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WHAT ARE DERIVATIVES? HOW TO MAKE MONEY WITH THEM AND WHY GOVERNMENTS CARE

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The Group of Thirty, chaired by Paul Volcker, was created in 1978. It consists of 30 senior bankers, central bankers and economists who share interest in international economic and financial issues. It meets every six months to discuss current issues of public policy and private practice. In 1993, it published *Derivatives: Practices and Principles*, a study on over-the-counter derivatives which would establish good risk management practices for dealers and end users and at the same time demystify derivatives.

MR. R. STEPHEN RADCLIFFE: Charles Taylor is the executive director of The Group of Thirty, which is based in Washington, D.C. The Group of Thirty is chaired by Paul Volcker and consists of 30 senior bankers, central bankers, and economists who share an interest in international economic and financial issues. Prior to his work with the Group of Thirty, Mr. Taylor served as vice-president and international economist with Prudential Bache Capital and Funding. Before that he was an international group partner with Deloitte, Haskins, and Sells management consulting division in London.

He also was an economist at the World Bank in the policy-planning and program-review department, and he served as senior economist at the National Planning Association. Mr. Taylor is a member of the U.K. Institute of Management Consultants and the National Economist Club. And he also serves on the advisory board of the Center for the Study of Financial Innovation.

He will discuss derivatives, which is certainly a timely topic.

MR. CHARLES R. TAYLOR: It's a pleasure to talk to actuaries from around the world about derivatives. I say that with some trepidation, because I'm aware that you as mathematicians at heart, may know more about the subject than I do.

I'm reminded of a story about an investment banker who subsequently became chairman of his firm. About 20 years ago he was flying to Washington, chatting with a financial regulator about the financial innovation of the day and the topic of options came up. The banker said, "Oh, options. No, we'll never do that in investment banking. That's an insurance product." Imagine what the typical actuary might have been paid today, if he had been right!

I want to talk about three subjects under the heading of derivatives: what they are, what the problem is, and what the answer is. I imagine many of you know what a derivative is. But I'm going to take you through it quickly to establish some of the parameters of the discussion. The problem, of course, is losses. And the answer is . . . Well, we'll get to the answer in a bit.

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So what are derivatives? Let's take an example of a currency forward. I'm exporting to Germany, and I'm promised $10 million worth of deutsche marks for what I'm exporting in six months. A German exporter who's exporting to the U.S. is promised $10 million in six months time for what he's exporting. We both face currency risk. The way to eliminate it is for him to take my payment and for me to take his. We're both winners in the sense that we will eliminate the risk, and we'll go ahead with trade, expanding economic activity, in a way we might not have done without the swap. But one of us will be a loser, in the sense that if the currency moves, one of us could have had a larger payment in his own currency without the swap.

This is a derivatives transaction, because in the interim, between today when we arrange it and six months time when it is consummated, its value depends on what happens to the deutsche mark/dollar exchange rate. Its value is "derived from" an underlying—in this case, the exchange rate.

In practice, of course, U.S. and German exporters do not often find one another at the right time to arrange such a swap. In the early days of the over-the-counter (OTC) derivatives market, dealers paired up people who had nearly offsetting, opposite risks. But in time they became principals instead of just brokers, and built up portfolios of closely related risks that roughly offset each other. That was the way in which the OTC derivatives market grew over the past 15 years.

Of course, for many more years there have been exchanges where standardized derivatives could be traded—futures and options on commodities in Chicago have been around for decades. But these derivatives were standardized. By contrast, OTC derivatives can be tailored to the particular needs of a corporations's financial risk management. And, indeed, it sometimes seems as though the ever more precise tailoring of instruments to particular needs will generate a never-ending stream of innovation.

But there is a limit to the amount of innovation that can occur in derivatives. The whole range of derivatives that one hears of—caps, collars, swaps, etc.— are simply permutations of two basic building blocks: options and swaps. The other way you can change derivatives is by changing the underlying. My elementary example was a currency derivative. There are also interest rate derivatives, equity derivatives, and commodities derivatives, and these days, hybrids, which combine features and the different underlyings, and do it in strange ways. But basically that's the story. Any derivative now or in the future will be a conditional contingent, set of payments, based on some combination of underlyings that is built up of options and swaps.

