Martin Mayer was the featured luncheon speaker at the Grant's Spring Conference, which was held at the Plaza Hotel in New York on April 7. Following is the text of his remarks.

Tiers and Tears

There are many possible first cuts for the historian seeking the origin of our present trouble and for the observer seeking some hints about how to repair the damage. I am going to choose an obscure incident in 1979. The choice is personal, because quite by accident I was among the first to know something new and strange had happened, and to discuss ignorantly what it might mean.

The year is 1979. I've forgotten why I was in Washington, but among the items on my schedule was lunch with the Comptroller of the Currency. This was John Heimann, a friend of some years' standing. He had re-staffed the agency and wanted me to meet his youngsters, and we lunched in his office, on the river side of L'Enfant Plaza, with a spectacular view of the planes taking off and landing at National Airport. Lunch was cold-cut sandwiches and sodas, and people came in and out bearing plastic plates. One of the last arrivals was a deputy who wanted to speak privately to the Comptroller. Johnny told him I could be trusted, and he blurted out his news.

This was the early days of interest-rate derivatives, and one of the most prominent instruments was a CD contract by which banks and investors could arrange to borrow or lend via certificate of deposit written on a date in the future. Like all defensible derivatives contracts, this one could be satisfied by the delivery of its content, in this case the CD. Ten banks were listed as suitable issuers of

CDs that would be accepted in satisfaction of the futures contract. And on this day in 1979, word had come from Chicago that Continental-Illinois Bank was being dropped from that list. The long-feared "tiering" had come to commercial banking.

We are about to have an orgy of tiering, as the results of the stress tests arrive from the banks, and the Fed will move heaven and earth and supply endless oxygen and raise the dead to avoid admitting that some of these guys are much worse than others. From this commanding height, then, let us look both backwards and forwards.

John Heimann and I had been brought up in a world where someone who wanted a bank charter would have to demonstrate that the commerce of the place where he planned to put his bank needed a new bank. That world still remembered a time when shares in a bank were only half paid in, and the other half was subject to call whenever the bank needed capital. (Still true, by the way, for the district Federal Reserve Bank, which can call away three percent of the capital of its members if by any chance the Fed needs the money. Very few bank stocks were listed on an exchange.) Banks were not permitted to issue liabilities other than deposits. By law, checking accounts did not pay interest, and there were penalties for premature withdrawal of time deposits, which did pay interest, but could not legally be advertised as savings accounts. Arthur Roth, proprietor of a little bank in a little Long Island town that would grow to be the 18th largest in the United States en route to going bust, got sued by the Comptroller of the Currency in 1945 when he put the word "savings" above the teller's window, fought it to the Supreme Court and won. But the Federal Reserve set the maximum interest rates a bank could pay on the time account, a little higher for longer terms, a little lower for shorter terms. With a handful of exceptions, that's what every bank paid. S&Ls were permitted to pay a quarter of a point more than banks were permitted to pay, to encourage housing. But deposits at S&Ls were not accessible for payments purposes, and were not part of M—1, like bank deposits

Banks could and still can be chartered by either the federal government or a state authority. In all but a handful of states, banks were not permitted to have branches, whether they had state or federal charters. There was no thought that banks competed with each other for business. Banks grew with the success of the companies that borrowed from them, or the social connections of the young men who joined the cadre on the platform. A deposit in any bank was the equal to a deposit in any other bank; the government indeed insured deposits equally in all the banks. This had not been true for most of the 19th century; it was an accomplishment, and not a small one, accomplished to a significant degree by a stress test administered by a Resolution Trust Co. that permitted banks to reopen after the bank holiday.

We had a fractional reserve system: the bank loaned out most of its deposits but was expected to keep some portion "in reserve," entirely liquid, to pay depositors who wanted their money back or wanted to use their checks to pay bills. Through the 19th century, the war was to keep money fungible, no matter what bank issued it, which meant that as much as possible the banks had to be fungible, too. Tiering in Chicago to the disadvantage of Continental-Illinois raised the specter of a throwback to wildcat banks risen zombie-like from the grave, to be exorcised by imposing a discount on their checks when accepting them for deposit.

Collectively, the banks' assets were the working capital of the nation--farmers buying seed and manufacturers paying wages and stores stocking their shelves. Because money could be called away from banks at sight, the preference quite apart from the reserves was for assets that rolled over on short maturity schedules. Until the 1920s, in most states, banks were not permitted to lend on the security of real property, and were not allowed to own real estate themselves, except for the bank's own building. When the Federal Reserve was created in 1914, required reserves were set at 18% for the larger banks. Once the Fed was operating, member banks could add to their cash if needed by discounting commercial loan paper overnight at the Fed's window. This represented an effective supervision of bank behavior, because through the 1920s most city banks borrowed most nights of the year from their district Fed, and the discount window had to approve the collateral offered. That information was secret. Indeed, banks were and are protected by secrecy laws and fenced off from criticism. It was and still is illegal, though we haven't seen any prosecutions, to bad-mouth a bank's capacity to pay its depositors.

