



REMARKS OF
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OTC DERIVATIVES: ENCOURAGING INNOVATION
AND MANAGING RISK

FEDERAL RESERVE BANK OF ATLANTA
CONFERENCE ON FINANCIAL MARKETS
MARCH 4, 1993

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Recently, I came across a book by a Dutch author, Joseph de la Vega. De la Vega wrote an entertaining account of business on the Amsterdam Stock Exchange.

The book described the workings of the market. He wrote about the bankers, the brokers, and the dealers who participated on the exchange. He explained how they traded stocks, futures, options, and how they used cash-settled instruments and margins. He wrote about their sophisticated trading strategies, including the when-issued market, short sales, and straddles. He also described a clearing system that incorporated netting.

It's hard to believe that de la Vega wrote this book in 1688. It seems that the Amsterdam Stock Exchange, the first organized stock exchange in the world, also gave birth to many of the practices and customs that characterize modern markets.

I tell you this story not to impress you with the breadth of my library, but to emphasize that even today's more esoteric products have their roots in the earliest organized trading markets. Indeed, throughout history, we've seen that markets operate on the same basic principles: Every transaction involves basically the same fundamental analysis of risk versus reward.

It's important to keep these lessons in mind as we evaluate new markets and products, such as the OTC derivatives market. A market that has been getting a lot of notice lately -- most of it unwelcome.

Some of the concern about this market may be a result of the fact that there is a mystique to these products. After all, they are complex and often based on mathematical models that the average layman can't conceptualize. Skeptics dismiss the OTC derivatives market as just more financial hocus, pocus from Wall Street rocket scientists.

There seems to be a common misperception that the regulators, like Marshall Dillon, are about to run the outlaws out of town. The question, however, is not how to run them out of town, but how to make sure that we have stable, but innovative, markets.

Until recently, I think many observers didn't recognize the real-world uses for these products. Most of us now recognize that these products can allow users to manage risk in a far more sophisticated and effective manner than they had been able to before.

The exponential growth of this market does raise a number of issues, however, that regulators and market participants, working together, will have to address. First and foremost, these products present risks that must be controlled and accounted for. Our challenge is to devise effective capital rules that will ensure that broker-dealers and their affiliates remain financially stable and strong enough to withstand a potential market disruption caused by a firm failure, for whatever reason.

To accomplish this, we have to rethink our approach to capital standards. The markets are evolving and our rules have to continue to evolve as well -- and at a reasonable pace. The first step is to shift from a strategy-based approach to a portfolio-based approach. In addition, we have to come to some decisions about how our capital rules should account for the credit risk inherent in OTC derivatives.

But let me step back for a minute and put the debate into context. The growth of this market has been phenomenal. A recent report by the Fed, the FDIC, and the OCC noted that by year-end 1991, the notional value of outstanding OTC derivatives was approximately \$4.4 trillion -- a 790% increase from year-end 1986. Interestingly, less than 13% of that total accounts for equity-related derivatives.¹ The interest rate and currency swap activity dwarfs the equity-related activity in this market.

And this is only the beginning. The pace of growth we've seen in recent years should continue as more end users learn of the advantages of customized derivative products.

OTC derivatives are extremely flexible. They allow businesses to have more control over, or even eliminate, the ancillary risks in their commercial transactions. Businesses that use customized derivatives can now more successfully hedge against currency and interest rate fluctuations, as well as guard against fluctuations in the price of commodities.

¹ Derivative Product Activities of Commercial Banks, Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation, Office of Comptroller of the Currency (January 27, 1993) Appendix II, at 1.

From a credit exposure perspective, it's interesting to note that the total exposure from these outstanding transactions may be 2% to 3% of the notional amount, or \$8 billion to \$13 billion. Id. at 3.

