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Concerning Supervision of Derivatives Markets

Before the Subcommittee on Telecommunications and Finance
United States House of Representatives

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Chairman Markey and Members of the Subcommittee:

It is a special privilege to have the opportunity to join you today for the Subcommittee's consideration of derivative markets. Mr. Chairman, during my nearly four years as Chairman of the U.S. Securities and Exchange Commission, this committee convened to consider many important issues affecting the integrity, efficiency and stability of the nation's capital markets. The subject this morning is as important as any of the topics that you have examined during the past few years.

At present I am the Chairman of the Financial Services Group of Coopers & Lybrand in the United States, and also Chairman of Global Capital Markets for Coopers & Lybrand (International), our worldwide firm. In these positions I work with both domestic and foreign financial institutions of all types, as well as with industrial and other nonfinancial firms that are users of capital markets for raising capital or for managing their risks. Coopers

& Lybrand has an extensive global practice in the techniques and systems of financial risk management, and in the structuring and operation of effective internal controls for firms dealing in or purchasing securities and derivatives. We are also among the largest firms in the provision of traditional accounting, auditing and tax services for some of the world's most innovative dealers in securities and derivatives, as well as for many large end-users or other purchasers of these instruments including mutual funds.

I mention these facts, Mr. Chairman, so that you and the members of the Subcommittee will understand that my firm has an active and extensive involvement with many clients that are directly interested in developments in derivatives markets. My testimony today represents my personal views, based on my experience as a regulator and as a market participant, and not the views of Coopers & Lybrand, or its personnel.

During my tenure at the SEC, the agency spent a significant amount of time considering issues relating to the regulation and supervision of exchange-traded and over-the-counter derivative instruments of various types. During that time I worked with you, Mr. Chairman, to help pass the Market Reform Act of 1990 (the "MRA"), which gave the SEC its first authority to review the activities of affiliates of broker-dealers.1/ We utilized this authority to establish the first reporting requirements for

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1/In addition, the MRA gave the SEC enhanced authority to harmonize inconsistent state laws relating to clearance and settlement of securities transactions.

significant exposures of broker-dealer affiliates involving derivatives and other financial instruments. In addition, the SEC was also quite active in visiting the major firms to begin evaluating their risk management systems.2/

It is said by some that one of the greatest areas of concern with safety in our current system is the supposedly "unregulated" derivatives affiliates of U.S. broker-dealers. With the passage of the MRA, the completely "unregulated" status of U.S. broker-dealer affiliates was ended, at least where any such affiliate has a material level of financial market exposure. These entities are unquestionably "less regulated" than banks or broker-dealers, but a lesser degree of regulation is also appropriate because these entities are not engaged in a public client business and their liabilities are not backed by the federal government or the SIPC. In my view, the creation of "AAA" rated derivative affiliates as a vehicle for institutional derivatives business has been a healthy development.3/

2/Legislation to establish oversight by the Federal Reserve for margins on stock index futures--though strongly opposed by the CFTC--was another positive step taken by Congress in part as a result of expressions of concern during this time by the Federal Reserve and the SEC, as well as by this Committee.

3/One of the purposes of the holding company risk assessment provisions of the MRA was to determine whether there was a need for enhanced oversight in any particular areas. It may now be appropriate to examine whether there are any unintended gaps or other problems with the holding company risk assessment provisions of the MRA. However, any such review should not be based on a mistaken understanding of the current system or exaggerated fears of a systemic crisis. Furthermore, the first priority if action is needed would presumably be SEC rulemaking actions to utilize fully existing authority, rather than new legislation.

Creditors of such entities would not have any direct claim on the net worth of a broker-dealer supporting its obligations to its public customers.

The holding company risk assessment provisions of the MRA are, in effect, a smoke alarm for problems brewing in the affiliates (or parent) of a broker-dealer. The SEC can monitor the financial condition of affiliates of broker-dealers so that, in the event a holding company has a serious risk of failure, the SEC will have sufficient advance warning to enable it (i) to sell the firm's broker-dealer to a healthier organization, or to transfer all the public customer accounts out of the firm's broker-dealer to another firm; and (ii) to heighten the SEC's monitoring of any attempts to withdraw capital from the broker-dealer subsidiary. The statute was not designed to "prevent" failures from occurring, but rather to minimize the cost and potential spillover effects from the periodic failures that inevitably will and should happen in an open and competitive marketplace.

Direct SEC supervision of broker-dealer affiliates was not created for several reasons. First, many of the broker-dealer affiliates are financial institutions such as banks and insurance companies that are already regulated. Second, unlike the limited businesses authorized for bank holding company affiliates, the parent corporations of broker-dealers may include large industrial corporations with a wide range of activities. Consolidated holding company supervision of such companies would

be well beyond any conceivable supervisory purposes. Finally, direct regulation might create a suggestion to some of an implicit federal backing for the obligations of such an entity, thereby undercutting market disciplines.

Thus, the MRA was designed to give the SEC improved tools to address problems, but also to avoid the overregulation that has resulted from the Bank Holding Company Act of 1956. Enhancing oversight without overriding market disciplines remains in my judgment both the most cost-effective and efficacious approach to the issue of affiliates.

In addition to working to secure enactment and implementation of the MRA, the SEC also gave considerable internal consideration to the adequacy of our net capital rule and other supervisory standards relating to the activities of broker-dealers and their affiliates in the market for OTC derivatives. One result of these inquiries was a wide-ranging "Concept Release" published by the SEC a year ago just prior to my departure.4/ The Concept Release sought to lay the groundwork for new approaches to capital requirements and other supervisory standards relating to OTC derivative activities.