How useful are these things? First, they're useful for managing risk. They allow corporate treasurers and others to separate out the different kinds of financial risk that they face into the interest rate components, the currency components, and so on. They can hedge out specific components of the risk that they face in their underlying business. They can choose what sorts of risks they want to take on and shed what they don't.

Of course, there's no such thing as a completely neutral risk position. If nothing ever changes, and that's your view of the world, it is still a view of the world. Of course, most people have a somewhat different view. They build into their management of

risk, that view about the future. This is pejoratively called speculation. But there's no way you can avoid speculating if you are in any business at all. After all, insurance is a kind of speculation, too.

The second use of derivatives is to diversify funding. If you have access to the U.S. capital market, but limited access to the Italian capital market, and you can offset the currency risks, you can establish that you're bona fides in the capital market in Italy and thereby increase your sources of funding. Doing that sort of operation as a borrower, you can often lower costs. That's a third use of derivatives. Or if you're an investor, you can find opportunities by using derivatives in connection and in concert with other instruments to enhance yields; that's the fourth use.

How important are derivatives? OTC derivatives have been the source of a great deal of the concern in public policy debate for a relatively small market. The notional principle amount written in 1991 by OTC dealers worldwide was $1.9 trillion. The notional principle amount is a useful general measure gauging the size of the market.

By comparison, exchange-trade derivatives in 1992 were worth $140 trillion. And volume in foreign exchange markets in 1991 ran at $220 trillion. Of these three markets, OTC derivatives are growing fastest.

What are the risks in derivatives? They are the four traditional kinds of risk: market, credit, legal, and systems risk. These are exactly the risks that one faces in any kind of financial instrument or activity. In the market risk area and particularly with options, there are some mathematically challenging elements to estimating market risks of a change in value. Options change value because of the underlying's value moves, because the slope that relates the underlying to the option value changes, or because the volatility changes. That makes sense if you think about it. If I have an option to buy deutsche marks at a particular price that is quite different from today's price, and volatility is rather low, that option may not be worth very much. If volatility rises, the option may become worth a lot more. And option values also change because time passes and because interest rates change, which affects how you relate the potential future value of the option to its current value.

Credit risks are the second element and there are two kinds: the risk of the counterparty defaulting now; on current credit exposure; and the risk of the counterparty defaults in the future, the potential credit exposure. Current credit exposure is related to the value of an option or position in derivatives as it is today. The potential credit exposure is more difficult and depends on running scenarios of how you think the value of a derivative or a portfolio of derivatives may change in value. Moreover, there isn't a single, unique measure of it. Potential credit exposure can be your expected potential exposure or your worse case potential exposure. The different measures are useful for different purposes.

Legal risks are the third element. The most important are to do with enforceability of OTC derivatives contracts and, in particular, provisions for netting obligations. Great progress has been made in this area. There were many jurisdictions five years ago in which there was much more doubt about this than there is today. To see why netting is so important, consider a situation where I sold you certain options and have an exposure of $30 million, and you sold me options and have an exposure of $20

million and then I go bankrupt. $30 million? Do you stand to lose $10 million or $30 million? With netting, it's only ten. It's generally the standard practice that master agreements provide for that kind of netting. However, there still remain significant uncertainties in some situations and they remain very serious, because they can involve large sums of money.

System risks are the fourth element and they are of two kinds: internal (people, models, procedures, controls) and external, which have to do with the way in which transactions are conducted in the marketplace. The internal risks take a good deal of management, which we'll come to in a bit.

All of these types of risk are mathematically challenging. I already mentioned that the matter of market risks is well developed. Credit risk is coming along. Legal risk is mathematically simple. But you can trust lawyers to make it difficult. But what makes the whole subject exciting and interesting is working out the covariances involved. In the area of market risks, these are fairly well developed: the database is rich. Between market and credit risk, they're less well developed. And legal and systems risks are not well understood at all. But the challenge when it comes to managing risks is to think about these sorts of risks together.

What's the problem? There are real problems, and there are political problems. Let's talk about the real problems first.

First is poor risk management. Firms that are using derivatives don't know what they're doing, or they do know what they want to do and they don't have the controls in place to do it.

Second are systemic risks. For example, derivatives link markets together in ways in which they hadn't been linked before. Regulators worry that if something goes wrong, like a repeat of the 1987 Stock Market Crash, OTC derivatives could exacerbate the problem.

