>124</sup> One commentator explains notional amounts by comparing derivatives to an insurance policy.<sup>125</sup> Protecting a \$100,000 house may cost the homeowner \$500 in premiums each year. The notional amount of the policy would be \$100,000. If one is concerned about the insurance company going out of business, the notional amount is not a very good measure of the homeowner risk since a new policy would only cost \$500.<sup>126</sup> The amount at risk in a derivative, like the replacement cost of the insurance policy, is only a small portion of the notional amount. Also, much of the exposure from derivatives is countered by offsetting derivatives contracts. The actual exposure related to derivatives is between two and six percent of the notional principal amount.<sup>127</sup>

120. Rodney Hobson, *Under Attack—Financial Derivatives—Focus*, TIMES, June 29, 1994, available in LEXIS, NEXIS Library, TTIMES File (“Trading in derivatives based on shares is two and a half times as great as trading in the shares themselves, so share prices are pulled in line with the derivatives.”).

121. The General Accounting Office estimates that the notional or contract amount of derivatives outstanding at the end of 1992 was at least \$12.1 trillion. For those who wish to do the counting themselves, that is \$12,100,000,000,000. GAO REPORT, *supra* note 6, at 34.

122. See Loomis, *supra* note 8, at 42 (referring to notional amount as “the flawed but standard way by which a derivatives business is measured”); Hansell, *supra* note 4, at 6 (asserting that notional amounts “vastly overstate[] the economic value of derivatives transactions”).

123. Abken, *supra* note 14, at 3.

124. The cash flows would be the difference between the fixed rate of interest and the floating rate of interest for \$100,000. With the exception of currency swaps, the notional amount or principal of a derivative is generally not exchanged in the transaction. Cocheo, *supra* note 3, at 36; Abken, *supra* note 14, at 3.

125. Hansell, *supra* note 4, at 6.

126. *Id.*

127. *Id.* (estimating actual replacement cost of derivatives between three and six percent); Cocheo, *supra* note 3, at 36 (citing Group of Thirty study which pegs replacement value at 2.3% of total notional principal outstanding); Netzer, *supra* note 9, (quoting Gay Evans of Banker's Trust International estimating replacement cost at close to two percent of notional amount).

Granted, two percent of \$12.1 trillion is a significant amount of money. However, the risks from derivatives are generally far less than the risks from more traditional lending transactions.<sup>128</sup>

The complex nature of OTC derivatives is not as large a problem as some commentators suggest. Derivatives can always be broken down into the basic components of forwards and options whose net positions can be hedged at the portfolio level.<sup>129</sup> Thus, it can be said that derivatives do not present new risks to the financial markets. Instead, they take familiar risks and combine them in new ways.<sup>130</sup>

*b. Concentration of Derivatives Activities.* A relatively small number of derivatives dealers account for a large portion of the OTC derivatives activity.<sup>131</sup> The complex information and risk management systems required to conduct derivatives activities may explain this concentration.<sup>132</sup> Such a degree of concentration generates fears that the failure of one of these dealers could lead to instability in several markets and contribute to a systemic crisis.<sup>133</sup>

In response to these concerns, some have noted that derivatives activity is concentrated in the safest and most stable firms, i.e., those firms with the highest credit ratings and largest amounts of capital.<sup>134</sup> The concentration of derivatives activity does not necessarily equate to a concentration of risk since most OTC dealers extensively hedge their derivatives risks.<sup>135</sup> In addition, none of the world's largest derivatives dealers is responsible for more than ten percent of the total notional amount of derivatives activity.<sup>136</sup>

*c. Derivatives Transparency Problems.* End-users are not required to report their derivatives-related hedges or speculative

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128. See Saul Hansell, *Regulators Mute Their Fears over Derivatives*, N.Y. TIMES, Feb. 28, 1994, at D5.

129. Darby, *supra* note 8, at 12.

130. *Id.* at 6.

131. GAO REPORT, *supra* note 6, at 36-37.

132. *Id.* at 37.

133. *Id.* at 39.

134. *Id.* at 41; Jeffrey Taylor & Steven Lipin, *SEC, Six Firms Work to Set Derivatives Rules*, WALL ST. J., July 6, 1994, at C1 (citing Wall Street executives who claim that the market's stringent requirements for derivatives subsidiaries to obtain triple-A ratings are a better incentive than federal regulation).

