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News Release

Observations on Black Monday

Before

The Federal Reserve Bank of Chicago
Conference on Bank Structure
and Competition

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Federal Reserve Bank of Chicago
Conference on Bank Structure

COMMISSIONER GRUNDFEST: Thank you very much. It's a pleasure to be here this afternoon to address so many distinguished and unindicted members of the financial community.

(Laughter)

As many of you may have noticed, the political and ethical scene in Washington often generates controversy, and recent events can charitably be described as suggesting a lack of candor among politicians. Because this is such an intimate group of several hundred people, I'd like to share with you an acid test useful to determine whether somebody in Washington is telling the truth. You can imagine how valuable this tool is, so I'm going to insist that we keep this little secret among ourselves.

What I've discovered is that if a person is moving his hand in a circular direction over his chin, something like this, odds are he's not lying. If a person moves his hand with a vertical motion, over either cheek, again, he is probably not lying. And, if you observe a horizontal mopping of the brow, the odds again are that the person is not lying.

However, as soon a person's lips start to move, all bets are off.

(Laughter)

This rule has worked well for me and I hope it will work well for you. Please use the rule with great discretion, and remember that you have all promised to keep it a secret.

The experience of the past few months has taught me that the world moves faster than I type, which may not be saying very much for those of you who have seen me at the word processor. Accordingly, I have adapted my speechifying style so that I now work without a prepared text: my staff complains that this practice reminds them of a trapeze artist working without a net, but they appreciate the suspense it adds to their job and are gratified that they need not try to guess what I want to say.

The subject of my talk this afternoon is at once philosophical and practical. I would like to explore the relationship between reality and perceptions of reality as reflected in the current policy debate over regulation of our capital markets. The distinction between that which is real and that which is perceived is quite important when dealing with Congressmen, regulators, and other Washington professionals because the policy process is generally dominated by perceptions, not realities. If perception and reality happen to overlap, that can be a happy coincidence. If, however, the two diverge, the real danger is that policy will be guided far more by perception than by reality.

Cognitive Dissonance. One of the more intriguing relationships between reality and perception in Washington, D.C. involves a phenomenon psychologists call cognitive dissonance. Roughly defined, cognitive dissonance is the tendency to interpret experience to support a preconceived idea: in other words, people can manipulate their own beliefs by selecting sources of information likely to confirm desired beliefs. When practiced to an extreme, cognitive dissonance can become a psychologically disabling condition. Washington politics, in the wake of October 19, advanced the art of cognitive dissonance to new heights, and it is useful to consider the dynamics of that process because it carries significant implications for future policymaking efforts relating to financial markets.

Immediately after the market break it became quite popular for politicians to espouse the proposition that the federal budget deficit caused the events of October 19. This proposition is, however, quite difficult to defend on any logical basis. After all, we've known about the budget deficit for many years now, and there is no rational reason to expect that the deficit would cause the market to decline by 500 points on Monday, October 19, 1987, as opposed to any other day during the years before or months since the magnitude of that deficit has been known. Moreover, even if the U.S. budget deficit was responsible for the decline, it

would not explain the sharp declines worldwide, even in an economy with no palpable budget problems.

The reason Washington policymakers found it convenient to draw a connection between the federal deficit and the market's decline is that, in the absence of some sort of compromise on the budget process, the Gramm-Rudman budget cuts would have been invoked. Neither the Administration nor Congress wanted to implement the across-the-board cuts contemplated by Gramm-Rudman. The market crash, however, provided a convenient if illogical rationale for the convening of a budget summit that would allow renegotiation of the formula for effecting Gramm-Rudman cuts. From that perspective, had the market not crashed, Washington would have had to invent another mechanism to lead to essentially the same result. Thus, the clearly illogical link between the deficit and the market break served a useful function as a catalyst for budget renegotiation, much the same way that cognitive dissonance serves a purpose for those who systematically misconstrue relationships between reality and perception.

Such illogical connections between cause and effect occur in virtually every arena in Washington, D.C. The easiest way to understand the process is to think back to exams given in high school in which there are two columns and the student is asked to draw lines connecting, for example, an event with the date on which it occurred, or the name of a state with that state's capitol. In Washington, D.C., <u>any</u> line drawn between

any event and any rationale for that event is an acceptable answer in the context of the political process.

(Laughter)

Volatility. A second and more technical observation regarding the relationship between perception and reality has to do with volatility. There is a great deal of concern over market volatility, and I'd like to suggest that there are two very different species of volatility. If, as academics, bankers, and financiers you don't understand the difference between these two species, and their very different definitions, then much of what is going on in Washington will not make sense. The two species of volatility are statistical volatility and political volatility, and these two species will, at times, have very little in common.

As a practical matter, markets can generate substantial political volatility but relatively little statistical volatility. Similarly, markets can generate substantial statistical volatility but relatively little political volatility. The difference between political and statistical measures of volatility can be traced to two major factors.

First, the political measure of volatility is far more sensitive to price declines than price increases. Whereas a standard statistical measure of dispersion, such as variance, gives equal weight to a 100-point increase in the Dow and to a 100-point decline, the politically relevant measure of volatility weights declines much more heavily than equally

large increases. In this regard, political volatility is better measured by semi-variance than variance.

