

“CONFEDERATE BONDS,” “GENERAL CUSTER,” AND THE REGULATION OF DERIVATIVE FINANCIAL INSTRUMENTS

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The phenomenal growth¹ of derivative financial instruments² has sparked a near revolution in finance.³ These instruments take

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¹ “Only three years into the decade, the 1990s are already being dubbed the Decade of Derivatives.” Tracy Corrigan, *Moving on to Centre Stage*, FIN. TIMES (Survey), Oct. 20, 1993, at 1. “Derivative financial instruments make up one of the fastest growing financial markets in the world.” CONGRESSIONAL RESEARCH SERVICE, SUBCOMMITTEE ON TELECOMMUNICATIONS AND FINANCE OF THE HOUSE COMMITTEE ON ENERGY AND COMMERCE, 103D CONG., 1ST SESS., REPORT ON DERIVATIVE FINANCIAL MARKETS 15, (Comm. Print 1993) [hereinafter CONGRESSIONAL RESEARCH SERVICE REPORT]. “More capital changes hands as a result of futures contracts than for any other reason. The dollar value of the world’s annual turnover in futures contracts is at least ten times that of the combined annual turnover of the world’s stock exchanges, and is growing.” EDWARD J. SWAN, THE DEVELOPMENT OF THE LAW OF FINANCIAL SERVICES 1 (1993). Financial derivatives traded in the over-the-counter market are valued at more than \$12 trillion. Steven Lipin, *GAO Study Seeking Stricter Controls on Derivatives Draws Industry Fire*, WALL ST. J., May 19, 1994, at B7. Derivatives are “[n]ow a \$35 [t]rillion [m]arket.” Randall Smith & Steven Lipin, *Beleaguered Giant: As Derivatives Losses Rise, Industry Fights To Avert Regulation*, WALL ST. J., Aug. 25, 1994, at A1. This is the face value of the instruments. The actual risk exposure to the firms dealing in these instruments, however, is actually much less because of offsetting interests and obligations. *Id.*

² A derivative instrument has been defined as “any contract, the value of which fluctuates according to the value of an underlying commodity or group of commodities.” SWAN, *supra* note 1, at 2. Another report states that “a derivative transaction is a contract . . . whose value depends on (or ‘derives’ from) the value of an underlying asset, reference rate, or index.” GROUP OF THIRTY, DERIVATIVES: PRACTICES AND PRINCIPLES 2 (July 1993) [hereinafter GROUP OF THIRTY REPORT].

³ A House committee minority report prepared for Representative James A. Leach has stated that derivative instruments “allow end-users, such as banks and corporations, to, among other things, manage interest rate risks, currency risks, liquidity . . . provide cost savings on debt issuance,” and manage assets and liabilities in a more efficient and cost-objective manner. HOUSE BANKING COMMITTEE MINORITY STAFF, REPORT ON FINANCIAL DERIVATIVES (PART 1) 3 (Nov. 1993) [hereinafter LEACH REPORT]. New accounting standards are encouraging the development of derivative instruments because they require securities held for trading to be marked-to-market. This subjects institutions holding those securities to the dangers of fluctuations in interest rates for long term instruments. Laurie Morse, *A Two-Pronged Development*, FIN. TIMES (Survey), Oct. 20, 1993, at II. Increases in exchange rate volatility and the crisis in the European rate mechanisms have further encouraged derivatives trading development. James Blitz, *Currency Products, ERM Crises Quicken Activity*, FIN. TIMES (Survey), Oct. 20, 1993, at IV.

The British Government has found derivative style instruments to be of benefit. Margaret Thatcher’s government used indexed gilt edged securities with a return that

many forms and come in literally hundreds of varieties.⁴ Some, such as commodity futures and options, are heavily regulated when they are traded on organized exchanges.⁵ Other derivatives, particularly those traded over-the-counter, are subject to little regulation.⁶ Included on the list of unregulated derivatives are swap

was based on an inflation index. These bonds have been preceded by the so-called "Granny" indexed bonds issued by the British Labour government and which were index linked. The Granny indexed bonds were limited to people above retirement age. NIGEL LAWSON, *THE VIEW FROM NO. 11* 114-17 (1993). Large investment flows into Latin America in recent years have additionally fueled expansion of derivative trading. Antonia Sharpe, *Survey of Latin American Finance*, FIN. TIMES, April 11, 1994, at VIII. The World Bank has also endorsed the use of derivatives in a five billion dollar program of structured securities and currencies. See generally Michael R. Sesit, *Australians Look to Go Global With Individual-Stock Futures*, WALL ST. J., May 16, 1994, at C1 (new futures contracts are being offered on individual stocks); *Of Votes and Volatility, How a GDP Derivative, Once Invented, Could Protect Your Salary*, THE ECONOMIST, May 14, 1994, at 86 (wider use of derivatives advocated).

⁴ The Comptroller of the Currency has found that more than 1200 financial derivative products are currently being offered. These include such things as "harmful warrants," "worthless warrants," "death-backed bonds," "limbos," and "heaven and hell bonds . . ." Albert R. Karr, *Bank Regulator Signals Move On Derivatives*, WALL ST. J., Apr. 21, 1994, at A3. See also Lee Berton, *SEC Is Seeking Data on Firms' Derivative Risk*, WALL ST. J., May 24, 1994, at C1. For a general discussion of over-the-counter derivatives, see *Forum, The Future of Derivatives*, INSTITUTIONAL INVESTOR, Nov. 1991, at 1); *Derivatives, Ever More Complex*, FIN. TIMES, Dec. 8, 1992, section III; A GUIDE TO THE DERIVATIVES MARKET (Joe Kolman ed., 1994). Over-the-counter derivatives include swaps, options, inverse floaters, caps, floors, collars, swaptions, embedded options, synthetic indexing, synthetic stocks, barrier options, best-of-two-options, down-and-out options, floors, ceilings, deferred stop or deferred start options, lateral options, look back options, performance options, and exploding options, among others. Elayne Sheridan, *FCMs Capitalize on OTC Business*, FUTURES INDUSTRY, Nov./Dec. 1993, at 26, 29. For a definition of some of these instruments, see *Meaningful Expressions*, FIN. TIMES (Survey), Oct. 20, 1993, at XII; *International Banking* (Survey), THE ECONOMIST, Apr. 30, 1994, at 3, 4; Jerry W. Markham and David J. Gilberg, *Federal Regulation of Bank Activities in the Commodities Markets*, 39 BUS. LAW. 1719 (1984).

The development of derivative products continues apace. In March of 1994, Lazard Freres and Credit Agricole of France announced a joint venture to market derivatives. Among the transactions proposed are swaps in which company A would borrow money to acquire company B. Interest payments would be based on the profits of company B, the acquired company. Another example involves an arrangement in which company A held a stake in company B. Company A would receive payments in the event that the value of the stock of company B went down. Conversely, if the stock went up, the payments in such an amount would have to be made to the derivative joint venture. Saul Hansell, *Lazard Finds Brawny Ally for Derivatives*, N.Y. TIMES, Mar. 22, 1994, at D1, D9.

⁵ See generally Jerry W. Markham & Kyra K. Bergin, *Customer Rights Under the Commodity Exchange Act*, 37 VAND. L. REV. 1299 (1984); Jerry W. Markham, *The Commodity Exchange Monopoly—Reform Is Needed*, 48 WASH. & LEE L. REV. 977 (1991). New innovations also continue on the regulated markets. See, e.g., Michael R. Sesit, *New Derivative for Wall Street: Amex Lists Hong Kong Options*, WALL ST. J., May 3, 1994, at C1.

⁶ One Report noted:

It is commonly said that the market in over-the-counter derivatives is unregulated. Compared to the exchange-period derivative market, this

transactions.⁷ The swaps market alone is equal in size to the regulated markets with which it competes.⁸ The lack of regulation over such a large financial market and the losses suffered by some large firms in recent months have raised concerns that regulation may be needed.⁹ Numerous private and governmental studies have sug-

is true. The futures and options exchanges operate under the scrutiny of a regulatory agency—the CFTC and the SEC—with broad authority to monitor transactions, to require registration and financial disclosure of market position, to establish and enforce rules of conduct and financial standards, and to intervene directly in the marketplace, if need be, to maintain fair and orderly trading. There is no such overarching regulatory structure in the over-the-counter market.

CONGRESSIONAL RESEARCH SERVICE REPORT, *supra* note 1, at 17 (footnote omitted). The international currency markets, which often involve derivative transactions and which are the largest and most active financial markets in the world, are also largely unregulated. *Id.* at 12. The daily turnover in that market is estimated to be approximately \$1 trillion. *Foreign Exchange Unsettling*, THE ECONOMIST, May 7, 1994, at 88.

⁷ Swap transactions generally involve an exchange of cash flows, as, for example, where one party swaps a fixed interest rate payment obligation for a floating rate or one currency for another. The parties do not exchange the underlying loan or payment obligation. Rather, they swap the difference in the payments they are obligated to make. See generally Schulyer K. Henderson, *An Analysis of Interest Rate and Currency Swaps*, 11 N.C. J. INT'L L. & COMM. REG. 497 (1986); Henry T.C. Hu, *Swaps, The Modern Process of Financial Innovation and the Vulnerability of the Regulatory Paradigm*, 138 U. PA. L. REV. 333 (1989); Lauren S. Klett, Comment, *Oil-Price Swaps: Should These Innovative Financial Instruments be Subject to Regulation by the Commodity Futures Trading Commission or the Securities and Exchange Commission*, 93 DICK. L. REV. 367 (1989); Mark D. Young and William L. Stein, *Swap Transactions Under The Commodity Exchange Act: Is Congressional Action needed?* 76 GEO. L. REV. 1917 (1988).

Innovations in swaps continues. Airlines, for example, have been using swap transactions in jet fuel by using fixed and floating rate price swaps in order to reduce their jet fuel bills, which constitute a substantial percentage of their operating costs. Deborah Hargeaves, *Commodity Products, Cutting Raw Material Risks*, FIN. TIMES (Survey), Oct. 20, 1993, at V. Even governments find swap transactions useful. See, e.g., Thomas T. Vogel, Jr., *US Treasury, FED Create Facility to Support Peso*, WALL ST. J., Mar. 25, 1994, at A4 (United States government establishes a swap facility to support the Mexican peso after the assassination of their country's leading presidential candidate).

⁸ The notional amount of the swaps market has been estimated to be \$4 trillion at the end of 1991. William T. Maitland & Jerry W. Markham, *CFTC Rules to Provide Legal Certainty for OTC Products*, FUTURES INDUSTRY MAG., Nov./Dec. 1992, at 20, 22. See also *Papering Over the Cracks*, FUTURES & OPTIONS WORLD DIRECTORY & REVIEW, 1994, at 35.

⁹ See, e.g., *Derivatives, The Beauty in the Beast*, THE ECONOMIST, May 14, 1994, at 21; *International Banking (Survey)*, THE ECONOMIST, Apr. 30, 1994, at 3, 40; Steven Lipin & Anita Raghavan, *GAO to Join Hot Debate on Derivatives*, WALL ST. J., May 18, 1994, at C1; George Melloan, *Whitewater, Derivatives and the Urge to Regulate*, WALL ST. J., Mar. 14, 1994, at A15. A warning cry was sounded by the President of the Federal Reserve Bank of New York in January of 1992. He stated that "the growth and complexity of all types of balance sheet activities and the nature of the credit, price equivalent which they entail should give us all cause for concern." Kevin Muehring, *Who Do You Trust*, INSTITUTIONAL INVESTOR, May 1992, at 73.

Regulators had begun to downplay fears over risk from derivatives before the interest rate jumps in the first quarter of 1994, but concern remained that a

gested improvements in balance sheet disclosures and some additional regulatory monitoring. Few of these reports advocate any stringent regulatory controls or even a unified regulatory approach.¹⁰ Yet, all seem to recognize that these instruments can pose a serious threat to the world's financial systems.¹¹ This article will explore the growth and development of unregulated over-the-

"meltdown" could occur. Saul Hansell, *Regulators Mute Their Fears Over Derivatives*, N.Y. TIMES, Feb. 28, 1994, at D5 [hereinafter Hansell, *Regulators Mute*]. After a number of losses occurred in derivatives, Congressional hearings were held. See, e.g., Saul Hansell, *House Bill on Derivatives Introduced*, N.Y. TIMES, May 27, 1994, at C11 [hereinafter Hansell, *House Bill*]; Saul Hansell, *Derivatives Get a Key Supporter*, N.Y. TIMES, May 26, 1994, at C1 [hereinafter Hansell, *Key Supporter*]; Saul Hansell, *Panel Is Told Derivatives Are No Cause for Alarm*, N.Y. TIMES, May 11, 1994, at D1 [hereinafter Hansell, *Panel*]; Kenneth H. Bacon & Greg Hitt, *Derivatives Face New Regulation From Congress*, WALL ST. J., May 11, 1994, at A4. The Chairman of the House Banking Committee set hearings on derivatives in order to see if speculators were using derivatives to "engage in casino like gambling activities." Lyle Crowley, *George Soros*, N.Y. TIMES MAG., Apr. 3, 1994, at 26, 29.

One Congressman stated that:

[T]he multitrillion dollar derivatives activities of the 10 largest American commercial banks alone amount to double the annual GNP of the United States which, in turn, is more money than all the money in the world. If this doesn't define a pyramidal house of cards - particularly in the event of a market shock sparked abroad by warmongers or at home by private sector speculators or public pandering protectionists - what does?

140 CONG. REC. H73-01 (1994) (remarks of Rep. Leach). Another Congressman was even more colorful:

The threat is not from foreign competition, or Government deficits or regulation. It is from Wall Street, and a new form of sophisticated financial bingo called derivatives. Even Fortune magazine—hardly a carping business critic—is warning that derivatives could swamp our economy in a sea of red ink.

Fortune estimates the new derivatives game at some \$16 trillion, which is more than twice our Nation's total economic output. A single default, the magazine said, could ignite a chain reaction that runs rampant through the financial markets. "Inevitably, that would put deposit insurance funds, and the taxpayers behind it, at risk."

That is a risk that Congress must not permit. Already the taxpayers of this country are footing the bill for the \$500 billion bailout of the savings and loan industry. A gang of financial high-fliers tried to get rich quick on junk bonds and inflated real estate loans, and the taxpayers had to clean up the mess. Congress learned a lesson, or should have, at least.

140 CONG. REC. S5828-04, S5837 (1994) (remarks of Rep. Dorgan). The FORTUNE magazine article referred to by Congressman Dorgan is Carol J. Loomis, *The Risk That Won't Go Away*, FORTUNE, Mar. 7, 1994, at 40. See generally *Flexible Options Play Blamed For Dow Rally*, FIN. TIMES, Sept. 1, 1994, at 21.

¹⁰ These reports are discussed *infra* notes 137-62 and accompanying text.

¹¹ The LEACH REPORT, *supra* note 3, was the most aggressive of the reports. It made thirty recommendations on improvements needed in the regulation of these instruments. *Id.*

counter derivative financial instruments, and it will suggest a methodology for imposing a regulatory system over these still untested instruments.

The first part of this article explores the history and background of derivative instruments, and it reviews the considerations that led Congress to regulate many forms of these products. The second part of the article turns to the growth of the new unregulated financial instruments and describes some of the regulatory concerns they have raised. The article then focuses on the regulatory approaches that have been considered to date, some of which are as complicated as the instruments they seek to regulate. Finally, the article proposes a regulatory program that will guard against undue exposure from derivative transactions without unduly restricting the growth and operation of this very important financial market.

I. THE ORIGIN OF DERIVATIVE INSTRUMENTS

Historians have traced transactions in derivative instruments to 2000 B.C.¹² Yet, in the United States, futures style contracts were slow to develop.¹³ The State of Massachusetts Bay did issue some derivative instruments that appear to contain a crude form of cost of living index. One such instrument was a two year note for three hundred seventy pounds at six percent to be paid in currency "in a greater or less Sum, according as Five Bushels of CORN for, Sixty-

¹² This trading occurred on Bahrain Island. FUTURES INDUSTRY ASSOCIATION, AN INTRODUCTION TO THE FUTURES MARKETS 2 (1984). Edward J. Swan at the University of London has also discovered that commodity contracts with elements of future delivery were traded nearly four thousand years ago in ancient Mesopotamia. SWAN, *supra* note 1, at 2. The precursor of modern exchanges and current regulations has also been traced by Mr. Swan to the 12th century markets of Venice. *Id.* at 48-49. Mr. Swan also found futures contracts as early as 1275 in England. SWAN, *supra* note 1, at 62.

Another article states that: "Regulated commodity markets existed in China, Egypt, Arabia and India as early as 1200 B.C. However, modern day exchanges dealing in commodity futures can more readily be traced to the medieval trade fairs of Twelfth Century Europe." Ed Jones & John F. Cook, II, *The Commodity Futures Trading Commission Act of 1974*, 5 MEM. ST. U. L. REV. 457, 458 (1975).

Interestingly, the Greek and Roman civilizations seemed to have had an aversion to futures contracts. SWAN, *supra* note 1, at 26-29. Nevertheless, Roman law did form the basis for the legal recognition of these contracts. *Id.* at 30-33. Commodity futures trading was occurring in Amsterdam by the 1600s. *Id.* Futures trading in rice "tickets" was also occurring in Japan during the eighteenth century. CHICAGO BOARD OF TRADE, COMMODITY TRADING MANUAL 2 (1982).

¹³ Talleyrand was speculating in futures contracts as early as 1790, when he was in exile in America. SIMON SCHAMA, *CITIZENS: A CHRONICLE OF THE FRENCH REVOLUTION* 868 (1989).

eight Pounds and four-seventh Parts of a Pound. of BEEF, Ten Pounds of SHEEPS WOOL, and Sixteen Pounds of SOLE LEATHER shall then cost, more or less than *One Hundred and Thirty Pounds* current Money, at the then current Prices of said Articles."¹⁴ Nevertheless, it was not until the middle of the eighteenth century that a fully functioning futures market was established in Chicago.¹⁵ The bulk of the trading in futures contracts occurred

¹⁴ The note stated more fully that Massachusetts would pay: the Sum of Three hundred seventy Pounds with Interest at *Six per Cent*, per Annum: Both Principal and Interest to be paid in the then current Money of said State, in a greater or less Sum, according as Five Bushels of CORN, Sixty-eight Pounds and four-seventh Parts of a Pound of BEEF, Ten Pounds of SHEEPS WOOL, and Sixteen Pounds of SOLE LEATHER shall then cost, more or less than *One Hundred and Thirty Pounds* current Money, at the then current Prices of said Articles—This Sum being Thirty-two Times and an Half what the same Quantities of the same Articles would cost at the Prices affixed to them in a Law of this State made in the Year of our Lord One Thousand Seven Hundred and Seventy-seven, intituled, "*An Act to prevent Monopoly and Oppression.*" The current prices of said Articles, and the consequent Value of every Pound of the Sum herein promised, to be determined agreeable to a LAW of this State, intituled, "An ACT to provide for the Security and Payment of the Balances that may appear to be due by Virtue of a Resolution of the General Assembly of the Sixth of February One Thousand Seven Hundred and Seventy-nine, to this State's Quota of the CONTINENTAL ARMY, agreeable to the Recommendation of CONGRESS, and for supplying the Treasury with a Sum of Money for that Purpose."

WILLIAM G. ANDERSON, *THE PRICE OF LIBERTY: THE PUBLIC DEBT OF THE AMERICAN REVOLUTION* 135 (1983). These notes were issued to pay Massachusetts troops and were the result of runaway inflation. *Id.* at 24. The United States government entered into a loan arrangement in 1777 with the Farmers General in France pursuant to which the United States borrowed livres tournois and repaid those funds in tobacco. *Id.* at 4. Virginia also issued quartermaster general's certificates that were payable in specie or tobacco as adjusted for depreciation. *Id.* at 95, 168.

One of America's first financial scandals involved futures trading in securities. William Duer, a prominent financier and Revolutionary War figure, was bankrupted in 1792 after he engaged in massive speculations in the debt of the United States and stock of the Bank of the United States and the Bank of New York. He and an accomplice, Alexander Macomb, entered into contracts for the future delivery of those securities, which triggered a speculative frenzy. The speculation eventually failed, resulting in America's first financial panic. Duer was jailed, and he died in debtor's prison. STANLEY ELKINS & ERIC MCKITRICK, *THE AGE OF FEDERALISM* 278-79 (1993).

¹⁵ Modern futures trading stems from the grain marketing problems that occurred in the midwest during the early 1800s. CHICAGO BOARD OF TRADE, *COMMODITY TRADING MANUAL* 3-4 (1982). Prior to the development of futures trading, the Chicago markets were flooded with grain at harvest time, and prices would drop to levels below production costs. This devastated the farmers, and grain was left to rot in the streets. Later, prices would skyrocket as surpluses were consumed. WILLIAM CRONON, *NATURE'S METROPOLIS: CHICAGO AND THE GREAT WEST* 123-25 (1991). To even out this boom and bust cycle, so-called "forward" contracts were developed in which grain was sold for delivery at a future date. These were quite similar to the "to arrive" contracts that had been previously used in England, and which involved goods that

initially on the Board of Trade of the City of Chicago.¹⁶

The futures contract traded on the Chicago Board of Trade was a true derivative product. The futures contract's price and function was based upon the value of another item—usually an agricultural commodity. These were not, however, the only derivative instruments that existed in the United States at the middle of the nineteenth century. In fact, the Civil War saw the development of a derivative instrument whose complexity and financial elegance matches anything that exists today on Wall Street. This was the so-called Erlanger bond that was issued in Europe by Emile Erlanger & Cie. and J. Henry Schroder & Co. for the Confederate States of America.

The Erlanger bond was a tri-valued derivative instrument. One such bond provided for payment at maturity of 100 pounds sterling, 2500 French francs, or 4000 pounds of cotton, at the purchaser's option. These bonds also came in tri-value denominations of 500 pounds sterling, 1250 French francs, or 20,000 pounds of cotton.¹⁷

were being shipped. The goods could be sold even while they were afloat through the use of negotiable bills of lading. Title was passed, but the goods arrived at a later date. SWAN, *supra* note 1, at 92.

The forward contract allowed farmers and middlemen to develop storage facilities because the grain no longer needed to be brought to market at harvest time. Alexander Belozertsev & Jerry W. Markham, *Commodity Exchanges and the Privatization of the Agricultural Sector in the Commonwealth of Independent States—Needed Steps in Creating a Market Economy*, 55 LAW & CONTEMP. PROBS. 119, 135 (1992); CHICAGO BOARD OF TRADE, COMMODITY TRADING MANUAL 3-4 (1982); Jones & Cook, *supra* note 12, at 459.

By the close of the Civil War, forward contracts had evolved into what we now know as futures contracts. This occurred when the terms of the contracts were standardized, with the grade of the commodity and delivery date becoming uniform. The only item negotiated was price. With contract uniformity, traders could offset positions and could more easily speculate in the prices of commodities. 2 FEDERAL TRADE COMMISSION, REPORT ON THE GRAIN TRADE 107-10 (1920). This allowed the development of our modern grain distribution system, which permits producers and users of commodities to hedge against price changes. Futures contracts also perform a price discovery function. Wendy Collins Perdue, *Manipulation of Futures Markets: Redefining the Offense*, 56 FORDHAM L. REV. 345, 349-52 (1987); Note, *Federal Regulation of Commodity Futures Trading*, 60 YALE L.J. 822, 825-30 (1951).

¹⁶ Abuses on the Board of Trade soon arose, and this had led to a legacy of concern with the regulation of these instruments. It was said that, by the late 1860s, there was a corner a month on that exchange. There was also concern that traders were driving commodity prices down below production cost levels. This, in part, spurred the populist movement in the United States during the late 1800s. Jerry W. Markham, *Manipulation of Commodity Futures Prices —The Unprosecutable Crime*, 8 YALE J. ON REG. 281, 288-92 (1991).

¹⁷ The face of the Erlanger Bond stated, in part, that:

The Holder of the Bond . . . will have the option of converting the same at its nominal amount into Cotton, at the rate of sixpence sterling per pound - say 4,000 lbs. of Cotton in exchange for a Bond of 100

The Erlanger bond, in effect, allowed a purchaser to speculate on the price relationships among pounds sterling, French francs and the price of cotton.¹⁸ The "play" was that the purchaser would receive the benefits of the commodity that exceeded the value of their two counterparts. The purchaser was also speculating on the success of the Confederacy, as the option could not be exercised until six months after the conclusion of a peace treaty to end the Civil War.¹⁹

Still another Confederate bond provided for the Treasury of the Confederate States to pay principal and interest in either cash or cotton.²⁰ Interest coupons were attached to these bonds for payment in Confederate dollars or New Orleans Middling Grade Cotton. Here, however, the derivative function worked against the purchaser because the Confederate States could choose to pay the lesser of the two valued items. Perhaps evidencing the dangers of derivative instruments, the default risk on these cotton bonds proved to be quite high.

Trading in "privileges," "puts and calls," and "price differences" also accompanied the speculation aroused by the Civil War. Traders in Chicago, for example, used privileges in their grain trading. For a fee, the purchaser was given the "privilege" or option to buy or sell grain at a specified price. In 1865, the Board of Trade prohibited such transactions because they were viewed to be gambling contracts. That bar was ineffective in stopping such trading, as were later efforts by the exchange, including one investiga-

[pounds] - at any time not later than six months after the ratification of a Treaty of Peace between the present belligerents. Notice of the intention of converting Bonds into Cotton to be given to the representatives of the Government in Paris or London, and sixty days after such notice the Cotton will be delivered, if peace, at the ports of Charleston, Savannah, Mobile, or New Orleans; if war, at a point in the interior within 10 miles of a railroad or stream navigable to the ocean. . . . The quality of the Cotton to be the standard of New Orleans middling. If any Cotton is of superior or inferior quality, the difference in value shall be settled by two Brokers, one to be appointed by the Government, the other by the Bondholder: whenever these two Brokers cannot agree on the value, an Umpire is to be chosen, whose decision shall be final.

7 Percent Cotton Loan *Confederate States of America*, COLLECTOR'S CATALOGUE No. C-118 (Author's Copy).

¹⁸ See Tim W. Ferguson, *Bank On It: Upheaval Breeds Derivatives*, WALL ST. J., Apr., 26, 1994, at A23.

¹⁹ Shelby Foote notes that this "transaction, though ostensibly a loan, was in fact little more than a scheme for large-scale speculation in cotton." 2 SHELBY FOOTE, *THE CIVIL WAR, A NARRATIVE, FREDERICKSBURG TO MERIDIAN* 156 (1963).

²⁰ *Confederate States of America, Loan Authorized by Act of Congress Approved April 30, 1863*, COLLECTORS CATALOGUE No. C-138 (Author's copy).

tion that involved a round-up of members and the use of private detectives. It was reported that the investigation had implicated half the members of the Board of Trade.²¹

Difference trading on price changes also became commonplace in the over-the-counter market. The states attempted to stop this trading through legislation that prohibited such contracts or made them unenforceable as gambling contracts.²² Still, difference trading was able to spread to the oil markets, including the Consolidated Stock and Petroleum Exchange in New York. Speculative transactions on that exchange exceeded those in railroad stocks until its operations were strangled by the Standard Oil Trust.²³

Difference trading also occurred in the securities markets. A speculator could "place a wager on a stock, in much the same way as he might bet on a prize fight or a horse race."²⁴ In one famous case, *Justh v. Holliday*,²⁵ a broker was denied enforcement of a note against a decedent's estate because the note had been given to cover losses from betting on price differences in stocks.²⁶ The surreptitious nature of the trading, and the fact that the decedent did not have the wherewithal to actually buy the stocks purportedly being traded, convinced the court that these were illegal gambling contracts. The decedent won that skirmish but lost a much bigger battle, and his life, only a few months after issuing this note. He was General George Armstrong Custer.²⁷

²¹ JERRY W. MARKHAM, *THE HISTORY OF COMMODITY FUTURES TRADING AND ITS REGULATION* 8-9 (1987); JONATHAN LURIE, *THE CHICAGO BOARD OF TRADE 1859-1905* 41-44 (1979).

