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REGULATORY CHALLENGES FOR THE 1990'S

REMARKS OF

RICHARD G. KETCHUM

DIRECTOR

DIVISION OF MARKET REGULATION

U.S. SECURITIES AND EXCHANGE COMMISSION

BEFORE THE

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The views expressed herein are those of Richard G. Ketchum and do not represent those of the Commission, Commissioners or the staff.

I. Introduction

Today I would like to discuss the challenges facing regulators and self-regulators as they seek to adapt to the trading environment of the 1990's. Although recent changes in the trading environment reflect in large part continuations of long-term trends in the securities markets, what's different today is the dramatically increased velocity of change.

The basic profiles of today's securities markets and securities firms are dramatically different from what they were five years ago. Five years from now the change may be even more profound. The positive side of this increased velocity of change has been more flexible and responsive financial markets. In the United States, however, we have also seen the darkside: bank and savings and loan failures; the liquidation of Drexel, E.F. Hutton, and Thomson McKinnon; and the October 1987 Market crash.

The simple fact is, we as regulators are faced with unparalleled challenges in the 1990's. Either we increase our efforts to remain on top of the changes in the securities markets or we risk being ineffective in our jobs, or worse yet, irrelevant. My effort today will be to identify the critical engines of this change and to suggest a framework for analysis for regulators in the 1990's.

II. The Trading Environment of the 1990's

I believe that the four most salient characteristics of the trading environment of the 1990s are: increased use of "trading the market" techniques by institutions; increased use of

customized over-the-counter products; internationalization of investment strategies and trading; and heavy reliance upon automated systems.

A. Institutionalization

The fact of institutionalization is so well accepted that it hardly bears further documentation. Suffice it to recite a few basic statistics: In 1950, institutions owned 8.1% (\$11.6 billion) of U.S. corporate equities, with household, trusts, and nonprofit organizations owning 91.3% (\$131.1 billion). As of the end of 1989, institutions owned 43.5% (\$1.7 trillion) and households, trusts, and nonprofit organizations owned 55.8% (\$2.13 trillion). The average trade size on the New York Stock Exchange ("NYSE") rose from 398 shares in 1970 to a high of 2,303 in 1988, and then dropped to 2,123 in 1989. Large block transactions (10,000 or more shares) jumped from a daily average of 68 in 1970 to 3,464 in 1989, or in percentage terms from 15.4% of reported volume to 51.1%. This trend has also been evident in the over-the-counter market, where about 39% of the market value of NASDAQ securities is now held by institutions, as compared with 28.3% in 1985 and 14% in 1975. In addition, over 40% of trades in NASDAQ/NMS securities are block size trades.

The institutionalization of markets has its international dimension, as institutions have increasingly diversified their portfolios among different geographic regions. For example, from 1950 to 1989, foreign institutions increased their ownership of U.S. equities from about 2% to 6.7% of the total dollar value of

outstanding U.S. corporate equities.

While the institutionalization of markets itself is not new, the character of institutional trading has significantly changed. Specifically, institutional securities holdings have become so large and portfolio investing theories so widely accepted that institutions increasingly employ passive strategies that involve tracking a market-wide index. Even active investors have shifted to market trading techniques such as tactical asset allocation, involving, for example, the shifting of large portions of a portfolio from stocks to cash or bonds, and from U.S. equities to European or Asian equities.

Moreover, as a part of the shift to portfolio trading patterns, institutions have come to rely more and more upon derivative index products to provide them the ability to shift whole portfolios quickly and at low cost. These characteristics of portfolio trading change radically the demands imposed upon our securities markets.

First, in the United States, the futures markets, as the markets currently offering the greatest speed and liquidity for portfolio trading, often are the pricing mechanism for the securities markets, particularly at the opening and when the market as a whole is responding to macro-economic news. As a result, specialists are required to respond to bursts of seriatim program orders delivered through the NYSE's Designated Order Turnaround System, with little ability to identify (other than through trading solely off futures pricing), the source or the

reason for the sudden selling or buying surge.