In the course of supervisory activities, the SEC staff performed stress simulations on the derivative and other portfolios of broker-dealers to evaluate changes in capital position in the event of substantial movements in various U.S. and international markets. In addition to beginning the process

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4/SEC Release 32256 May 4, 1993, 58FR27486 on May 10, 1993.

of revising the SEC's own capital rules applicable to OTC derivatives, we also conducted virtually nonstop discussions with domestic and foreign bank and securities regulators concerning capital rules, netting agreements and clearance and settlement systems.5/

During my tenure the SEC also spent large amounts of time working with the Financial Accounting Standards Board (the "FASB") to seek to drag the accounting and disclosure rules for traded financial instruments such as stocks, bonds and derivatives out of the 19th century, where they had been languishing in a fairy tale world of "cost accounting." Indeed, after listening to impassioned rhetoric against mark to market accounting for financial instruments from bank trade associations, I was very happy to see that the recent report of the Group of 30 on derivatives recommended mark to market

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5/Many people believe that establishing uniform worldwide capital rules for banks and securities firms engaged in securities and derivatives businesses would improve the stability of the overall market. In practice, the opposite result would be more likely, since the "lowest common denominator" always seems to be proposed for such a uniform global standard. A mistake in judgment does not become better by virtue of being repeated by more people. In addition, uniform global standards gloss over very important differences between different types of institutions and between substantially different markets. Finally, the overall process is so difficult and involves so many tradeoffs that a common standard will tend not to be updated even when new developments make marginal changes desirable.

In any event, as Chairman of the IOSCO Technical Committee, I had to endure endless discussions in which some European regulators sought to have the SEC slash its capital requirements. Aside from being utterly fruitless, these discussions tended to monopolize the staff and divert it from more important issues such as designing the best possible approach to a capital rule for derivative activities of U.S. broker-dealers.

accounting for internal risk management purposes and, at least in some areas, for the public financial reports of derivatives dealers, including banks. In its excellent report, the Group of 30, which is largely composed of bankers and former bank regulators, correctly noted that market values are the only relevant and effective measure of cash flows, financial market exposures and hedging activities. Hopefully more and more firms now acknowledge that cash market positions in traded instruments, often related to derivative positions, should also be marked to their market values.6/

During my tenure at the SEC we were successful in encouraging the FASB to adopt SFAS No. 107, Disclosures about Fair Value of Financial Instruments, and SFAS No. 115, Accounting

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6/While it is relatively simple to mark most cash market positions to their market values (thinly traded or closely-held stocks being examples of difficulties), this is often not possible with OTC derivative instruments. Because of the highly customized, "one-off" nature of many instruments, there is not any "market" of fungible instruments. In addition, the lack of liquidity for some types of instruments, such as long-dated swaps, makes finding comparable transactions impossible. Even where transactions do exist, the non-transparency of trading also makes it difficult to determine a "market" value. Thus, though market participants speak of "mark to market" and "market value" accounting for derivatives, in many cases valuations reflect "mark to model" valuations. In essence the present value of the projected cash flows of the instruments is produced from mathematical models. The resulting profit or loss on a position is based on the initial accrual of expected cash flows and then ongoing adjustments to reflect mark to model. Both the model's underlying methodologies and the data fed into the model, such as interest rate or foreign exchange curves and volatilities, must be accurate in order for the "mark to model" value to reflect synthetic "market" conditions reliably. That is another way of saying that it is very difficult to derive the exact value of highly complex, one-of-a-kind instruments, and that there are risks firm's must be vigilant to guard against that mark to model earnings will be distorted.

for Certain Investments in Debt and Equity Securities. Nonetheless, the accounting literature for derivatives and other traded financial instruments is still riddled with ambiguities and allows excessively opaque accounting for exposures to, and income from, a wide range of activities (market making, trading, sales and distribution, etc.) pertaining to derivative instruments and other forms of securities. However, these two standards have at least begun the process of bringing greater transparency to the portfolio values and trading results of major financial institutions. They have also made it harder for institutions to use the selective timing of recognition of securities or derivatives trades to manage their income reported to creditors and shareholders.

While the FASB has at least made modest progress in updating the accounting treatment of financial instruments, much more remains to be done to improve the accounting and disclosure requirements for derivatives and other types of complex financial instruments. For the future, further progress in substantially enhancing the transparency of risk exposures and related financial results for institutions utilizing all types of financial instruments is the most important tool available to deter and to discipline excessive risktaking. Sharply enhanced transparency for the derivatives market is also probably the best means for preventing the development of excessive systemic risks.

By far the toughest "regulatory program" to deter excessive risktaking is strong market discipline. When a firm's credit

rating is downgraded, it will incur substantial increases in its funding costs, and at least a somewhat reduced availability of funds. In addition, a firm that is not thought to have an extremely strong financial position will experience a tightening in the terms available to it from counterparties. As a firm's credit quality erodes, an increasing number of potential counterparties will decline to enter into transactions, or will do so only with higher levels of collateral and perhaps under other limitations such as shortened maturities. All of these market disciplines get the attention of senior management of a company, as well as that of the general marketplace, because they have a direct and substantial limiting effect on a firm's capacity for growth, on the availability and cost of its funding, and ultimately on its future profitability.

