UNITED STATES FEDERAL TRADE COMMISSION

and

UNITED STATES DEPARTMENT OF JUSTICE

SHERMAN ACT SECTION 2 JOINT HEARING

BUSINESS TESTIMONY

TUESDAY, JANUARY 30, 2007

HELD AT:

UNIVERSITY OF CALIFORNIA AT BERKELEY

2220 PIEDMONT AVENUE

WELLS FARGO ROOM

BERKELEY, CALIFORNIA

9:30 A.M. TO 4:35 P.M.

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MODERATORS

Morning Session:

WILLIAM E. COHEN

Deputy General Counsel for Policy Studies

Federal Trade Commission

and

JOSEPH J. MATELIS

Attorney, Legal Policy Section

Antitrust Division, U.S. Department of Justice

PANELISTS

Morning Session:

Michael D. Hartogs

David A. Heiner

Scott K. Peterson

Robert A. Skitol

MODERATORS

Afternoon Session:

KAREN GRIMM

Assistant General Counsel for Policy Studies

Federal Trade Commission

and

JOSEPH J. MATELIS

Attorney, Legal Policy Section

Antitrust Division, U.S. Department of Justice

PANELISTS

Afternoon Session:

David A. Dull

Michael E. Haglund

Thomas M. McCoy

C O N T E N T S

P R O C E E D I N G S

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MR. COHEN: Good morning. I'm Bill Cohen, Deputy General Counsel for Policy Studies at the Federal Trade Commission. I'm going to be one of the moderators at this session. My co-moderator, who is sitting next to me, is Joe Matelis, an attorney in the Legal Policy Section of the Antitrust Division of the U.S. Department of Justice.

Before we start I need to make a few housekeeping announcements. As a courtesy to our speakers, we'll urge you all to be sure that you've turned off your cell phones, Blackberries, and any other devices that might ring, vibrate, play music or anything like that.

The other point that I need to make is that these panels are being run as hearings involving the moderators and the participants. So, consequently, we request that the audience not make comments or ask questions during the sessions. Thank you on that.

Before introducing our speakers, what I'd like to do is first thank the University of California at Berkeley for hosting the FTC/DOJ Section 2 hearings on business testimony. And in particular I'd like to thank Howard Shelanski and his colleagues, Richard Gilbert and

Paul Shapiro, for offering us their facilities and for making the necessary arrangements for these hearings to go forward.

I'd also like to thank the Competition and Policy Center, the Berkeley Center for Law and Technology, and the Haas Business School, for providing the facilities, refreshments, videotaping, and webcasting capabilities, and for working with the agency staffs to provide other logistical support. Arranging hearings like this takes quite a bit of that and we thank you.

Others who provided tremendous help with the additional details include Bob Barde, Louise Reed, and Dana Lund in the audiovisual crew. Our thanks to them as well.

Finally I would like to thank the FTC and the DOJ Section 2 team members. And within the FTC delegation, Pat Schultheiss and Jim Taronji in particular, who I know have worked very hard to put together these sessions and all the other sessions that we've held to date, and the FTC's San Francisco Regional Office for their help and support on this occasion.

We're honored to have assembled the various members of the panel from a number of companies that have agreed to offer their testimony in connection with the hearing sessions. These panelists have broad perspectives

on how the companies operate within the complex and globally diverse realm of Section 2 jurisprudence. We anticipate that they will help us to identify and better understand areas where single-firm conduct may cause competitive harm, areas where desirable, procompetitive behavior may be being chilled, and areas where additional antitrust guidance would be useful.

Our panelists, and I'll name them in the order that they'll be speaking this morning, are David Heiner, who is the Vice President and the Deputy General Counsel for Antitrust at Microsoft Corporation; Scott Peterson, who is Senior Counsel at Hewlett-Packard Company; Robert Skitol, who is the Senior Partner in the Antitrust Practice Group at Drinker Biddle & Reath in Washington, D.C. and counsel to the VMEbus International Trade Association; and Michael Hartogs, who is the Senior Vice President and Division Counsel at QUALCOMM Technology Licensing.

Detailed bios for all of our speakers are in a packet on the table in the back of the room, as well as on the agencies' websites.

As to format for this morning, what we're going to do is we're going to allow each speaker some time, about twenty to thirty minutes if they wish, for a presentation. Then after all the presentations are

finished, we'll likely take a break for around fifteen minutes. After the break, we'll reconvene for a moderated discussion with our panelists.

The sessions today are an extremely important component of the Section 2 hearings overall. FTC Chairman Deborah Majora made it clear at the opening session that she hoped to learn from the presentations of businesses through testimony of their executives and their advisers.

As Chairman Majoras noted, "The hearings will that have panels that will focus on specific types of conduct that at least to date, can implicate liability. We want the panels to discuss the conduct from the market perspective from the ground up, that is, examine why and when firms engage in it, how they do it, and what effects it produces for the firm, for other firms (customers and competitors), and for consumers. We should look at whether firms in competitive markets engage in the same conduct and, if so, examine why they do it. We want these discussions, to the extent possible, to include knowledgeable business people or at least their advisers."

Well, I think over the last seven months or so, we have held conduct specific hearings on predatory pricing, refusals to deal, tying, exclusive dealing, bundled and loyalty discounts, and misleading and deceptive conduct. Some of these panels include business

executives or their legal advisers. Today we're going to have them talk.

The sessions will bring together a number of panelists who are able to speak with a business perspective, in keeping with our goal of obtaining as much practical insight and real world experience as possible. We look forward to our panelists' remarks and a round-table discussion

I want to thank all of today's panelists for their participation. We appreciate it. It takes a great deal of time to prepare for and participate in hearings like this. And we know that you're all extremely busy individuals. So, again, thank you for your time and your efforts.

What I'd like now to do is to turn this over to my DOJ co-moderator, Joe Metalis, for any remarks he'd like to add.

MR. MATELIS: Thanks, Bill. The Department of Justice's Antitrust Division is extremely pleased to participate in these hearings. In the single-firm conduct hearings we have held to date, we have benefitted from the insights of many highly skilled antitrust attorneys and economists.

Today's hearings, and the hearings to be held next month in Chicago, grow out of the belief that we can

also learn much about single-firm conduct from the perspective of businesses themselves. Our panelists today are people who must help devise and implement business plans, aware that their firm's unilateral conduct may be challenged in private or government litigation or by foreign competition authorities. Their companies are also directly affected by the conduct of other firms.

Whether you have had occasion to view Section 2 of the Sherman Act as a sword directed at the heart of your business or as a shield protecting you from anticompetitive conduct, we look forward to hearing from you and about your perspectives today.

On behalf of the Antitrust Division, I would like to take this opportunity to thank the Berkeley Center for Law and Technology and the Competition Policy Center at the University of California Berkeley for hosting these hearings today.

And I'd also like to thank on behalf of the Antitrust Division all of our panelists. I know it takes a lot of time and thought to prepare for these and we're truly appreciative of your efforts to improve our efforts of protecting consumers.

Finally, I'd like to thank Bill and his colleagues at the FTC for all of their hard work in organizing today's hearing and assembling the fine

panelists we have today. Thanks, Bill.

MR. COHEN: Our first speaker this morning will be David Heiner, who I just mentioned is the Vice President/Deputy General Counsel for antitrust at Microsoft Corporation. Mr. Heiner is responsible for antitrust counseling and representation of the company before antitrust agencies and compliance with agency rulings.

Since joining Microsoft in 1994, Mr. Heiner has played a leading role in Microsoft's response to government antitrust proceedings in the United States, Europe and Asia.

Mr. Heiner is a graduate of Cornell University, with a bachelor's degree in physics, and a graduate of the University of Michigan Law School. He's the author of a 2005 article, "Assessing Tying Claims in the Context of Software Integration: A suggested framework for Applying the Rule of Reason Analysis."