²² Edward J. Swan, *United States: The Rise & Decline of Futures Trading in America*, 1994 *FUTURES & DERIVATIVES L. REV.* 3, 12. See generally THOMAS DEWEY, *A TREATISE ON CONTRACTS FOR FUTURE DELIVERY AND COMMERCIAL WAGERS INCLUDING "OPTIONS," "FUTURES," AND "SHORT SALES"* (1886) [hereinafter DEWEY, *A TREATISE*]; THOMAS DEWEY, *LEGISLATION AGAINST SPECULATION AND GAMBLING IN THE FORMS OF TRADE* (1905) [hereinafter DEWEY, *LEGISLATION*]; JOHN DOS PASSOS, *A TREATISE ON THE LAW OF STOCK-BROKERS AND STOCK-EXCHANGES* 409-55 (1882).

²³ DANIEL YERGIN, *THE PRIZE: THE EPIC QUEST FOR OIL, MONEY, AND POWER* 33-34, 53 (1991).

²⁴ ROBERT SOBEL, *THE CURBSTONE BROKERS: THE ORIGINS OF THE AMERICAN STOCK EXCHANGE* 67 (1970).

²⁵ 13 D.C. (2 Mackay) 346 (1883).

²⁶ See generally Walter F. Pratt, Jr., *American Contract Law at the Turn of the Century*, 39 *S.C. L. REV.* 415, 452 n.125 (1988).

²⁷ See generally EVAN S. CONNELL, *THE SON OF THE MORNING STAR, CUSTER AND THE LITTLE BIG HORN* (1984).

Betting on price differences on commodity prices had a revival in the securities markets in the 1980s. Large advertisements were placed in the *FIN. TIMES* in London by bookmakers that sought punters willing to gamble on commodity price changes:

With us, instead of buying or selling commodity futures direct, you sim-

Other exotica were sold to the public such as "puts," "calls," and "straddles."²⁸ In 1880, a New York court reviewed a case where "a lady living in the country, ventured upon a speculation in stocks, and lost her money."²⁹ In this transaction, the parties agreed to a sixty day straddle in which the plaintiff was given the option to buy or sell 100 shares of stock at a specified price. The defendant also agreed to guarantee that there would be a minimum fluctuation in the stock price of eight percent. If not, the defendant agreed to return its commissions and the cost of the contract to the plaintiff.³⁰ The plaintiff was allowed to recover despite the broker's

ply make a wager that the particular commodity you are interested in will move either up or down in price.

* * * *

I.G. index runs book in all *commodity, currency and interest rate futures* quoted on the London, New York and Chicago Exchanges.

Commodity Investment Without Tax, FIN. TIMES, London, Mar. 2, 1982, at 20.

One Congressman has also charged that:

Derivatives are essentially a form of bet. Investors stake a position that interest rates, or the dollar, or commodities, or whatever, will rise or fall. Up to a point, this is simply a form of hedging risk. Banks and corporations have hedged in this manner for many years. . . .

But Wall Street passed the point of innocuous risk-protection long ago. Far from hedging risk, derivatives today have become a form of risk. Some nations define them as gambling, which is what they are. In the words of Henry Kaufman, the investment advisor, they mean that "more credit is available to people who may have no business getting it."

. . . .

Derivatives are the latest episode in a daisy chain of financial mismanagement, in which the bankers and financiers of this Nation have tried to cover their bad investments with worse ones.

140 CONG. REC. S5828-04, S5837 (1994) (statement of Rep. Dorgan).

²⁸ Straddles were also known as "spread-eagles." DOS PASSOS, *supra* note 22, at 445.

²⁹ *Harris v. Tumbridge*, 83 N.Y. 92, 95 (1880), *noted in* DOS PASSOS, *supra* note 22, at 171. The investor had been induced to invest as a result of the defendant's printed circular that "[o]f course . . . point out an easy and rapid road to wealth for any one who is careful in his choice of a broker. . . ." *Id.* at 95.

³⁰ The court stated that:

The plaintiff bought, through the agency of defendant, a stock option or privilege, known in the language of brokers as a 'straddle.' The word, if not elegant, is at least expressive. It means the double privilege of a 'put' and 'call;' and secures to the holder the right to demand of the seller at a certain price within a certain time a certain number of shares of specified stock, or require him to take, at the same price within the same time, the same shares of stock. . . . The value of a 'straddle,' it is proven, depends upon the fluctuations of the stock selected. The wider the range of these fluctuations, whether up or down, the greater the amount which may be realized; and of course the longer the option continues the greater the chance of such fluctuations during the period.

Id.

claim that it was an illegal gambling contract.³¹

Linked to difference trading and other such speculation were the so-called "bucket shops."³² These operations did not actually execute customer orders on an organized exchange. Instead, they simply took the customer's funds as a bet on future price changes. If the customer was wrong in his or her prediction of the direction of the price, the bucket shop operator would keep the customer's funds. If the customer won the bet, the bucket shop operator was supposed to pay the customer the winnings. Often in such cases, however, the bucket shop operators would simply disappear when the market moved adverse to their betting positions.³³ Neverthe-

³¹ *Id.* at 100. For other early derivative transaction cases, see, e.g., *Coopers v. Neil*, 13 Week. Notes 128 (1882), noted in *Dos Passos*, *supra* note 22, at 421 (trading in price differences on stocks listed on the New York Stock Exchange); *Bigelow v. Benedict*, 70 N.Y. 202 (1877) (put option for gold coins); *Pixley v. Boynton*, 79 Ill. 351 (1875) (privilege trading in wheat); *Kirkpatrick & Lyons v. Bonsall*, 72 Pa. 155 (1872) (call option for "good green merchantable crude petroleum"); *Lehman v. Strassberger*, 15 Fed. Cas. 254, 2 Woods 554 (N.D. Ala. 1875) (trading in cotton differences by Lehman Brothers); *Marshall v. Thruston*, noted in 10 *Cent. L.J.* 242 (Tenn. 1880) (speculations in future prices of Tennessee State Bonds); *In re Chandler*, noted in 13 *American L. Reg.* 311 (N.D. Ill. 1874) (put options in oats); *Cassard v. Hinmann*, 14 N.Y. 84 (N.Y. 1856) (difference trading in pork); *Grisewood v. Bain*, 20 Eng. L. & Eq. Rep. 290 (1852) (difference trading in railroad shares in London).

³² The Supreme Court has defined a bucket shop as:

an establishment, nominally for the transaction of a stock exchange business, or business of similar character, but really for the registration of bets, or wagers, usually for small accounts, on the rise or fall of the prices of stock, grain, oil, etc. There being no transfer or delivery of the stock or commodities nominally dealt in.

Gatewood v. North Carolina, 203 U.S. 531, 536 (1906). See also *United States v. Sanders*, 696 F. Supp. 327, 330 (N.D. Ill. 1988).

One author states, however, that the origin of the term bucket shop is uncertain:

[it] was first used in the late [18]70s, but it is very evident that it was coined in London as many as fifty years ago, when it had absolutely no reference to any species of speculation or gambling. It appears that beer swillers from the East Side (London) went from street to street with a bucket, draining every keg they came across and picking up cast-off cigar butts. Arriving at a den, they gathered for social amusement around a table and passed the bucket as a loving cup, each taking a "pull" as it came his way. In the interval there were smoking and rough jokes. The den soon came to be called a bucketshop. Later on the term was applied, both in England and the United States, as a by-word of reproach, to small places where grain and stock deals were counterfeited.

JOHN HILL, *GOLD BRICKS OF SPECULATION* 39 (1904). For a similar description, see SOBEL, *supra* note 24, at 62.

³³ One author has noted that a bucket shop was:

[A]n establishment where orders are taken, but are not placed. Mere bookkeeping entries may or may not be made, and the practical effect in the customers' attempt to place orders is that he simply bets his bucketing broker that a stock will rise or fall. The broker takes the opposite

less, the bucket shops flourished, first in the Midwest and later in New York,³⁴ where the "Consolidated Exchange, the second largest exchange in New York City and at one time the most powerful rival of the New York Stock Exchange, came to be regarded as a den of bucketeers."³⁵

The New York Stock Exchange acted to stop the bucket shops from dealing in its stocks by restricting access to its stock quotations.³⁶ The State of Illinois took more forceful action. In 1896, 281 persons were indicted under an Illinois anti-bucket shop act.³⁷ In 1900, two well known members of the Chicago Board of Trade were indicted for bucket shop activities by a federal grand jury, and federal prosecutions of bucket shops were conducted on a national basis in 1909.³⁸ For the most part, however, these and other efforts to stop the bucket shops, often by treating such trading as prohibited gambling, were unsuccessful.³⁹

side of the bet. . . . [I]f the stock has gone down after he has given the order to buy, the 'bucket shop' can without difficulty and with profit buy the stock at the then lower market price and deliver the stock, or the bucket shop can merely pay the customer. But if after a customer's order to buy the stock has gone up, and the customer decides to secure his profits, the 'bucket shop' then would either be unable to pay the customer what he had paid it or it would have to go in the market and buy it at a loss (that is at a higher price). There would be no funds for this unless the 'bucket shop' had unlimited resources, (which they never have) and the only opportunity the customer has to get his money back, would arise from the fact that the particular broker's customers whose accounts were larger in amount, had been on the other side of the market, that is to say, the customers had been selling.

1 WILLIAM HARMAN BLACK, *THE LAW OF STOCK EXCHANGES STOCK BROKERS & CUSTOMERS* 136 (1940). See generally ANN FABIAN, *CARD SHARPS, DREAM BOOKS, & BUCKET SHOPS: GAMBLING IN 19TH-CENTURY AMERICA* (1990); 2 FEDERAL TRADE COMMISSION, *REPORT ON THE GRAIN TRADE* 121-28 (1920); 5 FEDERAL TRADE COMMISSION, *REPORT ON THE GRAIN TRADE* 329 (1924); Note, *supra* note 15.

³⁴ SOBEL, *supra* note 24, at 61.

³⁵ M. Van Smith, *The Commodity Futures Commission and the Return of the Bucketeers: A Lesson in Regulatory Failure*, 57 N.D. L. REV. 7, 13 n.26 (1981).

³⁶ W.C. VAN ANTWERP, *THE STOCK EXCHANGE FROM WITHIN* 149 (1913). The New York Stock Exchange for many years afterward prohibited its members from dealing with anyone on the Consolidated Exchange and all communications with it were prohibited. "The president of the New York Stock Exchange admitted that the purpose of the rule is to drive the Consolidated out of business." REPORT OF THE COMMITTEE APPOINTED PURSUANT TO HOUSE RESOLUTIONS 429 AND 504 TO INVESTIGATE THE CONCENTRATION OF CONTROL OF MONEY AND CREDIT, H.R. REP. NO. 1593, 62d Cong., 3d Sess. 37 (1913).

³⁷ HILL, *supra* note 32, at 75 (1904). Bucket shops were also subject to criminal prosecution in New York. DOS PASSOS, *supra* note 22, at 687.

³⁸ 2 FEDERAL TRADE COMMISSION, *REPORT ON THE GRAIN TRADE* 125, 128 (1920).

³⁹ See generally DEWEY, *A TREATISE*, *supra* note 22; DEWEY, *LEGISLATION*, *supra* note 22; DOS PASSOS, *supra* note 22, at 406-10; Telford Taylor, *Trading in Commodity Futures—A New Standard of Legality?*, 43 YALE L.J. 63 (1933).

Like the New York Stock Exchange, the Chicago Board of Trade found that the bucket shops were threatening its operations.⁴⁰ The Board of Trade reacted strongly to that threat by embarking on an "antibucketshop crusade"⁴¹ that sought to stop these "monstrosities"⁴² by cutting off their use of the Board of Trade's price quotations, which the bucket shop operators needed to fuel their operations.⁴³ The Board of Trade's efforts were often frustrated by the courts⁴⁴ until 1905, when the Supreme Court⁴⁵ ruled in the exchange's favor against the "Bucketshop King," C.C. Christie.⁴⁶ That decision assured that the exchanges could control their price quotations, and this struck a "deathblow" to the bucket shops.⁴⁷

The crusade against the bucket shops set the foundation for the contract market monopoly that forms the linchpin of federal regulation over commodity futures and contracts, which were the

⁴⁰ The Chicago Open Board of Trade became a haven for the bucket shop operators. That exchange later became the MidAmerica Commodity Exchange, which was later taken over by the Chicago Board of Trade. MARKHAM, *supra* note 21, at 9-10 & n.14.

⁴¹ 2 FEDERAL TRADE COMMISSION, REPORT ON THE GRAIN TRADE 122 (1920).

⁴² *Id.* at 122, note 93.

⁴³ DEWEY, A TREATISE, *supra* note 22, at 33-35.

⁴⁴ See generally 2 FEDERAL TRADE COMMISSION, REPORT ON THE GRAIN TRADE 122-27 (1920).

⁴⁵ Board of Trade v. Christie Grain and Stock Co., 198 U.S. 243 (1905).

⁴⁶ HILL, *supra* note 32, at 68-73.

⁴⁷ JULIUS B. BAER & GEORGE P. WOODRUFF, COMMODITY EXCHANGES 162 (1929).

In *Board of Trade v. Christie Grain and Stock Co.*, the Supreme Court held that futures contracts are binding contracts and, therefore, cannot be regarded as "mere wagers." *Christie*, 198 U.S. at 250. The Court stated that commodity futures contracts create legally enforceable obligations regardless of whether they ultimately are liquidated without physical delivery taking place. The Court noted that a "setoff" is, in legal effect, a delivery. *Id.* at 248-50. *Cf.* Peto v. Howell, 117 F.2d 249 (7th Cir.), *cert. denied*, 313 U.S. 583 (1941). See also *Bibb v. Allen*, 149 U.S. 481 (1893); *Hansen v. Boyd*, 161 U.S. 397 (1886); William P. Rogers & Jerry W. Markham, *The Application of West Germany Statutes to United Commodity Futures Contracts: An Unnecessary Clash of Policies*, 19 L. & POL'Y IN INT'L BUS. 273, 280-83 (1987). Concerns are still raised, however, as to whether swaps and other derivatives can still be subject to the anti-gambling statutes of some countries such as France, Canada, and Japan. Laurie Morse, *Legal Issues, Quest For Definitive Answers*, FIN. TIMES (Survey), Oct. 20, 1993, at IV. China is also experiencing difficulties with bucket shops. Craig S. Smith, *China Moves To Rein In Futures Trading*, WALL ST. J., June 16, 1994, at A12.

In *Gatewood v. North Carolina*, a conviction was upheld under a state statute that sought to prevent dealing in futures by bucket shop operators. 203 U.S. 531, 543 (1906). In *Fauntleroy v. Lum*, however, the Supreme Court required the Mississippi courts to enforce a Missouri judgment that was based on losses from commodity futures trading. 210 U.S. 230, 238 (1908). Such transactions were void in Mississippi as gambling transactions, but not in Missouri.

predominant form of derivative trading until recent years.⁴⁸ The Commodity Exchange Act of 1936 thus prohibits domestic futures transactions that do not take place on a licensed contract market such as the Chicago Board of Trade.⁴⁹ Yet, it too did not prove to be completely successful.

Futures contracts traded on commodities that were not listed in the Commodity Exchange Act were not subject to the contract market trading requirement. As a result, Congress had to periodically amend the Commodity Exchange Act to add new commodities to the regulated list in that statute.⁵⁰ This amending

⁴⁸ Markham, *supra* note 5, at 979-84.

⁴⁹ 7 U.S.C. § 6 (1988). Abuses by the bucket shops and manipulative activities on the exchanges led to calls for federal legislation. That legislation did not materialize until 1921 even though there were over two hundred bills introduced between 1880 and 1920 that sought to regulate futures and options trading. Only one, the Hatch Bill, came close to passage, and it failed after a Conference reconciliation could not be approved before a Congressional recess. MARKHAM, *supra* note 21, at 10. See generally Swan, *supra* note 22, at 13, 22-23; Margaret M. Wilson, *The Attack on Options and Futures*, 1884-94 (1923) (unpublished Master of Arts thesis, University of Kansas). The Futures Trading Act was eventually enacted in 1921. 42 Stat. 187 (1921). That statute, however, was declared unconstitutional by the Supreme Court because it was improperly based on the taxation powers of the federal government. *Hill v. Wallace*, 259 U.S. 44, 71-72 (1922). This legislation was re-enacted in an almost identical form under the Congressional power to regulate interstate commerce, but was renamed as the Grain Futures Act. 42 Stat. 998 (1922). The new act was upheld by the Supreme Court. *Chicago Board of Trade v. Olsen*, 262 U.S. 1 (1923).

The Grain Futures Act soon proved to be ineffective. Markham, *supra* note 16, at 301-12. The speculative abuses of the 1920s led to a simultaneous call for legislation from President Franklin D. Roosevelt for both securities and commodities. HOUSE COMMITTEE ON AGRICULTURE, COMMODITY EXCHANGE ACT, H.R. REP. NO. 421, 74th Cong., 1st Sess. 2 (1935) (quoting letter from President Roosevelt to Chairman House Comm. on Interstate and Foreign Commerce (Mar. 26, 1934)). The commodity legislation was assigned to the agricultural committees, thereby creating a rift in the regulatory structure between futures contracts and securities. Jerry W. Markham, *Federal Regulation of Margin in the Commodity Futures Industry—History and Theory*, 64 TEMP. L. REV. 59, 70 (1991). The agricultural committees reported out legislation that became the Commodity Exchange Act of 1936—the legislation that governs the futures industry even today. 7 U.S.C. §§1-26 (1988). That Act strengthened federal regulation over the futures markets, but it carried forward the existing regulatory scheme of the Grain Futures Act that required futures contracts to be traded on licensed exchanges—"contract markets." 7 U.S.C. §§6, 6h (1988).

⁵⁰ As one Congressional report noted:

By . . . amendment of April 7, 1938, wool tops were added to the commodities subject to the act, and fats and oils, cottonseed, cottonseed meal, peanuts, soybeans, and soybean meal were added October 9, 1940. Wool (as distinguished from wool tops) was added on August 28, 1954, and the act was made applicable to onions on July 26, 1955. Public Law 85-839, approved August 28, 1958, prohibited futures trading in onions, effective September 27, 1958, but did not remove onions from the list of commodities covered by the Commodity Exchange Act. Effective June 18, 1968, the act was amended to include livestock and live-

legislation, however, fell far behind the rapid expansion of commodities trading in the late 1960s and early 1970s. Consequently, by the early 1970s, there were unregulated exchanges that were trading futures contracts on numerous commodities including precious metals, currencies, and the so-called "world" commodities, *e.g.*, coffee, sugar, and cocoa.⁵¹

Another more serious flaw in the Commodity Exchange Act involved its prohibition against commodity options trading, which had been banned because of the many abuses associated with those instruments.⁵² The same gap in the Commodity Exchange Act that allowed some futures exchanges to operate in an unregulated environment also allowed options trading on such commodities. This gap was discovered by unscrupulous operators in the early 1970s, leading to millions of dollars in customer losses before they were shut down by the Securities and Exchange Commission (SEC) and state securities commissions.⁵³

Congress reacted to these scandals and to the skyrocketing commodity prices that were being blamed on futures speculators by substantially amending the Commodity Exchange Act in 1974. This new legislation, the Commodity Futures Trading Commission Act (CFTCA) of 1974,⁵⁴ created a new five member commission

stock products Public Law 90-418, approved July 23, 1968, extended coverage of the act to frozen concentrated orange juice.

H.R. REP. NO. 975, 93d Cong., 2d Sess. 35 (1974).

⁵¹ *Id.*

⁵² 7 U.S.C. § 6c.

⁵³ Jerry W. Markham, *Regulation of Hybrid Instruments Under the Commodity Exchange Act: A Call for Alternatives* 1990 COLUM. BUS. L. REV. 1, 15.

Harold Goldstein, a young entrepreneur in California, discovered this flaw in the legislation. He began selling options on commodities that were not regulated under the Commodity Exchange Act. Starting with an American Express card and \$800, he soon developed an empire. In fact, his firm became the second largest brokerage firm in the United States within a short period of time. Jerry W. Markham & David J. Gilberg, *Stock And Commodity Options—Two Regulatory Approaches And Their Conflict*, 47 ALB. L. REV. 741, 760-61 (1983) (footnotes omitted). Goldstein, however, overlooked a serious flaw in his own operations. He did not hedge the options he was selling, and when commodity prices began to explode in the 1970's, his firm became bankrupt. *Id.*; see also Van Smith, *supra* note 35, at 8-9 (Goldstein's operations described as a classic bucket shop operation). Although the issue of whether commodity options were securities was uncertain, Goldstein was sued by the Securities and Exchange Commission and state securities commissions. Alan R. Bromberg, *Commodities Law and Securities Law—Overlaps and Preemption*, 1 J. CORP. L. 217, 256-57 (1976). They forced him and others who had copied his operation out of business or subjected them to such constraints that they could not operate on a large scale basis. Robert C. Lower, *The Regulation of Commodity Options*, 1978 DUKE L.J. 1095, 1107 (1978). Those actions, however, came too late. The failure of Goldstein's firm alone caused losses to investors exceeding \$80 million. Markham & Gilberg, *supra*, at 760-61.

⁵⁴ Pub. L. No. 93-463, 88 Stat. 1389 (1974).

similar in nature to the Securities and Exchange Commission, and this new commission was given expanded regulatory powers and enforcement sanctions.⁵⁵ The new act subjected all commodities of whatever kind to regulation under the Commodity Exchange Act.⁵⁶ The new Commission, the Commodity Futures Trading Commission (CFTC), was also given plenary authority to regulate commodity options.⁵⁷

Unfortunately, for Congress and many investors, a regulatory gap concerning commodity options remained in the legislation that had not been foreseen. This flaw should have been anticipated. In granting the CFTC exclusive jurisdiction over all commodity options trading, Congress preempted the regulatory proscriptions that had been imposed by the SEC and the state security commissions on the commodity option firms.⁵⁸ Those firms quickly sprang back to life. The results were some unbelievable scandals and far reaching investor losses.⁵⁹

The CFTC reacted by banning most commodity options, except for "commercial" options and certain so-called "dealer" options.⁶⁰ Later, it allowed commodity options trading on the exchanges where the regulatory net for futures transactions would be available.⁶¹

⁵⁵ 7 U.S.C. §§ 2(a), 9.

⁵⁶ 7 U.S.C. § 2.

⁵⁷ 7 U.S.C. § 6c.

⁵⁸ *Id.*

⁵⁹ These firms began selling what they dubbed "London" options. These were options on commodities that were allegedly being sold on the London markets. These firms advertised that such options were backed by clearinghouse guarantees so that the Goldstein debacle would not be repeated. In fact, these guarantees did not extend to individual customers and some of the London exchanges had no such guarantees, even though the default risk on those exchanges was slight. Markham & Gilberg, *supra* note 53, at 763-64.

One firm marketing these London commodity options expanded as rapidly as Goldstein's firm had in the pre-CFTC era. Its demise was equally spectacular. After some initial unsuccessful challenges against this firm, the CFTC finally was able to obtain an injunctive order against the fraudulent sales practices that were widespread by its sales personnel. The injunction did not halt those practices, however, and the owner of the firm was then arrested for contempt of court. It was then discovered that he was an escaped felon from a New Jersey prison. The result was customer losses in the millions from this firm and millions more were added by other fraudulent fly-by-night operations. *Id.* at 763. See generally Lower, *supra* note 53.

⁶⁰ These transactions involved commercial parties or firms that had sufficient capital that default concerns were obviated. MARKHAM, *supra* note 21, at 195-99.

⁶¹ Markham, *supra* note 53, at 16-17 (footnotes omitted).

This did not stop the CFTC's concern with over-the-counter derivative products. Soon after the demise of commodity options trading, firms began offering what were termed to be "forward" or "deferred delivery" contracts that were not subject to the Commodity Exchange Act. 7 U.S.C. § 2. These were historically deemed to be

The CFTC was understandably less enthusiastic toward the development of further over-the-counter derivative instruments. The agency was, however, given little breathing room after it finally put a stop to the fraudulent commodity option operations and their spin-offs. The CFTC faced battle on other fronts. The SEC, for example, had begun almost immediately after the creation of the CFTC to assault its exclusive jurisdiction that had been granted by Congress in 1974.⁶² In addition, Congress sowed further problems

equivalent to cash transactions, but the fly-by-night operators converted them into the equivalent of options. The CFTC responded with a number of enforcement actions against these new menaces and eventually gained control over their operations. The courts universally found these firms to be selling futures or prohibited commodity options contracts when they were being offered to the public. Markham, *supra* note 53, at 17-18 (footnotes omitted).

Confusing this muddled situation were the so-called leverage contracts being offered under the Commodity Exchange Act. These were essentially installment sales contracts for precious metals and coins. The SEC had brought a fraud action against the largest of these firms that were offering these contracts in California before the existence of the CFTC. *SEC v. Monex Int'l Ltd.*, (C.D. Cal 1974), described in SEC Litigation Release No. 6638 (Dec. 12, 1974). The CFTC was created in the middle of that litigation, and it was given exclusive jurisdiction over those contracts. There then began a running battle between the CFTC and the leverage merchant dealers that see-sawed back and forth for several years. Finally, the CFTC adopted such restrictive regulations that they were essentially killed. MARKHAM, *supra* note 21, at 179-92.

⁶² 7 U.S.C. § 2 (1988). The SEC was aided in its attack by the commodity options scandals. Nevertheless, the CFTC successfully fought off the SEC's jurisdiction in several battles before Congress. In 1982, the agencies sought to bury their differences by reaching a concordant known as the Shad/Johnson Accords, named after the chairmen of the two agencies. This agreement divided jurisdiction among derivative instruments between the SEC and the CFTC, and it was enacted into law. Don L. Horwitz and Jerry W. Markham, *Sunset on the Commodity Futures Trading Commission: Scene II*, 39 BUS. LAW. 67, 72-76 (1983). Essentially, the CFTC was given exclusive jurisdiction over futures contracts on commodities; although the SEC was given what amounted to an effective veto power over futures contracts on securities indexes. The CFTC was also given exclusive jurisdiction on commodity options and options on futures contracts including indexes; but once again the veto provision was given to the SEC on indexes. The SEC was given exclusive jurisdiction over securities options that had been given exchange trading status in 1973, just before the creation of the CFTC. Jurisdiction over derivative instruments on currencies was more confusing. The CFTC was given exclusive jurisdiction on options and futures contracts and currencies traded on contract markets that it regulated and the SEC was given jurisdiction over options on currencies traded on the securities exchanges, principally the Philadelphia Stock Exchange. Commodity options on currencies traded over-the-counter seem to have been given to the CFTC unless, as discussed below, they were subject to the so called Treasury Amendment. Pub. L. No. 97-303, 96 Stat. 1409 (1982).

The Shad/Johnson Accords did not end all the disputes between the SEC and the CFTC. They were to rage anew when the Stock Market crash of 1987 raised serious concerns that the derivative futures markets were superseding the roles of the securities exchanges. Jerry W. Markham & Rita McCloy Stephanz, *The Stock Market Crash of 1987—The United States Looks at New Recommendations*, 76 GEO. L.J. 1993 (1988).

by adding an exemptive provision to the otherwise all-encompassing jurisdiction of the CFTC in the form of what was known as the Treasury Amendment. This provision stated that the Commodity Exchange Act does not apply to transactions in foreign currency and certain other financial transactions.⁶³ As will be discussed below, that provision is uncertain in scope and has presented particular problems in dealing with over-the-counter derivative instruments.

II. THE BIRTH OF THE UNREGULATED DERIVATIVES

Distracted by the commodity options scandals and its quarrels with the SEC, the CFTC paid little attention to the incipient growth of derivative financial instruments that were being developed by and for financial institutions. Initially few in number, they soon turned into a cataract.⁶⁴

One of the first of these instruments was a silver bond offered by the Sunshine Mining Company in 1980. These bonds were indexed to the price of silver and were redeemable at the indexed price if it were greater than \$1000, the face value of the bond. The bond offered investors an opportunity to receive a fixed minimum return at a reduced interest rate and also to receive the opportunity to profit should the price of silver rise.⁶⁵ The investor paid a premium for that opportunity in the form of reduced interest rates on the bond.⁶⁶

⁶³ The Treasury Amendment stated that nothing in the Commodity Exchange Act: shall be deemed to govern or in any way be applicable to transactions in foreign currency, security warrants, security rights, re-sales of installment loan contracts, re-purchase options, government securities, or mortgages and mortgage purchase commitments, unless such transactions involve the sales thereof for future delivery conducted on a board of trade.