Although strong market discipline represents our best protection against systemic risk and excessive speculation, market discipline does not work well unless the market has access to timely, accurate, detailed and relevant financial data. This year's annual reports of the major institutions active as dealers in derivatives contain far more disclosure than in previous years, much of it provided on a voluntary basis. The major firms are also working actively with the FASB and others to promote better transparency and sensible accounting rules. However, there is still a long way to go to make sure that the market has all the information that it needs in order to be able to fully evaluate the major risks facing institutions in this market.

On April 14 of this year, the FASB published a new exposure draft (the "ED") for enhanced disclosures regarding derivatives activities. The FASB is planning to make a final standard effective for 1994 financial statements. If adopted in its current form, the ED would require both derivatives dealers and end-users to disclose more detailed information than is required under current authoritative accounting guidelines.7/

While the ED would be a step forward in improving transparency in derivatives, in many respects it is a stopgap measure, with further changes anticipated as part of the FASB's long running and apparently neverending financial instruments project. One serious defect is that the ED by its terms is limited to "stand-alone" derivatives, and it apparently would not apply to various important products including structured products

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7/For companies using derivatives, the ED requires disclosure concerning (i) why the end-user holds or issues derivative transactions, including the strategies employed to achieve its objective; (ii) how the end-user reports its derivative transactions including the accounting policies for recognizing or not recognizing its activities and how they ultimately would be reported in its financial statements; and (iii) whether derivatives are used to hedge anticipatory transactions and, if so, the type of transaction hedged, when it is expected to occur, the amount of hedging gain or loss deferred and, when and how the deferred amounts will be recognized. For companies trading derivatives, the ED requires disclosure concerning (i) the average, maximum and minimum aggregate fair values during the reporting period of each class of derivatives held, distinguishing between contracts in an asset position and those in a liability position and (ii) its net trading revenues for the reporting period. The ED also encourages companies to disclose quantitative information about interest rate and market risks, including more detailed information about current derivative positions, the hypothetical effects of changes in market prices, and details of an institution's gap analysis, duration and value at risk concepts.

such as levered structured notes. When a swap or derivative is embedded in a note, certificate of deposit, or other type of instrument, such instruments are among those needing more (not less) disclosure, yet they are exempt from the disclosures mandated by the ED. This could encourage even more transactions to be constructed in this manner in the future.

In this entire area the FASB has been far behind the curve of developments in the market. The FASB seems to have been slow to realize the importance of updating promptly U.S. accounting rules for financial instruments (for assets and liabilities, and for both cash and derivative positions) in the face of explosive growth in the size and velocity of capital markets of all types. The slowness of the FASB's efforts in this area runs the risk of prejudicing shareholders, creditors, and overall public confidence in our markets.8/

Regulatory Issues Relating to the Derivatives Market

It is well known that the overall market in "derivative" instruments, particularly "over-the-counter" or OTC derivatives, has grown enormously in recent years and continues to do so. Broadly speaking, derivative instruments are contracts whose

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8/In fairness to the FASB, its own attempts to improve the accounting and disclosure rules for financial instruments have often run into extremely stiff opposition from market participants, bank regulators, and others. While speed is important, it is also vital that the FASB fully consider all serious points of view and proceed with the accounting version of due process.

value depends on or results from the value (or a change in value) of something else. The "something else" may be an interest rate, currency value, index of asset values (such as a stock or commodity index) or any other asset value or reference rate.

Many derivatives are traded on stock and futures exchanges, such as options on stocks or currencies, or futures on stock indexes, foreign currencies or interest rates. Exchange trading of derivatives involves varying degrees of order exposure, trade transparency, audit trails, clearing houses and other attributes of an exchange-trading environment.

OTC derivatives are traded in a dealer market conducted largely by telephone. This market is generically similar to dealer markets for other types of instruments around the world, including the OTC market for equities trading in the United States. However, unlike the OTC equities market where there is a self-regulatory organization, the National Association of Securities Dealers, and an electronic system for public order transparency, NASDAQ, the OTC derivatives market functions without any formal SRO and does not have any overall trade reporting systems.

Compared with the cash market for securities in the United States, the OTC market is characterized by lower levels of liquidity and little or no transparency concerning transactions. Most liquidity in the market comes from the market making activities of the major derivative dealers. Their capacity and willingness to provide liquidity to the OTC derivative market is

in turn affected by the liquidity of cash markets and exchange-traded derivatives markets, as well as the willingness of other customers to enter into new OTC transactions -- all of which contribute to a dealer's ability to hedge its own positions. The relative illiquidity of at least longer-dated and more customized instruments, and the difficulty of obtaining information concerning market transactions, create risks that both dealers and end users must plan for and manage.

Based on overall activity, currency and interest rate swaps represent the largest portion of the OTC market in terms of volume. However, there is a steady and unquantified growth in the number and value of "structured" transactions which incorporate derivative features that enhance yield and may involve substantial risk to principal value.