Even more importantly, the market has not yet developed a means to effectively employ available capital to cushion market imbalances caused by portfolio trading. Unlike large blocks in individual stocks, which are positioned by the major upstairs firms, portfolio orders are so large in aggregate as to discourage positioning by upstairs firms and small enough in the size of each stock order to encourage the perception that the exchange auction market can effectively absorb those orders. And so it can, except in situations of substantial market volatility when the total number of programs generated simply overwhelm the willingness and capital of downstairs market makers.

Overall, then, the shift by many institutions from individual stock trading to portfolio trading techniques and the greater use of derivative products have imposed a very different set of liquidity and operational demands upon our markets.

B. Development of Over-the-Counter Derivative Products

While exchange-traded futures and options products originally satisfied institutional "trade the market" strategies, institutions have come to desire more varied and flexibly designed hedging and trading vehicles than permitted by the standardization inherent in exchange-traded products. Thus, recent years have seen the proliferation of customized, over-the-counter derivative or synthetic products. Examples include stock index and currency warrants, hybrid debt products such as notes with principal or interest payments indexed to a stock or

commodity price index, and swaps.

Although these products are over-the-counter instruments, they impact exchange markets, for the intermediaries selling these products to institutions usually hedge their risks by trading in the stock, bond, or, more frequently, futures and options markets. Moreover, intermediary hedging of over-the-counter products often involves dynamic hedging tactics, thus increasing the potential these products have to destabilize the exchange markets. Today, it is not uncommon for some major financial firms to design programs intended to meet most of the tactical trading needs of an institutional customer through the sale of tailored derivative products.

Taken to its logical extreme, individually tailored products could proliferate almost infinitely, limited only by the number of institutional portfolios desiring customized synthetic instruments. The potential result would be a huge increase in dynamic hedging by intermediaries, and a large decrease in the number of traders using the world's stock and standardized futures and options markets.

In addition to having the potential to exert a significant destabilizing influence on the securities markets, the proliferation of products also is causing a fundamental change in the allocation of credit risk in our markets. For the use of these products shifts trading away from centrally-cleared products, with credit risks mutualized across the participant base of the central clearing agencies, to direct trading

relationships that leave counterparty risk with the intermediaries. In other words, intermediaries are assuming more credit risk directly and passing less and less of this risk onto clearing agencies.

C. Internationalization

The trading environment of the 1990's will be thoroughly international; the growth of international investment strategies and cross-border trading experienced in the 1980's will not abate and may even increase.

While many believe that international markets will be 24-hour markets, this assumption is in my view must be carefully analyzed. At least with equity securities, trading continues to search out liquidity; and liquidity, with few exceptions, continues to repose predominantly in the home country market. The reasons for this are not mysterious. Notwithstanding increased foreign ownership, the great predominance of public float in most companies remains in the home country. Thus, the ability for market makers to attract sufficient order flow to encourage profitable risk taking generally does not exist outside the home market. This varies significantly from exchange rate and government bond markets where ownership of the underlying assets have truly spread world wide, and relevant news regarding those markets occurs around the clock and around the globe.

Having said that, however, I do believe that there is substantial opportunity for the growth of screen-based international trading systems for equities, particularly for

trading by institutions outside a security's normal, home market trading hours. Institutions may wish to effect transactions in securities after regular home market trading hours for many reasons: because of news regarding the issuer or macroeconomic events, or because the trade involves one or more foreign parties. And over the past several years there has been a marked increase in after-hours program, usually index arbitrage related, trading, as large traders seek to avoid the market impact and other costs of transacting on the NYSE.

To date the demand for these types of execution services has been met either by brokers such as Instinet and Jefferies, by foreign screen-based trading systems such as the International Stock Exchange's ("ISE") SEAQ International system, or by foreign over-the-counter markets. Increasingly, however, the primary home country market can be expected to develop competitive responses. Indications of this response in the United States are occurring with NASDAQ's proposed International service, the NYSE's proposed after-hours system, the Chicago Mercantile Exchange's Globex system, and the recently announced Chicago Board Options Exchange/American Stock Exchange after-hours system for options and stocks.

The effects of this increased international trading are many. On the positive side, institutions are provided expanded abilities to receive executions outside the traditional home markets' trading hours. On the negative side, increased trading away from the home market may occur in the dark, with no publicly

disseminated quotation and transaction reporting, or even reporting for surveillance purposes.