This is not just an exclusive club of cutting-edge players anymore. Firms in businesses as diverse as fast food restaurants, oil, mining, and tractor companies have come to Washington to tell Congress how indispensable these products have become to their operation.² McDonalds uses OTC derivatives to reduce the risks it takes in its overseas operations. KLLM Transport, a national trucking company, uses OTC derivatives to limit the effects on its business of volatility in the price of oil. Even Sallie Mae advertised in Smithsonian, a favorite among Washington policy wonks, that swaps have become indispensable in meeting its mission to provide affordable student loans.³ In a recent survey, Institutional Investor magazine found that OTC derivatives appear in at least one out of five corporate investment portfolios and in one out of three pension fund portfolios.⁴

Equity derivatives also offer unique advantages to investors. They allow investors to create more perfect hedges against their portfolios than they can with standardized instruments. Investors can tailor contracts to suit their particular investment strategies, rather than adjust the strategies to meet their needs with off-the-shelf products.

OTC derivatives allow investors to lay off market risk very accurately. You used to hope that your hedge was right. Now you can be sure. Customers can shift their market risk to dealers whose business it is to contend with market risk on a daily basis.

Of course, this certainly has its own price tag. Customers often pay a hefty premium for this service. And they are, in effect, trading market risk for credit risk.

In addition, OTC equity derivatives can be used as surrogates for underlying equities. Unlike listed products that replicate established market indices, OTC derivatives allow their purchasers to customize their portfolios. They also allow investors to shift asset allocations overnight, including allowing them to gain exposure to foreign markets far more efficiently. And they may offer better returns because they lack

² Swaps Saved, WSJ, October 12, 1992 at A10.

³ What We Know About Getting Money for Your Kid's College Education is an Education in Itself, Smithsonian, February, 1993, at 118.

⁴ Which Derivatives Do CFOs Really Use?, Institutional Investor, April, 1992, at 141.

the "frictions" that often characterize entry into the markets; frictions such as market impact costs, execution costs, withholding taxes, and custody costs.

But, let's look at the other side of the equation for a minute. These products present risks that are different from Wall Street's regular fare. And that has set off alarm bells in some pretty distinguished heads. In a now infamous speech, New York Fed President Jerry Corrigan, struck fear in the hearts of traders all over Wall Street with his warning that the rapid growth and complexity of this market, coupled with "the nature of the credit, price and settlement risk . . . should give us all cause for concern."⁵

What followed his speech shows just how much is at stake here. The dealer community took every available opportunity to reassure regulators. They repeated the "completely hedged" mantra over and over again.

But if you probe a little deeper, you learn that the products are becoming more customized and the ideal of completely matched books is no longer the norm. Increasingly, the hedges aren't exact. More and more, they are "sympathetic" hedges, that are often dynamically hedged. Doesn't that sound eerily like another financial innovation that proved to be the undoing of many in the '87 crash?

Oddly enough, the largest losses in the OTC derivatives market to date have arisen not from bad risk management, but because of legal uncertainties. In finding that certain U.K. municipal governments had no authority to enter into swaps contracts, a British court cost those municipalities' counterparties a lot of money.⁶

No catastrophes have struck so far, but have we simply been dodging bullets? Is the concern about the risks in this market justified?

⁵ E. Gerald Corrigan, Remarks Before the 64th Annual Mid-Winter Meeting of the New York State Bankers Association 12-14 (January 30, 1992).

⁶ Another issue that must be resolved is the legality of netting agreements among international counterparties in this market. If netting provisions in swaps contracts are not legally enforceable, counterparties will be free to pick and choose only profitable transactions when the inevitable failures occur, which of course would defeat the purpose and utility of the agreements in the first place.

The most troubling issue for regulators and -- I've heard -- also for many CEOs, is the credit risk firms take when they enter into these transactions. Many OTC derivatives agreements require that one party pay funds in the future to a counterparty. To the extent that one party has an unsecured profit on the transaction, it has credit risk to the extent of the profit. The credit risk involved in these transactions is the first long-term risk brokerage houses have assumed on a systematic basis. It's also the first time that broker-dealers have been in the business of credit assessment -- except, of course, for their short-lived experience with bridge loans. Some of those 90-day loans may still be on the books!

I recognize that credit risk can be measured, monitored and, in theory, controlled. But even banks have certainly shown that it's not always as easy as it sounds. You only have to look as far as the recent loan loss and bank failure experience for evidence of that.