So, now we'll turn it over to David.

MR. HEINER: Thank you very much, Bill and Joe, for the opportunity to present here today. My colleagues at Microsoft and I really appreciate the opportunity to contribute to these proceedings.

We were asked to provide a business perspective on living under Section 2 of the Sherman Act. I think

it's fair to say that Microsoft has considerable experience in this area, probably more than most companies might wish for, to be honest. And not only Section 2 of the Sherman Act, but also Article 82 in Europe and comparable provisions around the world.

Section 2 issues are potentially relevant to a broad range of Microsoft's business: product design issues, as well as more traditional subjects of antitrust analysis, such as packaging, pricing and IP licensing.

One point comes through loud and clear from the business people when you ask them about their experience under Section 2, as I did in preparation for the presentation today. And that is, as business people, you just want to know what are the rules. If you could provide it to them in clearer fashion than we're able to today, they'd be happy to go devise business strategies, to live within those rules and still be successful.

What's really challenging in the Section 2 area, as opposed to, say, Section 1 cartel behavior, is that so often advice has to be provided in shades of gray. That's of course the reality we live with, but this can be challenging for business executives, especially I would say mid-level people and below, who just aren't used to getting that kind of advice, who are busy with their own planning and strategizing, and they look to the law

department of a company such as Microsoft to give a green light or a red light. And all too often it's a yellow light.

You might say, what's new in all of this? It's always been this way. And that's certainly true. But, as the Antitrust Modernization Commission has commented in its draft report, as we move toward a more flexible approach to antitrust analysis over the past thirty years, one side effect has been, less predictability. And it's of course a positive thing that we move to a more flexible approach. But it seems that the combination of that, plus a range of other factors that I'll discuss, are really building upon one another to move to such a level of difficulty in predicting the outcome of various antitrust issues as to create a significant problem.

Part of this arises from the rule of reason. And obviously it's a balancing test. So, any time you have a balancing test, it's a fair question as to how a typical judge or agency will do the balance.

I think we've got something even deeper going on here, though, in the Section 2 context, in that lawyers and economists often disagree as to whether particular conduct is procompetitive or anticompetitive in the first place, before you even get to any analysis. And that obviously is a really fundamental kind of point.

Two examples here that I found kind of striking, one is from the Department of Justice case against Microsoft back in 1998. That case, as many of you will remember, primarily concerned the development of Windows 95 and Windows 98 and the inclusion of web browsing functionality in that time frame. There were additional allegations as well.

And the DOJ had as its expert economist, world renowned economist, defender of IBM, Frank Fisher. And Professor Fisher came in and looked at the range of conduct, which was a substantial subset of everything Microsoft had done in competing with Netscape, and said, it's all anticompetitive, you know, it doesn't make business sense except for its tendency to exclude and therefore it's anticompetitive.

Now, Microsoft got expert testimony from another renowned economist, also from Boston, Dean Schmalensee of the MIT Sloan School of Management. Dean Schmalensee looked at the very same set of practices. And there was not much dispute as to facts. There was some, but basically the facts were understood. He looked at the same set of conduct, and said, not only is it not anticompetitive, this conduct is procompetitive. This is a firm building better products and distributing them broadly to consumers.

So, fundamental disagreement among two very

respected people. Before you get to any balance just is the conduct procompetitive or not?

Another example is pertinent today. After the Department of Justice proceedings, there was a proceeding in Europe that also concerned the same issue, which is the integration of new features into a product, again in this case Windows. The European case concerns media play back software. So, this is Windows Media Player.

And Microsoft has explained to the European Commission that the purpose of Windows is to be a platform for running applications. So, there's a set of software services in that product. They're exposed to the development community through application programming interfaces. Developers can write to those interfaces and it saves them a great deal of work in creating their applications.

And what we said to the Commission is that, part of the value, a big part of the value that Windows provides, is that it's a kind of compatibility layer across hardware from many different computer manufacturers, hundreds of different manufacturers. So, if these manufacturers install Windows, a software developer can run an application, it will run on Windows, and therefore it runs on an HP machine or a Dell machine or Gateway or anything else.

And the Commission said, you know, we think of the media play back functionality is something separate from the operating system. We don't think it should be there and therefore we think you should offer multiple versions of Windows with and without that functionality. And we said, well, if we do that, it's going to make that functionality less valuable to the developers because if they write to those APIs and a customer has a version of Windows installed where those APIs are not present, the application will not function properly.

So, from our perspective, we're saying that maintaining the uniformity of Windows across all these different systems is key to the value it provides and therefore it's procompetitive.

And the Commission came back and said, the very thing you're talking about, that's what we see as anticompetitive because only you Microsoft have the ability to add functionality to Windows since you're the only developer of Windows and therefore be able to get it out on virtually every PC since so many PCs are shipped with Windows.

And here the competitor was Real Networks. And the Commission's decision was, they will always be on less than the number of machines that Windows is on and therefore they will have a disadvantage that's unfair and

it's illegal.

So, here again, a very fundamental question: Is that conduct procompetitive or not? This case is on appeal to the Court of First Instance in Europe. We expect a ruling perhaps within the next six months, so we might have some decision on that particular point, which will be interesting.

So, as I think about the development of antitrust law, especially over the past ten years or so, I think a range of factors are coming together to make the job of an in-house counsel or outside counsel providing antitrust advice even more challenging than it's been in the past.

One of these is the development of new business models. Business models with which the law has relatively little experience so far and business models that lead firms to engage in business strategies that wouldn't make sense in traditional brick-and-mortar-type industries. I'm thinking here, for instance, of the development of compatible ecosystems, businesses with network effects, businesses that, as the economists would say, are multi-sided, multiple players involved that a firm is trying to satisfy. With Windows, it's computer manufacturers who license it from Microsoft, and software developers who write applications. Or the Apple iTunes services, where

you've got the record labels, artists and consumers. Or the Google ad platform, where they're serving websites and developing advertising systems for those websites, advertisers and consumers.

In these kinds of markets, it's often the case that it makes sense to give away something that's very valuable, which a competitor might not be giving away, in order to attract users early on and thereby try to generate a network effect.

It often makes sense to give something away, again, that someone else might not be giving away, in order to attract one set of players to a market where there's multiple players involved.

Interesting questions arise as to business strategy between ecosystems and the compatibility between those systems. So, iTunes, for instance, is I think incompatible by design with other media play back systems. Apple has developed an end-to-end system that works very well. And kind of part of the beauty is they own everything. They own the device, the iPod, the software, the client software, and the service. And they're able to design it to work very well.

Well, in Europe at least, they're under attack for that in a very significant way. Very interesting questions that are not really handled in the case books.

Then we have the fact that in many of the emerging businesses today, business models, characterized by products with very low margin of costs and that soon leads to a range of new business strategies.

Bundled pricing, pricing a collection of products or services for significantly less than the sum of the stand-alone pricing. Often highly efficient and valuable for consumers in the case where it costs the firm very little because the marginal cost is little and it adds more value for consumers.

In these businesses, based on information and goods, it's often the case that a competitor can very quickly ramp up to satisfy one hundred percent of demand. And that means that when we look at the market share at any given point in time, it doesn't necessarily reflect productive capacity like in the old days, and so that firm doesn't need to build new factories or anything like that in order to satisfy all demand.

How do you analyze that in the context of giving antitrust advice?

We also see that in these new business models and low marginal cost products many different ways in which you can modify your business. And you end up in a situation where different firms are competing directly with one another but with very different business models.

So, in the case of Microsoft Windows, the model is quite clear that you primarily earn revenue by licensing the product to computer manufacturers for a royalty. And it's essentially free to software developers who can build applications.

