

Lecture Text

Krishna G. Palepu: Renewing Markets for Better Governance

(edited for clarity)

Introduction

Good morning. Let's get back together please. What I thought we would do is just take a few minutes, and I'll lay out some of my thoughts on how I see things, and then we can have a discussion. The way I'm framing this is thinking about, ultimately, the connection between the function of capital markets and its implication for corporate governance and the way companies are run.

I'm just going to step back a little bit and put this in a broader frame of thinking about what our capital market system is supposed to do.

Key Functions of Capital Markets

We invented capital markets because savings are widely disbursed in the economy, and it's hard to aggregate them and invest them in good ideas. There are other systems other than capital market systems that tried doing it. For example, the communist system aggregates all the savings at the political level, and then tries to kind of bet on ideas. And we know what the result of it is—not great. What we have is a very decentralized system that says, let's find mechanisms through which we aggregate savings, channel them to ideas in the economy at the lowest cost possible, and try to promote “good ideas,” on some level, and weed out bad ideas. That way when somebody with an idea comes to the market, we will be able to give them money at the lowest cost possible if in fact it's a worthy idea to fund.

And since it is actually relatively easy to come up with bad ideas, there are many, many bad ideas relative to good ideas – therefore this problem is a complicated problem. It's like a finding-a-needle-in-a-haystack kind of a problem. It's not a trivial thing, and we need a big infrastructure to do this. And that's what capital markets are supposed to do. And once capital is given, the job is not done. You want to make sure that the original business plan is getting implemented. That if it needs changing, it gets changed, and that somebody from outside is acting as a check and balance, monitoring what's going on inside the company and providing feedback in such a way as to motivate people inside the company to change course if needed. That's also part of the ongoing responsibility of capital markets.

The price we put on a company is a signal that actually goes back inside the company about a referendum that capital markets have on how things are going inside the company. And that price signal then changes behavior inside the company. So if my stock price is going up, I as a CEO would interpret that as saying, “Hey, everybody out there thinks that what I'm doing is fantastic.” If it's tanking, I would interpret that as saying, “Gee, now there's a problem. People don't believe what I'm doing to be right.” So that's part of the feedback mechanism that capital markets perform.

And the main reason why these jobs are very, very critical is because of the two reasons that we had on the board. One is that it's really hard to decode information that is being provided by an entrepreneur or the manager about the business plan of the company, because a lot of the information is about the forecastable future. Therefore there's a lot of

art in trying to figure out whether, in fact, these plans make sense or not. It's not just a question of reading the stuff.

The second reason is that there are also incentive issues, that is, people who are putting together the plans, people who are putting together financial statements that report on how they're doing have a lot of incentive that is one-sided. All business plans have J-curves. The first few years we lose money, later on we just make money like gangbusters. All forecasts have a sense of optimism built into them. Companies don't rush forward voluntarily to say that things are really crappy inside my company. So there are one-sided incentives here, and therefore you need checks and balances somehow to make sure that that stuff is cut through a little bit, that bias in the information that comes out.

So that's the fundamental function of capital markets in the broadest sense. So whenever we're taking the temperature of the market to see if it is working, it's in this sense that we've got to ask, in the broad sense, if it is working or not.

Intermediation Chain

Because the job is fairly complicated, we have developed a sophisticated infrastructure to deal with it, and a large number of agents that participate in the chain, especially if you focus on the information chain, which is an important ingredient to making the markets work.

Inside the company, there are internal governance systems, like the board, for example, and the audit committee, and so on. You have external auditors that try to verify what happened and try to add assurance and credibility to the information that is being provided. And on the outside you have professional investors, like venture capitalists, insurance companies, mutual funds, pension funds, all kinds of organizations that try to provide services to retail investors to help them figure out where to put the money. And then you have information analyzers. These are financial analysts, financial press, bond rating agencies, a bunch of people that make a living just by analyzing information and trying to give advice on how the company is being run and what the forecast of its future is.

So you have groups of people in the marketplace that have very specialized roles, and each of them has their own role to perform. It is a very complicated jigsaw puzzle that all has to fit together for it to work. And like any chain, the weakest link in the chain usually determines the strength of the chain. And therefore, this is not like an additive system in the sense that if one is strong, you can get high points for the system. It's actually non-linear in the sense that there's a weak link that can contaminate everything else and make other people ineffective in the system. So you've got to think about designing these institutions very carefully and making sure that things work.

So part of the quest for us here is to think about the design of these organizations and the forces that are operating on them, and not to pass judgment on whether there are good people in each of these boxes or not. I'm going to stipulate that they're all good people. So it's not a morality analysis that I'm trying to do here. What I'm trying to do is to understand how each of these boxes is designed and what pressure points they face and how in totality the system is working.

Unhealthy Signs

One thing to think about is that there are some unhealthy signs. We all might have our own interpretation of that. But there's no question that there are unhealthy signs. There are corporate scandals, and corporate scandals didn't begin with Enron. Since 1995, 1,000 companies have restated their earnings in the United States, 1,000 companies. That's a large number. In fact, prior to 1995, if you looked at another five-year stretch, there were fewer than 100 companies. So there has been a huge increase.

We talked about the ex post [after the fact] realization that there are some flawed business models that receive funding. And, by the way, if you look at individual industries, there have been many, many cases in the last twenty or thirty years of individual industries having their herd behavior and boom and bust cycles. One example, in the late '80s and early '90s, is the craft beer industry. You all probably drink Sam Adams beer, which is locally produced, in fact, by a couple of our graduates. Sam Adams was the third company that went public in this specialized niche beer market. Sam Adams went public at a fairly high price. Six hundred other companies lined up to go public after Sam Adams went public because they saw an attractive opportunity here. And it turns out that many, many of those companies did go public. They crashed, the market actually got oversaturated, and then there was a lot of cleanup that went on.