135. GAO REPORT, *supra* note 6, at 41.

136. *Id.*; see also Darby, *supra* note 8, at 12 ("Because of the need for the highest credit standing and expensive talent and capital investment to be effective, the major dealers even in the United States can be counted on the fingers of two hands.").

positions in their financial statements.<sup>137</sup> Consequently, it is difficult for shareholders, regulators, and financial analysts to learn what kind of derivatives risks a company is facing.<sup>138</sup> One commentator worries that “[t]he greatest risk derivatives bring to the marketplace is not their complexity or volatility; it’s the shadowy way in which they can be used by companies that would rather not tell the marketplace the truth about their investment intentions.”<sup>139</sup> It is generally recognized that accounting standards for derivatives have failed to keep pace with business practices and result in inconsistent reporting between businesses.<sup>140</sup> Uniform disclosure principles that accurately represent the economic realities of derivatives use would provide investors with better information upon which to base their investment decisions and consequently increase the efficiency of the derivatives market.

*d. Linkages in the Derivatives Markets.* The growth in derivatives has expanded the financial linkages among financial markets and participating institutions.<sup>141</sup> Derivatives allow firms to use products in one market to hedge risks associated with the firm’s participation in another market.<sup>142</sup> Because derivatives derive their values from underlying assets, the prices in the stock, futures, and options markets are related. Disruptions in one of these markets are associated with disruption in the others.<sup>143</sup> There is concern that this interconnectedness could cause a crisis or instability in one firm or market to spill over into other firms or markets.<sup>144</sup>

However, international and inter-market linkages do not necessarily increase systemic risk. These linkages may, in fact, have a stabilizing influence. A joint study by the U.S. Federal Reserve System, Federal Deposit Insurance Corporation, and Comptroller of the Currency stated that, “it is unlikely that the underlying markets would have performed as well as they did in September [during the 1992 European currency crisis] without the existence of related derivatives markets that enabled currency positions to be managed,

137. DARBY, *supra* note 8, at 13.

138. Netzer, *supra* note 9.

139. Michael Schrage, *As Derivatives Debacles Add Up, It's Time to Ask: Hedge or Risk?*, L.A. TIMES, May 5, 1994, at D1, D3.

140. GAO REPORT, *supra* note 6, at 12.

141. *Id.* at 37.

142. *Id.*

143. *Id.* at 38.

144. Cocheo, *supra* note 3, at 42.

albeit with some difficulty in some instruments."<sup>145</sup> The linkages associated with derivatives may help reduce financial disruptions by spreading the disturbance among more firms and markets.<sup>146</sup>

*e. Liquidity Problems.* Because they are hard to value,<sup>147</sup> many derivatives are relatively illiquid and difficult to sell when problems arise.<sup>148</sup> The more tailored and long-term the derivative is, the smaller its secondary market becomes. Some believe the liquidity problem is circular—it is difficult to liquidate a derivative that cannot be valued and it is difficult to value a derivative that cannot be liquidated.<sup>149</sup>

In times of financial crisis, liquidity problems may occur with derivatives, as with any type of financial instrument. However, the effect derivatives had on the 1992 European currency crisis suggests that the stabilizing benefits of derivatives outweigh the reduced liquidity of the derivatives instruments.<sup>150</sup>

*f. An Overall Assessment of Systemic Risk.* Do derivatives pose a threat of system-wide economic crisis? On the one hand, since the financial markets have survived several crisis without collapsing, derivatives are probably not significantly increasing systemic risk. On the other hand, since the markets have never seen a system-wide derivatives crisis, no one really knows how bad such a crisis could be.<sup>151</sup> The systemic risk arguments are similar to claims that an earthquake will strike in a city that has never recorded an earthquake before. That there has never been an earthquake before reassures some, but prompts others to believe that an earthquake is long overdue.<sup>152</sup> Most analysts agree that the probability of systemic meltdown is small but the catastrophic nature of such a failure should prompt concern.<sup>153</sup> The critical question is whether regulation

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145. JOINT STUDY, *supra* note 25, at 18.

146. GAO REPORT, *supra* note 6, at 42.

147. Pare, *supra* note 16, at 112; *Taming the Derivatives Beast*, *supra* note 39, at 81-82.

148. Simon, *supra* note 2, at 26.

149. *Taming the Derivatives Beast*, *supra* note 39, at 82.

150. See Abken, *supra* note 14, at 20.

151. *Taming the Derivatives Beast*, *supra* note 39, at 81.