Derivative instruments vary widely in their size, duration, complexity and purpose. Some instruments are referred to as "plain vanilla" instruments, such as simple currency swaps. Other instruments are highly complicated allocations of cash flows based on different variables, sometimes for periods of 20 years or more. OTC derivatives are also structured to give varying degrees of leverage to transactions, with some instruments requiring the payment of amounts that may be many times the movement of a reference rate or asset. Some of these complex derivatives are attached to or imbedded in other

financial instruments. These instruments in particular are aptly characterized as live ammunition.9/

The hallmark of this market, and one of the reasons for its success, is that it is a market for customized transactions that allow customers to determine the risks that they wish to bear, and those risks that they wish to shift to others. It is important to recognize that the derivatives market in the aggregate is engaged in the shifting (not the creating) of risks that already exist somewhere from one party to another. Whether derivatives enhance a particular company's safety or increase its risks depends entirely on how the instruments are used, and of course on what happens in the real world during the term of the contract to affect the value of the various assets or cash flows that may be embodied in the instrument.

Several of the recent lengthy press articles on derivatives have tended to apply a highly artificial and quite unrealistic apocalyptic tone to the overall derivatives market. Some descriptions of the market seem to imply that all derivative transactions are highly speculative or risky, when in fact some are, and some are not. Whatever else is true -- and there are real issues that should be addressed -- the sky is <u>not</u> falling.

In fact, a derivative contract is a tool with which a company can alter its risk in certain areas either by paying a

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9/The fact that someone can lose money holding a structured note, for example, in the event of adverse interest rate changes is not different in kind from what happens if one holds a 30-year U.S. Treasury bond and long term interest rates rise.

fee, or agreeing to incur some other offsetting risk, or both. A derivative can be a highly valuable aid to a company seeking to achieve greater certainty in its operations, such as by locking in the cost of foreign exchange for a set period of time. Both exporters and importers use derivatives to curtail the risk of unexpected currency fluctuations, and companies and government entities also use derivatives to control the cost to them of fluctuations in interest rates.

One simple reason for the growth in use of derivatives is that the total volume of world trade has risen sharply over the past decade. As a result, more and more companies have exposures in foreign currencies that they must manage. The relatively high levels of volatility of currency values and interest rates makes the "option" of not taking any steps to limit a firm's currency or interest rate exposures more risky, which also leads to an increase in the use of derivatives.

For a company that considers itself expert in making airplanes, automobiles or telephone systems, but not in trading currencies, derivatives can give the company the ability to focus its management attention on the businesses it knows best, and where it can create the greatest value added from its management and capitalization, and to shift the job of managing other types of risks to the market.

By allowing a company to control its maximum exposure to currency values or interest rates, derivatives help many companies operate more efficiently and more safely. Indeed,

hedging some types of market risks can be seen as a prudent and relatively inexpensive method of enhancing long term corporate shareholder values.

Of course it is also true that derivatives can be used in a manner that increases risks for an end-user. Recent public disclosures of problems at Metallgesellschaft, Proctor & Gamble and other companies have shown that companies can lose substantial sums through ill-considered, poorly executed or uncontrolled use of derivative contracts. Here the problems have been preponderantly among the end-users of derivatives, rather than among the dealers in these products.10/

Relatively greater losses among end-users of derivatives rather than dealers is not surprising given the great disparity in expertise and market knowledge between the largest dealers and even very large corporations that purchase derivative contracts for various purposes. Indeed, the same phenomenon frequently occurs in cash markets as well. During 1987, the large broker-dealers lost fairly little in the collapse of stock market prices, while individuals and institutions lost immense sums.

Of course any "losses" from derivatives for end-users must be kept in perspective. The business news on almost any day will report companies that have incurred far larger operating losses or "restructuring charges" -- often measured in the billions of

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10/Indeed, the entire debate over derivatives activities would benefit considerably from a more precise differentiation of issues that pertain to dealers and those that pertain to end-users, as the risks and problems are often sharply different.

dollars -- flowing out of their basic operations. While one should not take losses of tens of millions of dollars lightly, it is worth remembering as a matter of perspective that if Proctor & Gamble had reported the same $157 million pretax loss from discontinuing a line of products that it manufactured, the news would have received scant attention due to the strong financial condition of the company.

Despite the publicity surrounding the Proctor & Gamble case in particular, it is not apparent that there will be any significant longlasting harm to the company as a result of this experience. What probably generated a greater degree of interest in the business community was that a company with a relatively conservative business reputation had evidently been engaged in very aggressive proprietary trading quite unrelated to its basic business through its corporate treasurer's office. The longer run effect on both P&G and the general corporate community may turn out to be quite positive if the incident serves as a wakeup call for directors and senior managers who are entrusted with the duty of protecting and enhancing shareholder value.

In general, most users of derivatives would benefit from far closer attention to internal corporate practices by their CEO and their board members. Here directors (especially members of audit committees, but also others) have a responsibility to know -- and to control -- the manner and the degree to which the shareholders' net worth is being put at risk in significant amounts -- whether through the use of derivatives or in normal

operations. In this regard directors and senior managers should know what the company's maximum exposure of its balance sheet and its income statement is, how that exposure is created, on what it is dependent and how it is managed over time. Critical assumptions about markets and the potential magnitude and timing of changes in markets must not simply be ascribed to a risk model or formula, but should be evaluated by senior management if a company plans to incur significant exposures.11/ Issues like decision-making authority, maximum risk limits, reporting and approval requirements and other questions should be considered and decided in advance.