Some of you may be familiar with the sub-prime lending industry. Good business idea. The notion there was that there are individuals in the economy who have bad credit history but are actually potentially good customers if you segment them properly, identify the better among them, and charge them the appropriate interest rates. They need money for buying things like cars or homes, and stuff like that, so there is actually a very useful function to perform here. Somebody got an insight, put together a company, and took it public. It was fairly well received. Several dozen companies then went public with the same premise. Many of them basically failed in the primary function for which they were created, which was to do credit analysis and pick good creditors. They basically financed anybody with bad credit. And they all went bust. In fact, I can go on and on about individual industries. So this is not new stuff that is going on with the Internet or telecom; it's very hardcore, old-fashioned stuff. Beer wasn't invented yesterday. Credit analysis wasn't invented yesterday. So there is something about the markets that seems to repeatedly encourage over-investment in somewhat questionable ideas, and then a correction takes place.

And one could say that you can never get things perfect. That these things happen. And that probably is true. But think about whether we can increase the batting average so that we don't have as many failures, in the same way that we demand perfection of people who produce things. GM, basically, used to say in the '70s, "Hey, don't expect us to build cars that are perfect. It doesn't happen. These are complicated machines. And in the first 10,000 miles there are always going to be hiccups. Simply because you bought a new car, don't assume that there's nothing wrong with it." Somebody else came and said, "No, actually, that's not true. We can build cars that are fairly reliable." And then we realized that there is a mechanism through which you can do that that is very systematic.

GM then said, "Well, if you want very good cars, you have to pay, because it costs money to improve quality." And somebody else said, "No, actually cost and quality are mostly related. By improving quality, I can reduce cost." And so, actually, human ingenuity can be used to introspect and try to figure out how to improve. And if we don't improve you know there will be market pressures or some other pressure through which we will improve.

But there's a long-standing puzzle in the capital markets. About two-thirds of corporate acquisitions fail to recover the money that is spent on them, two-thirds. That's well known. It's been going on for at least twenty or twenty-five years. But repeatedly, companies are allowed to spend money on these corporate acquisitions. And capital markets provide the funding for it.

There is a question, and it's a very important question: is it just a few bad apples, or is there a systemic problem? There are some people who think that it's just a few bad apples: these things happen; things will self-correct. And there are those who think, no, actually there are some systemic issues that need to be examined and thought through. And what might have happened is that the system got stress tested, and it didn't pass that particular stress test. And whether the stress was caused by human greed, or the stress was caused by technological uncertainty, or the stress was caused by new financial mechanisms through which things are getting funded these days—all those things are stress points, and the system got stressed. And we discovered that there are some weaknesses, and we can actually learn from them. If that's the view you have, the question is how you can fix the system to pass that stress test next time.

A Hypothesis

Let's think about one hypothesis: Because we love markets, we spent a lot of time in the last twenty years trying to improve markets. And many of those efforts involved things that were actually not right with markets. Markets weren't as liquid as they should be. We worked to make sure that we would make them very liquid. The transaction costs were too high, and we wanted to make sure that we attacked that problem.

It was hard to manage risk in markets. We couldn't share risks very freely. This sharing allows more risk taking, because if you're able to diversify risk and pass it down to other people, in the process you're encouraging risk taking in the economy. So let's work on a variety of initiatives that actually do those things. And we have done that in spades. There are lots of benefits coming out of it. But as a result of that single-minded focus on improving liquidity, access to capital, and risk management, we might have actually created an alternative set of forces in the marketplace that weaken some of the market institutions. So in the process of strengthening the market, we weakened institutions that are an important part of the marketplace. And it's now time for us to invest in those institutions. So that's the hypothesis that I'm going to play with here.

I'm going to talk about three examples here—actually, there are other examples that I'd be happy to talk about, that follow the same logic. But just to make ideas concrete, I'm going to play with three examples.

Auditors

What's the role of auditors? The basic function of auditors is to make sure that the information that comes from the capital markets is useful for making investment decisions on two dimensions: 1) it allows people to feel confident that the information is of high quality, is reliable; and 2) it allows people to feel they have right information. So when people are thinking about making an investment decision, they can make that decision with a complete information set. The analogy here that many people have is drawn from a Nobel Prize winning idea. Think about a used car market, where somebody wants to buy a used

car from the seller of a used car—people are worried about buying used cars. And the reason why they're worried about it is because the person who drove the car has a lot of information about the quality of the car. They spent a lot of time on it, so they know the maintenance history, when the car fails, what the problems are, and all that stuff. And the buyer doesn't have all of that information. The buyer basically cannot protect by bargaining with the seller on price in that kind of marketplace. Because what happens is that the seller says, "I have a great car. I'm going to sell it to you for \$8,000." One thing you know if you're the buyer is that the seller is likely to have overstated the price. They wouldn't have said it was worth \$8,000 if they truly believed it was worth \$20,000. So your concern is, gee, maybe they're optimistic. They're saying it's \$8,000, when, in fact, the real value of the car is only \$5,000.

So one strategy you could follow is to say, "I'll give you \$5,000. Why don't you take it?" You bargain with them. The problem with that is there could be two kinds of used car sellers, those who are actually honest, who truly believe that their car is worth \$8,000, and then those who are actually bluffing you. If you quoted a price less than \$8,000, chances are that you'll systematically pick people who are bluffing you. Because if I truly believe that my car is worth \$8,000, I'd find it insulting that you made this offer, and just move on. If I actually think that my car is worth \$3,000, I'd be thrilled to sell it to you for \$5,000, because I got you by quoting an \$8,000 price. I bluffed an asking price that is even higher than what I really know it is. And so you would buy this car for \$5,000 and regret it later on because you overpaid.