D. Automation

The final engine increasing the velocity of change in the securities markets today is automation. In response to the institutional after-hours trading demands I have discussed, as well as to the general need to reduce costs and increase the efficiency of executions, markets in the 1990s will rely more and more on automated systems. I want to be clear here that what I am referring to is various means of automated support for trading; I am not predicting a black box trading environment.

Indeed, I am very skeptical of the predictions that automated execution will become the preferred manner of trading. Trading systems that provide for automatic execution of quotations create new market making risks that are not associated with telephone or face-to-face execution. Automatic execution exposes market makers to the risk of being "picked off" by other market professionals before they can respond to news or changes in other participants' quotations. This "pick off" risk may discourage market makers from trading in size and, as a result, reduce the potential depth and liquidity of any automatic execution system.

For this reason, while small customer orders will increasingly be handled through derivatively priced execution systems, I do not believe that the black boxes will dominate trading markets. I am sure, however, that all markets, whether

auction or dealer, will rely more and more on automated systems to support trading in their markets. Reliance upon automated small order execution systems, order routing systems, trade negotiation systems, and trade and quotation capture and dissemination systems will continue to grow. And as now some markets will be fully automated. Moreover, clearance and settlement will be increasingly automated. Overall, then, the trading environment of the 1990's will be highly automated.

III. Regulatory Response

How, then, are regulators to respond to increasingly complex and fast changing markets? Let me suggest some basic principles which may, at least, act as mileposts on our journey.

A. General Principles

One of the first principles we have consistently adhered to in the U.S. over the past twenty years, is that competition among markets is a source of both market and regulatory strength. Reflective of this pro-competition attitude, in our securities markets there is a diversity of innovative systems operating within a level field of competition and within a set of minimum protections that ensure that investors are treated fairly. In addition, we have enjoyed tremendous innovation in the products offered to satisfy increasingly diverse and complex investor demand.

Rather than seeking to inhibit or limit new trading systems and strategies or investment products, regulators should find ways to ensure that innovations are designed so as to be fair to

investors and not unduly destabilizing. Not only is a procompetitive approach the best way to ensuring strong national markets, but in an international, high technology market environment it would be futile for national regulators to adopt any other approach.

Ironically, in the U.S., where our securities laws are so strongly pro-competitive, the current jurisdictional division between the SEC and the Commodity Futures Trading Commission ("CFTC") has a highly anti-competitive effect. For the exclusive jurisdiction given the CFTC under the Commodity Exchange Act, as broadly interpreted by our courts, threatens to vest a regulatory monopoly in the CFTC over certain new products and, as a consequence, award a market monopoly over these products to the futures exchanges. The tragedy of exclusivity in this context, as in other contexts where monopolies have been permitted, is that innovation is at best limited and at worst is driven off-shore.

There is an important second general principle for meeting the regulatory challenge of the 1990's: effective regulation requires the full cooperation of regulators and self-regulators, both domestically and internationally. The job is too big and too complex for governments to undertake alone, and markets are too global for any single domestic regulator or self-regulator to adopt an isolationist or protectionist attitude.

With these two general principles always in mind, I would suggest that the trading environment of the 1990's demands that regulators address five critical areas:

- o transparency;
- o financial responsibility and systemic risk;
- o the balance between equity and derivative markets;
- o technological safety and soundness; and
- o enforcement coordination.

B. Transparency

In the U.S., one of the chief lessons we have learned over the past twenty years is that transparency--the public availability of real-time quotation and transaction information--is critical to a fair and competitive national market system. If we are to move further into the bold new world of an international market system, we must ensure that markets are truly transparent.

One of the primary benefits of transparency generally is that it increases the ability of investors to monitor the quality of executions they receive from their intermediaries. Moreover, where there are multiple markets or multiple market makers, transparency keeps prices in line by inhibiting the ability of one market or market maker to trade at non-competitive prices. This helps all market centers assess overall supply and demand without seeing all order flow, thus counteracting effects of fragmentation of executions without forcing all executions into one market.