Along comes the open source movement and Linux, and here we have essentially a direct competitor, on both the client side and server computers, and that product is free. And we have firms that just -- Red Hat and Novell and others, making a business out of providing service for the software once it's provided to customers. Very different model.

Similarly, with Apple, they're making their money by selling the iPod device and they're making money by selling the subscription service to music over the Internet.

Many of these new models lead to complex relationships between firms. And that's a point that I'll return to.

Another aspect that I think is interesting in terms of predictability is how technology based so many businesses are today. Many of these technologies are very much IP-based, as Windows is. It's nothing but IP. Copyright license that we're providing to computer manufacturers. So, right off the bat in analyzing these

issues, we are at the always difficult IP/antitrust intersection.

Here we are in 2007 and the debate is still going on about whether a patent confers market power. It's a fundamental question that still needs to be resolved.

With the focus on new technology, we're seeing an increasing focus on product design. And that again is not something we've seen in the past. Questions regarding integration of new features, not just Windows, but in other contexts as well. How features work; how third parties can connect.

And this is an area where, given the complexity of the technology, it can be quite challenging for lawyers and economists to work through these issues. And that complexity of course makes it then an additional degree of uncertainty, with the adviser trying to provide advice to his client.

In many cases, technology is so complex we have to turn to experts, to technical experts. They may have a religious view about some of these topics. They may have an axe to grind.

And when you have technology, at least in the case of software, which I'm familiar with, it is so often the case that any design can be second guessed because

there's always a different way something could have been done. So that too adds a degree of uncertainty.

When you get into product design, you have the antitrust agencies, or whoever else is enforcing the antitrust laws, having to look at engineering tradeoffs. So, you have a tradeoff between some benefit from an engineering perspective and a competition effect. That can be hard to assess. And you may want to consider the risk that a competition agency, by its very nature, may place much greater weight on a competition concern that is relativity minor, compared to some engineering concern that quite significant.

Then you have the challenge of time lags. The development cycle of some of these products is quite long. I mean, it has been famously long for Vista. You have a situation where the engineers need to be told what they're going to build very early on. You know, they're black-and-white people, what are the specifications for what we're building. So, from day one they're looking at what will this product be. And that's when you have to give the antitrust advice. It will be assessed perhaps many years later.

Two other factors that I think are making predictions more challenging than in the past. Multiple constituencies involve multiple enforcers. One way to

reduce antitrust risk from a practical perspective is to try to address concerns before they arise. And we're very much on that path at Microsoft. In connection with a product like Windows, there's a lot of people involved. There's computer manufacturers, there's software developers, there's consumers, there's peripheral manufacturers, there's websites, and others. And everyone has an idea about how it should be built. And, as part of the product design process, we're out there to a great extent getting feedback.

We now try to get the legal concerns out early in the process as well and address them. One of the things we find is that different groups may have very different interests. So, the interests of a computer manufacturer such as HP may differ in some cases from the interests of a software developer.

We've seen cases recently where even similarly situated firms may have different views about how some things ought to be done. And these views are expressed to Microsoft and agencies in the language of antitrust.

I can give you an example here. We released Internet Explorer 7 recently. So, this is a version of the web browser that gets installed on existing Windows XP systems. And this browser, if you used it, has a box up in the corner for searching the web. The design is as

open as it can possibly be. You can set that box to use any web search engine, you can have multiple web search engines, you can add search engines, you can delete search engines. So, it's all very open.

A question arose about what the initial setting would be. So, a customer asks his or her computer to install Internet Explorer 7. The very first time you conduct a search, will it go to Google or Yahoo or AOL or Microsoft, where will it go?

And one firm said, you ought to just look at what the existing settings are in Internet Explorer 6. And that would be Microsoft's normal practice in upgrading Windows, you just carry over the settings.

Another firm said, you know, the settings are kind of a hard to find within Internet Explorer 6, so they don't necessarily reflect a consumer preference. Why don't you just ask, just say, what would you like the initial setting to be?

Both firms felt very strongly about their respective positions. They both expressed their views in the language of antitrust. And we couldn't satisfy both of them. Eventually it was worked out and we have what we think is a compromise solution that we hope they're both satisfied with. But it illustrates the point about the challenges one can face.

Then we have multiple enforcers. So, when you're making a prediction, it usually is kind of an academic, theoretical question: How would a judge, when presented with all the facts, rule on this. At a much more practical level, you're really saying, how would the Department of Justice look at this? How would the State Attorneys General look at this? How would the European Commission look at this? How would the Fair Trade Commissions in Taiwan, Australia, Japan and others look at this? How would competitors look at this? And competitors are clearly not in a position of a judge applying -- coming up with a perfect result. They have their own parochial interest of course. And consumers. You know, class action lawsuits, we faced two hundred of them in the past ten years or so, many consolidated, but still a big number.

So, there's a lot of different enforcers to look at. This is especially significant given globalization. We have a situation today where increasingly firms are running their businesses on a worldwide basis and it's the same business worldwide. These are typically American firms.

So, in the case of Microsoft, it is very much the case that it's the same Windows every place in the world. And, again, that's part of the beauty and the

value of the product: that it is the same. We license it to multinational corporations, so they're taking a license to install it in America and Europe and Asia. They want one licensing paradigm. So, it's very much in Microsoft's interest to have one set of rules that govern all of that.

Increasingly we see foreign agencies stepping up their antitrust enforcement, partly as a result of some efforts by the U.S. agencies over the years to have foreign countries adopt and apply antitrust laws.

And while that's of course a useful thing, we may find that some of these agencies have differing interests, differing views as to how the antitrust laws ought to be applied. They come from different legal systems. So, in Europe, the development of antitrust law is very much influenced by German thought and French thought, which is somewhat alien to U.S. lawyers coming out of the UK tradition.

And then we go overseas where we have matters pending in Japan and Korea, and here you're outside western culture altogether. And we have China developing antitrust laws. That's interesting to think about. How will this Communist country apply the set of rules that really goes to the essence of capitalism.

With the stepped up enforcement, we have the prospect of forum shopping. And that clearly is going

on. So, just this morning, there's an interview with a Brussels-based lawyer, who points out that he's actually from Seattle, who has filed a complaint on behalf of leading American firms against Microsoft in Brussels. And the reason the complaint is filed in Brussels is that it probably wouldn't get very far under U.S. law. But they're hoping for a better, more favorable hearing in Brussels.

Another challenge is the broad scope of prosecutorial discretion. When you look at the range of antitrust laws, again, especially in Europe, one can see that there's quite a range of practices that might actually be subject to challenge and yet they're not challenged. So, the counselor has to think about what actually would be the enforcement agenda of these different agencies.

In Europe at least, we see the European Commission going after practices for which, in our view, a consensus does not exist that the practices are actually anticompetitive. And I'm thinking here of the discussion paper that came out six months or a year ago.

We have, considering how prosecutors and enforcement agencies overseas will exercise their discretion, to focus on their different views of antitrust law. We have the consumer welfare standard in the United

States pretty well established. In Europe, not so well established. Much more a sense over there that the antitrust laws are designed to protect the small fish from the big fish. The small fish may well be little firms. Mainly in the cases with Microsoft, it turns out they're not. They're the large firms based in the U.S. But in some cases, they may be local small fish. This raises the specter of protectionism.

To what extent will trade policy come into play in the application of antitrust law overseas?

And then one has to consider the interaction between enforcement agencies. In the United States, Chris raised the perfect discussion about the relationship between the respective rules of the DOJ and the FTC and the states. And here at least we have federalism that moderates that to some extent. There's nothing really comparable going on at the level of Washington, Brussels and other foreign capitals.

And what we can see from time to time is people who believe in competition competing very vigorously with one another. So, competition between enforcement agencies.