The dealers in this market need to take this seriously. And I think they are. After all, as the recent banking agency report put it, "regulation cannot substitute for effective management."⁷

Firms, in particular, firm management, need to assure themselves:

-- first, that they really understand these transactions and their risks;

-- second, that firm risk control systems are keeping up with the new types of risks they are creating and assuming, and that their internal and external auditors are asking the right questions;

-- third, that they are taking adequate steps to minimize counterparty credit risk. For example, are they accurately marking their positions to market? Are they adequately collateralized? Will the stand-by collateral be there when it is needed?

⁷ Derivative Product Activities of Commercial Banks, *supra* note 1, at 33.

So far, market-imposed discipline has limited participants to those firms with the highest credit ratings. Marginal credits are simply priced out of the market. But, what will happen when the lower credits really push to get into the market? Will market discipline prevent that, or will the marginal, aggressive players prevail?

It's the role of regulators to protect the markets from the marginal player. We don't protect them from themselves, but we have to make sure that if they do make the wrong bet, they don't take the rest of the market with them. So our capital rules are designed to make sure that broker-dealers have enough capital to withstand that kind of failure.

Right now, our capital rules require a 100% capital charge for unsecured receivables that arise from OTC derivatives. That's because the fundamental principle that underlies the capital rule is that broker-dealers must maintain adequate liquid capital to assure that they can meet their financial obligations to their customers and creditors if they are forced to liquidate.

Of course, OTC derivatives' greatest attribute is that they are customized, based on the customer's needs. Thus, there is usually no liquid market for these often unique products.

Nevertheless, a 100% charge is a prohibitive penalty to pay for the assumption of credit risk. And the predictable effect has been that some of these transactions have shifted off-shore or to affiliates. Recently, broker-dealers have begun setting up unregulated affiliates, referred to as derivative product companies or DPCs, whose sole business is OTC derivatives.

Not only do these affiliates sidestep the capital issue, they can offer the added advantage of a AAA credit rating to potential customers. Some of these companies, Merrill Lynch, for example, have obtained a stellar credit rating by infusing the affiliate with capital; in Merrill's case, it was \$350 million. Goldman Sachs and Salomon Bros. have also recently introduced AAA-rated affiliates to compete in this fast-growing market and we've heard that there are over 15 other DPCs waiting for credit ratings.

There is a fair argument to be made that segregating these risks in entities that do not hold customer funds and securities is good policy. If these transactions are effected outside the regulated entity, they are partially walled-off from the core broker-dealer where customer funds and securities are housed. In theory, the Securities Investor Protection Corporation will not be called in to reimburse customers because some derivatives book blew up.

But segregating these risks in affiliates doesn't eliminate systemic risk. The participants in this international market include retail and institutional broker-dealers, banks, insurance companies, pension funds, industrial corporations, and even municipalities and other government entities. Add to that the fact that the majority of this activity is concentrated in relatively few large financial intermediaries and it becomes clear that the effects of a failure could be very quickly transmitted throughout the entire financial system. If the accident is not too big, adequate firewalls between affiliates and the broker-dealer may protect the affiliate in a crisis, but what about the affiliate's counterparties?

It seems to me that the near-term challenge regulators face is to find a way to afford these instruments sensible capital treatment. And by "sensible" I mean that it shouldn't force these transactions into affiliates or off-shore.

The SEC took the first step last summer when we adopted risk assessment rules that will allow the Commission to get a better picture of the scope and nature of the risks that are outstanding in these affiliates. The growth of the OTC derivatives market has made balance sheets less transparent, and, consequently, made counterparty risk harder to quantify for both market participants and regulators.

Under our new rules, firms have to file quarterly summaries that include a breakdown of the firms' exposure in off-balance sheet transactions. The first set of numbers were due last Monday and we are just beginning to look at them. This information should give us a better idea of not only the size of this market, but also how concentrated the activity is.

In addition, our Division of Market Regulation is finalizing a draft release that will request comment from the industry on possible approaches to net capital treatment for these transactions. In particular, we will ask commenters to focus on the credit risk issues. We're aiming to issue the release later this month. Of course, the information we obtain through the risk-assessment program will also help in coming to some conclusions about appropriate capital treatment for these transactions.

The best thing that can come of this examination is a way to address credit risk. In addition, we will also very likely change in the way we treat market risk in our capital rule. We will probably shift away from a strategy-based approach toward a portfolio-based approach.