Third is suitability, which has to do with the end users. If I'm a dealer, and have OTC derivatives in my quiver of things to sell, do I sometimes peddle it to the unsuspecting corporate treasurer of a Fortune 500 company and catch him unaware?

And, of course, as at least a symptom of the first and third problems, there are losses. How have these losses arisen? As I said, it's sometimes the corporate treasurers or the senior managers or those who are trading them who simply don't understand the risks involved. People may have lost control, although they knew roughly what a derivative was, and they knew what they wanted to do. They had a rogue trader, they had some process that just didn't work, or they took on board a model that didn't work.

Quite often, however, derivatives are at the scene of the crime but aren't the most reasonable suspect. Somebody has taken a view, and the view is proved wrong. Many losses in the past three or four months were due to the fact that the conventional wisdom was that interest rates would stay low, and they didn't. That corporate treasurer, embarrassed by the fact that he has lost $100 million, says to himself,

"Now, how am I going to get out of this one?" And he says, "Well derivatives might be a convenient excuse."

The political problem has fundamentally to do with a lack of understanding. These are relatively sophisticated financial instruments. Many of the people who are peddling them and using them are rather young, look rather inexperienced, and don't look altogether reliable. They're becoming rich very quickly, and therefore it's not natural to trust them.

And in the U.S. at least, politicians are haunted by the ghost of the S&L crisis that was a harrowing experience for Washington. Today, many U.S. politicians think we didn't spot the problem in time, and we didn't regulate it hard enough. When they see derivatives activity growing rapidly, they think large profits must bring with them large risks. Now they can read in the newspapers that there are large losses. This combination makes the political establishment very nervous indeed.

Now we have defined them, what are the answers to these problems? A combination of good practice and good policy.

The Group of Thirty sponsored a study of good risk-management practices in the derivatives area that was published in the middle of 1993. The report consists of four volumes. The first contains an overview of derivatives and recommendations on risk-management practice and on policy. The second and third volumes support it. The fourth summarizes the results of a survey of industry practice.

Our recommendations on management are broken up into six sections. The first deals with general policies. At that level we recommend that firms should have an overall risk-management policy and make derivatives fit in. Second is valuation in market-risk management. This is where you have to mark things to the market all the time to know where you stand. And you have to make some assumptions about and some adjustments to the midmarket value of your portfolio to value them in a sensible and conservative way.

The third area is the measurement and management of credit risk in a sophisticated way. Fourth is enforceability; fifth is systems, operations and controls; and sixth is accounting and disclosure. We had a total of 20 recommendations covering these six subjects.

We also have four recommendations to do with public policy. First is that financial supervisors recognize netting and setting capital standards. Second is that they work to remove legal uncertainties. Third is that they equalize the tax treatment of different sorts of financial instruments so as not to prejudice against the use of what might be the more efficient financial instrument. Fourth, that accounting standards be modernized. Essentially there should be standards set that provide for greater disclosure and fairer disclosure, particularly for financial institutions.

I will touch on a couple of points from the specific recommendations. Our fourth recommendation was that you mark your derivative positions to market. This is directed at dealers. And we found in our survey that most dealers did it. We said you had to mark to market at least daily. If you're a large dealer with a large position

relative to the size of your institution, you should be able to do it much more frequently than that. You should be able to say what your portfolio essentially is worth on demand, within a few minutes.

What we were establishing is the principle. In two or three years time, whether you are large or not, you should perhaps be able to do it more frequently than daily. The principle is, you need to know the value of your positions quickly enough to be able to manage their risks effectively.

Another recommendation that I want to highlight has to do with identifying sources of revenue. We found that few dealers actually did this in a sophisticated way on a daily basis. I'm referring to sources of revenue which they could identify such as origination, and revenue due to changes in the value of the portfolio. Identify the revenue associated with carrying different sorts of risks and this is worrisome from the control point of view. You have quite sophisticated people, systems, and so on, and an infrastructure built up to manage derivatives and you need something that completes the loop, that allows senior management to say, was yesterday an OK day? Or if something isn't OK what did you expect it to be. You can say, "Well, the thing we need to look at is our models, our limits, or perhaps the traders have done something strange on this desk." That was a very important recommendation we made.

In the credit-risk measurement and management area, we found that there was a considerable variance in practices when it came to measuring credit exposure. But by and large, people were more conservative than they needed to be. What was much more difficult was estimating the probability of a credit event.

Now I have talked about the importance of good risk-management practice. The other thing we need is good regulatory initiatives.