You thought that you were clever in bargaining, but the reality is you got sucked into a deal that you shouldn't have been sucked into. So bargaining is not a solution for a problem like this. The best solution, which is a commonsensical solution all of us can identify with, is to take the car to a mechanic and say, "Hey, listen. I don't know much about this stuff. But since you are a professional who deals in all kinds of cars, why don't you check this car and tell me what its real value is." And if the mechanic then says its real value is \$7,000, \$8,000, or whatever it is, you'll feel much more comfortable actually paying that money because it is a third party that is doing this stuff. And, in fact, both the buyer and seller might voluntarily agree to this arrangement if the buyer is interested in getting a good deal and the seller is confident about the quality of their car. Because they say, "Hey, why don't you take it to a mechanic, and if the mechanic says it's worth \$8,000, we can do a deal; otherwise not."

So the mechanic can systematically turn this market into a good market from a bad market by facilitating transactions between good sellers and buyers. The only people who will protest the invention of the mechanic are people who want to bluff, because their bluff will be called by the mechanic. So the invention of the mechanic is a fundamental breakthrough in creating a used car market. It looks like a simple idea, but it's a very profound idea. All institutions that we're talking about in the capital markets are like mechanics, because selling used stocks is not that different from selling used cars. It's the same idea. I run my business, I know what its value is, and you don't. And if you're willing to pay high money, I'll be happy to sell. Get your own mechanic if you are that worried about it. Let them test and say that this is worth that much; that's your job. I'd be happy to have a mechanic come and do due diligence.

So auditors are like that, as are, in fact, many other people that we're looking at. But auditors are mostly like that because they actually get to look inside the company. But imagine the following type of mechanic. I say, "Well, I want to sell my car, but my brother-in-law is a mechanic. Would you like to hire him?" And you say, "No, I want somebody who

is truly independent.” So independence is important. But more importantly, you say, “I have a mechanic who belongs to a union. And they set their inspection standards by generally accepted mechanical standards. And the generally accepted mechanical standards allow the mechanics to kick tires, but do not allow them to open the hood. Because opening the hood is a dangerous job. It's dirty, and it's not something that we allow our mechanics to do.”

That kind of mechanic is not going to be very valuable, because you can kick tires, too. For mechanics to be useful, they have to have two important properties. One, they're independent. But, two, they actually provide relevant information so that you can make a decision on the quality of the car. They can't just kick tires. They have to do more than that.

Are they flunking tests?

The problem with the auditing profession is, in fact, that it seems to have flunked both those tests. There are many, many audit failures. Restatements are examples of audit failures, although not so egregious ones. For example, I might certify that something is according to GAAP, and then three months later the company comes and says, “Oops, that wasn't according to GAAP.”

When you're talking about public companies, with qualified accountants and finance staff, and then an auditor and a board doing all this stuff—you worry that things are not being taken seriously. There is also a concern that the restatements are just the tip of the iceberg, that there is widespread earnings management going on among all companies. In fact, even some of the most prestigious companies in the economy have come under suspicion. General Electric, which is supposed to have blue chip standards for financial reporting, has been under immense pressure in the last year or so from capital markets for suspicion that they're managing their earnings using all kinds of tricks.

There is also a question that we talked about—we got started with this—that somehow financial statements don't seem to have all relevant information. In the new economy there are all kinds of soft stuff that need to be reflected, intangibles, but they're not reflected in the financial statements. Why? Because auditors say, “We can't audit them.” It's like mechanics saying, “We can't look at engines.” If the key value driver is intangible stuff, and you say I can't do it, then you're just kicking tires.

So there is a problem with the auditors. That, I think, is a non-controversial statement to make. The question is, how big a deal is it? For the longest time we thought it wasn't a huge deal. It was as if you were flying an airplane, and you had a suspicion that the wing nuts on the airplane wings were rusting. You say, “It's not the most important part in an airplane. I'm more worried about the engine, and I'm more worried about all these sophisticated controls. The wing nuts, who cares.” Suddenly, when you are at the 38,000 feet and the wings starts wobbling, then you worry. Then a small part can actually make a big difference. And I think that's the conclusion we have come to today, that accounting matters a lot—even though it might not be the sexiest thing—because it lays a foundation for all transactions in the capital markets. Without high quality information, you're not going to have the basis on which we can do transactions with each other.

So the analysis that many people have done in this aspect is that actually there is a basic problem with auditors. They're not independent. They're doing a lot of consulting work with companies. And if we eliminate consulting work, wouldn't that solve the problem? I'm going to take you through a story that argues that it would help. In fact, won't solve the problem

completely. It will help the brother-in-law problem. But there is even a bigger problem in my view, and I'm going to take you through it.

Regulation and results

What happened to the audit industry is a good case study of the hypothesis that I laid out for you about the unintended consequences of attempts to improve the market. In the early '70s, there was a concern that auditors were colluding with each other through professional standards that prohibited them from competing with each other aggressively. And, basically, they said, "Hey listen, we're a profession. It's unseemly for us to be going after each other's clients. We should be competing on quality and not going after each other's clients. So we will have strictures against each of us advertising publicly or going after and making a bid for an existing client of another auditor."

The Federal Trade Commission looked at this stuff and said, "Hey, listen, this looks like restraint of trade, basically. This is a mechanism that the Big 8 are using—then the Big 8—to prevent the smaller companies from gaining market share, and the Big 8 are creating an oligopolistic audit market where audit fees are going up all the time. Investors are paying unnecessarily for audit fees, and we need to fix this problem." So they went after the audit profession. The audit profession signed a consent decree saying that we will not do this anymore, removed the relevant professional restrictions, and created more competition. This was good because it actually put a cap on the rise of audit fees. Audit fees have not been rising since that has passed.