152. *Derivatives: The Beauty in the Beast*, *supra* note 51, at 21-22 (explaining that recent huge losses have not caused a chain reaction, but have persuaded people that such a reaction is only a matter of time).

153. Hansell & Muehring, *supra* note 6, at 53; Cocheo, *supra* note 3, at 42; Karr & Lipin, *supra* note 4, at A5.

should address this small risk at the cost of stifling the substantial benefits companies gain from the booming derivatives market.<sup>154</sup>

The widespread fears that derivatives increase systemic risk are largely overblown.<sup>155</sup> Systemic risk is the most loosely defined of the risks posed by OTC derivatives<sup>156</sup> and is not, by itself, a good justification for broader regulation.<sup>157</sup> Evidence suggests that derivatives and the risk management tools that accompany them have, on balance, decreased systemic risk.<sup>158</sup> Systemic risk arises from the failure of firms and the fear that other firms will fail as a result.<sup>159</sup> Derivatives reduce these failures and fear of failures by cancelling some risks and shifting other risks to those better able to manage them. As a result, derivatives act to decrease overall systemic risk.<sup>160</sup>

154. See Theobald, *supra* note 4, at A14.

155. Abken, *supra* note 14, at 20 (accusing the popular press of overlooking derivatives' stabilizing influence); Loomis, *supra* note 8, at 42 (expressing dealers' view that concern over a financial meltdown is greatly overblown); Hansell, *supra* note 4, at 6 (quoting William McDonough, president of the Federal Reserve Bank of New York: "We need to be vigilant about systemic risk . . . [b]ut the visions of meltdown are overblown."); *Forex Players Say Don't Over Regulate Derivatives*, Reuters Newswire, June 6, 1994 (expressing various opinions that dangers of worldwide destabilization are greatly exaggerated), available in WESTLAW, INT-NEWS Database.

156. Hansell, *supra* note 128, at D5 (quoting Clifford W. Smith Jr., finance professor at the University of Rochester: "It's hard to get people to get precise about what they mean by systemic risk. It's clear it's big and sometimes scary, but after that they get fuzzy."); Abken, *supra* note 14, at 19 (calling systemic risk "the most ill-defined" risk of derivatives).

157. Abken, *supra* note 14, at 19; Darby, *supra* note 8, at 1, 10.

158. The report by the Board of Governors summarizes:

[T]he greater awareness and understanding of risk and the enhanced methods of managing risks probably have reduced the likelihood of systemic problems, and will continue to do so over time as industry and supervisory practices advance . . . [The devotion of] substantial resources to the development of more sophisticated risk management tools and . . . increasing use of netting to reduce their credit exposures . . . have had favorable spill-over effects on institutions' abilities to manage their total portfolios, not just their derivative activities.

U.S. BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, RESPONSES TO QUESTIONS ON FINANCIAL DERIVATIVES POSED BY CONGRESSMAN JAMES A. LEACH, COMMITTEE ON BANKING, FINANCE AND URBAN AFFAIRS, U.S. HOUSE OF REPRESENTATIVES (Oct. 6, 1993), quoted in Darby, *supra* note 8, at 7; see also *Derivatives: The Beauty in the Beast*, *supra* note 51, at 24 (asserting that derivatives spread risk and improve the aggregate position of linked companies); Theobald, *supra* note 4, at A14 ("Extensive SEC and Federal Reserve studies of the issue—and research from the academic community—agree that, far from a serious, or even a significant, threat to the nation's financial system, derivatives have been an important stabilizing factor.").

159. Darby, *supra* note 8, at 16.

160. *Id.* at 16-17.

## B. Arguments Against Additional Regulation

1. *Regulation Would Increase Transaction Costs.* End-users are concerned that additional regulation would dampen the risk management benefits provided by derivatives. Although derivatives are not the only way for a company to hedge its risks, the transaction costs associated with derivatives are lower than those associated with other hedging instruments.<sup>161</sup> These lower transaction costs have made derivatives a favored method of controlling market risks<sup>162</sup> and an increasingly important tool in the financial markets.<sup>163</sup> Derivatives users worry that tighter regulation would increase their transaction costs and restrict the most inexpensive and effective method of controlling market risks.