An example of this issue is the parameters that may be built into a company's risk management program. Many companies (including some dealers) set a standard of managing or controlling the risk of price moves with a magnitude of two standard deviations over a defined period of a market's history. While that standard may be sufficient to cover expected or periodically recurring levels of price movements, it may not cover much larger and more damaging price moves due to an unusual or unexpected event. Thus, a company also has to consider the risk of unexpected events and the occurrence of price moves that, statistically speaking, shouldn't happen but nonetheless might (statisticians sometimes refer to these situations as "outliers"). While using the highly valuable tools of modern

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11/Of course one important threshold question for directors is the degree, if any, to which the company is using stockholder funds simply to speculate on the timing or direction of markets.

markets for analyzing risk, there is still not any substitute for judgment and a bit of healthy skepticism.

In this respect, derivatives, like other human inventions, can be both good and bad. For example, an automobile can provide its owner with efficient, convenient and sometimes even very pleasant transportation. However, the same model auto that is driven at 90 miles per hour down a curvy and wet mountain road may be a mortal danger to its driver and others on the road at the same time. That difference isn't the result of the car, but of how it is used. The same phenomenon is true with the use of derivatives. If the CFO or Treasurer of a corporation plans to take the company's financial condition out for a drive in the markets, the CEO and the board should have a clear understanding of the plans for the journey.

With these general observations in mind, I would like to turn to the specific questions on which you have asked my views.

1. THE POTENTIAL FOR DERIVATIVES TO CONTRIBUTE TO INCREASED SYSTEMIC RISK IN THE FINANCIAL SYSTEM (INCLUDING THE POTENTIAL FOR SUCH FINANCIAL INSTRUMENTS TO CONTRIBUTE TO INCREASED LEVELS OF VOLATILITY OR EXCESSIVE SPECULATION IN THE STOCK AND BOND MARKETS.

Banks have always been exposed to credit risk through their loan portfolios. Many banks are now also heavily exposed to market risks through the management of enormous portfolios of securities. Their foreign currency business creates significant trading as well as settlement risks. The same is also true for broker-dealers.

These credit, market, operational, legal and other risks in nonderivative activities are generically the same as the types of risk arising from derivative activities. Thus, the activity of banks and broker-dealers in derivatives does not really create any new type of financial risk, though the proportions of different types of risk may be modified from traditional patterns. Ultimately, the different elements of risk that must be monitored both by the company and by its supervisors are largely the same.12/

One factor making people fear systemic risk is the derivative industry's practice of announcing its statistics in terms of "notional amounts." The notional amount is a reference standard for calculating cash flow obligations, not the obligation itself. Indeed, actual credit exposure to swap contracts, for example, is typically less than 5% of the "notional amount."13/ Notional amounts are a convenient and by now accepted measure for positions, but it must be understood

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12/This is why the only agency that can effectively evaluate the riskiness of a firm's derivatives activities is the agency that is also responsible for evaluating its non-derivative exposures of the same type. If the evaluation of a bank's credit risks in loans is done by one agency, and its derivatives by another, there would be a significant likelihood that the full supervisory picture would be lost. The same is of course true of broker-dealers, where the SEC is the only agency that could perform a meaningful evaluation of the overall financial condition of a broker-dealer.

13/In its Annual Report for 1993, for example, J.P. Morgan & Co. Incorporated reported that it had approximately $1.6 trillion in "notional amount" of swaps, options and other derivatives. However, the firm's reported total credit exposure to such instruments was $20.7 billion (only $6.3 billion of which was reported on the balance sheet).

that the reported notional amounts vastly overstate the actual credit exposure or expected cash flows associated with derivatives.14/

An important element in evaluating systemic risk is the size of cash flows that could potentially be interrupted due to an unexpected problem, and the capacity of the system to provide alternate sources of liquidity to replace the interrupted cash flow in order to prevent defaults from following a chain reaction. Here, the daily cash flow requirements in derivative markets are far less than those resulting from spot foreign exchange transactions, settlements in government securities, mortgage backed securities and many other instruments. In all of these markets there are higher daily settlement requirements.

Of course rapidly growing markets do pose special supervisory risks. They tend to attract new participants who will not always make the necessary personnel and systems investments and may encounter problems as a result. The very newness of many individual products may mean that legal or regulatory issues have not been fully explored. Here the industry has made extensive and quite important efforts to codify master agreement documentation, and to remove legal issues as to

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14/It is worth noting that derivatives transactions have not been responsible for the failure of any significant depositary institution in the U.S., although thousands of banks and thrifts have failed due to poor lending practices or insider transactions. That is certainly not a guarantee for the future, but it should provide some helpful perspective.

the enforceability of netting arrangements that can reduce potential system risks profoundly.

Since new types of risk are not being created, the remaining systemic issue is whether the magnitude of derivatives transactions and resulting cash flows creates a risk that the overall system will be strained past some breaking point. The back office crisis of the U.S. securities industry in the 1970s, and the capacity limits of the equity trading systems in 1987, are examples of potential systemic risks resulting from the sheer volume of transactions or the ability of the system to supply sufficient liquidity under both extraordinary volume and severe price stress.

This is a very difficult issue because it involves the supervisory equivalent of unexpected event risks. Happily, high rates of growth in trading activity in derivatives have also coincided with very high rates of investment by dealers in communications and data processing capacity. The major related cash and exchange-traded derivatives markets have also generally been investing substantially in enhancements to the capacity and reliability of their systems. Therefore, while eternal vigilance is called for by both banking and securities regulators, there is not today any apparent serious capacity constraint on market or communications systems. In dealing with systemic risk, the extremes of both Pollyanna and Chicken Little must be avoided in favor of constant attention to enhancing the speed, reliability and capacity of systems in all our major markets.