Hew Pate gave a speech a few years ago where he talked about multiple agencies taking a whack at the pinata. And I thought that was really quite apt. In

Microsoft's case, the central issue we've been dealing with for more than ten years is this question of how the integration of new function into Windows over time ought to be thought about from an antitrust perspective.

And we had a major trial on that in the United States. And there was an outcome. And an approach came out of that outcome which focuses on trying to balance the interests of all concerned. And it's an approach where Microsoft is including functionality in Windows, but at the same time, doing so in such a way that opportunities are preserved for third parties to write software that runs on top and can be broadly distributed. So, that's the U.S. approach.

Now, the Commission said -- and we tried to explain that approach to the Commission and said the problem is being largely addressed. The Commission said, everything you've done here is all well and good, but it's not enough, and we want you to take it to the next level. And their solution was, do everything under the U.S. consent decree, which was the outcome of this U.S. case, and make multiple versions of Windows with and without key features. Then we get to the point where it's troublesome from a business perspective in providing value.

In the case of Media Player, they said explicitly that it's a precedent to be applied in the

future. So, now we have that additional step where we're talking about multiple versions. And we do have Windows in Europe without Media Player, although no one has purchased it to speak of, less than two thousand units sold.

Korea then came along next and said, everything you did in the U.S. is well and fine, and so is everything you did in Europe, but you should take an additional step. And that is, any version that has all the functionality, you should include links to your competitors' products. So, we've done that, too. So, in Korea, the Korean version of Windows, when you boot it up, right there there's a promotion for third party products on the screen. Three difference approaches, each one adding to the other.

So, you might say, again, you know, what's new, it's sort of always been this way. And I think it is getting to be a more challenging issue, as I say, particularly how the law will be applied. But then adding to that is really the stakes are higher than ever for a couple of reasons.

One is, since we are focused now on product design, we've got a situation where engineers really need to know what we're building. And you saw in my slide, we're having to make decisions. And at that time it may

be the case that you don't even know as a firm whether you have competitors, much less what their concerns might be for some functionality that you're building. Your competitors may be at the same stage of development as you are, which is it isn't released yet, it's the next generation kind of thing. But you have to make decisions anyway.

Years later it will be assessed with a set of facts that didn't exist when you made the decision. This is especially sort of challenging because it's often quite difficult to undo a design decision. It's unlike the traditional stuff of antitrust where you have got a contract, if someone decides the contract is improper, you can change the contract. Well, once the cake is baked and it's on the cooling rack, it's baked. You can bake a different cake next time, but that cake is done.

And when it comes to complex products, like microprocessors or cell phone technologies, different parts of the system will rely upon particular features that might have been the subject of antitrust defense. You can change them, but other parts of the system will fail.

Third parties, the software developers, may rely on that functionality. If you change it, their products will not work. An example here that I think is quite

telling is the development of Windows 95. So, in the days before Windows 95, you might remember, we had MS-DOS, which was the character-based operating system then, running on top of that, Windows 3.1. And in about 1990, when those products were really just getting to critical mass at that time, Microsoft set out in its plans to develop Windows 95. Windows 95 was released in 1995, and attacked at that time by some as an unlawful tie of MS-DOS and Windows 3.1.

So, what some said was, this product really should be called MS-DOS 7.0. I think seven was the next number in Windows 3.2 or Windows 4.0. Now, the Department of Justice looked at that in connection with a consent decree we were negotiating at that time and it was recognized in those discussions that Windows 95 was an example of good integration. This was a real step forward. It was really building something new. It would not be regarded as a tie of these two separate products.

And Windows 95 was released and it was probably one of the most successful products in the history of commerce. Tremendous value provided to customers and the very best of times for the PC industry. Sales of HP and other manufacturers took off, and then we moved right into the Internet era in the late '90s. So, a terrific outcome.

But still there were claims that that product which was so successful and so valuable could be thought of as a tie. And even today in 2007, as we sit here today, that claim is on trial in a courtroom in Iowa. So, one of our consumer class action cases is pending today and this very issue is being discussed in 2007, twelve years down the road. Now, if the Iowa view were correct, in the view of those plaintiffs, we wouldn't have had Windows 95.

Another aspect in which the stakes are higher than ever is the focus on IP licensing. I think we're increasingly seeing firms around the world seeking access to the technology of their rivals on favorable terms. And here again, it's kind of like the product design case where it's an either/or situation.

So, your technology is either licensed and made available or it's not. And if it's made available, it's out there, it's gone, you probably won't be able to get it back.

In the computer industry context, the IP is often based on trade secrets. Once you have licensed that technology, you can try for protectionism on the use of it, but the trade secrets are out in the world. And once it's licensed, the point of licensing it obviously is for third parties to use it and rely upon it, and if you do

rely upon it, it would be hard to get it back. So, when you make these decisions, the stakes are high.

The rise of global antitrust enforcement is quite significant here. In the European Commission case, a decision was taken against Microsoft relating not only to the product integration issues but also IP licensing. And here the Commission made a decision that Microsoft would have to license protocol technology to third parties. And the Commission observed that it's essentially a global market for this kind of IP and therefore this technology ought to be licensed on a global basis. So, Microsoft is doing that.

The Commission has also taken the position that Microsoft ought to license this technology in a way that it can be taken in practice by open source developers. And that's quite troublesome for a commercial firm such as Microsoft because that means that the trade secrets will be revealed to the world. Once the technology is licensed, it will be built into open source products, the source code can be seen, and therefore the trade secrets.

Similarly, it's very hard to maintain the value of IP once it's licensed under an open source model because, again, every copy of the product will be made available for free. It's hard having this kind of limitation on sublicensing and royalties coming back.

Now, it's not the view of the U.S. enforcement agencies that Microsoft should have to make this technology available essentially for free and disclose the trade secrets. This comes up under the consent decree where we have protocol licensing as well.

And this is before the European Commission and Microsoft is contesting it at this point and the outcome is yet to be seen. But if the European Commission prevails, then we'll have a situation where you have a split of authority essentially between the U.S. and EU and the EU version will prevail because it's more restrictive because they're seeking greater licensing.

In case after case, I think we may see kind of a race to the bottom from the perspective of the target firm in IP licensing. And all of this of course in an economy that is increasingly IP based creates a specter of reduced innovation around IP, and a greater uncertainty as to whether the IP can be properly monetized.

So, what are the consequences of all of this? Well, I think we do have a risk at least of over deterrence arising from a combination of the difficulty in predicting the outcomes, the difficulty in changing course later, the variety and number of possible claims, and the desire to avoid controversy.

What are the consumer welfare effects of all

this? Well, we may see limitations on the products' improvement. And there have been cases in the context of both Windows and Office, Microsoft's flagship products, where decisions were made not to include particular features that would have been valuable to consumers based at least in part on antitrust advice. And one might say it was the right outcome or maybe it wasn't the right outcome, but the bottom line is, those features are not in those products.

We see antitrust advice from time to time to raise prices. And I always kind of pause, as an antitrust counselor, before saying the price is too low for that collection of products or services. But it's a judgment call based on the state of the law on a worldwide basis, the range of possible claims, that we better raise prices.

And clients sometimes get quite confused about that because when we do antitrust training, we usually start at a 101 kind of point that the purpose of antitrust law is more innovation, more output and lower prices. So, they receive this advice with a bit of skepticism, but it's given nonetheless.

And I think we're seeing increased R&D costs. For something like Windows, there are six billion dollars of R&D in that product. That's obviously an extreme case. But the amount of time that's spent by executives trying

to pick through how this shades-of-gray antitrust advice fits with engineering decisions is really considerable.

And, finally, I would note that, because of the challenges of predicting how antitrust law will be applied by the multiple agencies and other enforcers, we may see some work that's being undertaken that is of really questionable value but done in order to satisfy a regulatory concern.