Stricter regulation would also hamper companies' ability to reduce financing costs through derivatives transactions. Any new requirement that makes derivatives more expensive or more cumbersome to trade could make interest-rate swaps prohibitively expensive. As derivatives become more costly, the cost of hedging business risks also rises. If it becomes more expensive for companies to hedge their risks, higher credit rates (and the low financing rates that accompany them) will be more difficult to obtain.

2. *Derivatives are Important to Global Financial Markets.* Derivatives play an important role in worldwide financial markets by "providing end-users with opportunities to better manage financial risks associated with their business transactions."<sup>164</sup> Proponents of stricter derivatives regulation tend to overlook the idea that tighter regulation would detract from the benefits derivatives bring to the global market.

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161. Koselka, *supra* note 45, at 47-48 ("Many business objectives served by derivatives could be achieved without them—at much higher cost.").

162. Berton, *supra* note 14 (asserting that derivatives are "the cheapest and most readily available means at companies' disposal to buffer themselves against shocks in currency values, commodity prices and interest rates").

163. Abken, *supra* note 14, at 2 (stressing that OTC derivatives are a "mainstay of financial risk management" which will continue to grow as financial managers become more familiar with them); Loomis, *supra* note 8, at 40 (quoting a Citicorp executive who classified derivatives as "the basic banking business of the 1990s").

164. GAO REPORT, *supra* note 6, at 6.

3. *Derivatives Have the Same Risks as Other Financial Instruments.* The risks associated with derivatives are the same risks associated with other financial instruments.<sup>165</sup> Companies have been dealing with market risk, credit risk, operational risk, and legal risk for decades.<sup>166</sup> Rather than creating new types of risk, derivatives dissect familiar risks and repackage them.<sup>167</sup> In fact, the risks associated with some more traditional financial instruments are much greater than those associated with derivatives.<sup>168</sup>

Some large institutions have reported massive derivatives-related losses recently, but these losses were not caused by anything inherent to derivative instruments.<sup>169</sup> There is a persuasive argument that losses such as those from Procter & Gamble, Metallgesellschaft, Orange County, and Barings Bank were the result of a more

165. Mark Brickell, vice president of J.P. Morgan & Co., explains that derivatives involve familiar risks: "Swaps guys may be clever characters, but we haven't been able to invent new kinds of risk." Hansell & Muehring, *supra* note 6, at 53; BASLE COMMITTEE, *supra* note 29, ¶ 85,558 ("Neither derivatives, nor the individual risks inherent in them are, by themselves, new."); *Your Financial Future*, ECONOMIST, May 14, 1994, at 15 ("Most derivatives are no riskier than other financial assets.")

166. Cocheo, *supra* note 3, at [45] ("The regulators' report to the Senate Banking Committee notes that 'in many ways, the risks associated with derivative instruments are the same types of risks banking institutions face daily in their lending, treasury, and trading functions.'"). Some "traditional" financial products are actually very similar to derivatives products:

[E]ven the most esoteric derivatives involve risks that banks have had to deal with for years. "When you think about it, any bank that makes a fixed-rate mortgage that can be prepaid is shorting an option," [Mark Brickell] notes. "Any bank that makes an oil-production loan is exposed to oil-price risk big time. What we do is create ways to hedge that exposure."

Hansell & Muehring, *supra* note 6, at 53.

167. Hansell & Muehring, *supra* note 6, at 53 (According to Mark Brickell, "[w]hat swaps have allowed us to do is tear apart different sorts of risk, isolate them and manage them independently."); Cocheo, *supra* note 3, at 37 ("Derivatives merely repackage these risks in different combinations that, in comparison to traditional bank instruments and products, can be quite complex."); Koselka, *supra* note 45, at 48 (quoting Elizabeth Glaeser of Mobil Corp.: "With the type of portfolio Mobil or other large companies have, the risks exist anyway. Being a large, sophisticated user of derivatives just manages them better.")

168. Hansell & Muehring, *supra* note 6, at 51 ("[A] close examination of the derivatives business shows that, while it is hardly risk-free, it is far less precarious than traditional financial activities. Lending money to shopping mall developers or trading mortgage-backed bonds—to take just two examples—are actually more dangerous than dealing in derivatives."); *Derivatives Exposure Limited, Survey Shows*, AM. BANKER, Aug. 5, 1994, at 16 (citing survey by International Swaps and Derivatives Association which concludes that firms' credit exposure from derivatives is significantly less than credit exposure from other financial activities).