7 U.S.C. § 2 (1988).

⁶⁴ These instruments were initially called "hybrid" instruments because they had characteristics of both securities and commodity futures or options. For a history of their development, see David J. Gilberg, *Regulation of New Financial Instruments Under the Federal Securities and Commodities Laws*, 39 VAND. L. REV. 1599 (1986); Markham, *supra* note 53, at 1-2.

⁶⁵ Such commodity price linked notes became popular in 1994 with increases in commodity prices. Thomas T. Vogel Jr., *Commodity-Linked Notes Dazzle Inflation-Dreading Bond Buyers*, WALL ST. J., June 20, 1994, at C1.

⁶⁶ MARKHAM, *supra* note 21, at 227-28. This bond was not completely unique. Bonds have been historically offered with payment required in gold, silver, or other specie. See Richard Coal Mining & Mfg. Co. 6% gold bonds offered in 1893, in *Old Dominion Paper Collectibles Catalog for Summer & Fall 1994*, at A11 (Chesterfield, VA); Virginia Interest Coupons payable in gold coins offered in 1930, *id.* at A18; Connecticut Treasury certificates payable in Spanish milled dollars or other gold or silver

The CFTC was either unaware of, or did not concern itself with, the offering of this bond. That attitude was to change as the growth of similar derivatives and more exotic investments began to multiply in the 1980s. During this period, the CFTC began to consider these instruments on an ad hoc basis. Some passed muster, while others did not.⁶⁷ For example, the CFTC staff authorized an offering of subordinated ventures that were to be paid at an annual rate of ten-and-a-half percent with additional payments based on increases in the price of natural gas.⁶⁸ The CFTC, however, questioned another proposal involving oil under which the Standard Oil Company sought to issue notes attached to a debenture that would be separately tradeable. The holder of this instrument was to be given a principal sum plus a premium for increases in crude oil prices over a specified amount. The CFTC eventually allowed this offer to go forward but asserted that it would not allow similar offerings in the future.⁶⁹

The CFTC's ad hoc interpretations also affected instruments that were based on inflation factors, and hybrid instruments began to intrude into the agricultural area.⁷⁰ Some instruments, however, such as swaps and certain interest rate contracts that allowed investors to cap their interest rate obligations or set floors on those obligations, seemed to escape notice entirely.⁷¹

The CFTC eventually commenced rulemaking proceedings to deal with the increased rate of new derivative financial instru-

coin equivalent offered in the following years: 1781, 1789, and 1790, in ANDERSON, *supra* note 14, at 113-14, 116; Connecticut Treasury certificates payable in gold, silver, lawful silver money, or bills of credit offered in the following years: 1780, 1781, and 1784, *id.* at 112, 115; Massachusetts Bay Colony loan certificates payable in Spanish Milled Dollars or gold and silver specie offered in the following years: 1775, 1777, and 1781, *id.* at 128, 131, 136; Commonwealth of Massachusetts Treasury certificates payable in gold and silver coins offered in 1782, *id.* at 137.

⁶⁷ Markham, *supra* note 53.

⁶⁸ CFTC Interpretative Letter No. 88-17, [1987-1990 Transfer Binder] Comm. Fut. L. Rep. (CCH) ¶ 24,320 (Sept. 6, 1988).

⁶⁹ David J. Gilberg, *supra* note 64, at 1665-66. The CFTC staff advised another firm that certain "commodity certificates" were futures contracts that had to be traded on the exchange because the certificates entitled the holder to receive the prevailing price of the commodity unit or \$1000, whichever was greater. MARKHAM, *supra* note 21, at 230. The CFTC also concluded that gold warrants were prohibited futures contracts, and the CFTC brought suit against Wells Fargo Bank for offering gold market certificates that the CFTC concluded contained elements of options. CFTC v. Wells Fargo Bank, N.A., Civ. No. 87-07992 (N.D. Cal. (Nov. 19, 1987)). The CFTC staff, however, indicated that bullion purchase programs were not futures contracts. CFTC Interpretative Letter No. 85-2 [1984-1986 Transfer Binder] Comm. Fut. L. Rep. (CCH) ¶ 22,673 (Aug. 6, 1985).

⁷⁰ Markham, *supra* note 53, at 34-39.

⁷¹ *Id.* at 27-28.

ments.⁷² In adopting those rules, the CFTC concluded that instruments containing more futures or options elements than typical interest rate or similar instruments would be treated as regulated futures or options.⁷³ The rules exempted hybrid debt instruments, certain preferred equity or depository instruments with commodity option components and demand deposits, bond deposits, or transactions accounts offered by federally insured financial institutions.⁷⁴ For other instruments, the value of implied option premiums could not outweigh the commodity independent components. The CFTC established a complex formula for making that determination.⁷⁵ A CFTC Task Force on Off-Exchange Instruments also finally focused on swap transactions. It concluded that they should not be regulated as futures or commodity options.⁷⁶

The CFTC's rulemaking efforts did not bring any degree of certainty into the regulation of these new derivative financial instruments. To the contrary, confusion seemed to grow. One case in particular raised eyebrows around the world. In *Transnor (Bermuda) Ltd. v. B.P. North American Petroleum*,⁷⁷ a United States District Court held that transactions in the Brent Oil Market were futures contracts that were subject to the Commodity Exchange Act. This meant that this international market would have to register with the CFTC as a contract market and that the contracts that had heretofore traded on that market were illegal because the market had not been so licensed.⁷⁸

⁷² 52 Fed. Reg. 47,022 (Dec. 11, 1987).

⁷³ 17 C.F.R. § 34.2 (1993).

⁷⁴ 37 C.F.R. § 34.3 (1993).

⁷⁵ 17 C.F.R. § 34.2 (1993).

⁷⁶ Policy Statement Concerning Swap Transactions, [1987-1990 Transfer Binder] Comm. Fut. L. Rep. (CCH) ¶ 24,494 (July 21, 1989). Collar agreements were also later exempted. They allow minimum and maximum changes on price changes or interest rates. CFTC-OETF Interpretative Letter No. 90-1, [1987-1990 Transfer Binder] Comm. Fut. L. Rep. (CCH) ¶ 24,583 (Jan. 18, 1990).

⁷⁷ 738 F. Supp. 1472 (S.D.N.Y. 1990).

⁷⁸ Most interesting was the fact that the contracts at issue in the *Transnor* case were entered into by a Bermuda corporation with oil companies located outside the United States. The oil was to be delivered in Scotland, and the transactions were conducted in London and made subject to English law. *Id.* at 1474-75.

The CFTC intervened in the Brent Oil matter to issue a statutory interpretation in which it asserted that the district court decision was wrong, and that the Brent oil market should not be subject to regulation under the Commodity Exchange Act. The effect of the CFTC's assertion was uncertain because it did not have any exemptive powers. Rather, its claims simply conflicted with those of the district court. See Statutory Interpretations Concerning Forward Transactions, 2 Comm. Fut. L. Rep. (CCH) ¶ 29,925 (C.F.T.C. Sept. 25, 1990). See generally Eric Bettelheim & Jerry W. Markham, *The Transnor Decision and its Aftermath*, 8 OIL & GAS L. & TAX'N REV. 76 (1990); Eric

The currency market also raised concerns as to the application of the exchange trading requirement. The CFTC had taken the position in 1985 that individuals could not trade in the inter-bank currency market and that the Treasury Amendment exemption did not apply to individuals. The CFTC was of the view that the Treasury Amendment applied only when currency transactions were engaged in by banks and other corporate institutional participants.⁷⁹ The inter-bank currency market, however, had operated for years as an international market in which transactions in currency were conducted for speculation and hedging by wealthy individuals as well as corporate institutions.⁸⁰ The CFTC subsequently concluded that it would have to re-examine its position in view of this opposition and because of protests by the Federal Reserve Board and the Department of the Treasury.⁸¹

Bettelheim & Jerry W. Markham, *More on Transnor*, 8 OIL & GAS L. & TAX'N REV. 223 (1990).

The *Transnor* decision also raised concern with the effect of the CFTC's interpretation in which it had concluded that swap transactions were not subject to the Commodity Exchange Act. If a court were to determine that they were subject to the Commodity Exchange Act, then such transactions would be illegal. The CFTC had no exemptive authority, it had only the authority to seek to persuade a court of the correctness of its interpretation of the scope of the Commodity Exchange Act.

The CFTC's position was also inconsistent with its approach in another case in which it appeared as *amicus curiae*. There the CFTC claimed that commercial transactions in precious metals were futures contracts that had to be traded on contract markets even though the participants were commercial entities. See *In re Bybee*, 945 F.2d 309 (9th Cir. 1991). The Ninth circuit, held, however, that the transactions were not subject to CFTC jurisdiction because they were deferred delivery contracts. In reaching that decision, the court relied on the CFTC's interpretative statement for the Brent Oil market. *Id.*

⁷⁹ Trading in Foreign Currencies for Future Delivery, 50 Fed. Reg. 42,983, [1984-1986 Transfer Binder] Comm. Fut. L. Rep. (CCH) 22,750 (C.F.T.C. 1985).

⁸⁰ Prior to the adoption of the Treasury Amendment, it had been reported that individuals were participating in the inter-bank currency market and that these contracts were "similar to the standard commodity-futures contract, which is also used by companies to hedge against price fluctuations." *Personal Investing, Speculating in Exchange*, FORTUNE, Feb. 1963, 201-04. One commentator also pointed out that positions in currency transactions were engaged in "without any intention of either delivery or taking delivery of a foreign currency; . . . [the trader] simply hopes that its 'spot' price will move in its favor. Whether it does or not, he must close out or 'un-do' the contract on the date specified." *Id.*; see also Markham, *supra* note 53, at 9-10; *Money: Everybody Plays the Currency Game*, BUS. WEEK, May 4, 1974, 34 ("Foreign Exchange Dealings no longer concern just the multi-national companies, the biggest banks, and the wealthiest individuals. Anybody doing business handling money on an international basis is affected.").

⁸¹ Markham, *supra* note 53, at 10 (footnote omitted). Indeed, several years later, the CFTC reversed its position when it appeared as *amicus curiae* in a proceeding before the Fourth Circuit. In that case, *Salomon Forex, Inc. v. Tauber*, 8 F.3d 966, 979-80 (4th Cir. 1993), the circuit court held that a wealthy individual trading in over-the-counter currency futures and options contracts could not claim that the transac-

Recognizing the uncertainty that lay in the area of these developing derivative financial instruments, particularly swaps which had grown to monumental proportions, Congress enacted the Futures Trading Practices Act of 1992.⁸² That legislation amended the Commodity Exchange Act to provide the CFTC with some exemptive power for institutional traders. This was needed, not only to remove the legal uncertainties of swaps and other over-the-counter derivatives, but also because the derivative products traded by institutions were individually negotiated and would not fit within the standardized format required for exchange trading. In addition, the institutions did not need the protections for small customers that is a central part of the CFTC's regulatory efforts.⁸³

The Futures Trading Practices Act of 1992 allowed the CFTC to exempt any transaction by "appropriate persons" from the exchange trading requirement. Appropriate persons include institutional participants such as banks, insurance companies, investment companies, commodity pools, broker-dealers, corporations of a specific size, and the "other persons." The CFTC has adopted regulations to implement that legislation by, among other things, exempting swaps transactions by institutions.⁸⁴

III. OTHER HISTORICAL CONCERNS WITH DERIVATIVES

Another large market that raised regulatory concerns with derivative instruments was the United States government securities market. That market, the largest securities market in the world, raises trillions of dollars.⁸⁵ That market was composed of some thirty-six primary dealers with monthly trading volume over \$1.5

tions were illegal. The court held that the Treasury Amendment exempted the transactions from the exchange trading requirement of the Commodity Exchange Act because they were individually negotiated between sophisticated parties.

The *Tauber* decision was useful in providing assurance that wealthy, sophisticated individuals can participate in the inter-bank currency market. There is still uncertainty, however, over what constitutes the wealth or sophistication required to be exempted. A Second Circuit decision has also held that option contracts on foreign currency sold to the general public were subject to the Commodity Exchange Act. The Second Circuit in that decision indicated that private individuals were not subject to the Treasury Amendment. *CFTC v. American Board of Trade*, 803 F.2d 1242, 1249 (2d Cir. 1986).

⁸² Pub. L. No. 102-546, 106 Stat. 3590.

⁸³ Maitland & Markham, *supra* note 8, at 20.

The exchange monopoly under the Commodity Exchange Act had also led to abuses and restriction of competition. Markham, *supra* note 5, at 982-84.

⁸⁴ Maitland & Markham, *supra* note 8, at 20.

⁸⁵ S. REP. NO. 426, 99th Cong., 2d Sess. 5 (1986). The government securities market includes such things as T-bonds, T-bills, GNMA's, Freddie Macs, Fannie Maes, and Sallie Maes. H.R. REP. NO. 258, 99th Cong., 1st Sess. 12 note 1 (1985).

trillion when problems developed that required regulation.⁸⁶

In the seven years prior to 1985, failures of government bond dealers resulted in aggregate losses of almost one billion dollars.⁸⁷ A substantial portion of these losses were due to so-called "repos" or "reverse repos" transactions that were widely used in trading government securities.⁸⁸ These are simply repurchase agreements to sell and buy back, or to buy and sell back, government securities.⁸⁹ Repos were used for short term financing and investment purposes,⁹⁰ and they soon "became the most important financing

⁸⁶ H.R. REP. NO. 99th Cong., 1st Sess. 12 (1985). There were also several hundred secondary dealers participating in the government securities market. H. R. No. 258, 99 Cong., 1st Sess. 13-14 (1985); S. REP. NO. 426, 99th Cong., 2d Sess. 4 (1986).

The SEC noted that:

The market for government securities is by far the world's largest and most efficient securities market. The monthly trading value of just the 36 primary government dealers that report to the FRB amounts to over \$1.5 trillion or approximately 15 times the volume of all transactions in corporate securities traded on all of the nation's securities exchanges and over-the-counter markets.

REGULATION OF THE GOVERNMENT SECURITIES MARKET, REPORT BY THE SECURITIES AND EXCHANGE COMMISSION TO THE SUBCOMMITTEE ON TELECOMMUNICATIONS, CONSUMER PROTECTION AND FINANCE OF THE COMMITTEE ON ENERGY AND COMMERCE OF THE U.S. HOUSE OF REPRESENTATIVES 6 (footnotes omitted) (June 20, 1985) [hereinafter REGULATION OF THE GOVERNMENT SECURITIES MARKET]. The United States government securities market had grown to \$4.9 trillion by 1993. Exchange Act Release No. 33-33743 (Mar. 9, 1994).

⁸⁷ REGULATION OF THE GOVERNMENT SECURITIES MARKET, *supra* note 86, at 8.

⁸⁸ *In re Bevil, Bressler & Schulman Asset Management Corp.*, 67 Bankr. 557, Fed. Sec. L. Rep. ¶ 92,966 (D.N.J. 1986).

⁸⁹ A repurchase agreement is simply an agreement to sell securities with a commitment to repurchase the same securities from the buyer at a later date. The seller agrees to repurchase the securities for cash and some additional amount of interest at a future date. A reverse repo is simply an agreement to buy government securities and to resell them at a later date. This allows flexibility in short term financing, and dealers could do back-to-back repos and reverse repos as intermediaries. *See generally* SEC STUDY ON THE FINANCING AND REGULATORY CAPITAL NEEDS OF THE SECURITIES INDUSTRY 20 n.48 (CCH) (Jan. 23, 1985) [hereinafter 1985 SEC NET CAPITAL STUDY]; AMERICAN INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS, AUDIT AND ACCOUNTING GUIDE: AUDITS OF BROKERS AND DEALERS IN SECURITIES 10 (1985).

Repos were first used in the Federal Reserve System in 1917; they were more extensively used after World War II; and they have been used by commercial banks since 1969 because the Federal Reserve Board allowed them to be exempt from reserve requirements. In 1975, the Federal Reserve Bank of New York also began engaging in Repos with commercial banks. U.S. SECURITIES AND EXCHANGE COMMISSION, THE USE OF REPURCHASE AGREEMENTS BY BROKER-DEALERS 2 (Dec. 1987) [hereinafter REPURCHASE AGREEMENTS BY BROKER-DEALERS]. *See also* SIDNEY ROBBINS, THE SECURITIES MARKETS, OPERATIONS AND ISSUES 12 (1966) (Repurchase agreements were used by the banks in their federal funds arrangements in the mid 1960's).

⁹⁰ Repos were used chiefly for U.S. Treasury bills but also for mortgaged backed securities such as GNMA's, Fannie Maes and Freddie Macs, as well as in municipal

vehicle for the broker-dealer industry."⁹¹ The amount of repos grew from \$14.8 billion in 1977 to almost two hundred billion dollars in 1986.⁹²

Repos were not devoid of risk, particularly where sufficient collateral or margin was not obtained to secure the return of the securities in the event of an adverse market move.⁹³ These risks led to some substantial and highly publicized failures. The failure of one of those companies, ESM Government Securities, caused a savings and loan crisis in Ohio, as well as a rise in gold prices and a fall in the value of a dollar.⁹⁴ The failure of Bevell, Bresler and Schulman Asset Management Corporation resulted in customer losses of some two hundred and thirty-five million dollars.⁹⁵ The collapse of Drysdale Government Securities resulted in customer losses of some three hundred million dollars,⁹⁶ and the failure of Lion Capital Group caused investors to lose another forty million dollars.⁹⁷

securities and corporate bonds. REPURCHASE AGREEMENTS BY BROKER-DEALERS, *supra* note 89, at 5.

⁹¹ *Id.* at 3.

⁹² *Id.*

⁹³ See *In re Andrew L. Epstein*, Exchange Act Release No. 34-30731 (May 21, 1992). Repos initially were thought to carry little risk because the buyer in a repurchase agreement transferred cash to a seller and receives collateral in the form of the securities. However, in some instances the securities had been pledged to other persons; in other instances the securities that were subject to repurchase had declined in value; and in still other cases, where the securities had excess margin, the difference was lost. REPURCHASE AGREEMENTS BY BROKER-DEALERS, *supra* note 89, at 12-18.

⁹⁴ The failure of ESM caused losses of over \$300 million. Most of those losses were incurred by two savings and loan associations controlled by the same person. REGULATION OF THE GOVERNMENT SECURITIES MARKET, *supra* note 86, at 10-11.

⁹⁵ H.R. REP. NO. 258, 99th Cong., 1st Sess. 18 n.25 (1985). Bevell Bresler Schulman Asset Management Corp. had entered into repurchase agreements without proper collateralization. The firm did so in order to cover large trading losses of an affiliate. REGULATION OF THE GOVERNMENT SECURITIES MARKET, *supra* note 86, at 12.

⁹⁶ Drysdale had repurchase agreements and short sales amounting to some five billion dollars in U.S. government securities through Chase Manhattan Bank. It defaulted on about \$160 million of interest payments due on those securities. Steven L. Molinari & Nelson S. Kibler, *Broker-Dealer's Financial Responsibility under the Uniform Net Capital Rule—A Case for Liquidity*, 72 GEO. L.J. 1, 28-29 (1983); Kathryn M. Welling, *The Drysdale Affair, A Blow-By-Blow Account of the Default That Shook Wall Street*, BARRON'S, May 24, 1982, at 15. Drysdale had also bought securities with accrued interest for its repurchase transactions because customers did not take interest into account in valuing their securities in the repurchase arrangement. Drysdale was able to use the interest in its operations. Drysdale, however, was unable to repay the interest when it came due, and this caused losses of some \$300 million. REGULATION OF THE GOVERNMENT SECURITIES MARKET, *supra* note 86, at 9-10.

⁹⁷ The failure of Lion caused losses of some \$40 million. Lion's clearing agent claimed that securities held for it by Lion were security for loans made by the clearing agency to Lion. The clearing agency contended, therefore, that securities were not being held on behalf of customers. REGULATION OF THE GOVERNMENT SECURITIES MARKET, *supra* note 86, at 10.

These failures were due in large measure to the fact that the government securities market was only loosely regulated. Although many broker-dealers in that market were registered with the SEC or subject to the oversight of the banking authorities, many of the participants—some twenty-five percent of the market—were virtually unregulated by anyone.⁹⁸ Moreover, the market was subject to a great deal of leverage because there were no margin requirements for government securities.⁹⁹

Following these failures, the SEC proposed and adopted changes to its net capital rules to reduce the amount of leverage in repos.¹⁰⁰ The SEC required specific disclosures of risks in repo transactions to be made by broker-dealers to their customers.¹⁰¹ Congress also responded to these failures by enacting the Government Securities Act of 1986.¹⁰² This legislation required dealers in government securities to register with the SEC or, in the case of a financial institution regulated by the banking or thrift authorities, to file a notice with their regulator. The Secretary of the Treasury was given authority to adopt rules governing the financial responsibility, custody, and use of government securities owned by customers, transfer and control of government securities in repo transactions, and record keeping requirements.¹⁰³ The SEC was given authority to enforce those regulations against government securities broker-dealers registered with it, and the banking agencies were given authority to enforce those regulations against the banks they regulate.¹⁰⁴

Other unregistered government security dealers that failed included Financial Corp. of Kansas City; Winters Government Securities; Lombard-Wall; Comark; and Hibbard & O'Connor Government Securities. S. REP. NO. 426, 99th Cong., 2d Sess. 6-7 (1986); Exchange Act Release No. 34-21959 (Apr. 19, 1985). For another case in which a broker-dealer dealing in government securities and repos became insolvent, see SEC v. Legel, [1980 Transfer Binder] Fed. Sec. L. Rep. ¶ 97,513 (S.D. Fla. 1980).

⁹⁸ H. R. REP. NO. 258, 99th Cong., 1st Sess. 14-15 (1985).

The SEC conducted a broad investigation of the government securities market following the failures of the unregulated dealers. The SEC concluded that most of the losses were the result of failures on the part of "fringe" participants who were not primary dealers. REGULATION OF THE GOVERNMENT SECURITIES MARKET, *supra* note 86, at 16.

⁹⁹ H.R. REP. NO. 258, 99th Cong., 1st Sess. 17-18 (1985).

¹⁰⁰ Exchange Act Release No. 34-23602 (Sept. 4, 1986); Exchange Act Release No. 34-24553 (June 4, 1987).

¹⁰¹ Exchange Act Release No. 34-24778 (Aug. 6, 1987).

¹⁰² Pub. L. 99-571, 100 Stat. 3208 (1986).

¹⁰³ Letter to Congressman Lamar Smith from Michael A. Macchiaroli, Assistant Director SEC, 1988 SEC No-Act LEXIS 1037 (July 22, 1988).

¹⁰⁴ S. REP. NO. 426, 99th Cong., 2d Sess. 10 (1986). See generally DEPARTMENT OF THE TREASURY, SECURITIES EXCHANGE COMMISSION AND FEDERAL RESERVE BOARD, JOINT REPORT ON THE GOVERNMENT SECURITIES MARKET (Jan. 1992).

Another important development in the 1980s was the so-called "pass-through" securities or collateralized mortgage obligations, which might be viewed to have derivative characteristics.¹⁰⁵ These were, for example, mortgage pools in which investors were sold participations and which facilitated the raising of a significant amount of capital for the mortgage market.¹⁰⁶ The Secondary Mortgage Market Enhancement Act of 1984 was designed to bolster the secondary mortgage market by exempting such transactions from margin requirements and by allowing banks to invest in secondary mortgage market obligations.¹⁰⁷

Related in concept to the derivative based mortgage-backed securities are "asset backed," "pass through" securities or "securitized" assets. These are simply interests in pools of assets or revenue streams. These securities quickly spread to encompass almost every form of asset or revenue stream that could be included in a pool and sold in units as a security. This financing technique allowed an almost immediate realization of cash for assets such as credit card debts and franchise fees, or it could be used to finance the acquisition of assets. These securities were subject to the provisions of the federal securities laws,¹⁰⁸ but concerns with their trading have been raised as a part of the debate on derivatives, particularly after large losses were experienced from these instruments in early 1994.¹⁰⁹

Municipal bond trading was another area of unregulated trading that caused Congressional concern even before the 1980s. This trading was conducted by firms who acted as dealers for their own account, banks trading for their own account and brokers who acted as agents for buyers and sellers. Although some nine hundred firms were engaged in this business in the 1970s, some one hundred and twenty-five firms dominated the underwriting of new mu-

¹⁰⁵ "Mortgage-backed securities and collateralized mortgage obligations are also a form of derivatives." 139 Cong. Rec. H3821-04, 3822-04 (1994) (statement of Rep. Gonzalez).

¹⁰⁶ S. REP. NO. 293, 98th Cong., 1st Sess. 2 (1983).

¹⁰⁷ Pub. L. 98-440, 98 Stat. 1689 (1984). See generally KENNETH G. LORE, MORTGAGE-BACKED SECURITIES, DEVELOPMENTS AND TRENDS IN THE SECONDARY MORTGAGE MARKET (1994).

¹⁰⁸ See generally TAMAR FRANKEL, SECURITIZATION: STRUCTURED FINANCING, FINANCIAL ASSET POOLS, AND ASSET-BACKED SECURITIES (1991).

¹⁰⁹ See *infra* notes 119-35 and accompanying text; see also Michael Siconolfi & Laura Jereski, *Arm Twister, Kidder's Mr. Vranos Uses Brain and Brawn To Pump Up Profits*, WALL ST. J., May 20, 1994, at A1; Laura Jereski, *Fed Studies Mortgage-Backed Market*, WALL ST. J., May 20, 1994, at C1. See generally David Wessel et al., *Stormy Spring, Three-Month Tumult In Bonds Lays Bare New Financial Forces*, WALL ST. J., May 20, 1994, at A1.

nicipal bond issues and were principally responsible for maintaining a secondary market in those securities.

Like derivatives, the growth in municipal bond trading had been extraordinary. Underwritings grew from some seven billion dollars in 1959 to almost twenty-three billion dollars by 1974.¹¹⁰ The Securities Exchange Act of 1934 exempted municipal securities from its definition of a security. As a result, banks or brokers and dealers trading only municipal securities did not have to register with the SEC.¹¹¹ Nevertheless, the SEC could and did bring numerous fraud actions against persons dealing in these securities, even if they were not registered. Those cases revealed such widespread abuses that Congress was compelled to act to implement additional regulation.¹¹²

The Securities Act Amendments of 1975 required the registration of municipal securities dealers with the SEC. Bank departments handling municipal securities transactions were required to register with the SEC as municipal securities dealers, but enforcement powers over banks remained with the banking authorities.¹¹³ A Municipal Securities Rule Making Board was also established by the Securities Act Amendments of 1975. The Board is a self-regulatory body composed of members representing securities firms, banks' representatives, and the public. The Board is a hybrid body that was given the responsibility of enacting rules for the registration and regulation of bank and non-bank municipal securities dealers. The Board's authority is limited to proposing and adopting rules to regulate transactions in municipal securities that must

¹¹⁰ The latter figure was almost equal to the some twenty six billion dollars of new corporate securities, including common, preferred, and debt issues, that were underwritten in 1974. S. REP. NO. 75, 94th Cong., 1st Sess. 39 (1975). The dollar amount of municipal securities outstanding grew from almost seventy one billion dollars in 1960 to over two hundred billion dollars in 1974. *Id.* at 41.

¹¹¹ *Id.* at 42.

¹¹² From 1970-1975, the SEC brought numerous actions that revealed: a disturbing pattern of professional misconduct by a significant number of broker-dealers. This pattern is characterized by unconscionable markups, churning of customers' accounts, misrepresentations concerning the nature and value of municipal securities, disregard of suitability standards, and scandalous high-pressure sales techniques. The selling practices of these firms involves all the characteristics of the classic 'boiler room' operation. These practices are intended to induce hasty investment decisions with respect to securities unfamiliar to potential customers. Furthermore, it appears that certain firms exerted extraordinary pressures on their salesmen to increase sales without regard to the welfare of the firm's customers.

Id. at 43.

