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LEO MELAMED: The Painful Truth

The wizard of the Chicago Merc and founder of financial futures duels with his critics

THE CRITICAL DIFFERENCE between man and animal is our memory. By that, I mean man's ability to accumulate and record knowledge. The more knowledge accumulated and recorded by one generation, the further the next one can go.

Since most knowledge is gained from information, it is axiomatic that the more information acquired, the more knowledge can be achieved. Central to this process, of course, is efficiency. Efficiency determines how much and how fast information can be accumulated, analyzed, processed, utilized and passed on. Fortunately, man's quest for efficiency is innate and common to all his endeavors. Unfortunately, the time allotted for man's knowledge accumulation is limited to a lifetime.

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Think about the ancient scribe who manually recorded what he learned. It would take him a lifetime to record, at most, but several books. Then think what the typewriter meant to the information-efficiency process. Then think about the computer.

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Then think about October 19, 1987. Suddenly, there are those weighing the events of that day who would question the value of efficiency. They suggest that futures markets are too efficient and thus exacerbated the stock market decline. They argue efficiency, like an automobile, should have brakes to slow its progress.

Such a Luddite philosophy can only lead our nation to disaster. Surely man's quest for efficiency, in markets or in any other form of human endeavor, cannot be made analogous to the need for brakes on an automobile.

For the U.S. financial community, such views lead directly to the question whether our industry will be permitted to reap the full benefit of its inventive past. Whether, by virtue of federal fiat, some form of brakes will be applied to the "too efficient" information process some say our futures markets have achieved. And if so, is the fate of U.S. markets to be that of the Eurobond and Eurodollar markets, to reside in some other financial center where efficiency is still welcome?

Is efficiency really at the root at what ails the markets? More likely, a re-reading of Shakesphere's *Julius Caesar* is in order. The would-be market reformers would do well to heed the words of Cassius: "The fault, dear Brutus, is not in our stars, but in ourselves."

From the outset, a belief arose among observers that the market collapse must have been the fault of a specific cause. After all, financial advisors who had been telling their clients to hold on to their investment or buy more, could not possibly be so wrong. There had to be an explanation: Some special factor must have intervened, some villainous sabotage that stopped the bull market in its tracks. Never mind that the October collapse was a global event. Never mind that all speculative bubbles must finally burst. Never mind the plethora of accumulating fundamental economic and psychological factors that could cause the collapse.

Alan Greenspan, Chairman of the U.S. Federal Reserve Board, summed it up well in testimony before the U.S. Senate Banking Committee on February 2:

"Stock prices finally reached levels which stretched to incredulity expectations of rising real earnings and falling discount factors. Something had to snap. If it didn't happen in October, it would have happened soon thereafter. The immediate cause of the break was incidental. The market plunge was an accident waiting to happen."

Indeed, never mind the warnings of numerous financial commentators who cautioned long before the crash that, *sooner or later*, the mounting concerns over the record budget and trade deficits, the Fed's tightening monetary policy, the specter of protectionist trade legislation, the increasingly unfavorable disparity between the return on stocks vs. the return on fixed-income investments, the unsettling Persian Gulf situation, the anti-business federal legislation that disallowed interest deductions on significant takeover borrowing, the falling dollar, the open disagreement between the U.S. Treasury and the Bundesbank, and the historically high price-earning ratios after a five-year uninterrupted bull market—would inevitably result in a major market correction. Never mind all that and let us instead search for a specific culprit.

And search we did. A large number of studies, official and *ad hoc*, were launched to seek the answer to the question: Who or what caused the crash?

When a demon is hunted, a demon will be found.

It did not take long. Quite soon fingers were pointing to technology. The words were catchy: The mindless computers on automatic pilot—They were the culprits—Technology has out-distanced its effectiveness—Efficiency needs a brake pedal.

Then the search got specific: Program trading. Then even more specific: Index arbitrage. All the while, the fingers were pointing westward in the direction of futures.