169. *Derivatives: The Beauty in the Beast*, *supra* note 51, at 22 ("The problems that have occurred with derivatives have tended to arise less from anything inherent in the derivatives themselves and more from basic failures of management.")



traditional financial malady—poor management.<sup>170</sup> It is important to remember that large companies lose millions of dollars regularly on marketing mistakes and research and development costs that end up being useless, or poor product line decisions.<sup>171</sup> As with any potentially productive tool, derivatives can be dangerous if used unwisely. But this should not detract from the immense benefits derivatives give to those who use them wisely.

4. *Derivatives are a Zero-Sum Game.* It is important to note that for every loser in derivatives there is a winner. If a company records a loss on a derivative product, there is a counterparty who comes out ahead. This is so because, unlike traditional equity, debt, and commodity markets, derivatives markets are a zero-sum game.<sup>172</sup> The derivatives losses are quick to make the headlines, but the derivatives gains are seldom mentioned.<sup>173</sup> A reasonable analysis of the impact of derivative products must show the derivatives gains next to the losses. Any regulation that seeks to control the losses will inevitably stifle the gains.

5. *Stricter Regulation Could Drive Derivatives Business Offshore.* Regulations that are too restrictive will drive OTC derivatives business offshore.<sup>174</sup> When Japan tried to restrict both listed futures and OTC derivatives tied to the Tokyo stock exchange, the futures business moved to Singapore and the OTC business moved to New York and London.<sup>175</sup> Such moves not only decrease the competi-

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170. *Your Financial Future*, *supra* note 165, at 15 (blaming Procter & Gamble's and Metallgesellschaft's losses on "old-fashioned management mistakes"); *Top-down Failure*, PENSIONS & INV., May 2, 1994, at 12 (explaining that Procter & Gamble's and other companies' derivatives losses resulted from poor forecasting and poor management oversight: "The treasury staffs at these companies would have been wrong regardless, of whether they bet through derivatives or actual securities or currencies, especially leveraged positions."); Joanne Morrison, *Strategy, Not Derivatives, Caused Orange County Crisis*, GROUPS SAY, BOND BUYER, Jan. 5, 1995, at 1 (blaming Orange County's losses on a poor investment strategy rather than derivatives); *The Bank that Disappeared*, *supra* note 1, at 11 (citing Baring's failure to police its "rogue trader" as the cause of the bank's massive losses).

171. Theobald, *supra* note 4, at A14 (asserting that derivatives losses are regrettable, but no more regrettable than "a major marketing miscue, the expenditure of millions of research and development dollars on a product that bombed, or a substantial operating blunder").

172. Hazen, *supra* note 29, at 1006; Loomis, *supra* note 8, at 43; Davidson, *supra* note 103, at 19.

173. *Top-down Failure*, *supra* note 170, at 12.

174. Abken, *supra* note 14, at 19; Darby, *supra* note 8, at 5; Loomis, *supra* note 8, at 42; GAO REPORT, *supra* note 6, at 14.

175. Darby, *supra* note 8, at 19; Hansell & Muehring, *supra* note 6, at 61.

tiveness of the regulated country's firms, they also leave unchanged any risk of system-wide failure.<sup>176</sup>

6. *Companies have market motivations to control derivatives.* A rather important fact in the derivatives debate is often overlooked: it is in each firm's own interest not to lose money on derivatives. The risks associated with derivatives and the recent headlines announcing derivatives losses have forced dealers to maintain very high credit ratings in order to attract business. Consequently, the market has been able to limit derivatives activity to those firms with the least likelihood of default.

7. *Regulators like the status quo.* While they would like to see companies disclose more about their derivatives activities, federal banking and securities regulators believe the current regulatory framework is adequate and no new legislation is necessary to control derivatives.<sup>177</sup>

### C. Recommendations for the Ideal International Regulatory Scheme

The most drastic changes to derivatives regulation should be directed at the accounting rules concerning derivatives. New accounting standards should be adopted which will give investors, market participants, and regulators more reliable information on the extent to which firms use OTC derivatives and the risks associated with those instruments. Such standards would allow the market to better regulate derivatives activities.

176. Robyn Meredith, *Regulators Oppose Derivatives Bill, Saying Oversight Is Already Adequate*, AM. BANKER, July 13, 1994, at 3 (noting that the Comptroller of the Currency, Eugene A. Ludwig, found that the shifting of the derivatives market offshore "doesn't necessarily reduce the worldwide risk, it just moves it out of the U.S.").