I bore you with all this history because this is the soil on which the seeds of regulation and deregulation were scattered in the twentieth century. Coming into the new century, the device of the trust company, which a bank could own, allowed banks into various securities- and real estate-related activities (and also, lest one forget, opened a door for North Carolina National Bank to expand into Florida in the 1980s in the first small step toward converting NCNB to Bank of America and giving us this collection of gargantuan and still growing institutions that in the last five years have borrowed so far beyond their capacity to service). The Federal Reserve developed Fedwire very early in its existence to help the district banks manage their gold accounting, then made the system available to commercial banks, guaranteeing that eventually there would be one national interest rate, though for some years the district banks continued to set discount rates independently. In 1933, famously, Congress in the Glass-Steagall Act forbade commercial banks to engage in securities dealing and forbade investment banks to offer checking accounts. In 1951, the famous Accord between the Treasury and the Fed freed the Fed's open market operations from the obligation to maintain high prices for government paper, and in 1956, a banking act allowed the ownership of banks by holding companies, beginning the great pumping operation that ultimately created the swamp we are now trying not very successfully to escape. Half a dozen years later, in what I called a revolution in my first book about banking, Walter Wriston of National City Bank and John Exter of the New York Fed developed the negotiable certificate of deposit, permitting banks to buy the liabilities they could use for expansion.

Incidentally, this was trickier than now understood–so astute an observer as John Plender got it wrong in a recent FT. The early CDs were still subject to Fed controls on interest rates. But while a six-month CD might be limited to one and one-half per cent, a three-year CD could yield three per cent. Thus an investor, purchasing in the market, could buy a three-year CD with only a year to run, effectively gaining a higher rate on his one-year loan. In 1970, as a reward for the big banks' promise to buy the commercial paper of the near-bankrupt Chrysler (sound familiar?), the Fed lifted interest-rate controls on bank CDs larger than

$100,000, and we were off to the races. It was these CDs that were the commodity behind the Chicago contract that was now forcing the Comptroller's office to recognize that the market did not consider money from Continental's balance sheet as good as money from the balance sheets of the other big banks.

This is the prism through which all banking regulation must be seen: because the banks supply the currency, which must be uniform, their obligations become obligations of the state if it turns out they can't pay their bills. Andrew Sheng, later chairman of the Hong Kong Security and Futures Authority, provided the aphorism in his report to the world bank about the Asian crises of the 1990s: The losses of a decapitalized banking system, he wrote, are an implicit fiscal deficit. This recognition of the special status of the banks started as government guaranteed deposit insurance. There are other ways to try to assure that the banks' assets cover their liabilities. One was the Glass-Steagall approach, forbidding the banks from securities activities. The new thing is explicit government backing for the face value of the asset portfolio. If your name happens to be Citibank.

Glass-Steagall was abandoned to the enthusiastic cheers of the finance economists, in 1999; I was among the few mourners. The argument in favor of resurrecting Glass-Steagall is simple and short: commercial banking and investment banking are very different activities requiring very different talents. The commercial banker wants to know how he is going to be repaid; the investment banker wants to know how he can sell the paper. Turns out you can sell a lot of paper expressing debts that will not be paid back. Because the losses of a decapitalized banking system are a fiscal deficit, because in the end tiering is impermissible when the currency has to be uniform, this failure to collect the debts ends as a burden on the taxpayer.

The insurance of financial instruments is often a questionable activity. The purpose of the insurance company is to make money on the policies, not to prevent the activities insured against. CDS is by no means the first insurance contract to be written with no expectation that it would ever pay off. Some homeowners whose houses burned down in the great Oakland firestorm of 1991 were kept waiting for their moneyfor more than half a dozen years while their insurance company hunted for loopholes. My own introduction to this problem was on Roosevelt Island, a nest of apartment houses built by New York's Urban Development Corporation. I was working on a book about housing, and ran into a controversy about the use of aluminum wiring in some upstate apartment houses which suffered catastrophic fire. Looking deeper, I found that the New York City fire department was up in arms about UDC's violations of the city's fire code. Several of the buildings, for example, featured duplex apartments and skip-stop elevators, very fashionable in the 1970s. This design meant that if a fire broke out one one floor of the duplex the inhabitants' only means of egress would be the terrace, perhaps twenty floors up. Not much point keeping a rope beside the window to help you get out when it's twenty stories to the ground. I visited with the c.e.o. of the insurance company that had the policy on these apartment houses, and he was well and truly shocked. He called his c.o.o. to come by, and as the fellow came through his door he said, "Jim–how soon can we get out of those Roosevelt Island policies?"