Unfortunately, what happened was that audit companies responded to it in ways that now look like a bad strategic approach. They did a bunch of things. For one, they said, "Let's move into other businesses that are more lucrative than the audit business because the audit business is not that lucrative." That's how they got into the consulting stuff. And the consulting stuff not only created a potential conflict, but it also distracted audit companies from their focus. Like any other diversified company, it wasn't investing in its core business anymore. Consulting is sexier. That's where any high-powered partner wanted to go because it looked like the more attractive kind of thing to do. And as a result there was a hollowing of talent from the audit side to the consulting side.

But there was also a response that said, "Well, basically, if the prices are not rising, our approach should be to cut costs, to maintain margins. And the way we would cut costs is by not paying—because staff cost is a huge cost." And so they said we don't want to pay a huge amount of money. Which then made auditing a very unattractive profession relative to investment banking, or consulting, or money management, or venture capital for well-qualified business graduates. And therefore they stopped attracting good people into the firms.

On top of that, because now you have a commodity-like product in a highly competitive marketplace, retaining clients became a big deal. The client says, "What's the difference between you and the next auditor?" And through that process the bargaining power shifted fundamentally from the auditors to the clients. And so, actually, the basic conflict in an audit relationship doesn't necessarily have to come from consulting. You are not just worried about losing your consulting business. You're worried about losing your audit business. Therefore you have to listen to what the client tells you to do. Otherwise, you will lose your business. And the net present value of keeping a business is very large.

When you're faced with the tradeoff of keeping a client and being tough—versus being a little loose with the client when the client demands it—for an individual audit partner it was a very clear choice. If you lost an audit client, you lost a huge stream of revenue. And there was immense pressure inside audit companies to evaluate individual partners on client retention. If you didn't retain clients, you were not a great partner inside the firm. Not only that, but there was a lot of pressure put on getting with the clients on the ground floor, that is, when a company is going public. If you can get hooked to them then, and you can retain them, then you have a long-term business potential here. So when the company is going public, if you have to look the other way to get the client, do it. That way you got the client, and you keep the client forever.

So this is the gatekeeping role when the company is going public: if a Big 5 auditor or a Big 8 auditor is there, you know they will thoroughly vet the financial statements. This actually turned out not to be true because they had a lot of incentive not to vet it thoroughly. That way you will get the client. In fact, a very important statistic that's telling is the following: if you look at all public companies, all companies that went public in the last decade, in the 1990s, and asked what proportion of them have a Big 5 auditor—then Big 5, now Big 4—about 90 percent of them do. So almost anybody who is going public will get a Big 5 auditor.

In fact, if you look at the same set of companies, how many of them have a Big 5 underwriter? Take the top five companies that underwrite deals on Wall Street and ask what proportion they capture. Significantly smaller. It's in the 40s. So there are many, many companies that investment banks are willing to walk away from that the accounting firms were not willing to walk away from. So Goldman-Sachs says, "You're not worthy of my name, so I'm not going to take you public." But KPMG says, "Fine, I'll sign your financial statements anyway." And that's because the economics of Goldman-Sachs is very different from the economics of KPMG. KPMG was desperate to get this client, because if it didn't get it now, it's very hard for them to get it later. And so they were willing to get as many clients as possible.

There is also an interesting effect from the litigation environment. There was a landmark judgment that got started in the 70s, and then ultimately went to the Supreme Court and got vetted in the 80s, that essentially relied on markets working well to fix liability on accounting fraud. And it's a great idea. The judgment was written by a really brilliant judge from the University of Chicago. And the argument was the following: prior to the judgment, if I lost money in a company because the accounting statements weren't reliable, and I wanted to sue somebody, what I had to show was that I had actually read the financial statements, valued the company based on them, and that my evaluation was influenced by the fact that the financial statements were flawed. Therefore, I lost money. Whatever the difference was between what the real value would have been if I had good information versus bad information would be my compensation. Of course, most investors don't read financial statements, and so when this actually happened they couldn't sue anybody because the first thing that the lawyers for the accounting firm would say is, "Show me your worksheet. What did you do with the information?" And they grilled them, and then basically their suit would be dismissed.

So this judge said, "Hey, listen, if markets are efficient, the definition of an efficient market is that the stock price already reflects all publicly available information." Somebody already did all the calculations and bought the shares. And through that process, the current price reflects all the public information that is available. And therefore, if I bought shares based on stock price, implicitly I bought shares based on underlying information. And, therefore, I

can sue the company if there's an accounting fraud, not because I read the financial statements, but because somebody must have read the financial statements and bid up the price, and then I bought the stock at this high price.

So I don't have to show that I had relied on the financial statements themselves. All I need to do is show that I looked up the stock price before I bought the stock. This was a landmark judgment because what this did was provide locus for any investor who bought stock: nobody would have bought stock without looking at the price, because that's part of your brokerage statement. So it's easy to have standing in a lawsuit.

Once standing is established, there will be a class-action lawyer who will aggregate all these investors and file a lawsuit. And then, having filed a lawsuit, they go through a discovery process that will allow them to dig through the company's papers. And, of course, if there is anything that now, ex post [after the fact], looks bad, you, the auditors are culpable. Suppose there was some doubt in your auditing process that said, "Well, this is a gray area. I'm not so sure. Gee, you know, there are uncertain technologies here, and therefore, the value could be high, or the value could be low. There is a lot of uncertainty. Who knows?" Suppose you had a notation like that in your work papers? You're dead, basically, because the lawyer can grill you by saying, "Well, if you had uncertainty, why did you give a clean bill of health?" And through that process, the liability possibilities expanded like crazy.