So, suggestions on how to move forward. I think it's a very hard problem and there probably aren't any easy answers. In trying to move toward greater clarity in the law, I do think it would be helpful if we had a stronger presumption that conduct that is widely practiced by firms without market power is efficient.

This is a concept that I think finds some basis in U.S. law. It's referenced in the U.S. Court of Appeals decision in the Microsoft case in a helpful way, from Microsoft's perspective, on the integration issues. It doesn't really resonate overseas, I have to say. And there's been cases where I've been sitting across the table trying to make the point that every firm in the industry is engaging in some particular practice, therefore they must think it's valuable aside from the ability to exclude because they are excluding anybody because they have low share.

And the reaction on the other side is often really just a blank stare. And so what are you saying, it's obvious that the firms -- that the rules are different for high share firms, so we really don't understand the point you're making.

Convergence, it's been much discussed. I think it would be helpful to see a redoubled effort by U.S. agencies to evangelize the U.S. approach.

And for everything I've said about predictability, U.S. law is more predictable than European law and the law of other countries with their emerging antitrust regimes. A great deal has been said about this through the years. Given globalization, I think it is increasingly important to find some way to allocate responsibility among multiple agencies. And certainly a kind of common sense approach would seem to me a greater deference to the rules of the defendant's home country. And I would say from Microsoft's perspective, we really haven't seen much of that in the cases that we've been involved in.

So, again, thank you very much for the opportunity to present here today.

(Applause.)

MR. COHEN: Thank you, David

Our next speaker will be Scott Peterson, who is

senior counsel at Hewlett-Packard Company. Mr. Peterson has practiced as an intellectual property attorney for a number of years, focusing on information technologies. He joined HP in 1991 and provided intellectual property support for a wide range of HP's businesses, as well as in the context of standards development.

Along with his law degree from Franklin Pierce Law Center, Mr. Peterson holds bachelor's and master's degrees in electrical engineering from MIT.

So, we'll hand it over to Scott

MR. PETERSON: Thank you very much. Thank you and I appreciate the opportunity to be here.

I am going to be talking on the topic of the intersection between intellectual property and standards and the competition implications.

And I want to say I really appreciate the attention that the agencies have been paying to this topic over the years. And, in fact, the guidance that the agencies have been giving in recent years I think has been very helpful and has played a role in some of the changes that we are actually beginning to see. So, I really thank you for your attention to this area.

I really have one core message throughout this presentation. You are actually going to see it on every slide. It was the title: Transparency of patent

licensing information during development of standards facilitates efficiency in markets for technologies and standards. That's the message. I am going to talk about it. I'm going to elaborate on it a little bit. But that's the core.

And a kind of corollary to that or related is to recommend that guidance on application -- further guidance beyond what we have -- on application of Section 1 to collective action during standard setting regarding licensing terms for patents essential to standard, facilitates behavior that reduces the likelihood of conduct in violation of Section 2

So, this is a hearing where the focus is on Section 2. My message is actually for guidance on Section 1 because the behavior that can be beneficial in reducing the Section 2 risks is behavior that's potentially chilled by concern about Section 1.

So, in fact we see significant value in what we think of as sort of a voluntary industry-led approach to reducing the risk of anticompetitive use of patents essential to standards. We recommend proactive action that would operate to reduce the need for after-the-fact corrective agency enforcement actions of a Section 2 type.

But this desirable procompetitive behavior that could operate to reduce this potential for the

anticompetitive use is being chilled to some extent by concern that that collective action poses some Section 1 liability to the participants in the standard activity.

So, let me say a little about some background, myself and Hewlett-Packard.

My particular background is that of an intellectual property attorney. I have given advice to a range of HP businesses. But over the last decade in particular, I have given advice on the topic of patents and standards. And in the last half of that decade or so, I've -- I guess initially that advice was in the context of particular transactions, particular standards, development activities from people with business activities -- and then in the latter half of that decade of activity that I have been involved with this, has been in trying to coordinate at HP our policy level considerations of these questions that arise about intellectual property and standard setting.

HP is -- to turn to the company that I'm talking about -- fundamentally in the information technologies business, a business which depends enormously on standards, a business which has enormous network effects. So, standards are something that HP is extremely familiar with. We participate in hundreds of standards development activities. We have products that implement dozens and dozens of standards. This is not an area where a

product implements a standard. This is an area where products implement many, many standards. So, we have developed a great deal of experience with the challenges of standards development.

HP is also active as an innovator. HP has invested -- let's see -- in the last fiscal year, we reported 3.6 billion dollars investment in R&D. HP has long invested in R&D. That investment has been reflected in an extensive patent portfolio. Again, at the end of the last fiscal year, that was reported as about 30,000 patents.

So, innovation and the patents that reflect that innovation are also very important to HP. So, to give you a sense of the perspective of where I'm coming from, it's one where an effective standards environment is extremely important because it's critical to the nature of the products. It enlarges markets for products that HP makes.

And yet on the other side, patents are also something that are an important part of HP's business.

So, with that background on HP, let me go back then through the message, which you have seen here again: transparency of patent licensing information during development of standards facilitates efficiency in markets for technologies and standards.

Let me start off by saying that there is

potential for anticompetitive use of the patents. This was discussed in particular at the December 6th hearing. And my goal is not going to be to replow this ground that they talked about, but rather -- the fact that a patent that is essential to standards can be employed in anticompetitive ways is particularly important to recognize. And this flows from the fact that once the patent is -- once a standard is set and a patent is essential to it -- if the standard becomes successful in the sense that there is a lock-in effect such that participation in that marketplace requires that you implement the standard -- then implementing -- and implementing the standard requires a license, then that patent now takes on a leverage that goes potentially beyond the innovation that underlies it.

And it's that combination of factors -- there is the leverage that one obtains from the innovation itself, and yet there's also leverage that could come from the lock-in effect of the standard. It's that combination that leads to the challenge of potential anticompetitive uses of patents that are essential to standards.

In my 2002 testimony -- I testified in April and in November of that year on essentially this same topic -- I expressed some concern that there was a trend that patents essential to standards were going to become an increasing problem in the success of standards, and the

potential for abuse was a growing one.

And I have to say that our observations in the intervening years have confirmed our concern about that trend. And let me offer one example of something that illustrates the trend.

There is, I think, a fairly increased mobility of patents over what we would have seen ten or twenty years ago. For example, the concept of patent auctions is far more conventional now than it was a decade ago.

And I am not suggesting there's anything inappropriate about this mobility of patents. I think the ability to transfer intellectual property rights can be extremely valuable. So, I'm not criticizing the trend as such, but I simply want to point out that there is a substantial change in the dynamic for how a patent gets employed and what the licensing and enforcement implications might be when the patent moves from the place where it started to some other place, in particular for a patent that is essential for the standard. It may well have begun in a company that was working on technologies, and had products, in the area of that particular standard and would have certain motivations and expected a business behavior. When that patent moves elsewhere, the expectations and dynamics are going to be different.

So, this sort of increase in the mobility of

patents is an example of why I think we have to be more careful about paying attention to patents during the development of standards, because the opportunity for aggressive behavior that may employ or exploit the leverage from the standard -- not just the leverage from the patent, but the leverage from the standard -- has been increasing over the last decade or so.

So, there is a market which I think is sometimes overlooked in talking about licensing of patents in connection with standards. It is important to recognize that there's a market for technologies in standards, and there should be competition in this market for technologies in standards. And there are -- in the process of making choices as to what will go into the standards -- in some cases there are a variety of relatively equivalent choices in terms of the capabilities that they offer, and yet in other technologies, in other settings, sometimes one stands out dramatically above the others because the nature of the technology is such that, you know, there is opportunity for the standard to make a substantially better choice in that particular area.