I want to take a couple of examples, one of them being international. The Bank for International Settlements (BIS) established capital standards for banks internationally in 1988. The standards came into effect in 1992. BIS is now amending those standards. And it is doing so to take account of market risks—not just in derivatives.

The other area I want to talk about very briefly is U.S. regulatory guidelines and U.S. regulatory developments.

Regulators essentially have four ways of regulating financial activity. First, they set capital standards that say you have to have a certain amount of capital in relation to assets or risks. Second, they require disclosure, which is the traditional way of regulating securities activity so that the market can work more efficiently. Third, they limit the powers of certain sorts of institution, which was conspicuously not done in the case of the S&L industry. And fourth, through supervision, they go into the intestines of an institution and see that they actually do what they say they're doing.

The proposed BIS amendments are capital amendments so they're in the first category. And there are three of them. The first deals with netting. It says that if you have enforceable netting arrangements in your derivatives contract, you need less capital than you would if you didn't. The second deals with interest rate risk. It's

just a guideline on how national regulators should take interest rate risk into account in setting capital standards. It's not intended to be mandatory. The third deals with market risk in general. This is the most difficult of the amendments. A complicated set of schedules has to be worked out to comply with this amendment. The approach is at variance with best industry practice.

When we look ahead during the next 12 months to see what's going to come into force, the netting will be plain sailing. Interest rate risk is less important. What's going to happen to the market-risk amendment and whether it will actually become an accepted rule for the G10 countries is not clear.

In the U.S. regulatory area, we have recently had a series of supervisory guidelines from the OCC and the FDIC among others, and two bills in the House of Representatives are in the process of becoming one. One is from the House Banking Committee chairman, Henry Gonzalez, Democrat of Texas. And the other is from the minority leader in the House Banking Committee, Jim Leach, Republican of Iowa.

The supervisory guidelines look rather like The Group of Thirty guidelines for what you should expect an institution to do. They have much the same taxonomy. In addition, there are suitability requirements which say that, if you're a dealer, you should be sure that the person you're selling to knows what he or she is doing. This may raise some nasty issues in the courts down the line. The House bills are aimed at goading regulators into action. The Leach Bill for example, proposes setting up a commission to coordinate regulation of derivatives among the different regulators in the U.S.

The political reason for these bills is that, if there is a derivatives blowup that is really damaging, Congress will be able to say that it warned the regulators to be vigilant; it wasn't its fault. Both House bills set out supervision guidelines. They require uniform and frequent reporting by dealers to the financial regulators. They call for the training of examiners. There is to be more research and international negotiations, recognizing that this is a global marketplace, and regulators in the U.S. can't solve the problem by themselves.

What are the next steps? First, industry practice has to improve, and we have to have some improvements in public policy. On the industry side, it's a question of implementing good risk-management standards, allocating sufficient capital, integrating market and credit risk management—dealing with those covariances—and improving disclosure in accounting. We have exhorted the industry to do so, but more needs to be done. I expect the value at risk in derivatives activity is something that, within five years, will have to be disclosed in the financial statements of major financial institutions engaging in derivatives dealing.

Second, we have to extend good risk-management practice to other businesses. It was the strong consensus among those involved in our exercise that, perhaps because this was their business, derivatives areas in the most sophisticated institutions were actually managed, from a risk point of view, better than the traditional areas. If you looked at the traditional commercial lending area of a bank, for instance, it did not have the same sophistication as the derivatives trading area in managing its risk. Risk management practice has to migrate across the other areas.

Third, we must continue innovation. We need more and better derivatives instruments. There are more people who can make use of them. Fourth, more work is needed to fully understand the systemic issues. I'll very briefly mention dynamic hedging. It's the portfolio insurance analog (portfolio insurance who one of the proximate problems in the October 1987 crash). Dynamic hedging is a trading strategy, common among dealers in particular, that can accentuate market moves. Understanding just when this might become significant, and how severe the amplification effect might be, is a high priority.

Fifth, we need to improve supervision—not least of all, strengthen supervisor understanding. Here we have an industry that employs people for a million dollars a year, being supervised by people who make $50,000 a year. How do you actually get the superiors to be as good as the supervised in the critical areas? It is a tough management problem.