¹¹³ ROBERT A. FIPPINGER, *THE SECURITIES LAW OF PUBLIC FINANCE* 331 (1988).

be approved by the SEC before they are effective. Enforcement of the rules is left to the SEC, the NASD, and the banking authorities.¹¹⁴

IV. DERIVATIVE DANGERS PROVE TO BE ALL TOO REAL

The determination in 1992 by Congress to exempt institutional investors from the reach of the Commodity Exchange Act was a wise one.¹¹⁵ Certainly, such institutions do not require the public customer protections that are imposed by the Commodity Exchange Act. On the other hand, some of these institutions are finding that derivative financial transactions pose risks that they neither understand nor appreciate. Indeed, the size and complexity of this market is such that there is a serious danger that these instruments can jeopardize the health of even the most powerful financial institution and can even pose a threat to our financial system.¹¹⁶

Experience thus proved all too soon that concerns with the dangers presented by derivative instruments were not entirely unwarranted.¹¹⁷ To cite some examples, the English House of Lords ruled that municipal governments in England that had engaged in swap transactions were not authorized to do so and that, therefore, the transactions were invalid.¹¹⁸ Macy's defaulted on a swap contract that involved some \$83 million in interest payments;¹¹⁹ a unit

¹¹⁴ See THOMAS LEE HAZEN, *THE LAW OF SECURITIES REGULATION* 418-22 (1990).

¹¹⁵ See *supra* note 84 and accompanying text.

¹¹⁶ Opponents of regulation argue, however, that derivatives actually have a stabilizing effect on the economy. Thomas C. Theobald, *Derivatives Aren't the Danger*, WALL ST. J., May 23, 1994, at A14.

¹¹⁷ Derivative trading has been profitable for firms dealing in those instruments in past years. In analyzing ten years of trading results, a Congressional report found that derivative dealers had quarterly trading losses only four times, totaling nineteen million dollars. In contrast, trading revenues earned were in excess of thirty five billion dollars for a "two thousand to one profit-to-loss." LEACH REPORT, *supra* note 3, at 151.

¹¹⁸ Tracy Corrigan, *Lords Rule Rate Swaps Illegal, More than 100 Local Authorities Could Now Face Legal Action From Their Banks*, FIN. TIMES, Jan. 25, 1991, at Section I, 18. The amount of the losses sustained by the counterparties to those transactions is unknown. For a discussion of losses suffered by one firm as a result of this ruling, however, see THE REPORT OF THE COMMODITY FUTURES TRADING COMMISSION, OTC DERIVATIVE MARKETS AND THEIR REGULATION, Working Papers 4-1, 4-19 (Oct. 1993) [hereinafter CFTC REPORT].

¹¹⁹ Swiss Bank Corporation sued other banks for \$83 million dollars for interest payments that Macy's defaulted on under a swap contract when it went into bankruptcy proceedings. Martin Mayer, *A Bad Swap for Taxpayers*, WALL ST. J., June 16, 1993, at A18. A former CFTC chairman has also noted, however, that Drexel Burham Lambert, Olympia & York, and the Bank of New England exemplify large firms whose derivative positions were successfully transferred after those firms failed from causes

of Metallgesellschaft A.G. lost some \$1.37 billion from mismatched derivative transactions;¹²⁰ Kashima Oil in Japan lost some \$1.5 billion in currency transactions;¹²¹ Gibson Greetings Inc. lost some \$19 million from derivative trading;¹²² Kidder Peabody lost some \$350 million in "phantom" derivative trades;¹²³ a New York municipal bond fund failed to disclose that some 40 percent of its assets were invested in derivatives;¹²⁴ Procter & Gamble lost over \$150 million from derivative trading;¹²⁵ Orange County in California

unrelated to their derivatives trading. Wendy Lee Gramm, *In Defense of Derivatives*, WALL ST. J., Sept. 8, 1993, at A12.

When Drexel Burnham Lambert Group Inc. went bankrupt it had to swap transactions with a subsidiary, DBL Products in 1990, its transactions were eventually unwound and settled. HOUSE BANKING COMMITTEE MINORITY STAFF, FINANCIAL DERIVATIVES (Part 1) No. 1 at 43 (Nov. 1993). DBL Products disposed of 90% of the firm's swap transactions within two months after the unwinding process had begun. The firm, however, had been threatened with the use of "walk away" clauses in its contracts, which allowed non-defaulting parties to walk away from their obligations. Over seventy percent of the DBL Products counterparties owed money but very few walked away from their contracts. This was due to threats of litigation by DBL Products and concern that other counterparties would refuse to deal in the future with a party walking away from its obligations. *Id.* at 124. In *Drexel Burnham Lambert Products Corp. v. Midland Bank*, 1992 U.S. Dist. LEXIS 21223 (S.D.N.Y. 1992), a district court also held that a two way payment clause was valid and not a penalty payment.

For a discussion of these and other defaults involving derivative instruments, see CFTC REPORT, *supra* note 118, Working Paper 4-1.

¹²⁰ Jeffrey Taylor & Allanna Sullivan, *German Firm Finds Hedges Can Be Thorny*, WALL ST. J., Jan. 10, 1994, at C1. The losses were suffered by MG Corp., a United States unit of Metallgesellschaft A.G. Counter suits have been filed by the company and its traders against each other. *Metallgesellschaft to File Countersuit Over Trading Losses*, WALL ST. J., Mar. 31, 1994, at A10. Jeffrey Taylor & Kenneth H. Bacon, *How the Nymex Cooled MG's Oil Crisis*, WALL ST. J., Apr. 5, 1994, at C1; *Big Concern Trims Losses*, N.Y. TIMES, Mar. 31, 1994, at C16.

¹²¹ *Determined Loser*, THE ECONOMIST, Apr. 16, 1994, at 82.

¹²² *Gibson Will Take a Charge To Cover Its Trading Losses*, N.Y. TIMES, Apr. 20, 1994, at C6; Gabriella Stern, *Gibson Greetings Incurs \$3 Million Loss From Unauthorized Interest-Rate Swaps*, WALL ST. J., Mar. 7, 1994, at A4.

¹²³ Amal Kumar Naj, *GE's First-Quarter Operating Profit Fell 1.6%, Reflecting Charge at Kidder Unit*, WALL ST. J., Apr. 21, 1994, at A4; Floyd Norris, *Where the Trading Went Awry, Many Perplexing Questions Arise Over Bond Fiasco*, N.Y. TIMES, Apr. 19, 1994, at C13; Michael Siconolfi, *Kidder Discloses Phony Trades, Fires a Trader*, WALL ST. J., Apr. 18, 1994, at A3; Michael Siconolfi, *Saga of Kidder's Jett: Sudden Downfall Of an Aggressive Wall Street Trader*, WALL ST. J., Apr. 19, 1994, at A3. See also Michael Siconolfi, *Kidder Peabody Fired Bond Aide On Ties to Rival*, WALL ST. J., Apr. 21, 1994, at A3; Michael Siconolfi, *Kidder Firing May Indicate Further Woes*, WALL ST. J., Apr. 25, 1994, at A3.

¹²⁴ Robert McGough, *Bond Fund Sets Disclosure Pact on Derivatives*, WALL ST. J., Apr. 18, 1994, at C1.

¹²⁵ Susan Antilla, *P & G Sees Charge on Derivatives*, N.Y. TIMES, Apr. 13, 1994, at C1; Steven Lipin et al., *Portfolio Poker, Just What Funds Do With 'Derivatives' Is Suddenly a Hot Issue*, WALL ST. J., Apr. 14, 1994, at A1; Tracy Corrigan, *Finger Points at Banks After Procter's Gamble*, FIN. TIMES, Apr. 15, 1994, at 19; Gabriella Stern, *P & G Is Said To Be Considering Cutting Bonuses*, WALL ST. J., May 9, 1994, at A2. The losses at Procter & Gamble were from "diff" swaps that were based on an assumption that three year

lost \$140 million;¹²⁶ David Askin's Granite Hedge Fund had losses of an estimated \$600 million from "market neutral" derivatives;¹²⁷ City College of Chicago has sued claiming that it was misled in the purchase of \$100 million in derivative obligations;¹²⁸ Cargill's hedge funds lost some \$100 million from mortgage backed securities;¹²⁹ Piper Capital Management was having difficulty valuing its derivatives and lost some \$700 million from derivative transactions;¹³⁰ HYM Financial Inc. in New Jersey lost all of its capital from derivatives;¹³¹ Dell Computer lost some \$26 million from derivative based transactions;¹³² Air Products took a loss of \$69 million on

interest rates in Germany and America would converge more slowly than predicted by the market. *Corporate Hedging Hard Soap*, THE ECONOMIST, Apr. 16, 1994, at 82; see also Laura Jereski & Ellen E. Schultz, *Glaxo Holdings Is Taking a Hit On Derivatives*, WALL ST. J., July 13, 1994, at C1 (describing losses approaching \$100 million by Glaxo due to investments in derivatives).

¹²⁶ Earl C. Gottschalk, Jr., *Derivatives Roil California Political Race*, WALL ST. J., Apr. 15, 1994, at C1.

¹²⁷ Lipin et al., *supra* note 125, at A1; Lipin & Raghavan, *supra* note 9, at C1. See also Thomas L. Friedman, *House Panel Given a Lesson in Hedge Funds*, N.Y. TIMES, Apr. 14, 1994, at D1. See also George Graham, *Derivatives Loss Fuels Call For Legislation*, FIN. TIMES, Sept. 1, 1994, at 7 (describing calls for legislation for greater oversight of the derivatives market due to losses in derivatives trading by a Maryland county administration).

¹²⁸ Corrigan, *supra* note 125, at 19; see also G. Bruce Knecht, *Tempers Flare on Main Street Over Derivatives Vehicle*, WALL ST. J., July 14, 1994, at C1 (describing losses due to derivatives sustained by a Minnesota town whose officials invested money in a fund that appeared to invest in U.S. government securities but actually invested most of its funds in derivatives).

¹²⁹ *Cargill Says Market Moves Won't Hurt Profits*, N.Y. TIMES, Apr. 20, 1994, at D5; Laura Jereski, *Mortgage Derivatives Claim Victims Big and Small*, WALL ST. J., Apr. 20, 1994, at C1. See also Barbara Donnelly Granito & Laura Jereski, *Tough Times Plague Mortgage-Back Securities*, WALL ST. J., Apr. 18, 1994, at C1 (Mortgage derivatives in the form of collateralized mortgage obligations have been "violently torpedoed" by the effects of rate rises).

¹³⁰ Jereski, *supra* note 129, at C15; Robert McGough, *Piper Jaffray Acts to Boost Battered Fund*, WALL ST. J., May 23, 1994, at C1; G. Bruce Knecht, *Piper Manager's Losses May Total \$700 Million*, WALL ST. J., Aug. 25, 1994, at C1.

¹³¹ Jereski, *supra* note 129, at C15. See also Larry M. Greenberg, *Bank of Montreal's Harris Unit Records \$51.3 Million Loss from Derivatives*, WALL ST. J., June 27, 1994, at A4 (describing Harris Trust & Savings absorption of \$51.3 million of losses on high-risk mortgage derivatives that were kept in supposedly low-risk institutional customer accounts); *Mortgage-backed Securities: Not for Widows, Orphans—or Hedge Funds*, THE ECONOMIST, July 9, 1994, at 81 (discussing the problems of Wall Street securities firms in dealing with the unpredictability of securitized mortgages due to prepayment risks and rising long-term interest rates).

¹³² Scott McCartney, *Dell Computer Posts 86% Surge in Net For Quarter, Will Cut Derivatives Risk*, WALL ST. J., May 25, 1994, at B3. The company had a derivatives portfolio of some \$355 million. The company's stock rose after it announced large earnings increases despite the derivatives losses and after it announced that it was curtailing its derivatives trading. See generally Steven Lipin et al., *Fancy Footwork, Bankers Trust Thrives Pitching Derivatives, But Climate Is Shifting*, WALL ST. J., Apr. 22, 1994, at A1.

derivative contracts;¹³³ an employee investment fund of Atlantic Richfield Company lost \$22 million in derivative trades; several mutual funds were compensated by their advisors or brokers for millions of dollars in losses suffered from derivatives transactions;¹³⁴ and Mead Corporation lost over \$12 million from derivatives trading.¹³⁵

¹³³ James P. Miller, *Air Products Takes a Charge of \$60 Million*, WALL ST. J., May 12, 1994, at A3; *Air Products Adds Charge for Swaps Losses*, N.Y. TIMES, May 17, 1994, at C14; *Air Products Raises Estimate on Derivatives Charge*, N.Y. TIMES, June 2, 1994, at C2.

¹³⁴ See Susan Antilla, *Mutual Fund Bailout*, N.Y. TIMES, June 9, 1994, at C1; Sara Calian, *BankAmerica's Cost to Rescue 2 Funds Soars*, WALL ST. J., July 1, 1994, at A2 (discussing BankAmerica Corp.'s almost \$70 million bailout of two "normally sedate" funds due to losses on derivatives); Sara Calian & Georgette Jasen, *CS First Boston Fund Is Among Those With Losses on Derivative Instruments*, WALL ST. J., June 14, 1994, at B5; Sara Calian & Georgette Jasen, *Managers Prop up Money-Market Funds With Quiet Bailouts in Face of Losses*, WALL ST. J., June 10, 1994, at C1; Leslie Eaton, *Paine Webber to Bail Out Fund Battered by Complex Securities*, N.Y. TIMES, July 23, 1994, at 1 (detailing a \$268 million bailout by Paine Webber of its Short-Term U.S. Government Securities Fund that had experienced enormous losses from derivatives); James K. Glassman, *Steer Clear of Funds Too Good to Be True*, WASH. POST, July 17, 1994, at H1 (describing losses sustained by "below average" risk intermediate-term bond funds due to dealings in derivatives); Robert McGough & Sara Calian, *Adviser Puts Cash in Zweig Cash Fund To Compensate for Losses in Derivatives*, WALL ST. J., June 13, 1994, at C20; Robert McGough & Sara Calian, *Funds Pay Price for Mortgage Derivatives' Returns*, WALL ST. J., June 9, 1994, at C1; Robert McGough & Anita Raghavan, *Paine Webber Again Props Up Bond Fund*, WALL ST. J., July 25, 1994, at C1 (analyzing Paine Webber's efforts to retain investor confidence after losses due to derivatives in what was described as a safe fund). Congress and the SEC are scrutinizing these losses. Mark H. Anderson, *SEC Chief Levitt Warns Mutual Funds To Be Cautious in Handling Derivatives*, WALL ST. J., June 21, 1994, at C18; Sara Calian, *Kidder Removes Derivatives From 5 Funds*, WALL ST. J., Sept. 1, 1994, at A3; Saul Hansell, *S.E.C. Asked to Study Derivatives in Funds*, N.Y. TIMES, June 16, 1994, at C14; *Kitchen-Sink Bonds: Paine Webber's \$180 Million Mistep*, N.Y. TIMES, July 26, 1994, at C1 (brokerage firm spends \$180 million to cover losses from "kitchen-sink" bonds held by one of its mutual funds). See generally *The Mutual Fund Mystery, How are Mutual Funds Using OTC Derivatives? Nobody Knows for Sure*, 3 DERIVATIVES STRATEGY 1 (May 16, 1994); Stephen Power, *SEC Officials Plan to Require Managers To Report More Data on Mutual Funds*, WALL ST. J., June 27, 1994, at A14 (discussing proposed action by the SEC requiring more disclosure of fund portfolios in light of sharp declines of many mutual funds due losses tied to derivatives); *SEC Is Likely to Act Soon On Derivatives Disclosure*, WALL ST. J., July 21, 1994, at A7 (discussing measures proposed by the SEC to convey to investors risks from bond funds and to improve disclosure practices of bond objectives and derivatives activities).

¹³⁵ Steven Lipin & Gabriella Stern, *Bankers Trust Gets Big Boost From Sale Of Derivatives; Another Client Has Loss*, WALL ST. J., Apr. 21, 1994, at A3. The drug related death of the founder of W.R. Lazard, an investment banking firm, also raised eyebrows when it was revealed that his firm was the subject of an investigation in connection with millions of dollars of fees paid by the New York State Job Development Authority in connection with derivative transactions. William Power et al., *Lazard's Death Came as Firm Was Probed*, WALL ST. J., May 13, 1994, at B1; William Power, *W.R. Lazard Is Said to Be the Focus Of Ongoing Inquiry Into Possible Fraud*, WALL ST. J., May 16, 1994, at A4; *Official Died of Overdose*, WALL ST. J., May 18, 1994, at C4; see also Leslie Scism, *Tiny Hawaii Insurer Makes Wrong Call Using Derivatives, Is Seized by the State*, WALL ST. J., July

The amounts of these losses are not unimpressive, and they have not passed unnoticed by regulators, Congress, and the industry itself.¹³⁶ Indeed, a number of often voluminous reports have

20, 1994, at C1 (discussing seizure of insurance company due to losses from trading in billions of dollars of derivatives with margin requirements at only 2%); Michael Siconolfi & Anita Raghavan, *CS First Boston Is Said to Repay Big Clients*, WALL ST. J., July 19, 1994, at C1 (discussing \$40 million in repayments to three institutional clients after CS First Boston made unauthorized derivatives trades in the clients' private portfolios).

On the other side of the balance sheet, one brokerage firm announced in Mar. of 1994 that it had made profits of over \$700 million from its over-the-counter derivative products trading. Michael Siconolfi, *Merrill Lynch Says Derivatives Revenue Swelled 57% to \$761 Million Last Year*, WALL ST. J., Mar. 17, 1994, at A10. Of course, the possibility of such profits suggests that losses could be equally great in a less favorable trading environment. Indeed, some banks have seen significant shrinkages in trading profits from derivatives as interest rates rose. *Psyched Out*, THE ECONOMIST, Apr. 23, 1994, at 74; Gabriella Stern and Clare Ansberry, *Growing Pains, Its Acquisition Binge Has Loaded Banc One With Maze of Branches*, WALL ST. J., Apr. 11, 1994, at A1; Lipin et al., *supra* note 132, at A1; *see also* Lipin & Stern, *supra*, at A3.

¹³⁶ *See* Kenneth H. Bacon & Greg Hitt, *Derivatives Face New Regulation From Congress*, WALL ST. J., May 11, 1994, at A4. Growth of the derivatives market is expected to slow as a result of losses, regulatory concerns, and market developments. Randall Smith & Steven Lipin, *Fast-Paced Derivatives Market Is Losing Some Speed*, WALL ST. J., June 14, 1994, at C1; Tracy Corrigan, *Mood Is Sombre As Bears Spoil The Fun*, FIN. TIMES (Survey), May 26, 1994, at I. *See also* *Pain And Gain*, THE ECONOMIST, July 9, 1994, at 80 (discussing the downturn in the market for complex derivative instruments due to losses by leveraged investors and bond funds); Sara Calian, *Funds Prodded To Shed Assets In Derivatives*, WALL ST. J., July 5, 1994, at C1 (describing efforts by regulators and actions by ratings services that encourage funds to divest high risk derivatives). *But see* Tim W. Ferguson, *The SEC's Common Denominator*, WALL ST. J., Aug. 2, 1994, at A15 (discussing a poll of two hundred CEOs that found 83% satisfied with how derivatives have performed, and only 2% planning to use them less in the future).

Political interest in derivatives trading was also heightened by revelations in Mar. of 1994 that the President's wife, Hillary Rodham Clinton, had made a profit of \$100,000 from a \$1,000 investment in commodities futures trading. *In the Pink?*, WALL ST. J., Apr. 29, 1994, at A14; Bruce Ingersoll & Jeffrey Taylor, *Data Confirm Mrs. Clinton's Risky Trades*, WALL ST. J., May 27, 1994, at A12; Dean Baquet, Jeff Gerth & Stephen Labaton, *Top Arkansas Lawyer Helped Hillary Clinton Turn Big Profit*, N.Y. TIMES, Mar. 18, 1994, at A1; Michael K. Frisby & Bruce Ingersoll, *First Lady Turned \$1,000 Investment Into a \$98,000 Profit, Records Show*, WALL ST. J., Mar. 30, 1994, at A2. It was later revealed that her broker had been disciplined for improperly allocating trades among customers and for attempting to manipulate the Chicago Mercantile Exchange egg futures market in 1970. Jeffrey Taylor and Bruce Ingersoll, *Hillary Clinton's Commodities Broker Was Disciplined for Variety of Violations*, WALL ST. J., Mar. 29, 1984, at A18. The owner of the brokerage firm where Hillary Rodham Clinton had traded was also accused by investors of manipulating the cattle futures market during the period when she was trading. That case was subsequently dismissed. *Utesch v. Dittmer*, 947 F.2d 321 (8th Cir. 1991). *See also* Jeffrey Taylor, *Clinton Broker Was Targeted In '79 Lawsuit*, WALL ST. J., June 1, 1994, at A2; Barnaby J. Feder, *Mrs. Clinton's Windfall: The Brokers' View*, N.Y. TIMES, Mar. 31, 1994, at A 10, col. 4; Stephen Labaton, *The Arkansas Broker's Office That Handled Clinton Trades*, N.Y. TIMES, Mar. 31, 1994, at A 10; Stephen Labaton, *Hillary Clinton Turned \$1,000 into \$99,540, White House Says*, N.Y. TIMES, Mar. 30, 1994, at A1; Jeffrey Taylor & Bruce Ingersoll, *Cash Cows "Red" Bone's*

been published on financial derivatives and the dangers they pose.¹³⁷ Few, if any, of the reports have suggested any specific regulatory process for these instruments other than more financial sheet disclosures, increased internal monitoring controls, and reduction of legal uncertainties in set off arrangements ("netting"). There has also been much debate on risk based net capital requirements and clearinghouse arrangements that will approximate an exchange trading environment without requiring complete uniformity of contracts.¹³⁸ No consensus has been reached on these proposals, but some additional balance sheet disclosures are being required,¹³⁹ and regulators are contemplating some incremental

Business Was Wildly Profitable and Profitably Wild, April 1, 1994, at A1; Jeffrey Taylor, *Broker Recalls Mrs. Clinton's Trading, Denies Her Profit was from Favoritism*, WALL ST. J., April 11, 1994, at A16; David L. Brandon, *The Mystery of Hillary's Trades*, WALL ST. J., Apr. 7, 1994, at A14; Earl C. Gottschalk Jr., *If Hillary Clinton Made Money in Commodities, Why Can't You? Well, Let's Count the Reasons . . .*, WALL ST. J., Mar. 28, 1994, at C14. See generally *Washington Wire*, WALL ST. J., May 13, 1994, at A1; (potential Supreme Court nominee made \$ 500,000 from commodity futures speculations during 1970s). Michael Kelly, *The President's Past*, N.Y. TIMES MAG., July 31, 1994, at 20, 22 (describing Hillary Rodham's cattle futures dealings with Clinton friend James Blair that netted a nearly 10,000 percent return); Tim W. Ferguson, *A Commodities Cast That Won't Be Playing Washington*, WALL ST. J., July 5, 1994, at A13 (discussing prior business dealings of Robert Lee (Red) Bone, Hillary Rodham Clinton's broker in dealings in cattle futures); Eric D. Randall, *First Lady's Profit Lures Investors to Commodities*, U.S.A. TODAY, July 21, 1994, at 3B (describing the increase in investor activity in commodity markets after the disclosure that Hillary Rodham Clinton earned \$100,000 from a \$1,000 investment in cattle futures).

There have also been politicians in earlier years who have been embarrassed by commodity speculations. See generally ROBERT J. DONOVAN, *CONFLICT AND CRISIS* 349-50 (1977) (Truman administration charged with using government information to trade in futures); CURT GENTRY, J. EDGAR HOOVER: THE MAN AND THE SECRETS 432 (1991); WAYNE G. BROEHL, JR., *CARGILL: TRADING THE WORLD'S GRAIN* 657-58 (1992) (Drew Pearson charges that Senators Happy Chandler from Kentucky, Pappy O'Daniel of Texas, and Scott Lucas from Illinois, as well as Ed Pauley (a Truman supporter and former official of the Democratic National Committee) profited from grain speculations); T.H. WATKINS, *THE GREAT DEPRESSION, AMERICA IN THE 1930s* 235 (1993) (The radio priest, Father Coughlin, a political threat and irritant to Franklin Roosevelt, was found to have been speculating in silver futures contracts, apparently using funds solicited from contributors responding to his radio program); Smith & Lipin, *supra* note 1.

¹³⁷ There are a number of studies being conducted internationally on risks related to derivatives. See Henry T.C. Hu, *Misunderstood Derivatives: The Causes of Informational Failure and the Promise of Regulatory Incrementalism*, 102 YALE L.J. 1457, 1461 n.14 (1993).

¹³⁸ These issues are discussed *infra* at notes 203-32 and accompanying text.

¹³⁹ The Financial Accounting Standards Board issued a statement on April 15, 1994 that required disclosure of derivative risk and financial reports. This included subjective descriptions of risk, the strategies for the transaction and other matters. This was to increase off-balance sheet risk disclosure. Lipin et al., *supra* note 125, at A7. See generally CFTC REPORT, *supra* note 118, Working Paper 4-1. For a world-wide survey of accounting and regulatory treatment of derivatives, see *A Global Survey, FUTURES AND OPTIONS WORLD DIRECTORY AND REVIEW* 37 (1994).

regulatory requirements.¹⁴⁰ This "incremental" approach also seems to have won academic approval,¹⁴¹ but a Government Accounting Office Report has suggested that more is needed.¹⁴²

One report was prepared by the CFTC in response to a Congressional directive in the Conference Report to the Futures Trading Act of 1992.¹⁴³ It examined the over-the-counter market at some length and concluded that no greater regulation was needed.¹⁴⁴ The report, however, appeared to be driven more by ideology than a serious assessment of the risks portrayed by derivative instruments.¹⁴⁵ The CFTC has always been a reluctant regula-

¹⁴⁰ See *Business and Finance*, THE ECONOMIST, July 30, 1994, at 5 (international regulators issue regulatory guidelines for banks and broker-dealers that deal in derivative instruments).

¹⁴¹ Hu, *supra* note 137, at 1464; see also *Your Financial Future*, THE ECONOMIST, May 14, 1994, at 15. An incremental approach has not been accepted by at least one Congressman. Hansell, *Panel*, *supra* note 9, at D1 (Rep. Edward J. Markey: "I am not at all convinced that voluntarism by the dealers and incremental adjustments of existing regulation will be sufficient to respond to the new risks created by derivatives.").

¹⁴² See *infra* notes 168-70 and accompanying text; see also John Connor, *Inquiry Launched of Derivatives Use By Both Fannie Mae and Freddie Mac*, WALL ST. J., July 5, 1994, at C18 (discussing an inquiry by the Office of Federal Housing Enterprise Oversight into the sharp increase in the use of derivatives by the Federal National Mortgage Association and the Federal Home Loan Mortgage Corp.).

¹⁴³ CFTC REPORT, *supra* note 118. The CFTC was directed by Congress to make this study to determine if additional regulation was needed. *Id.* at 1.

¹⁴⁴ *Id.* at 1.

¹⁴⁵ As stressed in the CFTC report, and by the agency's former chairman, the risks to the market are smaller than the large notional amount of outstanding derivative contract. *Id.*; Gramm, *supra* note 119, A12. The often referred to fact that there are trillions of dollars in outstanding swaps transactions is a reference to the amounts of the underlying commodity and not to the payment streams that are being swapped. As noted by Merrill Lynch's financial statements:

notional or contractual amounts of these instruments [derivative instruments] do not represent the Company's exposure to credit risk. Credit risk arises from the failure of a counterparty to perform according to the terms of a contract. The Company's exposure to credit risk associated with swap and forward contracts is limited to the current costs to replace all contracts in which the Company has a gain. The Company monitors such exposure and collateral values daily and requires counterparties to deposit additional collateral when necessary.

Merrill Lynch, Pierce, Fenner & Smith Inc. and Subsidiaries, Consolidated Balance Sheet as of December 31, 1993, at 10.

A Congressional report also stated that:

The notional amount represents the principal balance underlying a derivative agreement. It is the amount upon which payment to counterparties are calculated, and functions as the fictitious principal generating the cash flow in a derivative agreement. The two parties to a derivative agreement trade the cash flow yield, not the notional amount. The notional amount is not at risk; typically, only 2-5% of the notional amount represents credit exposure.