The license fees in those cases ought to reflect that underlying reality. If in development of a standard one is selecting one of many alternatives that are essentially comparable in their end result, comparable in the

performance, characteristics and so forth, one would expect the license fees to be substantially smaller than when one is in a situation where the selected technology is in fact head and shoulders above the alternatives, in which case the license fees ought to reflect that contribution to the standard.

Once the standard has been selected, however, that distinction is easily lost because, again, if there's a lock-in effect from the standard, it won't matter that there were alternatives at that earlier stage. The competition -- the effect of that competition is active at the time that the standard is selected. It is either effective then or the value of the competition is lost because the lock-in effect later would mean that. Suppose you had ten different alternatives that were fundamentally equivalent. Once that one is anointed as the way that you're going to agree among competitors to build products in that domain, having a license to that patent, if there was a patent, is vastly more valuable than it would have been in another case.

In any case, I think it's important to realize that this process of selecting, there is essentially, a market, but it's a market that has this odd characteristic. There is the collection of people, oftentimes competitors, who are selecting what the standard will be. And there will

be a single decision -- in a sense, a single buy decision. And the technology that is put in the standard at that point now has been selected, in some sense, as if it was purchased. So, now if you think about the subsequent licensing transactions, these are not really a family of separate independent transactions. For those who wish to implement the standard and need to have a license to the patent that's essential, their licensing transactions are not independent. They're already -- they've already fixed the buy decision. There's no walk-away for them. In that sense, these aren't independent transactions. These are all flowing from the single decision which was made as a part of the standard's selection.

So, I guess my point here is that efficiency in the market for technologies in standards -- the result of that selection -- is very important because the technology selections have implications for all of the subsequent licensing transactions. Those later transactions may appear in some sense as separate, but they're not because the buy decision was made once. It was made in the selection of the standard.

Efficiency, market efficiency. So, I make my point, you know -- inadequacy of information is preventing some efficiency. Well, let me talk about the inefficiency which is worthy of some -- being made more efficient.

The inefficiency in the market for the technology that goes into the standards is essentially the information problem associated with the licensing terms for patents that would be required by the various alternative choices.

So, I talked about a market for technologies and standards. A choice is going to be made among potentially alternative technical choices. One of the factors which one would normally consider when making an economic choice is price or other terms that might be associated with the decision. And, oddly enough, instandard setting, that information is not circulated, is not readily available to those who are making this decision. So, you have a group of participants in a standard setting activity who are talking about a wide range of characteristics of the technologies and choices that they are choosing among, and yet this topic of what the licensing implications would be is oddly excluded from that conversation. And, in fact, the mechanics by which anyone comes to know that is, by and large vastly more obscure. And the flow of that information is inhibited by the concern that, because it involves a dollar amount there must be price fixing concern of some sort. And therefore this is the Section 1 concern that I referred to that is inhibiting the sharing of this information, which is in fact important in making a rational and fully

informed decision in this market for technologies.

Let me talk about -- so, markets for technologies in standards. I think it's important to realize I have been focused on patents in the sense of essential patents -- those patents which you must have a license to because of how the standard was conceived.

The competition in products that employ standards and the innovation in those products predominately takes place outside of what's specified in the standard. So, in general, as I say on the slide here, standard setting should seek to enable technology and not to specify or require it.

Now, many times the nature of the problem being addressed, there may be somewhat limited constraints or constraints that make a range of behaviors possibly not as great as one would like. But I think that in many cases inadequate imagination has been applied to the problem of, "Let's make sure that we specify as little as possible because we want to foster competition and we want to foster ongoing competition." And yet choosing a standard essentially freezes a particular technological point. There ceases to be competition to the extent that there's -- that there's lock-in on the standard. And from the time that that standard is important, there ceases to be competition on that particular set of things which is

specified in the standard.

There are technological decisions that can be made as to how you define the specification, what is needed to achieve the network effects that the standard is trying to accomplish.

I think that the environment that we presently have, which excludes to a large extent from consideration the licensing concerns, results in, to some extent, a motivation to incorporate as much technology and innovation into the standard as possible. And, in fact, that's the wrong motivation. We want to motivate people to keep technology out of the standard. You want to keep the technology from being specified. You want the standard to enable the non-required technology which continues to be the subject of further evolution and competition among even the preexisting alternatives.

So, I think that the present environment, where the licensing considerations are not considered, has an interesting adverse effect in this regard.

And then finally -- transparency of patent licensing decisions during development of standards. This procompetitive behavior of considering that information while the standard is being selected -- as I pointed out, people are concerned and have a longstanding concern that there's some kind of a price fixing type environment that

will be created if in fact the license terms are considered.

I think that in fact, in this environment, that's a misunderstanding of the situation. In fact, there will be a single group buy decision in the sense of the group will select a final specification. The problem is that it won't be informed by this information.

So, the idea of looking at this as leaving the door open for a multitude of independent later licensing decisions, I think it's failing to understand that the reality is that there is one decision that's going to be made. It is deciding whether a particular thing is essential or not essential. The question is whether that's going to be informed by license terms.

So, I go back to the beginning slide, and let me make some comments in sort of the recommendation category.

It can be difficult to separate, after a standard has been selected and after a patent is essential -- it can be difficult to separate the legitimate aggressive enforcement of patent rights from the use of a patent that is being leveraged to essentially leverage the value that was created by the collective work of the competitors.

So, those are very difficult to keep apart after the fact. There is no market, really that you can rely on

in the ex post world. So, I think it's very important to foster a proper attention to this issue while the standard is being selected.

A couple of -- let' see -- one problem -- two particular problems that I want to point out that merit some attention going forward.

One is the -- I mentioned mobility of patents is increasing patents are increasingly mobile. So, one challenge is that licensing commitment typically you cannot -- under the regime of many standards development activities, you cannot rely on those licensing commitments passing through as the patents move from one owner to another. This is a problem meriting attention. And organizations may strive to do something about that in the context of standard setting. They may ask people to make commitments or something. It's a problem of increasing concern because of the likelihood that patents are moving.

And another problem is that of the injunctions in the face of licensing commitments. So, again, this is another sign the commitments are of a fairly tenuous nature. So, there may be licensing commitments. On the other hand, the ability to turn off someone's ability to practice a particular standard can be an incredibly large negotiating lever. And the fact that that lever could be available even in the case of a licensing commitment is a

very troubling one.

I guess I'll close there. And I guess I'll once again thank the agencies for continuing to pay attention to this topic. I appreciate the guidance that's been offered so far, but I think there's lot more. As the world changes and begins to pay more attention to patents during the development of standards, we're going to learn more about what the issues are and perhaps more guidance will be needed

Thank you very much.

(Applause.)

MR. COHEN: Our next speaker is going to give us some insights from the perspective of a standard setting organization. He is Robert Skitol, who is senior partner in the Antitrust Practice Group at Drinker Biddle & Reath in Washington. And he is counsel to the VMEbus International Trade Association, know as VITA.

Mr. Skitol is a graduate of Hobart College and NYU Law School. He has over 35 years experience in all facets of antitrust and trade regulation, and written and lectured extensively in the antitrust and trade regulation field

At this point, we'll give the podium to Bob.

Do you have slides, Bob, or not?

MR. SKITOL: I do have slides.

MR. COHEN: We just have to find them.

MR. SKITOL: I can proceed without the slides. There is a slide set, but I'm happy to speak without it.

Well, thank you for your indulgence. I am delighted to be here on behalf of the VITA standards organization. I'll be offering VITA's perspectives on some of the same points and issues and concerns that Scott spoke about.

My comments are complimentary to Scott's in many respects. Scott spoke about patents and standards from the standpoint of a major technology innovation intensive company that participates in standard setting proceedings.