It is sometimes argued that a loss of liquidity and increased transaction costs, in the form of wider dealer spreads, are the inevitable costs of transparency. Such arguments were made in the past in the United States equities markets. For example, the exchanges resisted SEC proposals to require firm quotation dissemination, in part, because of liquidity concerns. For similar reasons, over-the-counter market makers objected when the SEC proposed to require real-time trade reporting for the larger over-the-counter securities.

In the U.S. equities markets, however, it turned out that these fears were misplaced. Indeed, the competitiveness and liquidity of the markets for both listed and OTC equities subject to the real-time trade and quotation reporting requirements of the SEC have, if anything, increased since these rules were adopted. While liquidity concerns should not be entirely dismissed, the U.S. experience indicates that once a market has reached a fairly high degree of liquidity, an increase in transparency does not cause a loss of liquidity.

In the trading environment of the 1990's, one area in particular will require special transparency efforts. The after-hours trading I described earlier is generally conducted in the dark, without real-time quotation and transaction dissemination. This is true for domestic U.S. systems, as well as for foreign systems specializing in foreign stocks such as SEAQ International.

In order to ensure that domestic and international markets are competing on the basis of their relative efficiency rather than on the basis of their relative lack of transparency, the Federation Internationale des Bourses de Valeur ("FIBV") and the International Organization of Securities Commissions ("IOSCO") must take a leadership role. Accordingly, I would urge the FIBV to articulate a general principle encouraging non-primary markets for an equity security, including foreign and after-hours markets, to be no less transparent than the primary, generally home country market.

If we move away from the basic principle that market information forms the cornerstone of the modern securities markets, we will do so at a terrible cost to market efficiency and effective supervision. We will also lend our support to an environment that calls into question the future role in international securities trading of organized securities markets, a development that would run against both our self-interest and the public interest.

C. Financial Responsibility/Systemic Risk

The environment I have described also brings to the fore questions of capital standards for securities professionals and systemic risk in the financial markets. The securities markets of the 1990's entail increased firm proprietary trading, increased settlement of off-market derivative products outside the traditional intermediated clearing systems, and more frequent occurrence of extreme price movements. These trends cry out for

strong international capital standards for both broker-dealers and banks.

Indeed some progress has been made in this area. Through the efforts of the IOSCO Technical Committee, there is now general agreement that independent securities firms should be subject to risk-based capital requirements that mark all assets to the market and haircut the value of those assets to ensure that the firm can be liquidated without cost to public investors or undue impact on the contra parties or clearing systems. Equally significant, the Bank for International Settlements ("BIS"), under the leadership of Huib Mueller, has accepted in principle the need to subject banks' trading activities to risk-based capital requirements.

In our effort to develop common capital standards for both banks and broker-dealers we must be certain that the standards identified are sufficient. Capital standards must always balance the need for stability and investor protection with the need to allow financial holding companies the ability to efficiently employ their capital. Many regulators, including the SEC, have looked to statistical analysis of historical volatilities as a tool to achieve that balance. Yet we must not view such tools as ends in themselves. The market breaks of October 1987 and 1989 underlined that historical volatility numbers are not always predictive. More importantly, the failure of Drexel Burnham Lambert demonstrated how quickly the value and liquidity of many securities can disappear, and how complicated and lengthy the

liquidation process can be.

In light of these realities, we must use statistical analysis with care in uncertain areas such as the reduction of risk in diversified portfolios, or the proper setoffs for debt securities with substantially different maturities or quality characteristics. Our goal should not be to search for a razor thin edge of "just enough" capital, but instead for requirements that provide the financial system a sufficient cushion to be resilient under the pressure of a market break or a major firm financial failure.

Change in the 1990's also has required the SEC to revise a basic premise of its financial regulation. Financial regulation for securities firms evolved from a very different philosophical premise than did banking regulation. Rather than looking towards the safety and soundness of the institution, the Exchange Act focused on protection of the investors, or customers, of the broker-dealer. Accordingly, the rules attempt to ensure that customer securities are not misappropriated, and that the firm can be liquidated without loss of customer funds or securities.