LEACH REPORT, *supra* note 3, at 1 n.1. This, however, may not be an insubstantial risk

tor. For the most part, its views are that the markets should regulate themselves. That argument is not without a great deal of substance, but that position exposes the financial system to a great deal of uncertainty that has not generally been tolerated for other financial instruments.¹⁴⁶

Another study was conducted by a Steering Committee of the Group of Thirty, a private group of major financial institutions chaired by Paul Volcker. This study expressed the view that "[d]erivatives by their nature do not introduce risk of a fundamental difference or of a greater scale than those already present in the financial market."¹⁴⁷ The study asserted that "supervisory concerns can be addressed within the present regulatory structures and approaches."¹⁴⁸

The Group of Thirty study did not seek any fundamental change in the regulation of derivatives and stated that separate regulation of derivatives would conflict with existing supervision.¹⁴⁹ "There is also a danger in imposing regulatory formulas that inhibit new product innovation or discourage firms from developing the individualized, robust risk management systems on which they should rely."¹⁵⁰ Instead, the Group of Thirty study sought to "de-

as where a fixed rate obligation is swapped for a variable rate. Experience is also proving that many derivatives can magnify market risks if not handled properly. The Metallgesellschaft case is one of the more dramatic cases of such an occurrence. See *supra* note 120 and accompanying text.

¹⁴⁶ The CFTC report did propose a joint task force of the Federal Reserve Board, the SEC and the Office of the Comptroller of the Currency. *Papering Over the Cracks*, FUTURES & OPTIONS WORLD DIRECTORY & REVIEW, 1994, at 35. The CFTC report further stated that its:

central conclusion is that while no fundamental changes in the regulatory structure appear to be needed at this time to address issues presented by the growing use of OTC derivatives, greater coordination among federal financial regulators would help assure that federal oversight remains adequate. Finding that the "systemic and public policy issues suggested by these products are not confined to any single market or to the province of any one regulator," the Report recommends the establishment of an interagency council to consider common approaches to such issues as market information access, transparency, internal management controls, and the development of clearing facilities for OTC derivatives.

CFTC REPORT, *supra* note 118, at 1.

¹⁴⁷ GROUP OF THIRTY REPORT, *supra* note 2, at i.

¹⁴⁸ *Id.* The GROUP OF THIRTY REPORT also asserted that derivative activities still remain "modest in relation to foreign exchange, bonds, or equities." *Id.* at 2.

¹⁴⁹ *Id.* The Bank of England found the Group of Thirty report to be "somewhat complacent." *Papering Over the Cracks*, FUTURES & OPTIONS WORLD DIRECTORY & REVIEW, 1994, at 35.

¹⁵⁰ GROUP OF THIRTY REPORT, *supra* note 2, at 3. The GROUP OF THIRTY REPORT did note: "Because over-the-counter derivatives are customized transactions, they often

fine a set of sound risk management practices for dealers and end-users of derivatives and instruments."¹⁵¹

Governmental reports on the derivatives market have been more alarming in their tone, but they too have vacillated on the nature and amount of the regulation needed for derivative instruments. A report by the International Monetary Fund expressed the concern that derivatives are making it harder for regulators to assess the risk of the faults in the system.¹⁵² More aggressively, the Comptroller of the Currency directed banks under his regulatory supervision to adopt comprehensive risk management systems for their derivatives trading.¹⁵³ He wants banks using these instruments to anticipate unexpected risks.¹⁵⁴ The Comptroller of the

assemble risks in complex ways. This can make the measurement and control of these risks more difficult and create the possibility of unexpected loss." *Id.* at 3. As another industry official stated: "[d]erivatives are not a high-stakes on the fringes—they are at the heart of the American economy. To regulate them in the wrong way is to regulate the economy in the wrong way. No-one wants that." Thomas Russo, Managing Director, Lehman Brothers, Inc., *Derivatives Regulation: Lessons From the Past and a Proposal for the Future*, Address at a luncheon sponsored by the Futures Industry Institute (Mar. 4, 1994), at 12.

¹⁵¹ GROUP OF THIRTY REPORT, *supra* note 3, at i.

The Group of Thirty study sent forth twenty recommendations to help those using over-the-counter derivatives to manage that activity. *Id.* at 3. These recommendations included the following: establishment of risk management policies at the highest levels of firms on the firms use of derivatives; marking of derivatives at their market price for risk management purposes; quantification of market risks by stimulations and forecasting; assessment of credit risks from counterparties; reduction of credit risk by master agreements that have netting provisions; establishment of market and credit risk management functions; employment of professionals to manage derivative risks; establishment of management information systems; and adoption of accounting and disclosure practices with greater transparency. *Id.* at 7-8. The Group of Thirty Study concluded that governmental efforts should focus on clarifying legal uncertainties and in "resolving legal inconsistencies between countries that may impede risk-reduction procedures. . . ." *Id.* at i.

¹⁵² Patrick Harverson, *Regulation, Temperature Has Cooled Markedly*, FIN. TIMES (Survey), Oct. 20, 1993, at VIII.

¹⁵³ Office of the Comptroller of the Currency, *Risk Management of Financial Derivatives*, Banking Circular No. 277 (Oct. 27, 1993).

The concern with bank activities in the derivatives market may be justified: "The three biggest players in the derivatives game are New York banks - Chemical Bank, Bankers Trust, and Citicorp. Together, these three banks are into this market for over \$6 trillion; Chemical Bank alone is in for \$2.5 trillion. All of these banks have Federal deposit insurance." 140 CONG. REC. S5828-04, S5837 (statement of Rep. Dorgan 1994).

¹⁵⁴ Kenneth H. Bacon, *U.S. Announces Some Guidelines for Derivatives*, WALL ST. J., Sept. 28, 1993, at C13.

The Federal Reserve Board advised its supervisory officials that bank examinations should include a determination of the bank maintains written policies and procedures concerning the institution's risk management procedures for derivative activities. Bank examiners have also been directed to review internal control and au-

Currency also required these banks to ensure that the derivative products they were selling were appropriate for their customers.¹⁵⁵

A joint policy statement issued on March 15, 1994 by the SEC, CFTC, and England's Security and Investment Board ("SIB") expressed a desire for more information on the derivative activities of the firms they regulate, tighter management controls, and "prudent risk based capital."¹⁵⁶ It is unclear what the latter means, but concerns have been expressed that this may mean large amounts of capital if the SEC is left to determine the amount.¹⁵⁷

The number of reports on derivative instruments continue to

dit procedures for derivatives, to determine whether senior management of the bank is evaluating regularly the procedures to manage risk of derivative instruments and whether management control is independent of those conducting trading activities. In addition, banks supervised by the Federal Reserve Board are to conduct stress tests on their derivatives, risk taking guidelines should be implemented, reporting systems should be in place, credit risks should be assessed, credit limits imposed, liquidity risks should be managed and internal controls and audits should be in place. Board of Governors of the Federal Reserve System, Memorandum to the Officer in Charge of Supervision of Each Federal Reserve Bank, SR93-69 (FIS), Examining Risk Management and Internal Controls for Trading Activities of Banking Organizations (Dec. 20, 1993).

¹⁵⁵ Kenneth H. Bacon, *U.S. Issues Guidelines on 'Derivatives' Obliging Banks to Mull Customer Needs*, WALL ST. J., Oct. 28, 1993, at A24 [hereinafter Bacon, *U.S. Issues Guidelines*]. The Comptroller of the Currency required banks to make sure that they understood and could monitor and control derivative risks. Banks were required to understand the risks associated with the derivatives transactions in which they are engaged. *Id.*

The Comptroller of the Currency also issued a twenty-three page circular on May 10, 1994 that further described the responsibilities of banks engaged in derivatives transactions. Kenneth H. Bacon, *Derivatives Rule Being Widened By Comptroller*, WALL ST. J., May 10, 1994, at A2 [hereinafter Bacon, *Derivatives Rule*]. This circular was designed to answer questions raised by the prior circular on this subject. Of particular concern to the banks was the scope of the requirement for determining the appropriateness of derivatives for bank customers. Office of the Comptroller of the Currency, Questions and Answers for Banking Circular 277, OCC Bulletin (OCC 94-31) (May 10, 1994); Keith Bradsher, *Banks Are Warned on Derivatives*, N.Y. TIMES, July 22, 1994, at D14 (Treasury Department official's warning to the banking industry concerning derivatives, the risks they pose and the difficulty in assessing those risks).

The banks have increasingly been expanding their operations and adding to their profits through trading activities in capital market operations. These changes have been described as "dramatic." Chemical Bank, for example, reported revenues of \$1 billion in 1993 that were based on trading revenues rather than lending. The Bank of America had more profits from trading in capital markets than from lending. *When to Throw 'em Back*, THE ECONOMIST, Mar. 12, 1994, at 81, 82. Bankers Trust has become the largest derivatives dealer. In 1993, over 50 percent of its revenue was derivatives (some \$600 million), but in the fourth quarter of 1994, it lost some \$49 million from its trading activities. Saul Hansell, *Bankers Trust Faces Review of Credit Rating By S.&P.*, N.Y. TIMES, May 2, 1994, at C1; Lipin et al., *supra* note 125, at A1, A7.

¹⁵⁶ *OTC Derivatives Oversight*, 2 Comm. Fut. L. Rep. (CCH) ¶26,003 (Mar. 15, 1994).

¹⁵⁷ *Out of Tune*, THE ECONOMIST, Mar. 19, 1994, at 97. For a discussion of capital requirement issues, see *infra* notes 210-32 and accompanying text.

grow. There has been a Promisel Report (a working group study commissioned by the Governors of the Central Banks of the Group of Ten Countries), a report by The Bank of England and the Institute of International Finance, and a task force was established by senior bank managers from European, Japanese, and United States banks at the Institute of International Finance.¹⁵⁸

An aggressive and massive report was prepared at the behest of Representative James A. Leach by the minority staff of the House Committee on Banking, Finance and Urban Affairs.¹⁵⁹ This report contained some thirty recommendations for the imposition of strengthened regulatory standards. Among other things, these recommendations sought a strong capital requirement to guard against risks posed by derivative instruments,¹⁶⁰ greater coordination among regulatory authorities to assure comparable regulatory standards, enhancement of disclosure standards for firms using derivative instruments, and requirements for specific written policies on risk standards that would be approved by the boards of directors of these firms.¹⁶¹ Another recommendation sought to discourage insured financial institutions from engaging in derivative activities unless they could demonstrate sufficient sophistication and capital to withstand the risks of that trading.¹⁶²

Several regulatory bodies also responded to inquiries from the Leach Committee. They expressed the view that the growth and complexity of derivative instruments require monitoring, examination, and supervision and that they should receive the highest regulatory priority. The agencies acknowledged that significant benefits were being received from derivatives, but they also were of the view that these instruments should be limited to sophisticated

¹⁵⁸ LEACH REPORT, *supra* note 3, at 45-47. See also INTERNATIONAL ORGANIZATION OF SECURITIES COMMISSIONS, REGULATION OF DERIVATIVES MARKETS, PRODUCTS AND FINANCIAL INTERMEDIARIES (June 1990) (describing various models or approaches to the regulation of derivatives markets).

¹⁵⁹ LEACH REPORT, *supra* note 3.

¹⁶⁰ Capital requirements are discussed *infra* at notes 209-31 and accompanying text.

¹⁶¹ Letter from James A. Leach, Ranking Member, House Committee on Banking, Finance and Urban Affairs to Banking Committee Colleagues, Nov. 22, 1993 (enclosure entitled: Recommendations for Stronger Regulatory Standards).

¹⁶² *Id.* Many of the Leach Report recommendations were directed at the derivative activities of insured financial institutions. *Id.* Interestingly, the report also recommended that:

The U.S. Treasury should evaluate the benefits of utilizing derivative instruments for hedging purposes to improve the efficiency of government financial management practices. Sovereigns around the world use derivatives for financial risk management purposes.

Id.

financial institutions. Regulators wanted to be sure that the capital, expertise, and operating procedures of firms using these instruments are maintained at appropriate levels. The agencies did not, however, believe that it was necessary to change the current regulatory framework.¹⁶³ Still, regulatory proposals continue to surface because the risks posed by derivatives are substantial.¹⁶⁴

The regulators are slowly awakening to the fact that derivative instruments are now posing a threat to the financial system, if for no other reason than their size alone. There has been a fear expressed by certain regulators and commentators that the failure of a major derivatives participant could send shock waves throughout the financial system as a whole. This threat of single "systemic risk has been raised by some like a banner in battle for more laws and more regulation."¹⁶⁵ The SEC is actively considering what new regulations are needed for the firms it oversees. The SEC has also been placing pressure on firms it regulates to present more financial information about their derivative trading activities.¹⁶⁶

The SEC's efforts were given a boost by the General Account-

¹⁶³ LEACH REPORT, *supra* note 3, at 50.

¹⁶⁴ See, e.g., *Taking Stock of Risk*, THE ECONOMIST, Apr. 16, 1994, at 7; see also CFTC News Feature, Aug. 1994, at 2 (discussing a paper issued by the International Organization of Securities Commissions' Technical Committee guiding regulators "on a framework of management control mechanisms" for firms engaged in over-the-counter derivatives activities).

¹⁶⁵ Russo, *supra* note 150. "Systemic risk is the risk that a disruption by any participant or group of participants causes widespread difficulties at other firms, in other segments, or in the financial system as a whole." LEACH REPORT, *supra* note 3, at 13.

¹⁶⁶ *New Disclosure Rules Sought for Derivatives*, N.Y. TIMES, May 4, 1994, at C8. See also John Connor & Stephen Power, *Markey Bill Would Give SEC Oversight Over Unregulated Derivatives Dealers*, WALL ST. J., July 14, 1994, at C22 (discussing SEC negotiations with six of the nation's largest securities firms to set voluntary standards on their derivatives sales and trading practices); Jeffrey Taylor & Steven Lipin, *SEC, Six Firms Work to Set Derivatives Rules*, WALL ST. J., July 6, 1994, at C1 (same).

See generally Richard Waters, *SEC Scrutinises Use of Derivatives*, FIN. TIMES, May 25, 1994, at 17. Most derivative instruments had been "off balance sheet" items that were only mentioned in footnotes to the financial statements of firms dealing in derivatives. The footnote material provided very little data as to the amount of risk or profits and losses from those instruments. It was at the urging of the SEC that firms engaging in derivative transactions have disclosed their profits and losses from that activity. This still presents a limited window, because not all institutions are disclosing complete information, but it certainly is revealing to the extent that brokerage firms and other financial institutions are engaging in derivative trading. See Michael Siconolfi, *supra* note 135, at A10.

Oddly, the SEC's own massive study of the future of the securities markets reserved comment on the derivatives market and their regulation. SEC Division of Market Regulation, *Market 2000 Report: An Examination of Current Equity Market Developments* (Jan. 1994); *SEC Statement on and Excerpts from the Division of Market Regulation's Market 2000 Report* (BNA) (Jan. 27, 1994).

ing Office ("GAO") which prepared a report that sought increased regulation of broker-dealers, their affiliates, insurance companies, and other firms that deal in derivatives and which are not regulated by the banking authorities.¹⁶⁷ The GAO Report stated that there is an immediate need "for Congress to bring the currently unregulated OTC derivatives activities of securities firm and insurance company affiliates under the purview of one or more of the existing federal financial regulators and to ensure that derivatives regulation is consistent and comprehensive across regulatory agencies."¹⁶⁸ The GAO Report also recommended that regulators develop centralized information on the extent of over-the-counter dealer's counterparty concentrations and derivatives earnings, and that they develop a consistent set of capital standards for derivatives and establish requirements for internal controls for derivative dealers.¹⁶⁹

V. REGULATORY ACTION IS NEEDED

There are numerous proposals for the regulation of derivatives that range from creating a new regulatory commission to the imposition of SEC regulations.¹⁷⁰ They all suffer, however, from a lack of consensus on the appropriate regulatory model to apply. There is a reason for this disharmony. Most of the dealers and end users in this market are financial institutions that traditionally have been subjected to less intensive regulation than broker-dealers in their dealings with public customers. The SEC and the CFTC have also been turning away from applying the full panoply of their powers to institutional investors. For example, "accredited" investors (institutions and wealthy individuals) are exempted by SEC Regula-

¹⁶⁷ Richard Waters & Patrick Harverson, *US Derivatives Probe Urged*, FIN. TIMES, May 19, 1994, at 1; Saul Hansell, *Report on Derivatives Said To Seek New S.E.C. Power*, N.Y. TIMES, May 5, 1994, at C1; Steven Lipin, *GAO Report Urges Controls For Derivatives*, WALL ST. J., May 5, 1994, at C1. The GAO proposals have met almost universal industry opposition, and the Chairman of the Federal Reserve Board has disagreed with its conclusions. Hansell, *Key Supporter*, *supra* note 9, at C1, C5; John Gapper, *Call for New Swap and Option Curbs Rejected*, FIN. TIMES, June 7, 1994, at 5; *Generally Against Options*, THE ECONOMIST, May 21, 1994, at 87.

¹⁶⁸ UNITED STATES GENERAL ACCOUNTING OFFICE, FINANCIAL DERIVATIVES, ACTIONS NEEDED TO PROTECT THE FINANCIAL SYSTEM 14 (May 1994).

¹⁶⁹ *Id.* at 15-16. The GAO Report also somewhat expansively recommended that Congress "address the need to revamp and modernize the entire U.S. financial regulatory system." *Id.* at 15.

¹⁷⁰ Representative Leach has proposed a new Federal Derivatives Commission. The Commission would set policy and the SEC and CFTC and banking regulators would enforce the new legislation, if it were enacted. Russo, *supra* note 150.

tion D¹⁷¹ from certain of the requirements of the federal securities laws. The private placement exemption in the Securities Act of 1933¹⁷² also exempts many institutional transactions from the prospectus and other requirements of that statute.¹⁷³ Consequently, protection of institutions in their financial dealings is generally limited to common law style protections from fraud and breach of contract. The theory is that institutions have the sophistication and wherewithal to protect themselves. They do not need the elaborate prospectus requirements and other customer protections available to retail customers in the securities industry.

The growth of derivatives has led some to question whether these assumptions for institutional investors are correct. Those questions need to be answered. The securities and futures markets are no longer dominated by individual investors. There has been a gradual shift to dominance by the institutions.¹⁷⁴ Consequently, we are at a crossroads on the proper course for the future regulation of these markets. The growth of derivatives is now forcing the issue on what fork to take.

Certainly, an exchange trading requirement such as that contained in the Commodity Exchange Act is not appropriate. That would simply stifle an innovative and economically valuable market. Similarly, the SEC style regulation for broker-dealers that deal with the public seems unnecessary.¹⁷⁵ Institutional investors simply do not need such a protective and expensive regulatory shield. They have the ability to manage their own risks. A different regulatory model, therefore, appears appropriate.

A model that would properly weigh the unique nature of the institutional investor, but at the same time guard against a financial "meltdown" would include the following elements: a designated regulator, a definition of the instruments to be regulated, regis-

¹⁷¹ 17 C.F.R. § 230.501-230.506 (1993).

¹⁷² 15 U.S.C. § 77d(2) (1988).

¹⁷³ The Futures Trading Practices Act of 1992 also authorized the CFTC to exempt institutions from the exchange trading requirement. See *supra* notes 82-84 and accompanying text.

¹⁷⁴ Individual investors decreased their direct stock holdings between 1985 and 1990 by more than one third. Individual stock ownership fell from 84 percent of holdings in 1965 to about 53 percent in 1991. William Power, *Small Investor Continues to Give Up Control of Stock*, WALL ST. J., May 11, 1992, at C1. More telling, in 1990, fewer than twenty percent of trades were being conducted by individuals. U.S. CONGRESS, OFFICE OF TECHNOLOGY ASSESSMENT, ELECTRONIC BULLS AND BEARS: U.S. SECURITIES MARKETS AND INFORMATION TECHNOLOGY 7 (Sept. 1990) [hereinafter ELECTRONIC BULLS AND BEARS].

¹⁷⁵ For a description of that regulatory system, see DAVID A. LIPTON, *BROKER-DEALER REGULATION* (1990).

tration of dealers, large trader reports, and a risk based capital or other methodology for guarding against excessive exposure from the leverage available from derivatives. The regulatory structure should also contain some mechanism for assuring that firms dealing in derivatives have adequate internal monitoring and accounting controls. Each of these elements are discussed below.

A. *Defining the Derivative and Registration of Dealers*

The "kingpin" of any effective regulatory structure is a registration requirement for the dealers in the market.¹⁷⁶ This registration requirement identifies the dealers to the regulator. The regulator can then screen out irresponsible firms and impose substantive regulation on the firms that meet minimum entry requirements. This is not a radical step. Similar requirements were imposed by the Government Securities Act of 1986 for an equally important market.¹⁷⁷

Moreover, as a former CFTC chairman notes, more than ninety percent of the top fifty entities dealing in interest rate swaps are banks, financial firms, or their affiliates that are already subject to regulation.¹⁷⁸ Therefore, a registration requirement should not be too unduly burdensome. The SEC is also already regulating the activities of affiliates of the firms they regulate through risk disclosure and internal controls requirements.¹⁷⁹ The CFTC is considering similar requirements.¹⁸⁰

¹⁷⁶ See, e.g., *Stotler & Co. v. CFTC*, 855 F.2d 1288 (7th Cir. 1988); *Maloley v. R.J. O'Brien & Assoc., Inc.*, [1986-1987 Transfer Binder] Comm. Fut. L. Rep. (CCH) ¶ 23,012 (C.F.T.C. 1986), *rev'd on other grounds*, [1986-1987 Transfer Binder] Comm. Fut. L. Rep. (CCH) ¶ 23,625 (8th Cir. 1987); *Regional Properties v. Fin. & Real Estate Consulting Co.*, 678 F.2d 552 (5th Cir. 1982); *Eastside Church of Christ v. National Plan, Inc.*, 391 F.2d 357, 362 (5th Cir.), *cert. denied*, 393 U.S. 913 (1968).

¹⁷⁷ An Undersecretary of the Treasury has proposed a derivatives model for regulation based on the Government Securities Act. Russo, *supra* note 150, at 10.

¹⁷⁸ Gramm, *supra* note 119, at A12. The former Chairman, however, opposes additional regulation. *Id.*

¹⁷⁹ 17 C.F.R. §§ 240.17-1T, 17h-2T (1993). The SEC's rules require the broker-dealer to establish and maintain policies for monitoring and controlling the financial and operational risks to it from the activities of affiliates. 17 C.F.R. 17h-1T(a) (1993). These rules were proposed after the failure of Drexel Burnham and pursuant to authority in the Market Reform Act of 1990. See Exchange Act Release No. 34-29,635 (Aug. 30, 1991); Exchange Act Release No. 34-30,929 (July 16, 1992). The SEC's Chairman has stated that this is sufficient authority for it to regulate the activities of broker-dealer affiliates, but he also indicated that this authority does require the affiliates to submit to SEC examination. Hansell, *Key Supporter*, *supra* note 9, at C1, C5.

¹⁸⁰ The CFTC proposal requires access by it to information concerning affiliates that might have a material effect on the futures commission merchants registered with the CFTC. 59 Fed. Reg. 9689 (Mar. 1, 1994). Those records also concern the

The application of the registration requirement is, nonetheless, really a three-step process. First, the instruments for which dealing in will require registration require definition. This will be a relatively straightforward process for garden variety swaps and other now more traditional derivatives. There are, however, an ever increasing number and variations of derivatives that will require the regulatory agency to define the instruments to be regulated.¹⁸¹ There will also be some harsh political concerns, such as whether to include the interbank currency market within the definition. Heretofore, that market has only been loosely regulated by the banking authorities.¹⁸²

The second step will be to define the dealers that will need to register. This will include at least the banks and securities affiliates who are now the principal dealers in the derivatives market. The dealers required to be registered should be distinguished from the end users of the products, who are the beneficiaries of this regulatory scheme. That distinction may not be easy since end users may be heavily involved in the market and have some characteristics of a dealer. One approach would be to define the end user as someone that is hedging or engaging in derivatives for investment only.

The third step in the registration process will be to identify the regulator with whom registration is required. The Government Securities Act of 1986 provides a useful model. Affiliates of broker-dealers could register with the SEC and be subject to its requirements, while banks could file notices with their regulators. The adoption and enforcement of regulations could also be shared by the regulators, as is the case under the Government Securities Act.¹⁸³

risk management policies and information on the derivative and other activities of affiliates.

¹⁸¹ Over 1200 derivative instruments have been identified to date. Berton, *supra* note 4, at C12.

¹⁸² The European Union Parliament is considering a tax on speculative transactions in the foreign exchange markets as the result of large scale speculations by George Soros and others that disrupted the European Exchange Rate Mechanism. 140 CONG. REC. H2202-01, H2205 (1994) (statement of Rep. Gonzalez); 139 CONG. REC. H3821-04, H3824-25 (1994) (statement of Rep. Gonzalez); Christian Tyler, *Private View: The Man who Broke the Bank of England*, FIN. TIMES, Jan. 2, 1994, at 16; Friedman, *supra* note 127, at D1, D6.

¹⁸³ Self-regulatory bodies such as the NASD or a body such as the Municipal Securities Rulemaking Board could also play a significant role. See *supra* note 115 and accompanying text. For a discussion of the role of self-regulation see e.g., Sam Scott Miller, *Self-Regulatory Organizations in the Securities Industry: Does Membership Have Its Privileges?* 19 SEC. REG. L.J. 3 (1992); Sam Scott Miller, *Self-Regulation of the Securities Markets: A Critical Examination*, 42 WASH. & LEE L. REV. 853 (1985).

B. Substantive Regulation

An assessment of the risks associated with derivatives must be made in order to determine what substantive regulations are needed for end users and derivative dealers. The risks posed by derivative instruments can be grouped into two large categories—product risk and counterparty risk.¹⁸⁴ Each of those risks pose particular regulatory concerns.

Product risk can come in infinite varieties, depending on the nature of the particular derivative product. Product risk most often turns on the leverage that most derivative instruments provide in one form or another.¹⁸⁵ Concerns continue to grow that

¹⁸⁴ One author has noted that the two most important risks associated with derivatives in the over-the-counter market are credit risks and market risks. The market risk is identified as "the risk that interest rates or other market factors will move adversely." Hu, *supra* note 137, at 1468. This might be better defined as product risk because market risk will behave differently with different instruments. For example, a put option sold by a firm can cause severe losses when the market goes down dramatically, while a short futures contract would provide a profit to the seller under the same circumstances. In any event, the elements of market risk include the delta risk, gamma risk, vega risk, beta risk, basis risk, correlation risk, and rho risk. These risks respectively concern changes in the value of the portfolio due to changes in the underlying instruments, changes in the value of the portfolio due to changes in the implied volatility of the underlying instruments, changes in value as a result of passage of time because of the time value associated with derivative instruments, and changes in value of a portfolio due to interest rate changes used to discount future cash flow. GROUP OF THIRTY REPORT (Appendix 1), *supra* note 2, at 9.

¹⁸⁵ A small amount of capital invested in such an instrument allows the investor to profit or lose from price changes in a large notional amount of the underlying commodity. A large adverse price move can result in large losses that very quickly exceed the initial investment. Generally, however, end user institutions are hedging in some form or another. This means that the firm will have a position that will offset any gain or loss on the derivative transaction.

A good illustration of hedging is found in the function served by the futures markets. To illustrate, in conformance with modern portfolio theory, institutional investors may trade diversified stock portfolios whose value will reflect changes in the overall stock market, as exemplified by the S&P stock index or another index. See generally *American Pension Funds Indexing Fingered*, THE ECONOMIST, Apr. 30, 1994, at 84, 87. If the portfolio manager's pricing models suggest that there will be a stock market correction, the value of the portfolio will be reduced accordingly. The portfolio manager could sell the entire portfolio and avoid that loss. But this would be expensive in transactional costs. It could also cause adverse tax or other consequences, particularly if the portfolio manager will buy back these stocks to reinvest the proceeds of the sales after the market corrections. The portfolio manager can avoid those problems by simply selling S&P futures contracts or engaging in an equity swap for the value of the portfolio. In the event the value of the portfolio diminished, the proceeds from the futures contract or swap would offset the reduction in the value of the portfolio from the anticipated market correction. If the portfolio manager was wrong, however, and the stock market index (and the portfolio itself) actually increased rather than declined as anticipated, then the portfolio will have lost the value of the increase because the value reflected by that increase would be paid out on the futures contract or

the management of the firms trading these instruments do not always understand their risks.¹⁸⁶ As set forth above, that concern is sometimes supported by actual instances of serious losses.¹⁸⁷ In fact, a survey of companies using derivative instruments indicated that much of the financial management of those firms, and most of the board of directors, did not understand derivatives risk.¹⁸⁸

swap. The futures contract or swap, therefore, is simply acting as insurance to guarantee the present value of the portfolio.