My client VITA is a major standards development organization that is the flip side of the concerns. But for VITA certainly, Scott's transparency theme resonates quite a bit. And so I want to use my time today to offer VITA's perspectives on how the antitrust agencies should assist SDOs in protecting their processes from exclusionary patent hold up conduct.

Of course VITA appreciates and has been a major beneficiary of steps in this direction that the agencies have already undertaken. My remarks concern desirable next steps along this path.

I think the logical place to begin is with the definition of exclusionary patent hold up conduct. And I

want to propose one broad enough to encompass an array of patent related practices that subvert or can subvert open standards and produce anticompetitive market outcomes.

So, my proposed definition for the agency's consideration is as follows. A patent owner's inducement of an SDO's adoption of a standard that implicates the owner's patent claims without other participants' awareness of that fact or without their awareness of the cost and other impacts of it, thereby enabling the owner to acquire and exercise monopoly power that it would not otherwise have obtained.

Now, this is not news to the antitrust agencies, this general concept. The FTC has been active in challenging hold up conduct of this kind for about twelve years. The Dell, Unocal and Rambus cases collectively delineate a framework for treating hold up conduct as a Section 2 violation in circumstances involving deliberate deception regarding the existence of patent claims implicated by a draft standard under development.

These cases also support the idea that the requisite deception need not be overt. Mere silence about essential patent claims can be unlawful when that behavior actually misleads other participants in light of expectations generated by the organization's rules or established practices.

But hiding the existence of essential patent claims is not the only way that exclusionary outcomes can occur. There are other ways that patents can be used to morph or subvert an open standards process into the practical equivalent of market monopolization.

And I want to suggest three examples for your consideration, all involving situations where the existence of essential patent claims may well be disclosed, may well be known, but patent hold up conduct of an anticompetitive nature can nonetheless occur.

And the first example is one that entails inducing reliance on a generalized commitment to license essential claims on reasonable and nondiscriminatory terms, the so-called RAND assurance that is in widespread use, without the patent owner's acceptance of any meaningful constraint on what it demands as actual license terms after the standard has been adopted and a whole industry is locked into sunk investments in compliant products.

This is the essence of the allegations in Broadcom versus QUALCOMM. We don't know the facts. We know the allegations. And the allegations tell a story of how generalized undefined RAND commitments can end up bringing about monopolization.

The second example entails inducing reliance on

that kind of RAND assurance followed by seeking injunctive relief to enforce the applicable claims. This is a situation Scott also commented upon.

From my standpoint, from VITA's standpoint, the injunction threat is fundamentally contrary to the whole idea of the RAND assurance and the intended reliance upon it. The only legitimate issue in any ensuing litigation, once that assurance has been given and relied upon, should be what those promised reasonable terms are, the patent owner having effectively given up the right to exclude under the patent code in return for what will often be mega benefits from incorporation of that owner's technology into the standard being developed.

The third example entails the transfer of ownership of an implicated patent without binding the new owner of it to the original owner's license commitment, the patent owner having induced the whole industry into employing the patented technology in the belief that acceptable license terms were assured. The owner then transfers the patent in a manner allowing the new owner to repudiate the assurance and exploit the resulting new monopoly power.

Scott talked about the recent and increasing trend of patent mobility, which seems to me to underline the danger that this particular kind of hold up conduct is something we need to worry more about in the time ahead.

So, all of these kinds of exploitive conduct and the resulting hold up outcomes from them are today's version of monopolization through highjacking an industry standards development project, much as did the conduct at issue in the Supreme Court's Allied Tube and Hydrolevel decisions of two decades ago. Those cases involved different kinds of conduct, but with essentially the same kind of effect as patent hold up conduct can have today. This is really all about proprietary capture of what is intended to be an open standards process with market-wide effects of the same nature as those condemned in those past cases of the Supreme Court.

Now, there is disagreement in the standards development community about the extent or prevalence of these kinds of hold up situations, as I will explain in a few minutes. My client, VITA, has some relevant experience in this regard and knows from its own experience that this is far from an isolated event.

But two developments, at least two developments, strongly suggest increasing exposure to it. One is the vast proliferation of patent grants that we are witnessing within standards intensive technology spaces.

And the other development is what we're seeing as the emergence of new business models of some technology companies that depend on maximization of

licensing revenues from the use of their patents in standards specifications.

In this environment with these developments, SDOs' inattention to the problems that do surface invites proliferation of these hold up situations in the years ahead.

Now let me tell you more specifically -- let me catch up on the slides. Let me tell you more specifically about VITA and VITA's role in this story.

VITA develops standards for modular embedded computer systems in a wide range of products. Members and participants in its working groups include a broad cross section of builders and users of these systems for such applications as medical imaging, aviation and navigation devices for military defense and space exploration.

VITA's management, particularly its distinguished executive director Ray Alderman, have come to acquire some rather deep expertise and experience in patent hold up. In its own proceedings, VITA has encountered no less than four major patent hold up episodes within the past six years, each one causing major delay in the implementation of foundation standards critical to members' technology advancement needs, and imposing on the organization major expenses to address and counter the asserted claims.

These episodes are described in some detail in VITA's application for a DOJ business review letter that I'll talk about shortly.

VITA recognized one year ago that it was exposed to more such episodes and encounters of this sort in the immediate years ahead, in light of a considerable patent thicket surrounding a planned technology transition that would need to drive the upcoming standards development activity.

It also recognized, and its members recognized, that VITA's longstanding patent policy actually enabled and facilitated rather than protecting against hold up conduct of this sort given reliance on wholly undefined RAND assurances with no information on actual license terms until after a standard was adopted or at a very advanced stage of the VITA development process.

So, VITA devised a new patent policy designed to ensure greater transparency earlier in the proceeding in all of these respects. There are several elements of the new policy revolving around disclosure obligations of working group members at each of four stages of the working group process, including the very beginning and midpoints of it.

Required disclosures of all potentially essential patent claims, including those set forth in

pending applications, based on good faith and reasonable inquiry into the members' patent positions; required disclosures of a maximum royalty rate and incentives for disclosure of other license terms; clear acknowledgment that the proffered disclosures will be legally enforceable by prospective licensees against not only the disclosing member company but also successors and assigns and transferees of the underlying patents; and, finally, an arbitration procedure for compliance disputes.

In June of last year, VITA applied to the Department of Justice for advice on the new policy under the business review procedure. On October 30, 2006, the DOJ issued a favorable letter, and it provides a considerable amount of analysis and insight on DOJ's perspectives about the patent hold up problem in general and about how disclosure requirements of the sort described in VITA's new policy can be an effective safeguard against that kind of conduct and outcome.

The letter concluded that the new VITA policy would be an efficiency enhancing contribution to VITA's standards development processes. DOJ characterized the policy as an attempt to preserve competition and thereby avoid unreasonable patent licensing terms that might threaten the success of future standards; avoiding disputes over licensing terms that can delay adoption and

implementation after standards are set; and, thus, a sensible effort by VITA to address a problem created by the standard setting process itself.

Needless to say, VITA very much welcomes and appreciates the guidance that this letter provided and believes it has a tremendous value to the standards development community as a whole.

With the DOJ letter in hand, the VITA membership on January 17, 2007 overwhelmingly approved and adopted the new patent policy and it's now undergoing the requisite review by the ANSI Executive Standards Council.

Now, at this point -- hold on one second. That is where I am. I'd like to offer four reasons why the agencies should now affirmatively encourage other SDOs to follow VITA's lead by experimenting with new patent policies of their own.

And the first reason is that the DOJ's VITA letter, as well as several speeches by officials of both agencies in the last two years, recognize that SDO policies of this general kind are not just okay from an antitrust standpoint but can be procompetitive in their protection against hold up outcome. In short, these policies serve the public interest in protecting and promoting a robust competition throughout standards driven technology markets.