Throughout the witch hunt, the media was the medium—used and abused. Because the October event was extraordinary and frightening, because the issues were deeply complex, because so many in the financial world seemed to agree a specific villain had to be found, the media generally accepted the premise at face value.

And Congress played its part: Was there really a problem to be fixed? Or simply an issue to be had? Either way, an investigation was in order—an opportunity for a public forum.

And there were those who had a special motivation. With volume and brokers' commissions down, someone or something had to get the blame for loss of investor confidence. "Volatility" became the watchword. Volatility caused lack of investor confidence. Volatility, rather than the simple logic that after a major market decline, only the imprudent would blindly rush back to the market. Volatility, rather than reach the conclusion that there was a bear market about, that business and volume would suffer, that jobs might be in jeopardy.

Of course, not everybody was fooled. Here is George D. Gould, the U.S. Treasury Under Secretary for Finance, testifying May 19 before a U.S. House of Representatives Subcommittee:

"Some observers believe the individual investor has left the market because of a perception of increased volatility. It is equally possible that much of the retreat is in fact investors' collective views that the bull market has

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paused or that more attractive alternative investments are available."

Still, the idea of a special demon was seductive. It was simple and appealing: Volatility was the problem and program arbitrage the cause. Write your Congressman. Call your Senator. We need regulations to protect us from this evil. Do not do business with those who practice this form of witchcraft.

The movement gained momentum and an impressive following. Demagoguery and misinformation are powerful combinations. On May 10, 1988, the most prestigious U.S. investment banking firms bowed to this nonsensical pressure and announced their withdrawal from proprietary index arbitrage. It was a particularly sad day in U.S. financial history.

The movement may have grown further—it still may—except that it reached a level of near hysteria with a call for a total ban on stock index futures.

Testifying May 11, 1988, before the U.S. Senate Banking Committee, Donald T. Regan, the former U.S. Secretary of the Treasury and White House Chief of Staff, stated that a ban on stock-index futures would be "in the national interest" and would restore the confidence and participation of small investors in the stock market.

He was not alone; others joined in, and there were Congressmen who cheered them on. But, for most of the financial community, this went too far. For most, it served as sudden, chilling tonic—bringing them back to reality. A call to ban was, indeed, too much.

"Efficient Markets: Look to Chicago's Brave New World," states the May 27, 1988, *Potomac Watch* column by Paul A. Gigot of the *Wall Street Journal*. Gigot suggests that the root of the controversy is that the Chicago futures markets are more efficient than the New York Stock Exchange when it comes to institutional needs.

Not only more efficient, the Chicago futures markets represent the cutting edge of market innovation. Merton H. Miller, Distinguished Service Professor of Finance at the University of Chicago Graduate School of Business, nominated financial futures as "the most significant financial innovation of the last 20 years."

Early on, futures markets recognized that the decision-making power in matters of finance had become compressed. Scientific and technological advances have forced the world to become highly specialized and professional—a trend that will not abate and is nowhere more obvious than in finance.

In the U.S., investment managers now represent more than 33 million mutual-fund shareholders and more than 60 million pension-plan participants and their beneficiaries. These funds equal $2 trillion in assets, compared with only $400 billion a mere decade ago. The reason is obvious. Large pools of capital offer access to professional management, enabling even small investors to equal the profit capabilities of institutional participants. As a result, myriad specialists, techniques and strategies have evolved.

Again, the May 19 testimony of Under Secretary Gould:

"There are numerous factors that have made markets react more quickly today to changes in the fundamental determinants of stock prices. First, the nature of stock ownership has changed substantially over the past 20 years, led by private and public pension funds. There have evolved very large individual aggregations of capital of a size unknown in an earlier period. This, in turn, has led to changes in the techniques of managing such capital, often with an emphasis on the market as a whole (e.g., the S&P 500) rather than individual stocks. . . . Thus, the stock-index futures markets have evolved as the lowest cost, most efficient response to these changed needs."