This was a good thing, by the way, for increasing accountability on accountants and on companies, because before that they were able to get away with a lot of things that were not fair to individual investors. This judge was really brilliant in increasing the accountability of the profession. And the thought here was that by relying on markets, we can clean up the accounting profession. I mean, that was the thought. The problem was that the accounting profession reacted in a very dysfunctional way to this whole thing. They said, "Well, one way to escape all of this would be to make our profession kick tires. That way nobody can doubt that we kick tires. And so what we will do is lobby for accounting rules that are so mechanical, it's black and white. So we can check the box saying that this company followed this rule."

Remember that famous 3 percent rule that Enron followed—which had nothing to do with underlying economics, because, basically, it was a rule about who owned this asset. And 3 percent is a magic number that said, "If 3 percent of this asset is owned by an outside investor, it really is not owned by the company." And accountants lobbied for a rule like that, so that they could easily audit companies like Enron and thousands of other companies that use off-balance-sheet financing vehicles, and check the box. Of course it has nothing to do with the underlying economics. Sometimes 3 percent does reflect risk passing, and sometimes it doesn't. A thinking professional actually would be saying, "I want to retain the judgment and look at the details of the deal."

Instead, auditors were celebrating that this rule was so mechanical that they would never be held accountable for it. This is like the players in the National Basketball Association lobbying for such a big basket that you would never miss a basket. That way you're safe. You will have a 100 percent shooting average. But the problem is that everybody will have a 100 percent shooting average and so you are no better. In fact, if you are a talented player, an all-star player, you just shot yourself in the foot because you have made the game so easy that everybody can play. But that's what they did.

And they told all their staff, "Please leave your thinking brains behind in the office when you visit a client. Never use judgment. Follow the rules." And they created a computer program for audit that would actually force them to go through a very detailed flowchart and a checklist that basically says, "Okay, all of these things happened, and therefore this company should get a clean audit opinion," rather than asking them to step back a little bit and say, "Is this company viable or not?" And so by making the job easy and mechanical, they thought that they could attack this problem of liability. Not the greatest strategic move, but that's what they did.

As a result of this, the people who were joining the profession had to know the highly technical detailed accounting rules. Meanwhile, you had all of this financial engineering capacity on Wall Street coming up with ways in which companies were financed. Risk was being shared that was very, very complex. And these auditors were very poorly equipped to deal with any of that stuff because they knew the rules and nothing else. They had very little business sense. So the profession today is in a situation where you have a mechanic that basically is thrilled to kick tires. Yes, they are not independent in the sense that they have a consulting business, but even if you remove the consulting business, they still are qualified only to kick tires.

By the way, they're so afraid of losing the client that there is a built-in conflict, even if you eliminate the consulting. They are going to be beholden to the client, no matter what, because otherwise they are afraid that they will lose the client. So that's the problem of the audit profession.

How does this stack up with the regulatory reaction to, for example, the Enron debacle, Sarbanes-Oxley? It absolutely moves in the right direction in terms of reducing potential conflicts up to a point--by removing the consulting stuff. It increases oversight in auditors. For example, audit committees now are supposed to be the real client of the auditor, rather than the CFO or the CEO, so that they can feel a little bit more confident that if they came up with some critical information or bad news, they won't be kicked out. But still, audit committees are really not tremendously separate from management. Most boards are appointed by management, and there's a lot of cozy relationships there. So the question is whether it is really going to solve the problem. And many audit committees are complaining vehemently that this is too much responsibility on their part. They really do not feel equipped to do this job because they meet for a couple of hours every quarter. And how can they behave like true clients when they're only meeting a couple of hours every quarter?

Also, this doesn't address the economic story I gave you. The economics of this industry has deteriorated tremendously. There is also the question of whether it is actually psychologically viable to audit your own paymaster. Is it possible? It's a very uncomfortable thing to do, to get your paycheck and then try to audit the guy who is writing your paycheck.

What do we want?

So the question is, what would be our dream? Our dream should be to have auditors who create value by doing the basic job, not by checking a box saying that I follow generally accepted accounting standards and auditing standards. That's just a small "r" in the road. The big "r" is that the information that they're associated with is credible. That's what their main job is in accounting. And the question is how you get them to do that, as opposed to saying, "We're all doing our job because we're following rules."

Also, rather than play the game of competing with each other on price and cost, how can we motivate them to compete on quality? And, of course, the problem with competing on quality is that somebody has to be willing to pay for quality. I was talking to the chairman of a major public company on the New York Stock Exchange the other day and he was saying that their audit fees are significantly lower than the boatload of money that they spend on security for their buildings. They don't bargain with the security firm as severely as they bargain with their audit firm to cut the cost, because they actually want security for their building, but it's not clear that they really want a lot of audits. The audit accountant says, "Hey, listen, I want to expand quality. I want to really do a fantastic job. I want to do a platinum audit for you." How would the company react? The company says, "Why? Why do you want to do that? Is it just to make work and make money, or what? I don't need it."

So the real question is if the customer is not willing to pay for it, how can audit companies reinvent themselves to actually do high quality audits? Are they condemned to doing the commodity type of stuff? Then the industry cannot bootstrap itself out of the mess that it is in. And without that, of course, all of us suffer because the information is the lifeblood of the capital market system. And if the information is not credible, you have a very dysfunctional marketplace. But nobody is interested in investing in that information. So that's a real problem for the market.