The Chicago Board Options Exchange and the Options Clearing Corporation have been operating a pilot program based on options pricing theory for nearly a year. The program has shown us the viability of such a portfolio-based approach. I am hopeful that its success will lead to an expansion of the concept. In fact, the concept release we will release shortly will propose just such an expansion.

As for credit risk, it's less clear what our ultimate resolution will be. One approach that I'm intrigued with is applying a capital charge based on some percentage of the broker-dealer's total exposure to all counterparties. We could combine such a charge with a concentration charge based on the counterparty involved. Such a charge could be tiered in relation to the credit rating of various counterparties. The underlying theory, of course, is that such a charge would account for the risks associated with committing too much capital to a particular counterparty. In addition, I believe that we should also give firms credit for marking to the market and for collateral arrangements.

Whatever we adopt in the end, however, the SEC will address credit risk comprehensively for the first time. Our net capital rules now focus on market, operational, and settlement risk. Crafting additional rules to account for credit risk presents a challenge for the SEC. And we are going to need help from the market to design a rule that will accurately account for the overall position risk these transactions present but not create a big incentive to shift the activity to affiliates or off-shore.

Although I can speak only for myself, I assure you that I am committed to having the Commission adopt capital rules designed to address the special dynamics and structure of this market. In the meantime, the dealer community should make sure that it's collective house is in order. As I have said before, CEOs, boards of directors, trading desks, portfolio managers, risk managers, and corporate treasurers and auditors need to make sure that the use of leverage is at prudent levels, and risk control and management procedures are in place and serving their intended purpose.

There has been an interesting development recently that has the potential to bring some of these transactions back into a clearance and settlement system where credit risk is mutualized. Last week, the SEC approved a Chicago Board Options Exchange proposal to trade FLEX Options, an option product that allows customers to customize many features of S&P 100 and 500 contracts. As an exchange-traded product this will offer users the benefits of a clearing agency performance guarantee.

FLEX Options may give the OTC products a run for their money, at least with some segment of the user community. It's too early to predict whether they will be successful, but they may at least prod the OTC market into resolving the credit issues in the market. One good sign -- OCC, which will guarantee performance on FLEX Option contracts, recently received a AAA credit rating.⁸

Conclusion

The OTC derivatives market provides us the clearest evidence yet that the functional lines among brokers, dealers, and banks are beginning to blur. The breakdown of the traditional dividing lines among these entities is very apparent in this market, where banks increasingly function as dealers, and dealers increasingly function as lenders.⁹ This market shows more than anything else how arbitrary the lines are that we drew back in the 1930s.

In addition, the products offered by these intermediaries often no longer fit into neat categories. The terms "stock" and "bond" are becoming increasingly anachronistic. For example, you can now take a bond, and using derivatives, change its interest rate, currency, maturity and give it equity characteristics. Thus, we need to define new financial products not by old monikers, but increasingly by cash flows and volatility characteristics.

The time is coming when we will have to face this issue head on. The market is evolving despite the artificial barriers that were imposed years ago. Of course, these pressures will inevitably result -- one day -- in a re-examination of the entire regulatory structure imposed on financial institutions in this country. But a re-examination of our entire regulatory structure is not a pre-requisite to re-working our capital rules.

⁸ Hal Lux, S&P Gives Triple-A Rating to Options Clearing House, Investment Dealers Digest, January, 25, 1992, at 6.

⁹ See generally, Robert C. Merton, Operation and Regulation in Financial Intermediation: A Functional Perspective, (Working Paper #93-020), Harvard Business School, Division of Research, September 1992.

We are fortunate to have a financial services industry in this country that is unrivalled in the world in its inventiveness and creativity. The OTC derivative market is a testimonial to that fact. It has provided its users with a much more accurate means of laying off market risk than has existed in the past.

It is a market that works well and serves its customers well. It is a national asset. Let's not send this market offshore. Although we are making good progress in addressing the issues the market raises, more needs to be done. There is a real cost to allowing a regulatory system to lag too far behind the markets. If we allow such a lag in today's global markets, we will see more of this market move offshore, out of our control, while the systemic risk will remain. This is an American competitiveness issue.