Normally the insurance of a financial instrument has a political purpose more than an economic purpose. George Moore, later chairman of Citicorp, who tried to derail deposit insurance in 1933 as a National City Bank lobbyist for James Perkins, liked to say that the competence of bankers is not an insurable risk. Hy Minsky and Jan Kregel point out that the banker's added value is not the money he supplies but his acceptance function. We pay bankers for the information they gather and the judgment they apply to that information. Casual insurance of financial instruments corrupts the lending process, as the real estate market so vividly demonstrates. I call your attention also to Mayer's Third Law of Financial Engineering, first published in Institutional Investor in fall 1996, excerpted from my book *The Bankers: The Next Generation* in 1997. The Third Law holds that risk shifting instruments will tend over time to shift risk onto those less able to bear it, because them as got want to keep and hedge, while them as aint got want to get, and speculate. My wife was then working for Larry Summers, as the U.S. executive director at the IMF, and Larry came to the house on a social evening. I showed him the Third Law, not yet published, and he thought it was funny. But of course it was true. I'm afraid Larry might still think it's funny.

CDS adds no information, especially in the situation where the process is cash settlement of a contract that depends from a reference instrument. If you want to know what the market thinks of the riskiness of a bond , you can find out easily enough in most cases by looking up the market price for the bond itself, though efficient pricing in the loans market has been impeded by the banks because they make money on the inefficiencies. In most situations you can short the stock or buy a put if you want to bet against the issuer. The riskiness of a basket of bonds--a CD-squared–will be an ignorant evaluation, not worth your having, useful to people who are manipulating the markets, but not to investors or honest traders. What has happened here is that some smart fellows went to Las Vegas and looked at how well the house did at the dice table, where bystanders can bet on whether the shooter makes his point or craps out. Recently, when a Congressman suggested that nobody should be allowed to buy a CDS unless he had an insurable interest in the paper to be protected, ISDA gave us a new definition of chutzpah by objecting that such a rule would reduce liquidity in the market.

Meanwhile, the existence of this multi-trillion-dollar stupidity probably makes the Geithner plan an essay in futility: there is no way to price insured instruments when nobody knows whether the insurance will pay off. One does wonder what value was asserted for the paper the Federal Reserve acquired from AIG in the great orgy of fall 2008. I fear we will never find out.

There has been an air of fiddling in this market from the start. The first textbook about credit derivatives, by Israel Nelken a dozen years ago, offers a paragraph of guidance for the dishonest trader: “Theoretically, employees could buy a default swap on their employer. Consider a trader who takes a very risky bet with the bank’s money. If the bet is successful, the trader earns a big bonus. If the bet is miscalculated ahd the bank defaults, the trader collects on the default swap. . . There is a moral hazard.”

It may be much worse than we know. Chris Whalen in his newsletter charges that in many transactions the CDS is supplemented by a secret “side letter” establishing a “finite risk.” By the terms of the side letter, the seller of protection would not be obliged to pay more than 6% of the face value of the bond or loan being insured. The regulators, accepting the lender's assertion that the instrument was now insured, would not be informed of this side letter, and would lower the capital requirement that would otherwise be imposed on the buyer of the protection. This would be fraud, of course, but it may have happened; Whalen says there was a lot of it at AIG. If full value was paid out in situations where such side letters existed and were kept secret, the Fed and the Treasury have been swindled. Certainly, all documents relating to these transactions, which were accomplished with public funds, should now be placed on the record.

We note in passing that there is a case to be made that procedures for selling short should be improved in both the stock market and the bond market. The up-tick rule is a red herring, and the continually repeated statement that it was abolished two years ago shamefully neglects my reporting of 1988, in my book *Markets*, that the SEC on December 16th, 1987, had given Merrill Lynch a no-action letter exempting traders from the uptick rule because it "interfered with their index arbitrage."

The astonishing thing about the continuing hoo-hah on "naked shorts" is that the remedy for this misuse of the short-selling mechanism is so obvious and simple: heavy penalties for failure to deliver. When we studied stock exchange history years ago we heard much about Dan'l Drew, Jay Gould's partner in 19th century price manipulation, and his contribution to American poetry:"He who sells what isn't his'n/Must buy it in or go to prison." People who sell securities they don't own and haven't arranged to borrow are engaged in high-risk activities and should be told so. Particularly now that all the risks are increased –perhaps desperately so--by abuse involving the cash received by the seller who has borrowed the stock. The lender of the stock is assured that he is one hundred per cent safe because the cash from the short sale is segregated to his account, but the truth is that his broker often "invests" that money in CDOs for a better yield for himself. This abuse was first exposed by Hurd Baruch almost forty years ago, in the book *Wall Street: Security Risk.* Not much has been done to control it.