One way to improve things

So here is one idea. My co-researcher, Paul Healy, and I believe that given the inherent problem of unwillingness on the part of clients to pay for high quality audits, the only way you will actually jump-start the change process to get to the point where we want to get to—high quality audits—is to move the responsibility of hiring and paying auditors to an institution that more directly represents the investors' interests, rather than the company itself. The company doesn't really believe that it is valuable to spend a huge amount of resources doing this. But investors are the ones who suffer if, in fact, audits are flawed. So the question is how we can move the responsibility to the people who benefit from high quality audits.

But there's a problem with that; there's a free-rider problem. Investors are disbursed all over the place. For any one investor it's not worth the bother to spend a lot of time on thinking about high quality audits. In fact, annual reports are there for free. So if you're an investor, you call the company and get an annual report or download it from the Web. So why would you want to pay anything for it, in some explicit sense? Even professional investors really don't have that much incentive, because they buy and sell stocks. Today I might have this stock; tomorrow I won't. So why should I engage in overseeing an audit or paying for it? In fact, they're not even interested in voting on proxy statements and giving that information to the public. So professional investors, like mutual funds, are not good candidates.

You need to think about some other candidate if you want to pursue this. And there are a few candidates that one could think of. For example, the stock exchanges. That's one step removed from the company. The stock exchange makes a living by attracting investors to come and trade. To trade you need good information. And, in fact, the value of a seat on the New York Stock Exchange is a function of how many trades there are on the New York Stock Exchange, and how companies are listed, and how many stocks are traded. And good information helps trading. Therefore one could imagine that if you want to locate this responsibility in the private sector body, not in government hands, the stock exchange

might be a candidate to think about because they actually have both interests at heart. On the one hand they want to please companies so that they're listed on the stock exchange. On the other hand, once the company is listed, they want trades in the company stock, and the only way you get trades is if there is high quality information.

So one could imagine the stock exchange taking on this responsibility and funding audits through a small fee on stock trades. That way, whoever is trading, since they benefit from high quality information, pays for it directly, in some ways. If you did the math, and it's in the paper, the total amount of money spent on audits last year on the New York Stock Exchange was about \$14 billion. The total amount of trade that took place on the New York Stock Exchange is close to a trillion dollars. So a very small tax on trade can pay for the \$14 billion of audit fees. It's not huge tax. In fact, it's .007 percent, if we just held those numbers constant. So it's a small fee. But now essentially you have created a link between investors benefiting from high quality information and audit costs. And if they don't want high quality audits, let the market speak for itself. But then they have themselves to blame. They can't blame somebody else for the state of information that they have. So it's a direct link between investors and auditors.

Maybe you don't like stock exchanges, and there is a feeling—all you need to do is read headlines about the New York Stock Exchange these days—a doubt whether they really have investors' interest at heart. So if you are worried about whether stock exchanges are beholden to companies much more than investors, or much more interested in self-serving behavior with respect to brokers rather than investors, then you've got to think about some regulatory agency.

One step from stock exchanges would be something like NASD, which is a self-regulatory agency. So it's still not government, but it's actually a monopoly. The thing about stock exchanges is that you can create competition. So if the New York Stock Exchange has one set of rules for audits, NASDAQ can have another set, and they can compete with each other. So you're getting the benefit of marketplace a little bit. NASD would be more like one agency setting standards for everybody. Or move it to a regulator, which would be like this new body that was created under Sarbanes-Oxley law, called the Public Accounting Oversight Board. It's an autonomous body funded by the government, but you can see that the closer you get to the government, the more politics can intrude here. Some of you may be following what happened when Harvey Pitt was the SEC chairman. He appointed somebody that many people thought wasn't worthy for the job as chair of this board. So you get into politics.

So you pick your poison. But it's possible to think of institutions outside a company that would supervise the audit process, that would sit on top of the existing mechanism so that you still have the audit companies and others who are doing the detail work, but somebody out there that is actually looking over the shoulder to make sure that this stuff gets done at a high quality level. In any of these cases, by the way, you can fund the audit with the trade fees, independent of who is actually supervising them.

Quickly, let's review the other two examples.

Financial Analysts

The story is pretty simple here, and everybody knows it, actually.

Regulation and results

The one link that people might not be making is that the story started in 1975 when there was deregulation of trading commissions. Trading commissions were very high. People felt that, again, competition would better serve individual investors and professional investors. So they deregulated trading commissions so that there would be more competition. And it worked like crazy. Today, you can trade stocks on the New York Stock Exchange for close to nothing.

That makes markets very liquid. If you buy stock, you're not afraid to sell it, because it's not going to cost you that much; round-trip transaction costs are very low. And we take pride in it because we are one of the lowest transaction cost markets in the whole world. But what it did is dry up funding for stock research, because it was brokerage commissions that used to fund stock research. And economic activity doesn't grow on trees; somebody has to pay for it. So if you want good stock research, but you are not interested in paying through transaction costs, you've got to pay it through somewhere else. What happened is that natural market forces figured out a way to do it. They asked who actually has some business interest in funding research. It's the investment banks, because investment banks have a lot of reason when they're underwriting the stock to go out and tell the clients, "Hey, listen, if you give us the underwriting business, we will follow the stock subsequent to the underwriting deal, and make a market in your stock." Therefore they saw a natural synergy between their business and funding research.

So the marketplace solution was to do this, but now we're discovering that that's fraught with conflicts. But that's what the marketplace will do because somebody has to pay for this. The question is, if you don't want this—and now they're talking about, "Gee, can we create independent research." I think it's a pie-in-the-sky dream because ultimately it's got to be paid for somebody. Without a proper funding mechanism, this is not going to work. Again, you've got to ask yourself, if you want to improve markets by reducing transaction costs, you have to simultaneously think about who's going to pay for research. And we didn't, so there are unintended consequences of bad research. If you want to fix it, you've got to go back to the root cause and say, "Let's try to figure this out somehow."