From this philosophical premise, it is not surprising that securities regulation looks inward only to the registered broker-dealer and attempts to build, in effect, a Maginot line to ensure that the firm does not jeopardize its customers. While true to the underlying philosophy of the Act, this insular approach is simply not tenable in modern securities markets. Major broker-dealer firms today have large exposures from bridge loans,

interest rate swaps, and foreign currency dealings residing in entirely unregulated affiliates.

Simply put, the failure of a major broker-dealer can have a profound impact on the U.S. and international financial system. Moreover, the Drexel Group failure underlined the enormous difficulty that a broker-dealer subsidiary will encounter in obtaining financing, or even settling transactions, after the bankruptcy filing of its holding company.

Accordingly, regulators must develop the capability to assess risks to the broker-dealer from other activities in the holding company. We took a key step in the United States towards addressing this concern when Congress enacted last year the Market Reform Act. This Act gives the SEC authority to collect key financial information regarding financial affiliates and, therefore, more effectively evaluate the risks a particular firm might be subject to during periods of financial uncertainty or market volatility.

Effective international cooperation offers the next logical step towards the creation of an effective holding company information system. In a world where the failure of a major financial firm has a dramatic effect on all our markets, it simply makes good sense to have effective financial information sharing agreements in place among the regulators of major securities markets. Here again is an area where the FIBV can play a significant role. As market regulators with the first line responsibility for the financial monitoring of your members,

you are uniquely positioned to share information where questions arise as to the financial soundness of a major broker-dealer holding company.

D. Equity/Derivative Market Balance

As I have described the trading environment of the 1990's, derivative instruments are critical to institutional trading strategies and to the intermediaries servicing institutions. Following our first principle, we should generally permit as much product innovation as is deemed economically useful by market participants, while seeking to address any negative market impacts the trading associated with these products may have.

The negative market impact related to the use of derivative products that is of major concern stems from the leverage permitted by these products. The high leverage of derivative products relative to most cash market products can contribute to periods of extreme price volatility. The examples from the U.S. and Japanese markets are familiar to all of you. In the U.S. in October 1987 and again in October 1989, very large and in economic terms (as measured by immediate bounce back) excessive market declines were associated with trading strategies such as index arbitrage and portfolio insurance, which rely upon the high leverage of derivative products. Similarly, in Japan, episodes of extreme high volatility have been associated with futures related trading.

Any regulatory response should first focus on margin requirements. Higher margins obviously directly address high

leverage. They reduce the levels of speculative and tactical trading strategies that may simply overwhelm the levels of available liquidity in either the stock or derivative markets when faced with bad market news. Because of the international competitive issues at stake here, this is an area where the need for international regulatory cooperation is paramount.

Second, modern derivative and stock markets may require some measured implementation of circuit breakers and shock absorbers. As most of you are aware, we have in place in the United States system-wide circuit breakers after a 250 and 400 point drop in the Dow Jones Industrial Average. The circuit breakers, I believe, have been much misunderstood internationally. While U.S. markets seek generally to stay open even in times of high volatility, at certain points, such as on the afternoon of October 19, 1987, there is sufficient uncertainty as to news and contraparty credit that there is in effect no market, only a free fall. At that point, we in the U.S. believe that a predictable, temporary, market-wide halt is preferable to the ad hoc, de facto halts that otherwise would result.

Properly designed circuit breakers should only be triggered, however, in a worse-case scenario. They do not address the need to ensure that the futures and stock markets regularly operate in balance. The NYSE has developed what we can refer to as a shock absorber to try to address this goal. Shock absorbers do not halt all trading and instead limit only index arbitrage related trades in the stock market. Under NYSE Rule 80A, after a 50

point move up or down in the Dow Jones Industrial Average, any trades in stocks related to an index arbitrage strategy can be effected only on "stabilizing" ticks, i.e., up ticks for sell orders and down ticks for buy orders. This approach permits buyers to reenter the market after a large price decline with knowledge that index arbitrage traders alone cannot accelerate the decline. The effectiveness of Rule 80A can be seen by comparing price movements on October 13, 1989 with those on August 2, 1990. On October 13, 1989, prices delined precipitately over a one and one-half hour period in reaction to a single failed leveraged buy out. In contrast, on August 2, 1990, with Rule 80A in place, the market reacted in a much more orderly way to the news of the Iraqi invasion of Kuwait.