Sixth, we must avoid micromanagement. This isn't an area in which the regulators should lay down such firm rules that they stifle innovation. And finally, ensure adequate disclosure. That's going to be the key to people making good counterparty assessments, to making the right kinds of decisions about concentration, and to containing potential problems that might arise.

MR. W. PAUL MCCROSSAN: I wonder if the system we have built isn't like a very well run dance hall that can handle 2,000 people dancing gaily around the room; unfortunately it only has one fire exit. The problem is that if somebody manages to light one of the curtains, those 2,000 people can't get out of that room without trampling each other to death.

MR. TAYLOR: Right. The analogy that's often drawn about the international financial system is it's not so much a dance hall, which suggests that someone organized it, but rather an ocean, in which there are occasionally little storms and squalls. And the larger the ocean the more perfectly one market fuses with another. The better the arbitrage between markets, the less likely that a storm in a particular place will cause some tremendous problems, because the disturbances can be quickly defused across the entire ocean.

Derivatives in this regard are actually quite helpful. In normal times, they allow people to diversify sources of funding and to arbitrage between markets, giving much greater connectivity to the global financial system. Instead of having a lot of little pools, we have a large ocean.

The trouble is in some conditions the ocean freezes over, and one little tap on it will crack the entire surface. The particular problem I think you had in mind relates to the October 1987 crash when prices begin to move in one direction. Those who have large derivatives positions have to sell into a declining market. And they have to do so in larger and larger volumes to maintain the neutrality of their positions because of the curvature of options.

So it's possible that if the move goes beyond the range of normal expectations of most of the participants in the market, not only do some people say the price is going down, but that it's going to go down further. In other words, they adapt their

expectations. Derivatives trading strategies exacerbate the speed of the move. And that's the problem of everyone heading for the fire exit at the same time.

Quite honestly, it is a source of concern. It's a potential threat to the marketplace. So far, derivatives traders haven't gotten into too much trouble with this. And the system as a whole hasn't gotten into too much trouble since October 1987 either. It's a serious concern—we want to make sure there are enough exits—but so far so good.

FROM THE FLOOR: You mentioned that traders and organizations should be encouraged to mark to market and to show the market value of that position in their accounts. And you said in the same breath that this should be done in a prudent manner. How do you reconcile the two? Market values could be a lot higher than a prudent value in the case of an asset or a lot lower than a prudent value in the case of a liability.

MR. TAYLOR: How do you mark to market responsibly? I'm not talking about the accountants' concept of conservative valuation. The approach taken by risk managers in the derivatives area is essentially to say, "Let's make our best guess, not our most conservative, guess as to the value of an asset." And that will usually be closely related to what's in the market now.

However, that's not the end of the story. We must adjust it. Starting with a bid/offer spread, we might take the midpoint between the two. And then we must adjust it for the risk of liquidity drying up. If we have reason to think the market is overvalued, we must mark it down a bit if it's an asset or a net asset position in a portfolio. These adjustments should include the cost of future hedging and administrative costs. These are prudent adjustments. Still, they don't exactly constitute conservative adjustments in the traditional accounting sense.

On top of that, derivatives dealers worry about the value at risk, the volatility of the value of their portfolio, and they make sure that they have enough capital on hand. They not only do the valuation; they also worry about the volatility in the valuation.

FROM THE FLOOR: There's a question about whether OTC derivatives are a fair game. The amounts of money involved are so large, and maybe the markets are hard to manipulate, as are the rewards for successfully manipulating them. None of the things that you talked about seem to be oriented toward producing a fair gain that was not subject to manipulation. Perhaps this is a risk we should worry about—one that's related to the other risk of everybody rushing to the exits at once. Is there anything you can do to make sure this OTC market will not be manipulated? The New York Stock Exchange does this when people have gotten corners of the Chicago futures market. What about OTC activities?

MR. TAYLOR: Yes, you can supervise dealers, but that's not really the answer. I think part of the answer is that the players, including the end users, are typically quite sophisticated. Suppose I face an underlying risk in my business. I'm a U.S. firm, say, and I'm funding something in Italy, and I therefore face the combination of lira, lira interest rate, and U.S. interest rate financial risks. I can just live with it. That's my first option.

My second option is, I can go out and buy hedge risks. And I do that by going to investment banks, to maybe half a dozen, and saying, "Look I've got these kinds of risks; quote for me some hedges." How much would it cost to buy an OTC derivative to offset these exact risks?" The third option is that I go into the exchanges, and I buy a combination of instruments that isn't tailored that doesn't match my underlying risks exactly, but it gets rid of some of the risk nonetheless.