One way to improve things

I really find *Consumer Reports* magazine fascinating. If you go out of the financial markets scene a little bit and you look at the product markets scene, and say, "Where do people get very high quality analysis of things?" in the U.S. there is an organization called Consumers Union. It's a nonprofit organization. It publishes a magazine called *Consumer Reports* that gives a lot of research information on all kinds of products for a very low cost. You can buy this magazine for a fairly modest fee, and actually *Consumer Reports* is the largest subscription magazine existing in the U.S.

It does not take any advertisements, so it is entirely funded by subscription fees. It does not even take samples from companies to test. They buy their own samples and test them. They have had a stellar record of producing information that customers trust and voluntarily pay for. They have been able to cut through this knot and actually create a market for information that is highly reliable, highly unbiased, and paid for by customers. The question is, can we somehow learn something from that experience for stock research? Is there something we can do in that respect? Can we have something like investor's unions that maybe begin, at the minimum, with rating analysts on some criteria that actually are highly

relevant to investors about the value of information the analysts are producing, and maybe finally move into the business of rating stocks themselves? Is there a mechanism here? Can we learn something from looking at an institution like different product markets? What are the barriers for us to do that?

Fund Managers

The third example is the fund manager. This is a very important element of the thought process here. All the debate so far about what has gone wrong has focused generally on the supply side of information, that is, the problems with the information that is being supplied by companies in the marketplace. Very little focus of the debate has been on the demand side of information, that is, if you produce high quality information, does anybody care? Does anybody use it? Because if people don't use the information, then there are two problems: 1) they're not going to be willing to pay for it, so economics is going to be a problem; and 2) the incentives of producers will be blunted because if they know that nobody cares. The care with which they do their job will be very different than if they know that somebody cares about the information that they're putting out.

There is a lot of concern here around the pressures that fund managers face, and the behavior those pressures induce in terms of their willingness to really use their own information. There is a lot of concern about herd behavior. All funds behave the same way. There is also a concern that people seem to be, in essence, buying stocks knowing that they're overvalued. So you go downtown to Fidelity, which I have done, in 1996, '97, '98. I've gone and talked to them. And every step of the way, the fund managers that I've spoken to knew that this stuff was thoroughly overvalued.

And these are the main managers in the big institutions in downtown Boston. In fact, some of them tried to sit out and got fired and replaced. The message got to them quickly that they should invest in overvalued stocks. So many, many people knowingly invested in overvalued stocks. And the question is, if your job as a professional manager is to invest in stocks to produce return, why would you invest in overvalued stocks? Not because you're unethical, but you're doing it as a matter of course because you think that's part of your job. And what is it about the institution of professional fund managers that actually makes people do that?

How we got here

The story here is that we have shifted in the U.S. to a whole lot more defined-contribution pension plans—away from defined-benefit pension plans—where the onus of managing pension money has been put on employees and individuals. So you'll be given some money, and you go and invest whichever way you want so that, in fact, you can manage your own pensions. This philosophy has become so pervasive that there is talk now of allowing social security contributions also to be invested in this way, with responsibility given to individuals. It's a market-based idea. That is, if you will give it to the individuals, they will maximize their self-interest, and they will actually deal with their investment. So individuals are a very large force today in capital markets, in a funny way, because they actually have control of a large amount of money that is important as a source of savings.

There is also the rise of index funds. This is, again, based on efficient market theory that many of us in finance professions have believed in and have talked about. And the natural

outgrowth of that would be that if markets are efficient, you can't pick stocks better than anybody else, so why don't you buy an index fund. You just buy the market as a whole.

The problem with index funds is that because they don't look at stocks as individual things, but just as part of the basket, they have no interest in even knowing the name of the stock. They can just buy the whole market—just buy the S&P 500. They don't care what is inside the S&P 500, let alone about the individual company's fundamentals, their strategies, and all the stuff that we might think actually drives value. And, in fact, if a particular stock is overvalued I'll overrate it because that becomes a bigger part of the index, and so I buy more of it. If the stock is undervalued, I'll buy less of it.

Index points actually exacerbate valuation fluctuations in the marketplace. But it's a great tool for individual investors because it's a low-cost way to invest in the whole market and diversify, and there has been a rise of index funds as a result of it. But index funds do not perform a very important function in the marketplace, which is to analyze individual companies and channel money to companies that actually have long-term fundamentals and that are undervalued. Instead, they do the opposite.

How about mutual funds? Index funds are there, so what's the big deal in the mutual funds? The problem is that there have been several inventions here. Mutual fund families pioneered by companies like Schwab basically tell an investor, "Hey, listen, I have several hundred funds in my family, and you can put your 401(k) money in my fund. And if you don't like that fund, you can switch from that fund to another fund within my family for no cost." And so, basically, it gives you tremendous flexibility to pick among several hundred funds, and then change your mind as things are changing. Great service, and it became wildly popular with the individual investors.

In fact, through this process there was market pressure on other mutual fund companies like Fidelity to emulate this. And so now, actually, there are quite a few companies that offer these fund families. The problem is that it creates fierce competition for customers. And also there is a well-documented behavioral bias among individual investors, which is to invest in hot funds. That is, they look at the return in the last quarter of last year, and say, this one is doing well, and so I need to put my money into it. So if you correlate inflows into funds, the single biggest variable that determines the inflows is my last quarter's return of last year's return. Not the returns of the last five years or last ten years, but the last quarter of last year's return.