The reason for this asymmetric treatment is easily explained. Whereas the futures and options markets are zero-sum processes, with just as many investors long as short, investors are always net long the stock market. The stock market represents the value of the residual equity claim on publicly traded corporations, and that is always a nonnegative value. Accordingly, when the stock market declines, the price decline represents a real wealth loss. Combined with evidence that individuals will, given their current state of wealth, pay more to avoid the risk of a wealth loss of a given size than they will pay for a chance to obtain an equally large wealth gain, it is easy to understand why the general population rationally draws a distinction between downside volatility and upside volatility. Put another way, all other things equal, people would rather avoid markets going down by 20 percent in a day than see markets go up by 20 percent in a day. Traditional measures of variance, which are neutral with regard to whether the market moves up or down quickly, therefore miss the political point.

Second, public concern over downside volatility is much more sensitive to large drops than small declines. In particular, the politically relevant measure of volatility may have a critical threshold value below which daily price moves do not register. The existence of such a "critical value"

that establishes a threshold below which daily price moves can be ignored is, I think, readily explained by the rational operation of the news media. If a market move isn't large enough to make the front page of the New York Times, Wall Street Journal, or Washington Post, then it isn't large enough to come to the attention of the broad populace that constitutes the relevant constituency for elected politicians. Thus, a string of price moves that may signify substantial volatility to a statistician may be politically irrelevant because none of them are large enough to register under the "Times-Journal-Post" test.

The combination of these two factors--a greater concern with downside volatility and a critical value below which daily volatility is politically irrelevant--suggests that standard statistical measures of volatility are not necessarily accurate measures of politically relevant volatility. For example, a market that sawtooths up and down 25 points a day for 50 days generates a higher statistical measure of variance than a market that declines 100 points one day, rises 100 points the next day, and is then stable for 48 consecutive days. However, the politically relevant measure of volatility suggests that a market that moves 100 points on only two occasions is more volatile because: (1) that market crossed the critical value that attracts broad public attention; and (2) that market generated a major price

decline. Two consecutive 100-point increases would not generate the same degree of despair.

Therefore, we could have markets that are relatively volatile from a statistician's perspective, but that do not cause much political controversy because that sort of statistical volatility generates no political volatility. On the other side of the ledger, we can also have other situations in which markets are relatively calm the vast majority of the time, but are subject to sudden and rare jumps. Under these circumstances there will be political hell to pay because political volatility will be high although statistical volatility may not be as extreme.

Moral Basis for Capitalism. Much has been said about the role of the small investor in the marketplace and about the need to maintain investor confidence. The focus on the small investor is important from many different perspectives. In particular, never forget that small investors vote and institutions don't. The perception that the market is a fair game, and that the small investor can profitably and equitably participate in the market by buying and selling stock, is extraordinarily important because it maintains investor-voter support. As I'll next explain, this emphasis on fairness to the small investor also relates to what I call the moral basis for capitalism.

Social systems exist and survive as a result of an equilibrium between political and economic forces. If an

economic system doesn't have broad based political support then that economic system is in a lot of trouble. A significant reason for the continuing viability of the capital market system in the United States is the perception that increased prices in the stock market reflect added economic value that enhances national wealth. The clearest connection between stock market performance and social support for our capital market system relies, I think, on specific examples of start-up companies like Lotus, Microsoft, Genentech and others, that create obviously valuable new products. The capital market rewards risk-taking entrepreneurs, employees, and investors involved in these companies for their contribution in the marketplace. From this perspective, the link between social contribution and economic reward provides a moral basis for capitalism. Further, the closer the perceived link between social contribution and economic reward, the stronger the political support for that market mechanism.

This analysis carries significant implications for the futures and options markets. Because those markets are more complex and not as well understood by the average voter or Congressman, the probability increases that perception will diverge from reality. Moreover, and perhaps even more important, because the futures and options markets are risk-shifting mechanisms that, net of transactions costs, constitute zero-sum processes, the connection between social

contribution and economic reward in those markets will appear more attenuated. No futures or options market participant will ever be able to point to a company he or she built, or to a product he or she introduced as a direct and proximate result of profits available in the futures or options markets. The fact that the trader added substantial value to the economic process by facilitating risk shifting among market participants is a point more subtle and difficult to grasp than the obvious connection between stock profits and product success. The perceived moral justification for derivative product markets is therefore weaker than it is for primary equity markets, and that has substantial political implications for regulatory policy towards derivative product markets.

It's worthwhile to remember that information costs are very substantial in capital markets. They are also critical in political markets. The reality is that the information costs incurred in explaining the operation of futures and options markets are far higher than information costs explaining the operation of the equities markets, and that certainly places that derivative product markets at a substantial political disadvantage.

Conclusion. My closing observation very simply is that on October 19 and 20, no market covered itself in glory. It is most unfortunate that the debate has often become defensive or accusatory, and that regulators have become embroiled in

turf battles. This is a time for constructive cooperation. This is a time for the exercise of imagination. The solution to the market's current problems lies, I believe, much more in innovation rather than foolish regulation and measures that operate, at best, as placebos. The 50-point collar and other restrictions to curb index arbitrage, are placebos that are perhaps well intentioned but do not rationally address the problems apparent in today's capital markets.

That, in a nutshell, is my perception of the difference between perception and reality as it relates to recent public policy developments affecting financial markets. However, since I've now spent more than a couple of years in Washington, I'm not sure that I'm qualified to opine on the difference between perception and reality, so I pass the baton on to Professor Miller, who will, I hope, clarify all these matters and provide the answers to all our questions.