For the future, the best way to prevent the development of systemic risks is to maximize the transparency of financial reporting by both U.S. and foreign derivative dealers and users, and in every way possible to preclude the extension of public credit, deposit insurance or other explicit or implicit government backing for derivative dealers. Market disciplines should be allowed to curb speculative abuses where they arise without attempts to shield firms through governmental intervention that has historically proven to create moral hazard problems of a substantial order.15/

2. THE NEED FOR IMPROVEMENTS IN INTERNAL CONTROLS AND RISK MANAGEMENT SYSTEMS OF BOTH THE FINANCIAL INTERMEDIARIES AND CORPORATE OR OTHER END-USERS OF DERIVATIVE FINANCIAL INSTRUMENTS (e.g.,MUTUAL FUNDS, MUNICIPALITIES, PENSION PLANS OR OTHER INSTITUTIONAL INVESTORS).

Risk Management by Dealers. This is a critical area for both dealers and end-users. As to dealers in derivatives, both the federal banking agencies and the SEC have programs designed to test and to evaluate the risk management systems of firms under their respective supervision and oversight. By testing and

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15/Firms engaged in derivatives trading for their own account should be risking their own shareholder's capital, and only that -- not taxpayer dollars or publicly insured funds. If that limit is observed, then boards of directors can appropriately serve as the primary oversight and review mechanism for these activities, and public authorities can avoid the need for interventions that would erode market discipline for risk-taking. Of course there should also be effective supervision of financial institutions engaged in derivative activities. However, that supervision should be carried out by the same agencies, and to no greater or lesser extent, that would supervise a firm's exposures in the cash market for bonds, currencies or other instruments.

evaluating a firm's risk management and controls system, the regulator seeks to develop an understanding of the firm's ability to control overall risk patterns in any given situation.

In the area of financial institutions' risk management systems, it is important for regulators to seek to establish standards for minimum practices, but not to codify a particular form or approach to risk management. Nobody has a crystal ball, including the regulators. Therefore, it would be counterproductive for regulators to mandate specific risk methodologies, for example. Instead, regulators should encourage constant enhancements to, and review of, risk management systems, with final responsibility and accountability resting with management and the board of directors. Those firms whose systems are not adequate to support a firm's type and level of activity can be required to curtail new activity until adequate internal controls are present.

While improvements can always be made, this area is one where virtually all the major players in the market have been making relatively significant investments. Happily, many of the investments necessary to enable firms to operate and trade profitably also enable the firm to model and structure its own risk profile in a manner that will not exceed its tolerance for risk to the balance sheet or the income statement.

In contrast to the situation of the largest derivatives dealers, where overall risk management systems tend to be fairly high, new market entrants, second or third tier dealers, firms

with limited scope and others may have failed to make the generally high level of investment in people, analytics and data systems that are required to manage risk effectively.

Internal Controls of Dealers. For derivatives dealers, the biggest problem tends to be internal controls rather than risk management systems. While investments in risk management systems tend to be perceived as contributing to profitability, internal controls and similar "compliance" functions are not always seen in the same light. Thus even some very large institutions may have serious deficiencies in their ability to operate effective internal controls. Breakdowns or patent inadequacies of internal controls have been a factor in most of our largest bank and securities firm "scandals," as well as with many of the worst financial losses that have occurred. Time and again, internal controls prove to be a point of major vulnerability to a firm's ability to carry out policies designed to control risk, or to insure compliance with the law.

Risk Management by End-Users. By far the greatest need for improvement in risk management systems is with the end-users of the products, including corporations, governmental entities, mutual funds, pension funds and other institutional investors. Here the seeming torrent of companies that have experienced losses when interest rates began to reverse their previous long period of decline provides a fresh stream of examples of companies that had not put in place adequate systems for understanding and managing risk.

One basic distinction in the corporate world is whether the company allows (or encourages) its treasury operation to take positions in derivatives that are not related to hedging the company's normal business risks. Some companies look to the treasurer's office as an independent "profit center," rather than viewing it as a "cost center" that simply provides service to operating divisions of the company.

Where a company determines to seek to build on its own financing experience and to seek to generate profits from derivative trading, that company has entered into a far different arena from that involved in managing its own operating costs and exposures. Essentially, such companies have made an election to go into the business of proprietary trading. There is not any per se reason why such a decision would be inappropriate if the goals and limits of such a policy had been approved by the board, and fully disclosed to shareholders. However, any such decision would mean that the user corporation had decided to become at least in part a de facto dealer in these instruments.

The first corollary of any such decision is that if it hopes to be successful, the company must be prepared to invest in analytical systems competitive with the major financial institutions, rather than with other end-users in the market. While corporate officers may get caught up in the mystique of dealing in this market, in most cases an end-user corporation simply does not have the systems for risk modeling and risk control that would be present in a major dealer. An end-user

also does not have nearly as many inputs of market information as does a major dealer involved in large numbers of transactions. These differences would seem to make it difficult for a typical end-user corporation to be successful in proprietary trading activities over time.

Internal Controls of End-Users. The inadequacy of internal controls at many end-users of derivatives is another closely related but separate problem. Many companies have invested in a top quality internal audit department, and management has devoted significant attention to the development and use of an effective and efficient system of internal controls. However, there is certainly quite a bit of variation in the quality of these programs in different companies.