And as a result, if I'm running a mutual fund company, what I will tell my fund manager is "Hey, listen, your job is to attract funds, and everybody is going to pay attention to what you did last quarter. So you had better produce returns last quarter, this quarter. Not over five years, not over a ten-year period, but in the short term. And your incentives are going to be tied to beating similar kinds of funds, the benchmarks, because that's what investors do. I want to invest in emerging market growth funds. I will look at all emerging market growth funds, and if something did well this quarter of this year, that's where I will put my money." So emerging market growth fund managers are all comparing themselves with each other. That's what they're interested in looking at.

Therefore, fund managers are motivated to think about what other fund managers are thinking about, because as long as they beat the benchmark and meet it, they're okay. They're not interested in going contrary to what other people are thinking, because that way you're out on a limb. And if you're wrong, you actually would stand out, and you would lose funds from your fund. And this is at the heart of herd behavior. In fact, here's what this

does: say I have unique information, suppose I am looking at a stock, and I know for a fact that this is terribly overvalued because I did brilliant analysis. But I also know that nobody else has done this analysis. What should I do with this insight? The incentive systems in place say, please throw away that insight. Please forget that you ever discovered that the stock is overvalued, unless everybody else has agreed that it's overvalued. And so you wait for a triggering event—that's what it's called in the business, a triggering event—when the company has an earnings shortfall or something like that. That is going to make everybody look at whether this company is overvalued, and therefore everybody will sell. And then you can sell it. But until that time, please keep buying the stock because it will go up, even if you think it's overvalued. Otherwise, you will be penalized through the incentive systems.

By the way, Enron is a great example of this. In March 2000, *Fortune* magazine published a cover story criticizing Enron, its accounting, pointing out lots of signals that there's a lot of fraud going on here and all of that stuff. What do you think happened after the story came out? Do you think many professional fund managers sold the stock or bought the stock? Bought, rather than sold. In fact, in October 2000, when the story broke about actual fraud at Enron—if you looked at the investment in Enron on the day the story broke—more than 70 percent was owned by very sophisticated fund managers.

This was a full six months after the story broke that there were problems in this company. That's the game they have to play. Otherwise, they're going to be punished. The internal incentive system—it's not because these people are unethical or stupid. It's just the way the game has been set up for them. And it's not a healthy game, because they're ignoring important information about the fundamentals of the company in favor of looking at each other.

Two ways to improve things

How do you fix it? The mutual fund managers that I talked to said, "Hey, listen, we can't fix this problem by ourselves unless you fix the behavior of our customers." There are two problems that they point out. One is the individual investor's behavior for churning funds. In an ironic way, the easier it is to exit a fund, the less you think about what the long-term performance of a fund is. So even though you might have a thirty-year horizon for your investment, if you think that you can get out of an investment every quarter, you'll think two seconds before you put money into that investment. That's because you can get out of it very cheaply, rather than think about the thirty-year horizon that you have. So a lot of people are investing pension money but not thinking long-term. Therefore, we need to somehow throw some sand in the gear to make people think before they buy mutual funds, and then stick with them for a while.

One idea would be some kind of capital gains tax system that penalizes you once you make an investment and then you want to get out of it, so that you think twice before you make the investment, and then you stick with it. So you do a lot of ex ante [prior to the fact] research on who is a good fund manager, and put your money there because you hold things for five years or three years, or whatever the horizon date is before you get out. This then, hopefully, will allow fund managers inside a firm to change their incentives, so that you fix the demand side of the information chain. Otherwise, they have very little incentive, however great is the information that is published. *Fortune* magazine did a fundamental analysis on Enron, but fund managers were happy to throw it away. So unless people are interested in consuming it, producing good-quality information is not enough. We need to fix that too.

So these are some of the very specific ideas, and one could go on with some other institutions. But let me just close the loop here.

Impact on Corporate Governance

The amazing thing is the following: everybody has been relying on markets more and more, because we love markets. Even boards have outsourced governance to a large extent in the last decade. For example, they use stock options to motivate managers. So the idea here is that the market is going to hold a referendum on your performance. And if the market says that you're doing well, you'll make money. That's the whole idea of giving stock options or stock-based compensation. So as a board member, I'm not going to do analysis and figure out whether you have done a good job or not. What I will do is allow the market to do the analysis for me, because the market is so much smarter than me. But what we have just discovered is that the people in the marketplace do hardly any analysis.

So if I tie all the incentives to this very noisy number that is being produced in the marketplace, I am actually outsourcing to somebody who is not really highly reliable. And you can see how dysfunctional behavior can be induced through that process. Because my motivation, then, as a manager, would be to pump up the stock price whichever way I can. If earnings management is it, that's fine. Or to issue rosy growth projections, so be it. Because people down the chain are going to buy all this stuff, so I'll pump up the stock price and make money. Unless we fix the information thing, even though it looks like arcane stuff, corporate governance won't work. You'll be hiring and firing CEOs on wrong signals, and you'll be rewarding them on wrong signals. So getting stock price signals right is really critical if you want to rely on markets, which I endorse, because markets are very, very powerful. But, you've got to make them work, otherwise they are also going to be pretty dangerous things.

Summary

The bottom line is that capital market institutions are fundamental to the production and analysis of information on companies and the use of that information for making resource allocation decisions. In the process, they play an extremely critical role in corporate governance. And if the market institutions are really well designed, and we're highly motivated to do that, the system will be beautiful—it will be like a symphony. But if people are playing their own notes, it won't be a symphony. They have to follow a script of some kind. And when you hear these discordant notes, you might want to think about why it is that people aren't playing according to the script, and how we can create a symphony again. And so I think it's really important for us to think about renewing market institutions.