FROM THE FLOOR: But suppose you're a big trader in the market, and you know that you're going to have to make a transaction that's going to cause it to move. But you say, "So what? I can make it up over here. I can go into this other market and make a profit off my own transaction." That's a temptation that would be very hard to resist in terms of the amount of money that's potentially involved.

MR. TAYLOR: If it is possible it will be a temptation. It looks as though it's possible. Derivatives trading is quite concentrated. But the underlyings are not particularly concentrated markets. And you're really not dealing in a particular instrument. You're dealing in risks. And the positions in the risk, interest rate risk for example, are held extraordinarily broadly. And if you don't price right you just don't get the business.

Now it's not a perfect market, in the sense that there are not many people bidding. But the point is that the more sophisticated segment dips, for example, are priced within the constraints that are created by the less sophisticated derivative instruments with particular components of the different risks. And they're priced within the boundaries created by the options market, the exchange-traded option market, which is transparent. And they in turn are priced within the constraints set by the underlying market. So we know it's a very sophisticated exchange, but it takes place within narrow parameters. If you want to defraud people, as a big dealer, there are better ways to do it.

FROM THE FLOOR: I am worried by the fact that derivative instruments are beginning to take place in the financial world that also belongs to junk bonds. And I would like to try to come to the defense of derivatives. I am not at all sure portfolio insurance was the problem in the 1987 crash. In fact, in his lecture, Professor Ross pointed out that it's very likely that yes, the suspect is holding a gun, and yes, there is a body on the floor, but this is a 38-caliber gun and the bullet was 48 caliber. A lot of those dynamic hedging trades could not be done in 1987. There were no bids, and a lot of people had acquisitions, they couldn't realize. So I would like you to comment about this assumed guilt. I hope it's not as clear as it may sound.

MR. TAYLOR: Yes. I first say that I think there are still a handful of people in the political process who look upon derivatives with unalloyed suspicion. But among the regulators, the attitude is at worst ambivalent. Derivatives have a lot of social value to offer, and they add a lot of value to the financial system. In many circumstances, a financial institution that used derivatives well would be much less risky than one that didn't.

A small bank in the U.S. can use derivatives to diversify its risk away from its local geographic markets. It's probably a much better run bank than one that doesn't. I think the regulatory community recognizes that.

The problem arises in unusual market circumstances. It's a problem for academics, because there aren't enough observations to do any meaningful statistical analysis. And it's a problem for regulators, because they don't want there to be enough occasions to run good tests. So it's the abnormal market circumstance that keeps the regulators awake at night. And they have yet to think it through.

FROM THE FLOOR: One of the interesting debates going on how in the European Union in DG15, which supervises banking and insurance, it is how to get the regulation in the marketplace more in line. As I understand it, banking supervision is very much based on assets, whereas insurance supervision is very much based on liabilities. It seems with these derivatives that you're focusing much more on the liability aspects of the potential exposures. Is this a change in philosophy for banking?

MR. TAYLOR: Your point is taken. There are differences in regulatory philosophy. But I'm not sure that it is so much related to or defined by whether it's the asset or the liability side that matters. Basically it's risk to the value of the firm, which is the common thread for both insurance and banking supervision. The resources that are available for the firm in difficult times is where you get strength in any part of the financial system.

The gap between security supervisors and bank regulators is in some ways greater. Securities regulators typically rely very heavily on disclosure. Their attitude is to catch the crooks. It's a different mind-set from bank regulators, who are much more concerned with making the system safe and sound.

MR. RADCLIFFE: Charles, allow me to ask you one last question here. You mentioned some specific losses here just recently. Could you tell us just a little bit about the mistakes that were made in those cases? How might we avoid at least those mistakes?

MR. TAYLOR: Yes. Have good controls. You look at your corporate governance from the top down and wonder how on earth anyone was able to bet the firm without anyone knowing about it. Mark to market. One of the reasons Granite Funds went under was revealed by the fact that one week David Askin came out and said, we've lost 10% and then next week he said, "Sorry. Got that wrong. It was actually 30%." He didn't know what the value of his portfolio was. If you want to be extra cautious, don't write options. If you buy an option you can lose the premium; if you write an option, you can lose the shop. But basically, you must know what you're doing—and follow the Group of Thirty recommendations!