Derivatives may also be used as "anticipatory" hedges. To illustrate, a corporate treasurer plans to borrow a large sum of money in sixty days. He anticipates, however, that rates will rise steeply before the loan is taken down. He would like to lock in today's rate for this long term loan. He could do this by immediately borrowing the funds, but this is expensive and may not be possible for any number of practical reasons. Alternatively, the treasurer could enter into a futures contract or an over-the-counter interest rate "ceiling" that will effectively cap his interest rates at today's levels. There will be a cost to this, but that is the insurance premium to be paid for locking in the rate.

Where a derivatives end user is hedging, the derivative instrument is merely acting as a form of insurance. A premium will be paid for the insurance that hedging provides. The hedger will have financing costs for margin calls, option premiums or derivative transactions fees or commissions. These costs may be significant. The value of a futures style hedge may also be lost if margin funds are not available, and losses may even result. Losses may also occur because of differences in the commodity being hedged and the commodity underlying the derivative instrument, causing pricing disparities. See generally *Minpeco, S.A. v. Conticommodity Services, Inc.*, 676 F. Supp. 486 (S.D.N.Y. 1987) (large losses experienced by an entity that was speculating instead of hedging).

Unfortunately, if a hedge is not properly placed, large losses can still result, as exemplified by the Metallgesellschaft debacle. The United States unit of Metallgesellschaft A.G. was allowed to trade in extremely large quantities of futures contracts because it was purportedly hedging its physical commitments, and it had huge over-the-counter derivatives obligations as well. These commitments were not properly matched with its physical commitments. Instead of insuring against losses from price changes, the result was a staggering loss. Taylor & Sullivan, *supra* note 120, at C14; Taylor & Bacon, *supra* note 120, at C1.

¹⁸⁶ See generally *Taming the Treasurer*, THE ECONOMIST, June 4, 1994, at 15.

¹⁸⁷ See *supra* notes 120-36 and accompanying text.

¹⁸⁸ Lipin et al., *supra* note 125, at A1.

A subset of product risk is legal risk, which may be the greatest danger so far from derivative instruments, as exemplified by a United Kingdom case in which municipal authorities were found not to have had the authority to enter into swap contracts and concerns with the exchange trading requirement in the Commodity Exchange Act. See LEACH REPORT, *supra* note 3, at 10-11.

A Congressional report also identified several forms of product risk from derivatives instruments including settlement risks, market risks, operating risks, market liquidity risks, aggregation, and interconnection risks. *Id.* at 7-13. Settlement risks occur where a firm pays for delivery before receipt of assets or payments from a counterparty. *Id.* at 9. Operating risks arise where there are inadequate internal controls, system failures or fraud. *Id.* at 9. Market liquidity risks arise where an instrument cannot be sold or replaced quickly close to its fundamental values. *Id.* at 10.

The Group of Thirty identified the following risks related to derivative transactions: market liquidity, as where a large transaction has an effect on the price of the

The counterparty risk is a more individualized problem. This risk simply involves the issue of whether the party opposite an over-the-counter derivative instrument will perform on the contract.¹⁸⁹ Credit controls such as those used for lending, futures trading, and other credit activities have, to date, limited losses from this risk.¹⁹⁰ Nevertheless, there are concerns that a large default by a large trader could impose substantial losses.¹⁹¹

Each of these risks—product and counterparty—raises different regulatory concerns. Each requires different regulatory approaches for dealers and end users. For product risks, internal controls, record keeping, accounting standards, and large trader

instrument; basis or correlation risks between a derivative instrument and the underlying instrument; investing and funding risks from cash flow mismatches; credit risks of counterparties; credit risks of the individual instrument where there is a default and the instrument has to be replaced; settlement risks where the delivery of the security and the delivery of the payment are not synchronized; operational risks where there are inadequate control systems or accounting systems; and legal risks as to the validity of the derivative contract that is in place. GROUP OF THIRTY REPORT, *supra* note 2, at 44-52.

¹⁸⁹ "The credit risk arising from derivatives is the same credit risk that banks face in their normal function of extending loans. The evaluation of credit risks in a derivative transaction is typically the same as that which is used to analyze the credit risk associated with making loans." LEACH REPORT (PART 2), *supra* note 3, at 40-41.

¹⁹⁰ Derivative instruments are also being developed to deal with credit risk. Laurie Morse, *Risk and Reward, Fresh Challenge for Users of Derivatives*, FIN. TIMES, May 30, 1994, at 21.

¹⁹¹ The counterparty risk has become a marketing tool for the larger firms dealing in derivatives. A highly rated credit classification provides comfort to those with whom they are dealing and makes their instruments more attractive than those offered by their competitors. William B. Crawford, Jr. *In Swaption World It Has To Be AAA*, CHI. TRIB., Feb. 20, 1994, at C1; Ann Schwimmer, *Lehman's Simple Solutions Solves Swaps Sub Quandary*, INVESTMENT DEALERS' DIGEST, Feb. 14, 1994, at 10.

One recent joint venture in derivatives was mandated because of the need for capital. Lazard Freres did not have sufficient capital for such a venture and it therefore enlisted Credit Agricole of France. Under their joint venture, Lazard's exposure was to be limited to its capital contribution, but Credit Agricole was required to stand behind all the derivative transactions of the firm. "As a result, one of its chief contributions to the venture will be financial executives who will monitor risk." Saul Hansell, *Lazard Finds Brawny Ally For Derivatives*, N.Y. TIMES, Mar. 22, 1994, at D1.

Brokerage firms have sought to isolate their derivative activities from their securities regulated operations through the creation of separate affiliates, but they have had to heavily capitalize them to assure a top credit rating. *See infra* note 203. Salomon Bros., for example, reportedly put up one hundred and seventy five million dollars to fund its swap unit. Mayer, *supra* note 119, at A18.

The derivative product subsidiaries that have been created include Merrill Lynch Derivative Products, Inc., GS Financial Products International, L.P. Goldman Sachs, and Swapco Salomon Brothers. LEACH REPORT (PART II), *supra* note 3, at 41. Banque Paribas has formed its own subsidiary BPC and several insurance companies have subsidiaries such as AIG financial products and General RE Financial Products Corporation. *Id.* The banks have been prevented from setting up their separate swap units for their transactions. Mayer, *supra* note 119, at A18.

reports will form the basis for regulation. Credit controls, net capital, and other considerations will determine the appropriate regulation for counterparty risks....

VI. REGULATING PRODUCT AND COUNTERPARTY RISKS—THE DEALERS

The basic prerequisite for any effective system of controls for product risks from derivative instruments are recognition and accounting. A firm that is trading derivative instruments must be able to recognize the risks they pose (counterparty and product risks), and the firm must be able to account in an orderly manner for those transactions. Both of these requirements are intertwined.¹⁹²

The accounting system of a firm dealing in derivatives must not only be able to book the transactions, it must also provide enough information to assess their risk. This means that the accounting records of the firm should reflect the amount of outstanding obligations, their nature, and there must be some mechanism for assessing the risk that they pose to the firm in the event of adverse events. For example, in the Metallgesellschaft case, the firm was undoubtedly unaware of the number of transactions on its books and their nature.¹⁹³ It failed, however, to assess the risks of offsetting short-term futures obligations with longer term derivative instruments. The basis differences between those two instruments took an unexpected course as the price of oil dropped. This resulted in losses that accumulated at a rapid rate, eventually reaching some \$1.37 billion.¹⁹⁴

An effective accounting system must, therefore, document transactions and assign some risk factor to them. The latter is a difficult exercise. Nevertheless, option pricing models have been developed to assess the risk from engaging in many derivative transactions. These models make some basic assumptions as to dangers posed by the instrument and allow the trader to determine the proper method of coverage.

Of course, danger still lurks here because the assumptions may not be correct.¹⁹⁵ To be effective, the accounting system must de-

¹⁹² The creation of a derivative dealer is no small task. One dealer had four units which included "a quantitative analysis and research group, an equity group, taxable fixed-income, and municipal derivatives." Jessica Sommar, *Derivatives Group Formed in Smith Barney Shake-up*, INVESTMENT DEALERS' DIGEST, June 14, 1993, at 7.

¹⁹³ See *supra* note 120.

¹⁹⁴ *Id.*

¹⁹⁵ For a discussion of pricing models and some of their flaws, see Hu, *supra* note

velop a derivative pricing model that realistically assesses risk. That model must be constantly updated to reflect changing market conditions. In areas where standardization is occurring, such models may be developed on an industry wide basis; although an industry model can compound errors in assumptions.¹⁹⁶

Dealers must also have an effective system of internal controls to assess and control risks once they are identified in the accounting and reporting systems of the firms. The bank regulatory authorities have already acted to require banks dealing in derivatives to establish internal systems of controls. For example, the Federal Reserve Board ('the Fed') issued a circular that requires its examiners to examine the internal controls of banks.¹⁹⁷ The Fed is also field testing a manual that evaluates a bank's risk management process. Those procedures seem adequate to assure proper controls. The Office of the Comptroller of the Currency has also established similar requirements for the banks it supervises.¹⁹⁸

The supervision requirements imposed by the banking author-

137, at 1478. This author notes that theoretical models all depend upon unrealistic assumptions. *Id.* He also notes that product complexity will reduce the efficiency of risk models. *Id.* at 1479; see also *Emerging-Market Options More a Shrub Than a Hedge*, THE ECONOMIST, Mar. 12, 1994, at 88 (discussing risks posed by option pricing models and the hedge ratios they use).

¹⁹⁶ In the absence of industry models, the cost of risk assessment can be high. Financial specialists will be required and a great deal of management time may be required to be devoted to this area, particularly if management is unfamiliar with these instruments. Industry models could be constantly updated and would be subject to industry-wide criticism if they are not properly reflecting the risk of particular transactions. The danger, of course, is that a herd instinct will prevail and large unforeseen risks may be overlooked or built in on an industry-wide basis. This could compound losses in the industry. Individual models could hopefully reduce that danger by providing more eyes to the same problem and diversify assumptions, but it is questionable whether the costs would be worth that additional benefit. In any event, an industry-wide pricing model would at least account for some of the more obvious risks and, hopefully, for some of the less obvious.

An additional problem with industry-wide models is that many derivative products are specifically crafted for unique situations that might not lend themselves to modeling.

¹⁹⁷ Board of Governors of the Federal Reserve System, Memorandum to The Officer in Charge of Supervision at Each Federal Reserve Bank, *Examining Risk Management and Internal Controls for Trading Activities of Banking Organizations*, SR 93-69 (FIS) (Dec. 20, 1993).

¹⁹⁸ See *supra* notes 153-55 and accompanying text. The Comptroller of the Currency has indicated that he may seek further restrictions on derivative products being sold by nationally chartered banks. These include limits on such investments, particularly proprietary trades. Karr, *supra* note 4, at A3. The Comptroller of the Currency found that there were some six nationally chartered banks that were engaging in speculative trading operations. He also stated that banks accounted for some \$12 trillion of the \$14 trillion market in derivatives in the United States. Keith Bradsher, *Banks' Securities Trading Makes Comptroller Fearful*, N.Y. TIMES, Apr. 21, 1994, at D1. There are

ities should be extended to broker-dealer affiliates and other new registrants under the regulatory scheme proposed by this article. The SEC can also extend its accounting and reporting requirements for broker-dealers directly to affiliates and to otherwise unregulated dealers to further assure the adequacy of the affiliate's controls.¹⁹⁹ The audit required by SEC Rule 17a-5²⁰⁰ for broker-dealers must be conducted in accordance with generally accepted auditing standards and must include a review of the broker-dealer's accounting system and its internal accounting controls and procedures for safeguarding securities.²⁰¹

A central component of a regulatory scheme will undoubtedly be capital requirements. The central issue of the regulatory scheme will be the form of such requirements. Banks and broker-dealers have existing capital requirements, but those requirements may not be appropriate for many derivative activities.²⁰² Net capi-

some 362 banks involved in derivative transactions. Saul Hansell, *Derivatives Get a Key Supporter*, N.Y. TIMES, May 26, 1994, at D1.

¹⁹⁹ For a discussion of the SEC's affiliate rules, see *supra* notes 179-84.

²⁰⁰ 17 C.F.R. §240.17a-5 (1993).

²⁰¹ The Rule 17a-5 audit requirement was revised in 1965 to emphasize that the purpose of an audit was to enable the accountant to express an opinion on the effectiveness of internal control procedures. Exchange Act Release No. 7683, 1965 SEC LEXIS 724 (Aug. 23, 1965). The audit must be conducted in a manner that will identify, among other things, any material inadequacies in the accounting system of the broker-dealer, its internal accounting controls or in its procedures for meeting the possession and control requirements of Rule 15c3-3. 17 C.F.R. § 240.17a-5(g)(1) (1993). A material inadequacy in the accounting system of a broker-dealer or its other procedures would include any condition that could inhibit a broker-dealer from promptly completing securities transactions or meeting responsibilities to customers or creditors, result in material financial loss, result in material misstatement of the broker-dealer's financial statements or result in violations of SEC record keeping or financial responsibility requirements. 17 C.F.R. § 240.17a-5(g)(3) (1993).

Where an auditor discovers a material inadequacy in the accounting system of broker-dealer or its internal accounting control procedures for safeguarding securities, the auditor is to call the deficiency to the attention to the chief financial officer of the broker-dealer. 17 C.F.R. § 240.17a-5(h)(2) (1993). The chief financial officer has the responsibility to inform the SEC and the broker-dealer's examining authority of this deficiency by telegraphing notice within twenty-four hours. *Id.* The broker-dealer must also supply the accountant with a copy of this notice. If the accountant fails to receive a copy of the notice within twenty-four hours, it must itself advise the SEC of the deficiency. *Id.* If it disagrees with the statements contained in the broker-dealer's notice, the accountant must also advise the SEC and the broker-dealer's designating examining authority within twenty four hours. *Id.*

²⁰² "To avoid the SEC's net capital requirements for swaps, a number of securities firms have created affiliates to handle their derivatives positions." The SEC, however, can require them to disclose information about their affiliates. The SEC has begun to require such information. CONGRESSIONAL RESEARCH SERVICE REPORT, *supra* note 1, at 21.

This is not to suggest that these affiliates are undercapitalized. To the contrary, a triple A credit rating is an essential part of becoming a swap and OTC derivative

tal rules would have to be extended to the presently unregulated dealers, including the affiliates of broker-dealers.²⁰³

The SEC's net capital rule seeks to assure "that broker-dealers maintain sufficient liquid assets to satisfy promptly the claims of customers and broker-dealers, and to provide a cushion of liquid assets in excess of liabilities to cover potential market and credit risks."²⁰⁴ The net capital rule "tests both financial strength and liquidity."²⁰⁵ It is "the principal regulatory tool by which the Commission and the exchanges monitor the financial health of

dealer. Many smaller firms have been taken over by major firms or major firms have created subsidiaries with AAA credit ratings in order to facilitate this business. Crawford, *supra* note 191, at C1; Schwimmer, *supra* note 191, at 10.

²⁰³ The SEC has all ready had some experience with financial activities of unregulated affiliates that can endanger a regulated broker-dealer. The liquidation of Drexel Burnham after its regulatory troubles required the joint efforts of the New York Federal Reserve Bank, the Department of the Treasury, the Federal Reserve Board, the New York Stock Exchange and the SEC. Although they facilitated the liquidation and transfer of Drexel's customer accounts without loss, the collapse of Drexel Burnham led to much concern as to the adequacy of the regulation of broker-dealers. ELECTRONIC BULLS AND BEARS, *supra* note 174, at 116. It was found that the activities of the Drexel's parent company and affiliates, over which the SEC did not have regulatory control, caused Drexel Burnham's failure. *Id.* at 115. The parent company of Drexel had to drain off excess capital of its regulated affiliates because it was having difficulty obtaining short term financing as a result of its many regulatory troubles and market conditions. The SEC stated that:

Drexel had over \$1 billion in commercial paper and other unsecured short term borrowings. Unsecured borrowing, particularly through the commercial paper market, is a common financing technique used by many large broker-dealer holding companies. As a result significant losses and a decline in the rating of its commercial paper, Drexel found it more difficult to renew its short-term borrowings. Drexel was then forced to look to the liquid sources of capital in its assets—the excess of net capital of DBL and an affiliated government securities dealers.

Exchange Act Release No. 34-28347 (Aug. 15, 1990).

Drexel moved over two hundred million dollars to the holding company without the knowledge of the New York Stock Exchange or the SEC. *Id.* When the SEC learned of Drexel's financial plight, that firm had more than \$400 million in short term liabilities coming due within two weeks and an additional \$330 million scheduled to mature in the following month. *Id.* After the failure of Drexel Burnham, the SEC moved to amend its net capital rule to prohibit broker-dealers from withdrawing capital to benefit affiliates or parent companies where such withdrawals would be detrimental to the integrity of the broker-dealer. *Id.* The SEC's proposals established a new early warning level that would preclude capital withdrawals by affiliates without notice to the SEC or where the withdrawal would endanger the broker-dealer.

²⁰⁴ SECURITIES AND EXCHANGE COMMISSION, DIVISION OF MARKET REGULATION, THE OCTOBER 1987 MARKET BREAK 5-1, 4-72 (Feb. 1988) [hereinafter 1987 CRASH REPORT]. "The rule helps promote the financial viability of, and public confidence in, the securities industry by protecting both customers and other broker-dealers from risks and exposures in the broker-dealer." *Id.*

²⁰⁵ SEC v. Los Angeles Trust Deed and Mortgage Exch., 186 F. Supp. 830, 856 (S.D. Cal. 1960).

brokerage firms and protect customers from the risk involved in leaving their cash and securities with broker-dealers."²⁰⁶

²⁰⁶ *Touche Ross & Co. v. Redington*, 442 U.S. 560, 570 (1979) (footnote omitted). The net capital rule is "one of the most important weapons in the Commission's arsenal to protect investors." *Blaise D'Antoni & Assoc., Inc. v. SEC*, 289 F.2d 276, 277 (5th Cir. 1961); *In re Hinkle Northwest Inc.*, Exchange Act Release No. 34-15338 (Nov. 16, 1978).

The SEC's net capital requirement stems back to the 1920's, when the New York Stock Exchange began to examine its member firms to assure that their capital was adequate to sustain their businesses. These examinations sharply reduced the number of member firm failures, as did the adoption of a rule that established a maximum permissible ratio between a member firm's net capital and customer debit balances. *Molinari & Kibler*, *supra* note 96, at 8 & n.41.

The efforts of the New York Stock Exchange prevented large scale failures by its members during the Stock Market Crash of 1929. Congress, nevertheless, determined to impose capital requirements as a part of the regulatory structure established by the Securities Exchange Act of 1934. That act authorized the SEC to establish permissible ratios of the "aggregate indebtedness" of broker-dealers to their "net capital (exclusive of fixed assets and value of exchange membership) employed in the business, but not exceeding in any case 2,000 per centum. . . ." 15 U.S.C. 78h(b) (1934).

The SEC's net capital rule received little attention until an SEC study of the securities markets in 1963. The study found that a disproportionate number of violations of SEC rules occurred among broker-dealers with limited capital and that firms with minimal net capital had a significantly higher chance of falling into financial difficulties. SECURITIES AND EXCHANGE COMMISSION, REPORT OF THE SPECIAL STUDY OF THE SECURITIES MARKETS, H.R. DOC. NO. 95, 88th Cong., 1st Sess. 84-85, 92 (1963). The brokerage industry's paperwork crisis in the late 1960's resulted in further net capital concerns. As noted by the Supreme Court:

Following a period of great expansion in the 1960's, the securities industry experienced a business contraction that led to the failure or instability of a significant number of brokerage firms. Customers of failed firms found their cash and securities on deposit either dissipated or tied up in lengthy bankruptcy proceedings. In addition to its disastrous effects on customer assets and investor confidence, this situation also threatened a 'domino effect' involving otherwise solvent brokers that had substantial open transactions with firms that failed.

Securities Investor Protection Corp. v. Barbour, 421 U.S. 412, 415 (1975). An investigation of the paperwork crisis by a subcommittee of the House Committee on Interstate and Foreign Commerce subsequently found that many of the broker dealers experiencing financial difficulties were relatively new firms with small initial capitalization. This tended "to produce a rapid and relatively serious deterioration in financial stability during the period of market decline in 1969 and 1970." Nicholas Wolfson & Egon Guttman, *The Net Capital Rules for Brokers and Dealers*, 24 STAN. L. REV. 603, 609 (1972) (footnote omitted).

The SEC, thereafter, established an "early warning" mechanism that required broker-dealers to notify it when their net capital ratio declined below a specified ratio. Exchange Act Release No. 34-9268 (July 30, 1971). See generally SECURITIES AND EXCHANGE COMMISSION, STUDY OF UNSAFE AND UNSOUND PRACTICES OF BROKERS AND DEALERS, H.R. DOC. NO. 231, 96th Cong., 2d Sess. 28 (1971).

The 1975 amendments to the Securities Exchange Act also required the SEC to "establish minimum financial responsibility requirements for all brokers and dealers." 15 U.S.C. 78o(c)(3) The amendment was in response to perceived self-regulatory failures: "This amendment . . . was largely the result of the failure of [the New York

The SEC's net capital rule is not directly based on a risk assessment of the positions held by a broker-dealer. Rather, it is a liquidity test designed to assure that broker-dealers can meet their obligations to customers in a timely manner.²⁰⁷ The SEC, however, has taken recognition of the particular risks posed by derivative instruments. For example, following the Stock Market Crash of 1987, the SEC substantially raised the absolute minimum net capital requirement for broker-dealers.²⁰⁸ The SEC noted that its net capital levels had not increased for some fourteen years and that the complexity of markets and the various activities of broker-dealers had changed dramatically. Specifically, it noted that broker-dealers were engaging in complex products such as interest rate swaps, foreign currency, mortgage backed securities, options, and futures.²⁰⁹

This was not the SEC's first encounter with derivative instruments. Many of the broker-dealers it regulated were also participants in the futures markets and large scale defaults in those markets had shown to the SEC that its capital requirements should include provisions for those instruments.²¹⁰ Further, the SEC had

Stock Exchange] to enforce its own net capital rule, rule 325, against certain of its members during the 'Paperwork Crisis' of 1967-1970." Molinari & Kibler, *supra* note 96, at 15 n.94 (citation omitted). See also Joel Seligman, *Transformation of Wall Street* 457-60 (1982). The SEC, thereafter adopted a "uniform" net capital rule for all brokers and dealers.

The new rule continued the "basic" net capital concept in effect but also introduced an "alternative" means for measuring the capital adequacy of broker-dealers. The "basic" method for computing net capital limited the permissible amount of "aggregate indebtedness" of a broker dealer to fifteen hundred percent of the broker-dealer's "net capital." 17 C.F.R. 240.15c3-1 (1993). Broker-dealers using the "alternative" method were required to maintain net capital in an amount equal to the greater of one hundred thousand dollars or a four percent of "aggregate debit items," but the required four percent level was reduced in 1982 to two percent of aggregate debit items. Michael P. Jamroz, *The Net Capital Rule*, 44 BUS. LAW. 863, 866 (1992). In 1992, the minimum amount of net capital for broker-dealers engaging in a general securities business was increased to \$250,000. Securities Exchange Release No. 34-31511 (Nov. 24, 1992).

²⁰⁷ *Id.*

²⁰⁸ Exchange Act Release No. 34-31511 (Nov. 24, 1992). For example, broker-dealers that hold customers funds or securities were required to have a minimum net capital of two hundred fifty thousand dollars. *Id.*

²⁰⁹ Exchange Act Release No. 34-27249 (Sept. 15, 1989).

²¹⁰ For example, the SEC took action to guard broker-dealers from the effects of commodity futures transactions after the Great Salad Oil Swindle in the early 1960s that caused the suspension of two broker-dealers, Ira Haupt & Co., and J.R. Williston & Bean. Exchange Act Release No. 9891 (Dec. 25, 1972). Those provisions are contained in a separate appendix to the net capital rule. 17 C.F.R. § 240.15c3-1b (1993). Appendix B to the SEC's net capital rule requires certain adjustments to be made to net worth and aggregate indebtedness for specified commodities transactions. *Id.* For background on the Salad Oil swindle, see NORMAN C. MILLER, *THE GREAT SALAD OIL SWINDLE* (1965).

acquired regulatory jurisdiction over exchange traded equity options that made their appearance on the Chicago Board Options Exchange, Inc. in 1973. Transactions in such options quickly grew in volume to the point that they constituted a major marketplace in and of themselves.²¹¹ The highly leveraged nature of those options

An equally serious net capital concern arose in 1980 as a result of futures trading during the Hunt "Silver Crisis," which threatened the capital of some large brokerage firms. Staff of the SEC, Report on the Silver Crisis of 1980 (Oct. 1982). The SEC changed its net capital rule to compensate for the dangers presented to broker-dealers by the futures trading of the Hunts and others. Exchange Act Release No. 17927 (July 9, 1981); Exchange Act Release No. 34-17564 (Feb. 20, 1981).

The CFTC also imposes net capital requirements on futures commission merchants, *i.e.*, futures brokers. The statutory authority to impose minimum financial responsibility requirements on firms engaged in the futures business was not enacted, however, until 1968, and it did not prove effective. Pub. L. No. 90-258, 82 Stat. 26 (1968). Soon after its creation in 1975, the CFTC began examining methods to strengthen financial responsibility requirements in the commodity futures industry. Among other things, the CFTC strengthened regulatory requirements by requiring audited financial statements and increased reporting concerning the financial condition of futures commission merchants. In so doing, the Commission sought to make its net capital requirements uniform throughout the futures industry, except that firm's meeting approved minimum financial requirements of contract markets would still not be subject to those requirements. Proposed Financial Reporting Requirements for Futures Commission Merchants [1975-1977 Transfer Binder] Comm. Fut. L. Rep. (CCH) ¶ 20,220 (Oct. 15, 1976). Later, the CFTC stated that increased net capital and reporting requirements were needed to reflect changes in the industry. Futures Commission Merchants; Minimum Financial Requirements; Proposed Rulemaking [1977-1980 Transfer Binder] Comm. Fut. L. Rep. (CCH) ¶ 20,423 (C.F.T.C. May 26, 1977).

The CFTC subsequently adopted a rule to require all contract markets to adopt minimum financial requirements for their members. The rule, however, allowed the exchanges to delegate the monitoring of a member's financial responsibility to a single contract market in instances where a futures commission merchant was a member of more than one exchange. CFTC Final Rules Governing Futures and Options Transactions, 19 Sec. Reg. & L. Rep. 1152, 1155 (BNA) (July 31, 1987). The CFTC also acted to increase uniformity of net capital requirements between the commodity futures industry and the securities industry. Proposed Adoption and Monitoring of Minimum Financial Requirements by Self-Regulatory Organizations [1977-1980 Transfer Binder] Comm. Fut. L. Rep. (CCH) ¶ 20,456 (C.F.T.C. Aug. 1, 1977).

Today, CFTC Regulation 1.17 specifies the minimum financial requirements for futures commission merchants whose customers are dealing in commodity instruments regulated by the CFTC and who are not members of a self-regulatory organization. 17 C.F.R. § 1.17(a)(1) & (2) (1993). CFTC regulations require futures commission merchants to maintain adjusted net capital in the greater of fifty thousand dollars or four percent of customer funds required to be segregated pursuant to the Commodity Exchange Act, less the market value of commodity options purchased by options customers on a contract market. Broker-dealers dually registered with the SEC can fulfill CFTC requirements by meeting the amount of net capital required by the SEC's net capital rule. 17 C.F.R. § 1.17(a)(1)(i)(C) (1993).