As an approach with a relatively narrow focus on a particular type of trading in particular, well-defined circumstances, the NYSE's shock absorber rule is in my view a responsible regulatory response to the difficult effort of reducing excess volatility in the securities markets without impacting the fundamental operational of the futures markets.

E. Technological Safety and Soundness

As I have described it, the trading environment of the 1990's will involve ever greater reliance on automated systems of various types. Indeed, the major world securities markets and intermediaries are already so heavily reliant upon automation that a systems failure is tantamount to a market failure.

It was the recognition of this reality that lead the SEC to

publish in 1989 an Automation Review Policy ("ARP") calling on the exchanges and the NASD to plan formally for their capacity, security, and disaster recovery needs and to obtain independent reviews of their systems' operations. We also have improved our capability to monitor the exchanges and the NASD's EDP operations by adding more technical expertise to our staff.

In 1990, IOSCO published a report entitled "Principles for the Oversight of Screen-based Trading Systems." These Principles suggest, among other things, that regulators should concern themselves with the critical technical aspects of automated systems.

The IOSCO report and our own ARP reflect, I believe, a developing consensus that in the highly automated trading environment of the 1990's regulators must devote increasing resources to understanding and monitoring the technical aspects of the markets within their jurisdiction. I would add that the highly automated and global trading environment of the 1990's may move the international regulatory community to consideration of the need for generally accepted automation standards in critical areas such as independent reviews, capacity, security, and disaster recovery. This again is an area where the FIBV, an organization representing users of automated systems, is uniquely positioned to make a significant contribution.

F. Enforcement of the Securities Laws

Finally, any regulatory response to increased change in our securities markets must ensure proper supervision of those

markets. Everyone recognizes that international markets require special coordination among regulators in order to ensure the essential integrity of both domestic and cross-border trading markets. And much already has been done, both on a multilateral and a bilateral basis, to increase the coordination of the enforcement efforts of national regulators.

However, an area that should be of particular concern to this audience has not yet been adequately addressed: We have much progress yet to make in coordinating enforcement and surveillance efforts of securities and futures markets across national boundaries.

This issue has become particularly acute when one market is trading a derivative product based upon securities whose primary market is located in a different country. The leverage in derivative products makes manipulative activity involving the market for the underlying security a particularly tempting endeavor. And if I am correct that the increase in institutional use of over-the-counter derivatives products will result in a greater concentration of fewer players on the organized derivative markets, concerns with manipulation will only increase.

Unfortunately, when discussing international inter-market information sharing agreements, some markets have been slow to recognize their own self-interest in being able to detect this type of manipulative activity, or have favored their own short-term commercial interests to their longer-term regulatory

interests and responsibilities. We must move beyond this phase of market parochialism. While the immediate concern may be derivative product trading, with continued increases in the foreign listing and cross-border trading of "world class" equities, the day has arrived where intermarket agreements and perhaps consolidated international audit trails are necessary, even absent such derivative product issues.

To be sure, the different approaches different countries take to confidentiality protections for information relating to the identity of customers must be addressed. This strongly suggests that this issue must be approached on a multilateral as well as bilateral basis. Thus, groups such as the FIBV and IOSCO have an important role to play here, and I hope through the efforts of these groups we can make substantial progress in the coming year in developing model international intermarket information sharing agreements, or at least the principles that should govern such agreements.

IV. Conclusion

In conclusion, we, as regulators, today face a critical hour. We no longer have the luxury of focusing on the traditional securities markets of the 1980's; the trading environment of the 1990's already has moved far beyond those markets. Nor do we have the luxury of relying on the parochial or protectionist instincts of our home countries. We must throw ourselves into the task of understanding the enormous changes in the markets and of developing common regulatory responses to

those changes.

Those responses must never be to snuff out the fertility or energy exploding from changed markets; we must instead channel change to ensure that our securities markets of the future are competitive, transparent, financially responsible, and stable. I look forward to stepping across the line from regulator to self-regulator and to working with you to construct an international regulatory system that responds to these challenges.