As a result, Gould concludes, "It can be argued that the Chicago Mercantile Exchange (CME) has become a leader—rather than a follower—in price discovery of equity market value levels."

That which is complex is often misunderstood and distrusted. Program trading strategies such as index arbitrage and portfolio insurance are complex—thus, they are often misunderstood and mistrusted.

Simply stated, index arbitrage is the process by which imbalances between stock prices and future prices are brought back in line. The outcry against this practice stems from the fact that in a falling market, the more efficient futures market falls first. Arbitragers then step in to buy futures contracts of futures at lower prices, in order to sell at the higher prices in the stock market. Thus, the argument goes, index arbitrage transfers futures selling to the NYSE and creates volatility.

Again the May 19 testimony of Treasury Under Secretary Gould:

"Much public criticism of index arbitrage is a classic case of wanting 'to shoot the messenger' that brings the bad news of selling on the CME to the floor of the NYSE. If selling is going to take place to a degree that pushes prices down sharply, then cash markets will not be made immune by eliminating index arbitrage."

And, confirmation by Fed Chairman Greenspan testifying May 19 before a U.S. House Energy and Commerce Subcommittee:

"It is also worth noting that we routinely see the futures markets reacting to new information more rapidly than the cash markets. Some have concluded . . . that movements in futures prices thus must be causing movements in cash prices. However, the costs of adjusting portfolio positions are appreciably lower in the futures market and new positions can be taken more quickly. Hence, portfolio managers may be inclined naturally to transact in the futures market when new information is received, causing price movements to occur there first. Arbitrage activity acts to ensure that values in the cash market do not lag behind."

In fact, in a report commissioned prior to the October crash by the NYSE (the so-called Katzenbach Study), Princeton University Economist Sanford J. Grossman denies any relationship between stock-market volatility and index arbitrage.

"I could find no relationship between any measure of volatility or any measure of program trading intensity. The days in which volatility was high were not, systematically, the days in which program trading intensity was high."

Thus, suspending or banning index arbitrage, whether temporarily as the NYSE's 50-Dow point collar is designed to do, or permanently not only sacrifices market efficiency, it could, as the Brady Report revealed, jeopardize market safety.

Any careful analysis of futures markets will conclude that its system of financial safeguards is better than that of the stock markets. The reason is primarily due to the fact that futures utilize a "mark-to-the-market" settlement procedure. All futures open positions are re-evaluated on a daily basis and settled in cash prior to each day's opening. The credit risk for member firms is, therefore, the time span of one day, rather than five business days, as is the case with equities. This fundamental difference has led to a misunderstanding about margin.

A buyer of stock on margin is actually borrowing the money from a broker (up to 50%) to buy it. But the margin on a futures contract is not a loan; it is a performance bond. No ownership changes hands; there is only an agreement to execute a contract to buy or sell something in the future. Thus, stock margins are the equivalent of a mortgage on a house, while futures margins are more akin to fire insurance.

The Chicago futures exchanges have vigorously defended their jurisdictional right to margin control, pointing out the difference between securities- and futures-market margins and citing that, in some 100 years of futures market history, not one dollar of public money was lost due to the insolvency of a futures-member firm.

In the Interim Report of the White House Working Group on Financial Markets, this view was enthusiastically advocated by Commodity Futures Trading Commission Chairman Wendy Gramm. Moreover, the CFTC Chairman, the Fed Chairman and the Treasury Under Secretary for Finance all cautioned that higher margins "raise transaction costs . . . risking the movement of futures trading into off-shore markets."

At the heart of the issue is the fundamental cost of doing business. If, as Greenspan asserted in his May 19 testimony, "the cost of adjusting portfolio positions is appreciably lower in the futures markets," then the question is whether competitive considerations are motivating the attacks on futures markets. If one impairs market efficiency, the flow of business to Chicago may be diverted. The most direct way to increase the cost of doing business in Chicago is by raising futures margin requirements.