One of the reasons it keeps getting more difficult for margined players to change brokers is the new broker's problem in repossessing the customer's stock loaned out to short sellers. My understanding is that the standard prime-broker contract with hedge fund customers leaves wiggle-room for the broker and makes this danger exponentially worse. To the best of our knowledge today, the Federal Reserve system had to enter into a legally very dubious fiddle that made $80 billion available overnight to the already-bankrupt Lehman to facilitate the movement of its prime brokerage business to Barclay's. When the panjandrums of the finance ministries and the central banks get over their G-20 high, perhaps they can set the gnomes to work rewriting the law of agency in the financial markets that now permits quasi-dishonest practice by the broker/dealers.

My colleague Barry Bosworth points out that diversification devalues knowledge. To which I add the observation that the combination of diversification and probability analysis invites overleveraging. Now Alan Greenspan in The Financial Times blames Harry Markowitz for the model that failed. While we are revising the Pantheon of the first decade of the 21st century, I offer another sacrificial lamb from the list of Nobel winners in economics who set us off in the wrong direction: Modigliani-Miller, with their mathematical proof that it doesn't matter whether enterprises are financed by debt or equity. Among the ways we got so overleveraged was the continuing repurchase of their own equity by nearly all the great corporations.

Meanwhile, something has to be done about the banks, which are still the source of the nation's currency. Intellectually, there is a strong case for returning to the "narrow bank" idea that Henry Simons put at the center of his conservative manifesto–which Hyman Minsky in 1986 wrote was still worthy of serious consideration after fifty years. Simons would restrict the asset side of the banks to Treasury bills. It's tempting. With a narrow bank, we could separate the bank from the holding company, and send the subs to forage for themselves. When quantitative easing has run its course, there is going to be much too much money sloshing around, and no immediately plausible way to sop it up. The multiplier, the foundation of thinking about money and banking in this country, will be gone. I do like the idea of giving the Fed the authority to borrow. This would give us a new view of tiering: whose paper would sell for more, the Fed's or the Treasury's? And it would greatly diminish the role of the Fed, which seems to me quite necessary.

Since the days of Paul Volcker, who didn't think much of bankers, the Fed has been hunting for ways to make a declining banking system seem profitable. And that's one of the bigger reasons why we are where we are today. The Fed's game is monetary policy, and the banks are the transmission belt of monetary policy. So the Fed wants to believe that the country really needs giant banks and that new business models for them will pay off without increasing risk. Straight alpha. As so often happens, the wish is father to the thought and the Fed's economists have bought all sorts of nostrums of finance economics peddled by the banks. There is good reasoning behind the European system of separating monetary policy from banking regulation and policy. Congress is always receptive to giving the Fed the lead role, because in our system the Fed is part of the legislative, not the executive branch. (The Constitution gives Congress, not the President, the power to coin money and regulate the value thereof.) But it should study the European systems before proceeding. Alan Greenspan demanded that the Congress make the Fed the "umbrella regulator" of the financial services sector, and look where that got us.

In any event, there is no political force behind the narrow bank, and it's probably just as well. Our economy needs the sort of information-rich lending that small banks do and could not continue to do if we went to a narrow bank. The best bet for improved regulation, I suspect, is a shift in focus from institution to instrument. More than twenty years ago, Scott Pardee, then chairman of Yamaichi in America, previously head of currency trading at the New York Fed, made the recommendation recently echoed by Elizabeth Warren, that there be a kind of FDA and approve or disapprove the contracts banks wished to trade. Many of the activities that have become commonplace on Wall Street–especially over-the-counter derivatives trading–should be prohibited to insured institutions. The 2005 amendments to the bankruptcy code that gave the settlement of derivatives priority should be repealed, just in case. The insurance of financial instruments, I suspect, should be permitted only to government agencies and to insurance companies regulated by insurance commissioners, with national standards for reserves and total transparency of asset portfolios. One cannot and should not to impede the syndication of loans, but given our experience with SIVs, banks should probably be required to keep ten to twenty per cent in their own portfolios. A minor item but important would be a requirement that every large bank keep its books in such a way that its risk management people–and its regulators–can at any moment pull up on a screen the holding company's total exposure to each of its significant counterparties.