²¹¹ See generally HOUSE COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE, REPORT OF THE SPECIAL STUDY OF THE OPTIONS MARKETS TO THE SECURITIES AND EXCHANGE COMMISSION, 96th Cong., 1st Sess. (Comm. Print 1979).

transactions required special net capital treatment. Accordingly, an appendix was added to the net capital rule for options transactions.²¹² Further improvements were made as the result of concerns on the options markets during the Stock Market Crash of 1987.²¹³

In May of 1993, as the result of growing concerns with the derivatives market, the SEC issued a "concepts" release seeking comments on the need for additional net capital requirements for those broker-dealers engaging in transactions in the derivative products markets. The SEC was concerned that the risks inherent in these transactions, which would include such things as options, futures contracts, forward contracts, and swaps, presented dangers to broker-dealers that were not being reflected in the current net capital rule. The SEC release reviewed various proposals by the Securities Industry Association and others for risk models that could be used for net capital requirements for derivatives.²¹⁴

²¹² 17 C.F.R. § 240.15c3-1a (1993). The SEC has adopted a system for "haircuts" (*i.e.*, reductions in value for net worth deductions to reflect lack of liquidity) for listed options held by broker-dealers that establishes differing standards for firms carrying accounts of options specialists and those held by other broker-dealers. 17 C.F.R. § 240.15c3-1(c)(2)(x) (1993). The latter are governed by Appendix A of the Rule. 17 C.F.R. § 240.15c3-1a (1993). Appendix A presents a peculiarly difficult method for computing net capital with regard to options positions. It essentially requires a deduction for most uncovered option positions. While this concept may be simple, the method for deriving the appropriate amount is not. The complex formula is designed to take into account the value of the underlying securities as well as the value of the option. 17 C.F.R. § 240.15c3-1a(b)(1) (1993). The SEC's net capital rule for options thus:

provides for two different capital treatments for standardized options positions held by broker-dealers. The first approach assumes that options will be exercised or held to expiration. Therefore, capital charges are based on the market value of the underlying security. The second approach assumes that options will be traded and, therefore, capital charges are based on the market value of the option rather than the underlying security. Both approaches generally assess minimum charges for uncovered option positions or recognized option strategies.

LEACH REPORT (PART 2), *supra* note 3, at 177.

²¹³ The SEC staff concluded from its study of the 1987 Crash that net capital requirements for short options positions were inadequate to insure against the risk of major market movements. 1987 CRASH REPORT, *supra* note 204, at 5-46. The SEC staff also questioned whether increased net capital requirements should be imposed for futures positions because the staff believed that exchange-set margin levels were sometimes inadequate, and because margin changes in a volatile market required rapid net capital adjustments that might be difficult without adequate capitalization. *Id.* at 5-16.

²¹⁴ Exchange Act Release No. 34-32256 (May 4, 1993). See also Sandra Block, *SEC Will Hold Forum on Rules For Derivatives*, WALL ST. J., May 5, 1993, at A6.

The [SEC] Concept Release proposes adopting a theoretical pricing model system developed by the Options Clearing Corporation to deter-

The SEC's proposal was a significant departure from the liquidity standard of its traditional net capital requirement. The SEC was aware that its traditional net capital requirements were penalizing derivative instrument dealers because unrealized profits associated with an over-the-counter derivative are treated as an unsecured receivable that is subject to one hundred percent capital charge. This had resulted in brokers and dealers forming subsidiaries to avoid this problem.²¹⁵

The SEC sought to deal with criticism of the application of its net capital requirements to derivatives by proposing a special rule for such transactions that is based on a risk assessment of derivatives.²¹⁶ For exchange traded options, the SEC would allow the use of the Cox-Ross-Rubenstein binomial model that would use the options theoretical gains and losses in relation to assumed value fluctuations.²¹⁷ The SEC is allowing firms to experiment with this risk capital approach while it is reviewing comments.²¹⁸ This, hope-

mine haircuts for broker-dealers' standardized options positions under the net capital rule. The proposal under consideration would require broker-dealers to take a capital charge on a portfolio of options on a given underlying instrument equal to the difference between the closing market prices and the options' theoretical prices after applying assumed market movements of the underlying instrument and after netting theoretical profits and losses on those positions.

The Concept Release stated that because the market risk of a derivative product is related to the market risk of the underlying asset, the underlying asset may be used to offset the market risk of the derivative. Participants in the derivative markets argue that the appropriate approach to measuring market risk is not to measure the price sensitivity of the individual contract, but of the portfolio of contracts and related assets and liabilities that a particular dealer holds.

LEACH REPORT (PART 2), *supra* note 3, at 177.

²¹⁵ LEACH REPORT, *supra* note 3, at 29.

²¹⁶ For example, with respect to interest rate swaps:

The Concept Release presented two alternative approaches. The first approach would calculate exposure from a large interest rate swap book into a portfolio of specified debt securities that are equivalent, in terms of interest rate sensitivity, to the swap payment flows. These derived securities would then be treated under the net capital rule in the same way as actual bond positions with the same characteristics. The value of the derived securities would be calculated in terms of the zero coupon bond equivalent. The second approach is to assign the notional amount of the swaps to the maturity bonds currently in use for government securities, and apply a capital charge, ranging from 0-6%, depending on maturity. The capital charges of long and short positions in swaps could be offset depending on the relative maturities of two swaps, or could be hedged with other debt instruments.

LEACH REPORT, *supra* note 3, at 75.

²¹⁷ Exchange Release No. 34-33761 (Mar. 15, 1994).

²¹⁸ *Id.*

fully, will provide some meaningful data on the efficacy of such an approach.²¹⁹

²¹⁹ The SEC has been less helpful in cooperative efforts to establish uniform capital standards on an international basis. The International Organization of Securities Commissions ("IOSCO") has spent several years in an effort to create a common international standard for net capital requirements for securities firms. An IOSCO proposal sought to create the equivalent of the Basle Accord that established an international capital standard for banks as a cushion against loan defaults. See *Securities Regulation: Capital Spat*, THE ECONOMIST, October 31, 1992, at 76; Tracy Corrigan & Robert Peston, *IOSCO Setback Over Common Capital Requirements*, FIN. TIMES, Oct. 27, 1992, International Capital Markets at 33. See generally Nancy Worth, *Harmonizing Capital Adequacy Rules for International Banks and Securities Firms* 18 N.C.J. INT'L L. & COM. REG. 133 (1992).

In 1992, IOSCO participants proposed a net capital standard of four percent of gross holdings, plus eight percent of net holdings (after netting of long and short positions). *Securities Regulation: Capital Spat*, THE ECONOMIST, October 31, 1992, at 76; *New Rules for Banks*, THE ECONOMIST, May 8, 1993, at 20. The SEC Chairman, however, objected to the IOSCO proposal. Instead, he advocated a net capital standard equal to a minimum of fifteen percent of gross holdings. The SEC Chairman believed that the IOSCO proposal was dangerous because the netting of positions would mean that many securities firms would have a capital standing of only four percent of their unhedged positions, which might be "dangerously low." He was also concerned that hedged positions might not always operate as an effective hedge. The SEC Chairman stated that, if the IOSCO proposal had been in effect during the Stock Market Crash of 1987, several more firms would have failed. *Securities Regulation: Capital Spat*, THE ECONOMIST, Oct. 31, 1992, at 76, 82. The IOSCO panel considering the establishment of global capital standards thereafter found themselves split beyond compromise after the SEC Chairman's opposition to the panel's earlier proposals. The result was to effectively stymie the development of an international net capital standard. *IOSCO Panel Drops Compromise Effort Regarding Global Capital Standards*, 25 Sec. Reg. & L. Rep. 216 (BNA) (Feb. 12, 1993).

On July 27, 1992, the Council of Ministers for the European Community adopted a "common position" on the capital adequacy of investment firms and credit institutions. Common Position Adopted by the Council on July 27, 1992 with a view to the Adoption of a Council Directive on the Capital Adequacy Of Investment Firms and Credit Institutions [hereinafter Common Position]. Among other things, the Council's position imposed a net capital requirement of ECU 125,000 for firms acting solely as brokers or managers of customer investments and which hold client's money or securities. Common Position at Article 3. Other investment firms are required to have initial capital of ECU 730,000. *Id.*

The Council's common position also established various risk-weighted formula for determining the capital adequacy of securities firms engaging in proprietary trading or other risk related activities. The common position, for example, required security firms to maintain capital equal to two percent of their gross positions in highly liquid equity securities and eight percent of their net positions. Tracy Corrigan and Robert Peston, *IOSCO Setback Over Common Capital Requirements*, FIN. TIMES, Oct. 27, 1992; *Securities Regulation: Capital Spat*, THE ECONOMIST, Oct. 31, 1992, at 76. In calculating their risk exposure on equity positions, firms are required to net their long and short positions in the same investments. The remaining long and short positions are then added together to determine the firm's overall gross position. The difference between the long and short position constitutes the firm's overall net position. Common Position, Annex I, ¶¶ 1 & 31. The Council's common position additionally establishes capital requirements for debt, foreign exchange and other instruments traded by securities firms. Common Position, Annexes I-IV.

Bank regulators have taken a somewhat different approach to capital requirements for the institutions they regulate. Capital requirements for banks engaging in derivative activities are based on the Basle Accords of 1988, an agreement among international banking authorities on the appropriate methodology for regulating bank capital.²²⁰ This standard is based on the credit risks associated with an institution's balance sheet activities, and banks are required to hold capital against the credit equivalent amount of off-balance sheet risks.²²¹

Bank regulators are now considering additional capital requirements to reflect the dangers posed by derivative instruments and related risks from interest rate exposures.²²² Comment has been sought on a proposal to establish procedures measuring bank interest rate risk exposures based on one of two methods. One

²²⁰ The Basle Committee on Banking Supervision was established by the Central Bank of Governors of the Group of Ten Countries in 1975: LEACH REPORT, *supra* note 3, at 94. Its most important achievement was the establishment of minimum capital standards for credit risks of banks. For a detailed discussion of the capital requirements for banks and their derivative instruments, see *id.* at 68-69.

²²¹ CONGRESSIONAL RESEARCH SERVICE REPORT, *supra* note 1, at 18.

In 1988, the Basle Committee on Banks and Regulations of Supervisory Practices of the Banks and International Settlements ("BIS") adopted international guidelines for Bank Standards that include all types of balance sheet instruments. The guidelines require banks to maintain capital equal to eight percent of their risk-weighted assets. The BIS provided explicit procedures for determining the risk-weight of interest rates and currency swaps.

Id. This requirement is based on the present credit risk exposure plus the potential for future credit risk exposure. Present risk is marked-to-market and represents the replacement costs of the derivative. The potential future credit exposure is the notional amount of the derivative multiplied by a risk factor of five percent or more, depending on the type of contract. The credit equivalent amount is multiplied by the proper risk-weight of fifty percent based on the identity of the counterparty or the nature of the collateral. LEACH REPORT, *supra* note 3, at 26. The risk exposure is supposed to be calculated by an original exposure method in which credit risk is assumed to be a percentage of the risk of a notional principal or current disclosure method based on current replacement costs of the contract. CONGRESSIONAL RESEARCH SERVICE REPORT, *supra* note 1, at 18. More recently, the Comptroller of Currency proposed capital requirements that would lower the risk weight from twenty to zero percent for particular transactions that are collateralized by cash or government securities. LEACH REPORT, *supra* note 3, at 27.

In addition, United States regulators have imposed a leverage capital standard on banks and thrift associations. The highest rated banks are required to maintain a leverage capital ratio of at least three percent. LEACH REPORT, *supra* note 3, at 26.

²²² Keith Bradsher, *U.S. to Order Higher Bank Reserves*, N.Y. TIMES, Sept. 1, 1994, at C1. Section 305 of the Federal Deposit Insurance Corporation Improvements Act of 1991 also requires banks to revise their risk based capital guide lines to account for interest rate risks and non-traditional activities such as derivatives. Federal Deposit Insurance Corporation Improvement Act of 1991, Pub. L. No. 102-242, §305, 105 Stat. 2236 (1991).

method is the Minimum Capital Standard which would impose a minimum capital charge based on the amount of risk exposure above a threshold level. Another method, the Risk Assessment Method, would base capital requirements on a case by case basis.²²³

The Basle Committee proposals of April 1993 would also change capital requirements to recognize market risk as well to impose a measurement of interest rate risks.²²⁴ Although this proposal is more of a measurement system than one to establish a new capital requirements,²²⁵ it would impose additional capital requirements for open positions that involve market risks.²²⁶

The regulatory struggles with an appropriate capital standard for derivatives all turn on the difficulty of risk identification and the proper methodology for measuring that risk. This is exemplified by recent statements by the Comptroller of the Currency concerning capital adequacy of national banks dealing in derivatives. He stated that capital adequacy would include factors such as "the quality of the bank's risk management systems, exposure to credit concentrations, as well as liquidity, interest rate, market, legal, and operational risks."²²⁷ Banks deficient in those factors would be expected to hold capital above minimum requirements.²²⁸ Such stan-

²²³ LEACH REPORT, *supra* note 3, at 26.

²²⁴ The Bank for International Settlements has opposed more direct regulation of derivative instruments. Philip Coggan, *BIS Wary of Direct Curbs on Derivatives*, FIN. TIMES, June 14, 1994, at 6.

²²⁵ LEACH REPORT, *supra* note 3, at 27.

²²⁶ *Id.* at 28. See also *Derivatives, The Beauty in the Beast*, THE ECONOMIST, May 14, 1994, at 21, 24; Norma Cohen, *Bank Rules to Reflect New Derivatives Risks*, FIN. TIMES, July 15, 1994, at 15 (describing rules proposed by the Basle Committee on Banking Supervision to require banks to hold more capital against complex derivative instruments). The Basle Committee proposals issued for public comment in April of 1993 would recognize reduction of credit risk from netting arrangements for derivatives contracts. The proposal also recognized market risk from derivative instruments. Criticism, however, has been directed at the market risk proposal because of the rules used for measuring risk. Susan M. Phillips, Member of the Board of Governors of the Federal Reserve System, *Derivatives and Risk Management: Challenges and Opportunities*, Remarks at the Conference on Financial Markets, Federal Reserve Bank of Atlanta 8 (Feb. 25, 1994).

Other commentators have suggested an alternative that essentially would allow banks to use their own internal models to determine capital requirements for market risk. For example, regulators could specify that banks would have to set aside sufficient capital to cover 95 percent to 99 percent of potential losses over a two week period from the positions held by the bank. This potential loss would be based on the historical movement over the last five years. Susan M. Phillips, Member of the Board of Governors of the Federal Reserve System, *Derivatives and Risk Management: Challenges and Opportunities*, Remarks at the Conference on Financial Markets, Federal Reserve Bank of Atlanta 9 (Feb. 25, 1994).

²²⁷ Kenneth H. Bacon, *Derivatives Rule*, *supra* note 155, at A2.

²²⁸ *Id.*

dards sound responsible and prudent, but they are simply words without meaning and contribute little towards the creation of a quantifiable net capital standard.

The risks from derivative instruments may not always be easily computed, even with sophisticated risk models.²²⁹ Further, derivative instruments in the over-the-counter market are almost by definition unique in their terms. Therefore, each will have a different risk assessment profile. Moreover, new instruments with wide variations are being created constantly.²³⁰

Even assuming the development of appropriate risk models, difficult issues still remain. For example, what level of capital should be required? Firms with a determined percent of exposure should be required to have a specified amount of capital to support those risks. But, how is that amount to be determined? Further, consideration must be given to counterparty risks,

²²⁹ The Group of Thirty addressed the "value at risk and its measurement for derivatives transactions:"

Value at risk is the expected loss from an adverse market movement with a specified probability over a period of time. For example, participants can determine with 97.5% probability (corresponding to calculations using about two standard deviations) that any adverse change in portfolio value over one day will not exceed a calculated amount. Conversely, the probability of an adverse change in excess of the calculated amount is 2.5%. Value at risk should encompass changes in all major market risk components and be calculated to a common confidence interval and time horizon.

GROUP OF THIRTY REPORT (Appendix I), *supra* note 2, at 8. The report noted, however, that "[m]aking assumptions as to likely rate moves and therefore risk scenarios is a somewhat arbitrary process, but consistency across activities is important." *Id.* at 9.

Firms at this point are still struggling with how to account for and value derivative positions. Upgrades in technology will be needed in order to assure integration of computer systems in a firm's dealings with swaps on any wide-scale basis. Patrick Harverson, *Technology, Integration Top of the Agenda*, FIN. TIMES (Survey), October 20, 1993, at VII. Bankers Trust, however, now offers processing for third parties of derivative instruments. Its system "tracks exposures, makes margin calls, and handles the pricing and custody of the assets pledged as collateral." Laurie Morse, *Clearing, Swaps Trade Dodges Issue*, FIN. TIMES (Survey), Oct. 20, 1993, at VI.

The derivatives futures industry is also spending considerable sums on efforts to apply complicated computer programs to measuring risk in handling derivatives transactions. Barnaby J. Feder, *Sophisticated Software Set For Exotic Financial Trade*, N.Y. TIMES, Mar. 30, 1994, at C1. Funds utilizing derivative instruments are seeking the help of outside experts in order to assess the risk of those transactions. Steven Lipin, *Firms Seek Quick Derivative Education*, WALL ST. J., Apr. 19, 1994, at C1.

²³⁰ Bankers Trust has established a method for "allocating capital based on an analysis of both credit and market risk through a unified model. Known as 'raroc' for ('risk-adjusted return on capital'), this risk capital allocation model was adjusted a year ago to take more account of the liquidity risk implicit in different types of assets, . . . (the lower the liquidity, the higher the capital charge applied internally)." Richard Waters, *New Box of Risk-Management Tricks*, FIN. TIMES (Survey), Oct. 20, 1993, at II.

concentrated positions and related concerns.²³¹

²³¹ An additional deduction is required under the SEC's net capital rule for any "undue concentration" held by the broker-dealer in the securities of a single class or series of an issuer, including any options to sell the securities. 17 C.F.R. § 240.15c3-1(c)(2)(vi)(M) (1993). This deduction does not apply to exempted securities and redeemable securities of a registered investment company. *Id.* See Exchange Act Release No. 11969 (Jan. 2, 1976); see also Wellington Management Company, 1976 SEC No-Act LEXIS 411 (Jan. 19, 1976). For a discussion of haircuts on concentrated positions, see Michael P. Jamroz, *The Net Capital Rule*, 47 Bus. Law. 863, 871 (1992). Amendments to the net capital rule that were adopted in 1992 apply concentration charges to money market instruments, securities of a single class of an issuer, and options written or endorsed on equity securities (other than exempted securities and redeemable securities of a registered investment company). 17 C.F.R. § 240.15c3-1(c)(2)(vi)(M) (1993). The concentration charge is fifty percent of the haircut otherwise required for such securities under the net capital rule or under Appendix A in the case of options. *Id.* The SEC's concentration charge is in addition to the normal haircut for the securities in the concentrated position, but it applies only to those positions in excess of ten percent of the net capital of the broker-dealer before the application of haircuts. *Id.* For other securities, the additional deduction required for concentrated positions is fifteen percent. The undue concentration charge in the case of equity securities applies only to the market value in excess of ten thousand dollars or the market value of five hundred shares, whichever is greater, or twenty-five thousand dollars in the case of a debt security. *Id.* This concentration charge does not apply to hedged positions that may be exchanged for the offsetting obligation. NEW YORK STOCK EXCHANGE, NYSE INTERPRETATION HANDBOOK 223-25, 282 (1979).

The SEC net capital rule also applies quite severe haircuts on securities positions in which there is no ready market. Exchange Act Release No. 34-32,784 (Aug. 16, 1993). These positions are subject to a reduction of one hundred percent of their value. This includes securities in a proprietary account of the broker-dealer which cannot be publicly offered or sold because of statutory, regulatory, or contractual arrangements or other restrictions, as well as the simple lack of a market. 17 C.F.R. § 240.15c3-1(c)(2)(vii) (1993). See generally *In re Guy, D. Marianne*, Exchange Act Release No. 34-3281, 11 S.E.C. 967, 970 (Aug. 3, 1942). A "ready market" is defined to include a recognized established securities market with competitive pricing almost instantaneously and where settlement will occur within a short period of time. Rule 15c3-1(c)(11) (1993). A ready market may be deemed to exist where securities have been accepted as collateral for a loan by a bank and the securities adequately secure the loan. *J. Alexander Securities, Inc.*, 1980 SEC No-Act LEXIS 3135 (Mar. 26, 1980).

The CFTC has also encountered problems with concentrated positions. A brokerage firm trading commodity options (Volume Investors Inc.) failed because of a heavily concentrated position in a single commodity (gold options) that it was carrying on behalf of certain customers. The firm's financial condition was not sufficient to withstand losses caused by the failure of those customers to meet multi-million dollar margin calls following a sharp market movement. *In re Volume Investors Corp.*, [1990-1992 Transfer Binder] Comm. Fut. L. Rep. (CCH) ¶25,234 (C.F.T.C. 1992). The CFTC later noted that a futures commission merchant was subject to substantial risk when it carried a large customer position on one side of the market. The futures commission merchant would be vulnerable in such a case to a sudden sharp price movement that erodes the equity in accounts carried by it. This danger is heightened where those positions are held by only a few traders who may not be able to meet their margin calls. CFTC Proposed Amendments to Minimum Financial Requirements, 17 Sec. Reg. & L. Rep. 1425 (BNA) (August 2, 1985). As a result of this failure, the CFTC proposed concentration charges that would require deductions from net capital for heavily concentrated customer positions. *Id.* The CFTC, however, encoun-

Hopefully, past experience and new computer models will provide some guidance on these issues. Even so, derivative dealers and their regulators will be dependent for financial stability on rather arcane and extremely complicated concepts. It is doubtful that many managers will understand such a complicated net capital formula, and even fewer will be able to assess whether it is sufficient to protect their firm. Unfortunately, this uncertainty will also push regulators towards unnecessarily strict capital standards. As loss experience grows, however, overly strict standards can be loosened.

One mechanism that could be used to reduce capital charges is the creation of clearinghouses for over-the-counter derivatives. Clearinghouses would also substantially reduce counterparty risks for dealers and end users as well. Like everything about derivatives, however, that concept has also raised a considerable amount of controversy.

A. *Clearinghouse Proposals*

Although net capital requirements provide some measure of protection from failures caused by counterparty defaults, they are intended principally to guard against losses caused by product risks. Traditionally, counterparty risks have been treated as a credit function that is guarded against by collateral requirements and assessment of the credit worthiness of the borrower. In the futures industry, however, exchange traded futures and options have addressed the counterparty risk by the use of clearinghouses that act as guarantors of performance.²³²

tered heavy industry criticism as a result of its concentration charge proposals. The industry requested that the CFTC allow industry representatives to explore an alternative that would contain a risk-based minimum capital requirement. The CFTC, thereafter, repropose its concentration charges, having backed off considerably from its earlier proposals. 45 Fed. Reg. 79,498 (Dec. 1, 1980).

²³² The clearinghouse acts as the buyer and seller to every contract that is entered into on the exchange. The clearinghouse is interceded between the actual purchaser and seller of the futures or options contract. The clearinghouse thereupon becomes guarantor to the parties. If one party to the contract defaults, the clearinghouse will be responsible to the other party because of its intercession. See CHICAGO BOARD OF TRADE, COMMODITY TRADING MANUAL 27-31 (1982) (description of clearing systems).

The first clearinghouses appear to have been the ancient temples of Mesopotamia. SWAN, *supra* note 1, at 11-13. Clearing systems were also used in the fairs held during the Middle Ages, including a particularly effective settlement system at the fairs of Lyons. Clearinghouses for bank debits and credits are also of long standing. BAER & WOODRUFF, *supra* note 47, at 46. Modern clearinghouses on the futures exchanges trace their development from the evolution of direct settlements and "ring" settlements that were in use by the 1870s in the grain markets. Direct settlements involved two brokers simply offsetting or netting their buy and sell transactions with each other. Ring settlements involved the equivalent of multilateral netting agree-

There have been very few instances of clearinghouse failures or defaults on futures contracts.²³³ This is because the clearinghouses are backed up with several defensive mechanisms. First, they impose margin requirements on their clearing firms.²³⁴ This assures, to some extent, that a party engaging in a derivative contract, even one as volatile as a futures contract, will have sufficient funds on deposit at the clearinghouse to assure performance. The contracts are marked-to-market each day as a further assurance of performance. That computation will result in a demand for more margin if the market has moved adversely to the party's position. This "variation" margin requirement forces a daily recognition of losses in cash and prevents a firm from delaying recognition of the loss in hopes that the market will improve.²³⁵

In the event that margin funds are not sufficient to cover a loss, the customer will still be liable. The customer's firm or bro-

ments. Several parties offset their buy and sell transactions among themselves. *Id.* at 47-51; G. WRIGHT HOFFMAN, *FUTURE TRADING UPON ORGANIZED MARKETS IN THE UNITED STATES* 189-91 (1932). In 1884, the Chicago Board of Trade organized a clearing association for handling money balances arising from settlements among members, and that process spread to the New York Cotton Exchange in 1896. *Id.* at 195-96. The commodities exchanges established modern clearing systems that allowed them to have greater control and surveillance over trading were after concerns arose with price fluctuations after World War I. *FLUCTUATIONS IN WHEAT FUTURES*, S. Doc. No. 135, 69th Cong., 1st Sess. (June 28, 1926).

Clearinghouses have proved helpful outside the futures industry. One author asserts that experiences in the Panic of 1907 justify the use of clearinghouses for derivatives. He points out that panic was touched off by the failure of the Knickerbocker Trust Company in New York. Other failures followed, but those failures were concentrated in firms that were not using clearinghouse facilities that were available to regulated banks and to trust companies in Chicago. Dennis M. Earle, *Controlling Risk and Regulatory Reform*, Futures Industry Law & Compliance Division Conference Paper, Baltimore, Md. (May 12-13, 1994).

Automated check clearing operations are now widely used in the banking industry. WILLIAM D. HAWKLAND ET AL., *UNIFORM COMMERCIAL CODE SERIES* § 4-101:19 (1992). The government Securities Clearing Corporation is also used in the securities industry to guard against counterparty risk in government securities transactions. Exchange Act Release No. 34-33237 (Nov. 22, 1993). The Options Clearing Corporation serves this function for exchange traded securities options. *See generally* Exchange Act Release No. 34-33873 (Apr. 7, 1994).

²³³ The Stock Market Crash of 1987 posed perhaps the greatest test to the clearinghouse system. During that short period of market stress, billions of dollars were transferred between buyers and sellers of the futures contracts through the clearinghouses. Although there was a liquidity crisis because of the large demands for cash, the clearinghouses fulfilled all of their obligations. Nevertheless, a Presidential Commission recommended a unified clearing system to clarify credit risks from exchange traded financial derivatives. Report of the Presidential Task Force on Market Mechanisms 51-53, 64 (Jan. 8, 1988).

²³⁴ The clearing firms in turn impose margin requirements on their customers. Markham, *supra* note 49, at 63-64.

²³⁵ *Id.*

kerage firm (a futures commission merchant) is also responsible to the clearinghouse for any deficit. Since the clearinghouse is, in the last measure, responsible for a default, it will make sure that clearing members have large amounts of capital that can be called upon to cover deficits in a customer account or in the proprietary accounts of the clearing member. A third line of defense is found in contingency funds established by the clearinghouses. Each contract traded on the exchange is assessed with a fee that is put into a fund to guard against defaults. In extremis, and after that contingency fund is exhausted, the clearinghouse may make additional monetary demands upon other members.²³⁶

The clearinghouse has proved to be a marvelous instrument in developing derivative products because, at least to date, it has virtually eliminated the counterparty risk. The success of the equity options market in Chicago is also directly traceable to the Options Clearing Corporation, which has proved to be both innovative and careful in assuring that its members perform on their contracts.²³⁷

The success of the clearinghouse concept presents an obvious model for guarding against counterparty risk in the over-the-counter derivatives market.²³⁸ The margin concept that is inextricably intertwined with the clearinghouse concept also has an allure for regulators because it requires risk recognition and customer protection from counterparty failures.²³⁹ The problem is that it is difficult to create a clearinghouse for over-the-counter derivatives. A critical component of the clearinghouse concept is the fungibility of the exchange traded contracts. Fungibility allows the clearinghouse to net out its risks from offsetting contracts. The clearinghouse can then monitor margin requirements easily, and it has complete control over the clearing of trades to assure liability on all transactions.²⁴⁰

²³⁶ THOMAS A. HIERONYMUS, *ECONOMICS OF FUTURES TRADING* 43-45 (1977); CHICAGO BOARD OF TRADE, *COMMODITY TRADING MANUAL* 28-31 (1982).