177. Meredith, *supra* note 176, at 3 (quoting the Comptroller of the Currency who claims that regulators already have sufficient authority to deal with derivatives and that inflexible statutory requirements could hurt the regulator's ability to adjust to a dynamic market); James A. Leach, *Laissez Faire on Derivatives*, NAT'L MORTGAGE NEWS, Nov. 21, 1994, at 4 (lamenting that regulator's position of no legislation has continued to gain strength); *LaWare Reiterates Stand on Derivatives Rules*, *supra* note 12, at 22 (noting that Federal Reserve Board Governor John LaWare has consistently come out against new derivatives legislation); *Derivatives Do Not Increase Volatility or Present More Risk, Swap Dealers Say*, BNA'S BANKING REPORT, Oct. 31, 1994, at 651 (asserting that regulators have a better understanding of derivatives and are confident that the current regulatory framework is adequate); Gene Ramos, *Congress Not Seen Curbing Derivatives Via New Laws*, REUTERS EUR. BUS. REP., Dec. 9, 1994, available in LEXIS, Nexis Library, REUEUB File (explaining that federal regulators, along with the financial industry, believe existing regulation is adequate).

While fears of systemic risk may convince some of the need for an immediate regulatory crackdown, a drastic increase in OTC derivatives regulation is not a prudent course of action at present. Because derivatives may actually decrease systemic risk, sudden regulatory changes could make matters worse. Instead, derivatives dealers and regulators should jointly formulate standards of good business practices in the derivatives industry.<sup>178</sup> Although such self-regulation will not force dealers to comply with these standards, end-users will be reluctant to arrange derivatives transactions through dealers who do not follow good industry practices. The recent reports of the riskiness and dangers associated with derivatives will convince end-users to seek out the most solid, reliable firms to act as dealers.

If regulatory agencies feel that derivatives dealers' behavior under this self-regulation is inappropriate, the agencies can inform the firm, and the investing public, that things need to improve. The derivatives industry, even more than other financial products industries, is so highly dependent on client confidence that such a warning from regulators can be a powerful enforcement tool.<sup>179</sup> In addition, derivatives dealers should be informed that if self-regulation does not work, stiff new regulations will be the next step. The threat of additional regulation will be another powerful reason for derivatives dealers to keep their derivatives under control. If self-regulation, regulatory warnings, and threats of regulation are not effective, regulators are in no worse a position to formulate mandatory standards than they were before implementing the self-regulation.

What of the massive losses of entities like Procter & Gamble, Metallgesellschaft, Orange County, and Barings Bank? It is arguable that the highly publicized losses from derivatives have resulted not from any inherent danger associated with OTC derivatives, but with poor management practices. The risks associated with derivatives are no different from those encountered in the underlying securities, rates, or indices. In fact, most firms that deal in derivatives have much higher credit risks from more conventional financial instruments.<sup>180</sup>

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178. Thomas A. Russo, *Let Wall St. Handle Derivatives Rules*, N.Y. TIMES, May 15, 1994, § 3, at 13.

179. *Id.*

180. See *supra* note 167 and accompanying text.

## V. CONCLUSION

In the final analysis, OTC derivative instruments are not as spooky as they may first appear. Derivatives pose the same risks that are associated with more common financial instruments, and derivatives activities are far less perilous than many traditional financial activities. The thought of a system-wide financial failure is frightening, but no one really knows how realistic systemic risk is or what part OTC derivatives might play in such risk. The benefits of derivative instruments, on the other hand, are much more identifiable. Derivatives are an inexpensive way for companies to decrease transaction costs, manage market risks, increase returns, and decrease financing costs. In fact, some evidence suggests that derivatives have stabilized financial markets in the past and may serve to decrease systemic risk in the future. These benefits make derivative instruments important tools in the global financial markets.

Current accounting standards need to be revised to more accurately reflect firms' involvement with derivative instruments. But no additional regulation is appropriate at this time. Instead, regulators and derivatives dealers should jointly set good business practices to be followed in the derivatives industry. This solution recognizes that derivatives dealers have enormous market motivations to control their derivatives risks and that regulators feel the present regulation of derivatives is sufficient. Self regulation, along with warnings from regulatory agencies and possible threats of stricter regulation, should be adequate to control derivatives markets. If self regulation fails, regulators are still free to formulate additional derivatives regulation with the added benefit of better information on the correlation between derivatives and systemic risks.

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