Establishing effective and efficient systems of internal corporate controls is a difficult task requiring a careful blending of incentives, corporate culture, regulatory and compliance systems (if any). It also requires senior management to articulate goals clearly, and to establish procedures for communicating important policies and procedures and management's commitment to them throughout the firm.

While there may need to be considerable enhancements to the internal controls of many end-users of derivatives, the best way to accomplish this would be through internal action by the directors or the most senior management of the company. Effective controls cannot simply be purchased in the software store, or taken off the regulatory shelf. Effective controls

must be closely tied to the individual company's operating structure, its own particular control risks and its experiences to date. Good controls must be related to the overall management structure for operations, yet also responsive to the dynamics of the controls objectives.

Throughout our history, members of the board of directors of a public company have had extensive fiduciary duties to shareholders, and they have been held accountable for establishing a system of internal controls that is satisfactory for the specific company. Boards are ultimately responsible to the shareholders for the protection and enhancement of their shareholder values. Thus, directors must be certain that a company is able to control unacceptable risks of financial statement fraud, unethical or illegal business practices, and many other issues. While some boards have clearly been more vigilant than others, the enhancement of internal controls is a matter best left for the shareholders and the board to decide.

Any attempt to superimpose the SEC or another agency with the power to direct end-user corporations on how to use these instruments, or how to control risktaking, would be a highly serious interference with the role of the board, and the delicate balance of corporate governance that has been built painstakingly for many years. It would also be well beyond the capacity of the SEC or any federal agency to achieve across the enormous diversity and complexity of America's roughly 12,000 publicly traded companies. What is needed are high standards for

management established by informed and active boards of directors, with good disclosure to shareholders and the market concerning a company's exposure and also its policies and practices regarding risk management and internal controls.

3. THE NEED TO PROVIDE INCREASED PROTECTION TO CORPORATE OR OTHER END-USERS OF DERIVATIVES AGAINST ABUSIVE PRACTICES IN CONNECTION WITH SALES OF SUCH FINANCIAL INSTRUMENTS (e.g.,THE SALE OF UNSUITABLE INVESTMENTS TO CUSTOMERS, INADEQUATE DISCLOSURES REGARDING THE RISKS ASSOCIATED WITH THESE PRODUCTS).

It is relatively easy to agree that "abusive" practices should be curtailed. However, the more difficult issue is defining what is, in fact, "abusive," or outside the norms of accepted ethical principles and practices of trade. This is an issue that depends very much on the context that one is considering.

"Suitability" standards are an important tool for the supervision of, among other things, the conduct of broker-dealers in securities with respect to solicited transactions in a retail context. Because of the inherent relationship of broker and customer, the SROs and the SEC have long required the broker to know his or her customer and to make a reasonable judgment as to the appropriateness of a particular type and size of transaction to the customer's ability to absorb risk. Suitability embraces issues of customer understanding of risk and the customer's ability to absorb risk.

Since the earliest days of federal securities regulation, however, there have been exceptions from normal regulation for

large and sophisticated market participants. An obvious example is the fact that an issuer may sell securities to a large institutional purchaser in a private placement without registering the securities with the SEC or delivering a statutory prospectus to the buyer. This is done because, at some point, we believe that the buyer is big enough to take care of itself, and that the resources of public bodies such as the SEC should not be diverted from the task of protecting less sophisticated market participants.

The traditional (and still appropriate) answer as to whether a dealer should have a duty to make a suitability determination with respect to a major multinational corporation is simply "NO." There has not been a category of "widow and orphan multinational corporation," and I do not believe that we should create one now. If a major corporation loses significant sums in inappropriate speculation in any type of financial instrument, the remedy is for the management or the board to terminate the responsible individuals and to install better internal controls.

The issue of suitability standards is more difficult with respect to pension funds and other "institutional" purchasers of securities. While there may be no such thing as a widow and orphan multinational, all pension funds deal with widows and orphans, and some pension plans are not nearly as sophisticated as their asset size might imply. Here the issue is whether limitations are more appropriate through standards of conduct for the dealer selling the instrument, or for the trustee allowing

the purchase of the instrument. Traditionally we have governed the actions of pension fiduciaries through ERISA, life insurance statutory investment standards and similar devices.

While I am very cautious about the desirability of diverting SEC resources into policing transactions among people who are capable of protecting themselves, it is always important for a dealer in derivatives or other securities to understand the client's level of sophistication and the client's motivations for entering into any transaction that involves disproportionately large or particularly unusual risk characteristics.16/ If the level of potential exposure of a governmental entity, pension fund or other institutional purchaser becomes utterly disproportionate to its resources, then special steps are called for by the dealer.

At a minimum these steps would include determining the level of client approval of the transaction, and the rationale for its unusual nature. However, the dealer should also consider refusing to enter into a transaction involving client exposures that are substantially disproportionate to the client's resources. Competitive pressures sometimes make this difficult, but it is one way of avoiding far more serious potential problems.

16/This has reasons that go beyond suitability concerns. Such inquiries would also help detect any situation where the counterparty is seeking to use a derivative transaction to conceal unlawful conduct of some type.

Government entities, pension plans, mutual funds and similar entities should not be precluded from utilizing OTC derivative instruments, as this would prejudice their ability to seek the best results for their taxpayers, beneficiaries or shareholders. Those who manage such institutions acting on behalf of others should of course exercise skill and care in managing their activities, including limiting their ultimate risk exposure in a thoroughly prudent manner. The managers of such institutions should also be accountable in an appropriate manner to the beneficiaries, shareholders or voters.