²³⁷ The Chicago Board Options Exchange, Inc. was created to apply commodity trading principles to stock options trading. *Board of Trade v. SEC*, 677 F.2d 1137, 1140 n.2 (7th Cir.), *vacated as moot*, 459 U.S. 1026 (1982). The Options Clearing Corporation has "virtually eliminated counterparty risk" in the trading of exchange listed options. Exchange Act Release No. 34-33100 (Oct. 25, 1993).

²³⁸ The SEC believes that the creation of one or more clearinghouses specializing in the processing of trades and swaps could improve this regulatory framework. LEACH REPORT, *supra* note 3, at 19, 51.

²³⁹ About two-thirds of derivative dealers are already accepting cash or securities as collateral as credit enhancement for counterparties. GROUP OF THIRTY REPORT, *supra* note 2, at 17.

²⁴⁰ One suggestion has been to limit the clearinghouse function to that of a third party agent to collect collateral to secure over-the-counter derivative transactions.

Over-the-counter derivatives are not fungible. The creation of an over-the-counter derivatives clearinghouse, therefore, will not be easy. The customized nature of over-the-counter derivatives has made them popular with institutional customers. Their customized nature also provides a competitive edge for dealers in such instruments that could be eliminated if they are standardized on exchanges.²⁴¹ The market would simply become another exchange derivative that, to date, have gradually been losing the competitive race with over-the-counter derivatives.²⁴²

This could substantially reduce counterparty risks, but there has been little interest to date in such a proposal. LEACH REPORT (PART 2), *supra* note 3, at 121.

An example of the dangers that arise from the absence of a clearinghouse can be found in the interbank currency market in the form of the "Hestatt risk." Named after a bank failure, this risk occurs where settlement occurs in different time zones. Payment may be made by one party, but payment by the counterparty is not made until the next day because of time zone differences. If a failure occurs on the part of the latter, the former is out its payment and may have only a claim in bankruptcy for the failed payment from the bankrupt counterparty. *Foreign Exchange Unsettling*, THE ECONOMIST, May 7, 1994, at 88.

²⁴¹ One Congressional Committee has identified the benefits and detriments of a clearinghouse as follows:

a. *Primary Benefits:*

Reduction/elimination of counterparty credit risk;
Daily position/contract valuation;
Calling, receiving and posting of collateral requirements;
Execution of technical and administrative considerations,
including data collection and trade matching;
Provision of liquidity to the corresponding market;
Allowance for increased competition in the market by providing opportunities for smaller firms; and
Provision for industry-wide trade confirmation policy.

b. *Primary Drawbacks:*

Loss of flexibility in designing derivative contracts;
Allowance for numerous entities to participate in the markets some of which may not be suitably qualified; and
A clearinghouse arrangement could expose dealers to unquantified, and potentially large, failure risk (all systemic risks, issues).

LEACH REPORT, *supra* note 3, at 21.

²⁴² In 1989, the CFTC stated that swaps would not be subject to its jurisdiction if they were not supported by a clearinghouse. John Emert, *Selected Issues Involving Netting of Derivatives and Foreign Exchange Transactions*, Futures Industry Association Law & Compliance Division Workshop, 12 (May 26-29, 1993). This may have inhibited the development of a swaps clearinghouse because of the concern that the creation of such an entity would result in an exchange trading requirement under the Commodity Exchange Act. The CFTC, however, has been showing flexibility on this point. CFTC REPORT, *supra* note 118, at 136-38.

In the meantime, the futures exchanges are seeking to develop products that will compete with the customized derivatives. *CME Rolling Spot Rolled into Exempt Area*, FUTURES INDUSTRY, Nov/Dec 1993, at 15; Jeffrey Taylor, *Chicago Merc Sets Interbank Traders' Currency Contracts*, WALL ST. J., June 15, 1993, at A6. The Federal Reserve Board, however, has questioned whether bank subsidiaries could engage in such con-

If over-the-counter derivative contracts are not standardized it is difficult to envision how they will be traded through a clearinghouse. It will be difficult for a clearinghouse to make credit assessments or impose margin requirements for the wide diversity of over-the-counter instruments that are subject to widely varying termination dates and other diverse terms and conditions. Each instrument would have to be considered separately for margin requirements.²⁴³

Nevertheless, the use of the clearinghouse would greatly facilitate the development of risk assessment models that could be applied to many over-the-counter derivatives that have some uniformity in terms, loss experience and modeling history. Swaps, the largest segment of the over-the-counter derivatives market, now operate principally off uniform forms and conditions.²⁴⁴ The margining of these instruments, however, would have to be adjusted for maturity dates or other individualized nuances such as amount, interest rate, currency, or other commodity that underlies the swap. The workload for even these semi-standardized contracts would be many times that required for a futures clearinghouse. Nevertheless, risk models developed by a clearinghouse could eliminate a lot of duplicative efforts by separate over-the-counter derivatives dealers.

The World Bank has all ready proposed a swaps clearinghouse,²⁴⁵ but its cost and complexity has precluded its development to date.²⁴⁶ A joint venture has also been organized that proposes to establish an over-the-counter derivatives clearing facil-

tracts. See generally Exchange Act Release No. 34-33732 (Mar. 8, 1994) (cash/spot foreign currency option contracts traded on securities exchange); Exchange Act Release No. 34-32781 (Aug. 20, 1993) (flexible option contracts traded on securities exchange); Exchange Act Release No. 34-33100 (Oct. 25, 1993) ("flex" option contracts traded on securities exchange).

²⁴³ The derivatives trade is "highly customized." Morse, *supra* note 229, at VI.

²⁴⁴ Most swap dealers use standardized contracts in order to reduce credit risk. Laurie Morse, *Legal Issues, Quest for Definitive Answers*, FIN. TIMES (Survey), Oct. 20, 1993, at IV.

²⁴⁵ Anne Schwimmer, *World Bank Leads Effort for Swaps Clearinghouse; Proposes Pilot Program with Major Dealers*, INVESTMENT DEALER'S DIGEST, Dec. 20, 1993, at 5. The World Bank wants a clearinghouse in order to allow greater access to developing countries. *Id.*

²⁴⁶ *Id.* There is little support in the regulatory community, the dealer community or the end-user community for a formalized clearinghouse although some "mild" clearinghouse may be thought to be beneficial to it. LEACH REPORT, *supra* note 3, at 21-22. Nevertheless, a proposal has been presented for the creation of a clearinghouse for swaps. The first phase of this project would be to create a prototype screening system that will allow third-party administration of over-the-counter swaps. In the second stage, swap contracts would be standardized and backed with a clearinghouse

ity sometime this year.²⁴⁷ In Europe, the Exchange Clearing House organization plans to clear foreign currency contracts in the near future.²⁴⁸ The effectiveness of these efforts will be uncertain for some time.²⁴⁹ In the meantime, a concept that is receiving the most attention is "netting."

B. "Netting"

Netting simply involves the offsetting of similar contracts with a counterparty. For example, the exposure of a firm having long and short contracts in the same currency with the same customer is reduced to the extent the risks in the opposing contracts offset each other. The offset may not, however, be complete. For example, maturity dates or terms may vary. There may be a legal risk that the netting of the contracts may not be recognized in bankruptcy, leaving the firm doubly exposed.²⁵⁰ Nevertheless, there is some economic reduction of risk in netting that should be recognized.²⁵¹

guarantee. *CBOT will Launch Stage One of Swaps Clearinghouse Soon*, INVESTMENT DEALER'S DIGEST, Mar. 14, 1994, at 7.

²⁴⁷ This joint venture is named Multi-net, and is it is being developed by International Clearing Systems Inc., a subsidiary of the Options Clearing Corporation ("OCC"), and the North American Clearing House. Laurie Morse, *Group Plans Clearing House for Forex Trades*, FIN. TIMES, July 28, 1994, at 26. The OCC clears all exchange traded equity options in the United States.

²⁴⁸ *Id.*; see also Morse, *supra* note 229, at VI.

²⁴⁹ One industry critic has asserted that clearinghouses could not be established in the over-the-counter derivatives market because these contracts are priced in different ways by different participants and are tailor made so that margins would be impossible to calculate for such a transaction. Mayer, *supra* note 119, at A18.

Another obstacle to the development of a clearinghouse has been the self-interest of the banks and dealers who conduct most of the world swap trade. "They value the competitive edge their credit ratings deliver, and are satisfied with their own credit controls." Without their participation, a swaps clearinghouse cannot be arranged. Morse, *supra* note 229, at VI.

As an alternative to a clearinghouse, swaps dealers have been imposing strict credit standards and controls and limits on counterparties. In addition, collateral (equivalent to margins) is being required in most transactions, and positions are marked to market to assess risk. These are all clearinghouse functions. *Id.*

²⁵⁰ "If the contract is terminated early, because of bankruptcy or liquidation, the netting agreements allow payables and receivables to cancel each other out, limiting the credit risk of the solvent counter parties to net exposure." Laurie Morse, *Legal Issues Quest For Definitive Answer*, FIN. TIMES (Survey), Oct. 20, 1993, at IV. Netting agreements, however, have only recently been recognized in bankruptcy proceedings and there have been difficulties in their enforcement in France. *Id.* A 1989 ruling in the United States allowed netting between United States counterparties and the practice is recognized in the United Kingdom. *Id.*

²⁵¹ One critic, however, has stated that netting will conceal the risk of derivative instruments. Mayer, *supra* note 119, at A18.

Netting may be bilateral (as is the case for many over-the-counter derivatives)²⁵² or multilateral (as is the case for the clearinghouses).²⁵³ The Basle Committee on Banking Supervision of the Bank for International Settlements has proposed a program to recognize bilateral closeout netting agreements in determining bank capital adequacy.²⁵⁴ An issue here, however, is multi-branch netting i.e., there is concern that if a bank collapses regulators in various countries may not recognize a netting agreement.²⁵⁵ Moreover, while a multi-lateral netting system would help reduce credit risk, such a system would be hard to distinguish from a clearinghouse on the futures exchanges.²⁵⁶ This would raise the specter of CFTC regulation and exchange trading requirement that the industry has long sought to avoid.²⁵⁷

Some certainty may be added to this area by recent legislation. For example, the Financial Market Protection Act of 1992 would give Congressional recognition to netting arrangements.²⁵⁸ Federal Reserve Board proposals would also allow reduction of exposure for restrictions on exposure limits from derivatives and currency transactions.²⁵⁹ The CFTC also allows, under the Futures Trading Act of 1992 exemption, bilateral netting agreements or

²⁵² Swap dealers often use bilateral netting agreements. *Legal Issues Quest for Definitive Answers*, FIN. TIMES (Survey), Oct. 20, 1993, at IV.

²⁵³ Emert, *supra* note 242, at 3. Netting agreements may be under a master-netting agreement or a multi-product master netting agreement which allow netting of transactions of several products among counterparties in the event of default or other "meltdown" situations. *Id.* at 5.

²⁵⁴ The Basle Committee has published a netting paper describing circumstances under which netting arrangements would be recognized for capital purposes. Emert, *supra* note 242, at 7.

The Basle committee's guidelines do not now recognize netting of swaps, which requires banks to satisfy capital on all swaps, whether off-set or not. This has been criticized as being excessive. CONGRESSIONAL RESEARCH SERVICE REPORT, *supra* note 1, at 19. The Basle Committee's proposal, however, would cut capital reserve requirements for banks by more than half because of netting agreements. Morse, *supra* note 229, at VI. The Basle committee's netting proposal would expand the terms of the 1988 Basle Capital Accord by allowing the use of bi-lateral netting in the determination of the capital requirements for foreign exchange and interest rate contracts. If adopted in the United States, the proposal would allow domestic banking institutions to benefit from United States law, which appears to provide sufficient certainty regarding the enforceability of netting arrangements. This would allow reduced capital requirements. LEACH REPORT, *supra* note 3, at 63.

²⁵⁵ Laurie Morse, *Legal Issues, Quest for Definitive Answers*, FIN. TIMES (Survey), Oct. 20, 1993, at IV; Emert, *supra* note 242, at 10.

²⁵⁶ CONGRESSIONAL RESEARCH SERVICE REPORT, *supra* note 1, at 19-20. LEACH REPORT (PART 2), *supra* note 3, at 122.

²⁵⁷ See *supra* notes 221-26 and accompanying text.

²⁵⁸ Emert, *supra* note 242, at 11.

²⁵⁹ *Id.* at 12.

multilateral netting agreements if the underlying gross obligations are not extinguished until all netted obligations are performed.²⁶⁰

The most efficient way to handle this situation would be to express recognition to netting arrangements through direct legislation or through authority granted to the regulatory bodies. When recognized, netting arrangements should allow reduction of capital requirements.²⁶¹ Similarly, clearinghouse arrangements should allow capital reductions. Indeed, clearinghouse arrangements should allow even more substantial capital reductions when they are coupled with clearinghouse margin requirements. The posting of margin on positions marked-to-market daily provides a very reliable method for assuring appropriate risk recognition. Clearinghouses will reduce counterparty risk for both dealers and end users.²⁶²

²⁶⁰ *Id.* at 13. This still does not authorize clearinghouse arrangements. *Id.*

Regulators have generally expressed agreement with two Groups of Thirty recommendations concerning quantification of market risk through probability analysis and encouraging unlimited two-way payment for bilateral netting. LEACH REPORT, *supra* note 3, at 53-54.

²⁶¹ The Financial Times has noted that, in order to move swap dealers towards a clearinghouse, there would have to be a requirement of regulatory capital, i.e., the clearinghouse function would lessen any such capital requirements. Morse, *supra* note 229, at VI.

²⁶² In the meantime, net capital reductions could be given where the counterparty has a triple AAA credit rating, a concept that is already employed to a limited extent by the SEC's net capital rule. For example, non-convertible debt securities with a fixed interest rate, rated in one of the four highest categories by at least two of the nationally recognized statistical rating organizations, are subject to specified haircuts that range from two to nine percent, depending on their maturity. If these positions are hedged by qualified nonconvertible debt securities or United States government securities with matched maturity dates within specified periods, substantially reduced deductions are allowed. 17 C.F.R. § 240.15c3-1(c)(2)(vi)(F) (1993). Non-convertible zero coupon bonds may also qualify for these haircuts if other securities of the issuer are not in default and the bonds are rated in one of the four highest categories by two nationally recognized statistical rating organizations. NYSE INTERPRETATION HANDBOOK, *supra* note 231, at 209. Additionally, debt securities issued pursuant to the Secondary Mortgage Market Enhancement Act must be rated in one of the two highest rating categories by one such organization in order to qualify for this treatment. *Id.* at 210. The use of the rating organizations, however, raises the question of the validity of their ratings and whether the ratings organizations themselves need regulation in view of the increasingly important role they are playing in counterparty risk assessments. See Francis Bottini Jr., Comment, *An Examination of the Current Status of Ratings Agencies and Proposals for Limited Oversight of Such Agencies*, 30 SAN DIEGO L. REV. 579-620 (1993).

Moody's Investors Services has found that very few banks' credit ratings have been affected by derivative activities except in a positive way. LEACH REPORT, *supra* note 3, at 16. Standard and Poor's Corporation expressed similar views. *Id.* at 17. But derivatives can have an effect on the credit rating of a derivative firm. For example, Bankers Trust had its credit rating reviewed as a result of its derivative trading activities. In 1993, Bankers Trust had earned \$600 million from proprietary trading,

VII. REGULATING THE END USER

End users must also confront counterparty and product risks. The regulation of their activities, however, will vary from the regulations applied to dealers. It is not practical to impose net capital requirements on most end users.²⁶³ Their businesses are simply too diverse, and most firms would simply forgo the use of derivatives in order to avoid such a regimen, even if the products were otherwise economically useful. Nevertheless, the sometimes massive losses experienced by end users suggest that some regulation is needed.²⁶⁴

Such regulation should rest lightly. The most critical requirement is that end users be required to recognize the risks they are incurring through derivatives. Efforts in this direction are already underway in requiring financial statements to disclose more about the derivatives activities of firms. Going beyond that point is more difficult.²⁶⁵

Government generally has no business telling private companies how to run their operations. If a company enters into an improvident enterprise, that is, for the most part, a matter for the shareholders and not the government. Nevertheless, there is a hook, at least in the case of publicly held companies. By law, shareholders in a publicly held company are entitled to full disclosure on material matters.²⁶⁶ This does not require disclosure of trade secrets, but shareholders should be informed of such material matters as lack of adequate management controls for trading in derivatives, material risks from such instruments, and related information. In effect, this will force these companies to adapt adequate controls and to monitor their exposure from derivatives ac-

but it lost \$49 million from such trading in the first quarter of 1994. Hansell, *supra* note 155, at C1. On April 21, 1994, Bankers Trust also disclosed that some seventy percent of its first-quarter profits came from derivative products. About \$114 million of the bank's first-quarter earnings came from derivative products. In 1993, about thirty percent of its profits were from derivative products. Lipin & Stern, *supra* note 135, at A3; see also Lipin et al., *supra* note 135, at A1. Bankers Trust has also predicted a slow down in derivative trading with the announcement of losses by some firms and increased regulation. Richard Waters, *U.S. Banks Sees Cut in Derivative Use*, FIN. TIMES, April 22, 1994, at 27.

²⁶³ Brokers and banks in the securities, banking and futures industry are subject to net capital requirements, but their customers are not.

²⁶⁴ See *supra* notes 118-36 and accompanying text. See generally *Taming the Treasurer*, THE ECONOMIST, June 4, 1994, at 15.

²⁶⁵ See *supra* note 210.

²⁶⁶ Indeed, this is the central thrust of the federal securities laws. See, e.g., 15 U.S.C. § 77 and 15 U.S.C. § 78; *Mutually Reassuring: Mutual Funds Should Tell Investors About Why and How They Are Dabbling in Derivatives*, THE ECONOMIST, Sept. 3, 1994, at 22.

tivities.²⁶⁷ Fiduciaries and other institutions trading other people's money may have similar obligations imposed by the "prudent man" principle, by their particular regulators or the courts. This may leave out the hedge funds and other private institutions, but they can probably fend for themselves.

Another useful tool would be a large trader reporting requirement.²⁶⁸ Such a requirement is not novel. The CFTC requires these reports by traders in the futures markets.²⁶⁹ This tool would

²⁶⁷ A requirement that independent accountants assess the adequacy of derivative internal controls could also be included here, as well as for derivative dealers. *See supra* notes 197-201 and accompanying text. The Foreign Corrupt Practices Act requires that publicly held companies maintain a system of internal accounting controls. 15 U.S.C. § 78m(b)(2). In 1978, the Commission on Auditor's Responsibilities, known as the Cohen Commission, recommended that the management of public companies report to shareholders on internal accounting controls. A similar recommendation was made in 1979 by a Special Advisory Committee to the American Institute of Certified Public Accountants. Exchange Act Release No. 16877 (June 6, 1980). The SEC, thereafter, proposed such a rule, but that proposal was withdrawn in 1980. *Id.*; Testimony of Arthur Levitt, Chairman U.S. Securities and Exchange Commission Concerning Derivative Financial Instruments Before the Subcommittee On Telecommunications and Finance Committee On Energy and Commerce United States House of Representatives (May 25, 1994). Later, the National Commission on Fraudulent Financial Reporting (known as the "Treadway" Commission) considered needed improvements to the reporting requirements to publicly held companies, and it recommended that:

All public companies should be required by SEC rule to include in their annual reports to stockholders management reports signed by the chief executive officer and the chief accounting officer and/or the chief financial officer. The management report should acknowledge management's responsibilities for the financial statements and internal controls, discuss how these responsibilities were fulfilled, and provide management's assessment of the effectiveness of the company's internal controls.

REPORT OF THE NATIONAL COMMISSION ON FRAUDULENT FINANCIAL REPORTING 44 (Oct. 1987). In 1988, the SEC again proposed a rule that would have required management report on internal controls. That proposal was also withdrawn in 1992 after it met stiff industry opposition. Exchange Act Release No. 33-6789 (July 26, 1988); Exchange Act Release No. 33-6935 (Apr. 24, 1992). *See also* Testimony of Arthur Levitt, *supra* (describing this background). This issue needs to be revisited, at least for derivative transactions.

²⁶⁸ As one report noted:

The relative newness of this market activity, the fragmented regulatory responsibility, the global trading, and the competitive secrecy of many transactions virtually precludes the possibility of getting a full picture of the derivatives market. Even a partial view is scarce: the Fed does not publish the data it collects, but makes it available in electronic form to interested parties; the SEC anticipates the weekly data in the near future.

CONGRESSIONAL RESEARCH SERVICE REPORT, *supra* note 1, at 8.

²⁶⁹ Large traders must file forms with the CFTC disclosing background information on the trader and its principals and must report large position changes daily. 17 C.F.R. §§ 15.00-21.03 (1993). *See generally* Jerry W. Markham & Kyra K. Bergin, *The*

allow regulators to assess the positions of large traders for systemic concerns, particularly where a large institution is dealing with several dealers and pyramiding positions.²⁷⁰ The large trader report will also require the institution to chart its trading activities. This and a requirement that senior management sign-off on the report should help assure better internal monitoring as well as accuracy in the reports.

One thing that is not needed is a paternalistic approach to institutional traders. They should not be subjected to the protections afforded to small investors under the federal securities laws. They can themselves assess the risks and value of an investment. This is not a responsibility that should be thrust on derivative dealers unless specifically contracted for in writing. Unfortunately, the Office of the Comptroller of the Currency has concluded otherwise. It has imposed a suitability requirement on banks dealing in derivatives.²⁷¹ Heretofore, such a requirement has generally been addressed only to the proverbial widows and orphans.²⁷² There

Role of the Commodity Futures Trading Commission in International Commodity Transactions, 18 GEO. WASH. J. INT'L L. & ECON. 581, 620-622 (1985) (description of the CFTC's large trader reporting system).

CFTC large trader reports are now becoming mechanisms for speculators and others to follow the market effects of large financial firms trading in the commodity futures market. Suzanne McGee, *Report Allows the Savvy to Track Funds' Moves*, WALL ST. J., May 2, 1994, at C1.

The SEC proposed the adoption of large trader reporting requirements after it experienced difficulties in gathering trade information to analyze market breaks in 1987 and 1989. The SEC noted, in proposing these rules, that the growth of institutional trading also necessitated additional information on the often large scale trading activities of the institutions. Exchange Act Release No. 34-29593 (Aug. 22, 1991). Reports would be required for transactions of 200,000 shares with a fair market value of \$2,000,000 or more, for transactions with a fair market value of \$10,000,000 or more, and for transactions that constitute "program trading," i.e., index arbitrage or basket trades valued at \$1,000,000 or more. Exchange Act Release No. 34-33608 (Feb. 9, 1994). For a discussion of program trading and index arbitrage, see Markham & Stephanz, *supra* note 62, at 2000-01.

The SEC is additionally seeking information from firms on their derivatives activities in order to further understand this market and to assess its potential dangers. Berton, *supra* note 4, at C1.

²⁷⁰ Pyramiding involves the use of profits from a leveraged speculative position to increase the size of that position, resulting in further leveraging that may exceed the prudential limits for the investor. See Jerry W. Markham, *supra* note 49, at 68. One proposed bill would provide emergency reporting authority for regulators. 140 CONG. REC. H2202-01, H2203 (1994) (statement of Rep. Gonzalez).

²⁷¹ See *supra* note 153 and accompanying text.

²⁷² The suitability rule requires broker-dealers in the securities industry to refrain from making trading recommendations to customers that are not suitable for the customers in light of that particular customer's financial circumstances and objectives. The suitability rule stems from a New York Stock Exchange "know your customer rule." The know your customer rule is actually is to protect the broker-dealer

seems to be no reasoned basis for extending such a requirement to protect institutions.

CONCLUSION

The losses experienced from derivatives and the growth and size of the derivatives market may make further regulation almost inevitable. Such regulation may be incremental in responding to problems as they develop, which is not an altogether unacceptable philosophy: "if it ain't broke don't fix it." That view, however, can rightly be criticized as a "head in the sand" approach to a sizeable danger to the financial system.

At the other end of the spectrum, exchange trading requirements and/or a special "Derivatives Regulatory Commission" may be too intrusive, resulting in a strangling of this economically useful, highly innovative, and still growing industry. A middle ground, therefore, may be more appropriate.²⁷³ Experience in the govern-

from customer defaults. The suitability rule, however, seeks to protect the customer. Traditionally, the SEC's enforcement of suitability standards arose in cases involving boiler room firms that were directing high pressure sales efforts toward unsophisticated customers. NICHOLAS WOLFSON ET AL., *REGULATION OF BROKER, DEALERS AND SECURITIES MARKETS* ¶ 2.08[2] (1977).

The CFTC and the courts have rejected a suitability requirement for futures brokers. Instead, futures commission merchants are required to give customers a one page warning statement that graphically sets forth the risks of trading futures. The customer must make a written acknowledgement of their receipt and understanding of that statement. JERRY W. MARKHAM, *COMMODITIES REGULATION: FRAUD, MANIPULATION & OTHER CLAIMS* § 10.01-10.09 (1994); Markham & Bergin, *supra* note 5, at 1305-09.

²⁷³ A managing director of Lehman Brothers, Thomas Russo, has proposed a model for the regulation of derivative instruments that would require derivatives dealers to adopt a code of conduct that would be carried out in "partnership" with the federal government. Russo, *supra* note 150. Under the code of conduct, firms would be required to have independent credit, internal audit, legal, compliance and marked-to-market functions. *Id.* at 14-15. Russo also proposes that each firm would have a new products committee that would be independent of the business section itself, and they would review new products for risk management and business viability. Russo would also require independent verification by a recognized accounting firm, which is already required for AAA rated derivative subsidiaries. *Id.* at 15. Ethical integrity would also be stressed by Russo in recognizing errors and dealing with them. Coordination of derivative trading with other parts of firms would be encouraged, and upgraded systems would be used to assure effective risk management. *Id.* at 15-16. Most importantly, Russo would adopt a risk capital model as a part of his proposed code of conduct. He notes that the SEC's net capital approach is not appropriate for derivatives because it addresses liquidity concerns while the derivatives business "depends on credit concerns like a commercial bank." *Id.* at 17. Under Russo's model the risk capital approach that would be applied to derivatives would incorporate credit risk as well as market risk. Russo would allow netting of positions and would assess the risk relative to a firm's portfolio. The rule would also be "subject to stress tests for volatilities, basis risk and credit deterioration." *Id.* at 17. Russo addi-

ment securities markets provides models for the regulation of derivative instruments that do not include an exchange trading requirement. They are not perfect comparisons, but the repo analogy seems appropriate. Indeed, repos are often identified as a form of derivative transaction.²⁷⁴

The use of such a model will require registration of dealers and assignment of responsibility for regulation to one or more regulators. They will have to develop substantive regulations, including risk based net capital rules that will undoubtedly be complex. End users may also need additional regulation in the form of large trader reports, increased internal and accounting controls, and financial disclosure.

tionally would require disclosure to counterparties to make sure they understand the risks of transactions. Russo's model would apply to dealers and not to end-users. See also Thomas Russo, *Viewpoints, Let Wall St. Handle Derivatives Rules*, N.Y. TIMES, May 15, 1994, § 3, at 13; Thomas Russo, *Partnering a Code of Good Business Practices*, FUTURES INDUSTRY, Mar./Apr. 1994, at 29-30. The Securities Industry Association has advocated a similar approach. Letter To Brandon Becker, Director, Market Regulation Division, Securities and Exchange Commission From Jeffrey L. Seltzer, Chairman Swap & OTC Derivative Products Committee, Securities Industry Association (Apr. 7, 1994).

²⁷⁴ See *supra* notes 88-104.