Of course, few will admit to such motivations. Instead, they complain that low futures margins provide leverage that leads to speculation. They argue that speculation detracts from capital formation and that higher futures margin will solve the problem.

There is a common misconception that "speculation" is somehow distinguishable from, and less valuable than,

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"investment." First, most conservative investment strategies would be considered "speculative" under commodities law. The CFTC would, for instance, consider a stock portfolio a speculative position by dint of the risk assumed.

But polemics aside, speculation, the process of accepting risk in return for financial gain, is central to any capital market, as the Chicago Federal Reserve Board explains in the May Chicago Fed letter:

"At the heart of the economic role of a futures market is risk transfer. Futures contracts provide a way of transferring risk from hedgers who seek to reduce risk to speculators who would bear risk in the hope of profiting by it. Attempts to curb speculative activity on these contracts by raising futures margins overlook the fact that such curbs would also reduce an investor's ability to sell off unwanted risk by hedging."

Early on the morning of October 19, hours before the sun began its ascent over the East River and even longer before the NYSE opening bell rang, grim news from Tokyo, London and elsewhere was flickering onto computer screens all across the U.S. Some portfolio managers, anticipating the worst, were moving to beat a selling avalanche in New York by unloading shares in London. According to the Brady Report, one mutual-fund complex "sold $95 million of its equity portfolio in London prior to New York's opening." Rarely was the impact of globalization on the markets more amply demonstrated.

There is a common misconception that "speculation" is somehow less valuable than "investment." Most conservative investment strategies would be considered "speculative" under commodities law.

But in today's world, capital movements to other market centers does not occur only during market crises. Given present technology, capital will always quickly gravitate to the most efficient and liquid markets. So if higher transaction costs render domestic markets less efficient, business will indeed move offshore.

Treasury Under Secretary Gould understands this:

"Moreover, it is unrealistic and ultimately counterproductive to attempt to roll back developments in financial markets brought about by advancements in telecommunication and computer technology and by changes in investment needs. We cannot go back to the days of the abacus or mechanical adding machines. If we did—by trying to legislate against particular products or investor preferences or market strategies, for example—then we would ultimately lose whatever competitive edge we now have to places like Toronto, Tokyo or London."

During the past decade, the world has steadily shrunk, and the business of money has effectively dissolved national borders and international time zones. Increasingly sophisticated satellites, micro-chips and fiber optics have forced exchanges in every financial center to confront a new reality: Competition in today's market requires a 24-hour global trading capability. As the speed at which information travels edges toward the speed of light, modern money managers and traders no longer have the luxury of reserving investment decisions until their local trading markets open.

As Walter Wriston, the former Chairman of Citicorp, wrote in the December issue of *Forbes*: "Today there are more than 200,000 computer screens in hundreds of trading rooms, in dozens of countries, which light up to display an unending flow of news. It takes about two minutes between the time the President or prime minister reads a statement and the time traders buy or sell currency, stocks or bonds based on their evaluation of the effect of that policy on the market."

Wriston suggests that this technological revolution has given us what he calls an "information standard" that is far more effective than the gold standard or the Bretton Woods standard. With the information standard, it does not matter what market legislation we attempt to enact. The screens will continue to light up with information and the market participants will continue to act on the information as they deem fit. As Wriston puts it, "The new global electronic infra-structure has doomed the effectiveness of a cosmetic political fix."

Thus, the proper response to October 19 does not lie in new federal regulations, new federal authority, nor a ban on program trading or other market strategies. Such cosmetic fixes may serve perceptional needs but will do little else. Nor will the answers be found in better coordination between the markets or the federal regulatory agencies, although that is clearly a step in the right direction. Rather, the solutions lie in structuring the world's financial marketplaces so that their mechanisms are more efficient and better geared to accommodate the business flows caused by the information standard. Simply stated, the answers will be found in embracing reality, not cursing the stars. ♦