Dealers who may be selling instruments to such entities should apply the highest standards of business ethics that they would apply to other types of customers as a matter of good business practice, irrespective of legal requirements. This should include being certain that the customer's motivation and goals for the transaction are understood and seem to be within a realm of reason, and full and extensive disclosure to, and even discussion of risks with, the customer in such an institutional setting.

The foregoing discussion seeks to answer what factors ought to be considered in determining whether a particular act or practice should be considered "abusive." Certainly misleading disclosures, such as deliberately inaccurate or incomplete scenario projections, should be considered to be "abusive." The industry itself should be at the forefront of promoting standards of healthy conduct and codes of business ethics and practice. If

the derivatives arena is seen as simply a "free fire zone" in ethical terms, then the long term growth of the market could be impaired. As with other securities markets, public confidence in the integrity of the market and its major participants is an essential ingredient in building liquidity and efficiency.

4. THE NEED TO IMPROVE THE PUBLIC DISCLOSURES PROVIDED TO INVESTORS REGARDING THE DERIVATIVES HOLDINGS OF PUBLIC COMPANIES, MUTUAL FUNDS, MUNICIPAL GOVERNMENTS, AND OTHER END-USERS OF DERIVATIVE FINANCIAL PRODUCTS.

I strongly believe that improved transparency of practices in this entire area would be the most beneficial action that can be taken. Shareholders and others can usually tolerate bad news far better than they can bad news that comes as a complete surprise. The nature and level of a company's derivative activity, and the level of exposure of both its earnings and its net worth, are very important disclosure issues. For firms with significant levels of such exposure, management's discussion and analysis should also include commentary on the company's practices, controls and strategies. It should not be possible for losses of a significant magnitude to occur without there having been disclosure that risks of such a potential magnitude are being incurred by the company.

In addition to all the other benefits it brings, greater disclosure to shareholders concerning the nature and magnitude of derivative activities has the added benefit of helping to make sure that the board of directors has appreciated the scale and

magnitude of a company's activities and its exposure even under the most unexpected circumstances.

Though the question was addressed to improved disclosures by end-users of derivatives, it is also relevant to dealers as well. As discussed earlier, far greater transparency of disclosure by the financial institution participants in the market can provide better market disciplines against excessive levels of speculation or abusive practices. There is still work to be done to improve the quality of disclosure concerning the risks embedded in financial institutions. However, any enhancements to disclosure should not be targeted solely at derivatives as some type of suspect transaction, but should be designed to permit the analysis of earnings and risk across the spectrum of different types of financial instruments. Finally, it is desirable if such enhanced disclosures and improved transparency can be developed by management and a company's outside auditors. A company should work diligently to design the best form of disclosure to suit its own specific conditions, and it needs the flexibility to structure the most helpful and informative presentation. Codification of requirements too soon could prevent healthy experimentation.

5. THE NEED FOR ANY CHANGES IN THE REGULATORY TREATMENT OF DERIVATIVE FINANCIAL INSTRUMENTS OR THE ADOPTION OF REMEDIAL LEGISLATION RELATING TO SUCH INSTRUMENTS.

The growing size and importance of the OTC derivatives market makes it important for Congress to understand the

practices in this marketplace, but it must approach any legislative actions with great caution. There is already a substantial volume of contractual commitments in place, and we must be certain that any potential legislative actions enhance certainty in the marketplace rather than detract from it. Furthermore, this market is a global market that can easily shift transactions from one jurisdiction to another. Where a nation puts in place unilateral and ill-considered actions such as transaction or other taxes, market participants will swiftly move transactions to other venues and thereby render the action meaningless except as a jobs export program.

One area for inquiry, though not necessarily for any legislation, is the issue of whether the SEC has done enough to make it possible for shareholders and potential investors to understand the practices and exposures of institutions dealing in or purchasing significant quantities of derivative instruments. Here there are issues of whether the traditional materiality test based on aggregate corporate net worth and earnings is an adequate threshold for disclosure. There may also be certain specific activities, such as corporate use of highly levered instruments, that are indicative of trends that would be important to shareholders to appreciate. Sunlight is the most powerful disinfectant in the market, and there may be areas where stronger doses of that traditional medicine may help prevent the development of abuses.

The maximum permissible level of leverage is another issue for future consideration. Supervision of dealers extending credit may be sufficient to prevent excessive leverage, but the area is one of classic concern.

While I am not an expert in the nuances of enforceability of netting agreements under the bankruptcy code, the uniform commercial codes of the states, and the laws of foreign jurisdictions, any and all actions to strengthen legal certainty as to the enforceability of obligations, including netting agreements, will powerfully contribute to systemic stability by significantly reducing potential liquidity demands.

Finally, there is the issue of whether most OTC derivative contracts are in fact securities as a legal matter. If they are, then many traditional protections of the securities laws such as prohibitions on fraudulent acts are applicable to the behavior of dealers and others in this market. If some or all OTC derivatives are not securities, then one must consider whether any analogous prohibitions against fraudulent conduct would be appropriate. Certainly there should be some consequence for practices that involve outright deceit or distortion, for example.

On balance, I believe that recent publicity surrounding this market has been considerably overstated and overly alarmist. On the other hand, I firmly believe that the public scrutiny that is taking place can also have a salutary impact on practices in the marketplace. Hearings such as this should help to put both

dealers and end-users of these important products on notice that high standards of legal and ethical behavior are definitely in order.