Second, the FTC's Rambus decision suggests that the viability of any Section 2 case against hold up conduct in this context may depend on a showing that the patent owner's actions were contrary to SDO participants' reasonable expectations in light of SDO policies in place.

So, in short, in this respect, if an SDO fails to implement effective protection against abuse of its processes in this manner, then participants will be in an awfully weak position, if any position at all, to complain about the resulting injury to them. And the government will be in a weak position or no position to mount an attack upon the situation, even though the public is adversely affected by an anticompetitive market outcome.

Third, effective SDO self-policing or self-regulation through policies of this sort will reduce the need for agency enforcement actions, as well as reducing all participants' exposure to disruptive private suits over license terms. And self-regulation is a far more efficient solution to this problem than any reliance on litigation. This should be obvious to all concerned, to everyone that's ever participated in a standards development process.

SDO and its members may spend several years developing a new standard, bringing it to completion and ultimate adoption but then seeing the whole effort fail

because hold up conduct blocks implementation.

Now, even if the government at that point steps in with a Section 2 enforcement action that results in an order, four or five or six years later the damage is done and there is no real remedy for the resulting harm to the public. So much, much better to prevent the conduct from happening in the first place than ever needing to try to undo it.

So, finally, the fourth -- reason number four, is that there's no reason to think that VITA's new policy is the perfect solution or one suitable for SDOs generally. Lessons learned from other SDOs' experimentation with variations upon it will resound to the benefit of all SDOs and participants in them. There's no one size fits all in this area. VITA itself may well want to revise, and in all likelihood will want to refine in some respects, its new policy a year or so from now after experience with it in several working groups.

VITA will be at least as interested in following innovations by other SDOs as they may be interested in VITA's experience under its new policy. The enforcement agencies, I would suggest, should want to encourage information sharing and benchmarking efforts among SDOs along these lines.

Now, allow me to conclude with some specific

suggestions for what the agencies can do in the months and years ahead to promote desirable SDO initiatives in this area.

First, the agencies should affirmatively encourage more requests for DOJ letters or FTC advisory opinions on patent policy proposals of various kinds to provide more and deeper guidance for the SDO community in general. And one specific example I'd like to suggest of where additional guidance and more specific guidance would be highly desirable is on the extent to which and manner in which a policy might go beyond requiring a disclosure of licensing terms, as the VITA policy does, and beyond that allowing discussions or even collective negotiation of those license terms during SDO meetings.

I personally believe that these further steps going beyond mere disclosure and actually letting the working group do something collectively with the information would be desirable; it is logical; it makes sense in the context of the core mission of an SDO's working group, which is to make collective decisions about choosing one solution over another; and it makes eminent sense for costs or relevant costs between competing solutions to be part of the equation.

I've actually done a whole article on this subject, which appeared in the Antitrust Law Journal,

and I understand it's being placed in the record of today's hearing. So, now I've plugged my own article.

But I am convinced that resistance to these further steps, anything beyond pure disclosure, rests on unfounded antitrust concerns. And there's at least the beginning of indication, more than a beginning, that the agencies are seeing the matter that way. The latest word on this is footnote 27 in DOJ's VITA letter, indicating the likelihood that DOJ would address the discussion or collective negotiations scenario as a rule of reason question because it could actually be procompetitive.

FTC Chairman Majoras expressed that same view in her Stanford speech of September 2005. I hope that one or both of the agencies will get an opportunity to provide more definitive guidance on this front in the near future.

Second specific suggestion, I believe the agencies should consider undertaking an industry-wide study of SDOs' experience with various kinds of hold up situations and how existing SDO policies either address or fail to address any problems thereby encountered. A study of this sort could certainly help to resolve the disagreements to which I referred a little while ago over whether the hold up threat is or is not prevalent and growing. Such a study could also provide a valuable information base for suggested solutions or new proposals

for SDO policy reforms.

Third, the agencies should help to shape case law development in this general area by entering private suits, by filing Amicus briefs in private cases challenging SDO-related conduct and practices where unfortunate and harmful decisions are sprouting up. Examples of private cases of this sort where DOJ or FTC Amicus input could have been valuable are Golden Bridge Technology versus Nokia, last year's decision in Texas, with its holding of per se illegality against conduct appearing to be a common feature of standards development activity; and also last year's Broadcom versus QUALCOMM, with its ruling that breach of an SDO rule that results in monopoly power that would not otherwise be obtained cannot ever state an antitrust claim.

And, fourth and finally, I would respectfully encourage both of the agencies to support enactment of legislation enabling SDOs to implement desirable patent policies without fear of private antitrust claims. There's no doubt that that fear has inhibited SDOs from considering policies to address patent hold up problems.

Again, prime examples of private suits having exactly that kind of chilling effect and that get talked about all the time at SDO meetings as why we better err on the side of caution, stay away from any new kind of idea of

that sort, etc., etc., would be the Golden Bridge Technology case that I already mentioned, and Sony versus Soundview from six years ago.

VITA is only one of several parties with a lot at stake in open standard setting processes and that are now exploring the opportunities for legislation in this area. I hope DOJ and FTC officials will be interested in dialoguing about this possibility with us over the weeks ahead.

Thank you very much.

(Applause.)

MR. COHEN: One of the cases you mentioned toward the end of your talk was the Broadcom v. QUALCOMM case. We have on this panel a representative from QUALCOMM and our afternoon session will have a representative from Broadcom.

Our fourth and final speaker is Michael Hartogs, Senior Vice President and Division Counsel at QUALCOMM's Technology Licensing. Mr. Hartogs has spent his career handling intellectual property and competition matters for companies that compete in dynamic industries.

He's been with QUALCOMM since December of 1999. Like so many of our other panelists, he brings a diverse background: an undergraduate degree in engineering physics from the University of Arizona and a law degree

from The George Washington University and registration to practice before the United States Patent and Trademark Office.

We turn to Mike.

MR. HARTOGS: I also want to thank the Department of Justice and Federal Trade Commission for inviting us to participate in these proceedings today, as well as the Berkeley Center for Law and Technology for hosting these important discussions.

I am going to primarily focus my discussions on the issues raised by Scott Peterson and Bob Skitol today relating to standards setting organizations and the diverse membership of those entities.

I would like to comment quickly on Dave Heiner's presentation about the challenges facing in-house counsel in addressing antitrust and competition issues in the face of disparate regimes that exist in various jurisdictions. I think he addressed all of those very well, so I won't be focusing on those topics today.

First I want to give a little bit of background about QUALCOMM and its business model. It has recently come under fairly close scrutiny and examination and I think it's important to understand that in the context of where QUALCOMM came from to where it is today as a technology innovator and enabler.

As is fairly well known, the company was founded in the mid-80s by several retired professors who had vast interest in wireless communications technology Doctors Irwin Jacobs and Andrew Viterbi, as well as five others. They founded the company in Doctor Jacob's living room.

After setting up a company, they realized that there were ways to vastly improve cellular technology as used by terrestrial consumers that could take advantage of a lot of work that they had looked into previously, both for military and satellite applications.

To say that their proposals were met with some level of skepticism is a vast understatement. There were actual nay sayers who said that the technology proposals they had would never work and would cost too much. There was a professor across the bay at Stanford who actually said the proposals defied the laws of physics.

Notwithstanding the proclamation of violation of laws, they actually were able to demonstrate a viable and working cellular system based on the technology called CDMA, code division multiple access technology. I promise not to go into too many technical acronyms today and stay on topic.

But the efforts then following by Doctors Jacobs and Viterbi and the others at QUALCOMM to proselytize this technology, to find adopters for the technology and the

willingness to take the risk of deploying a generation-leaping innovation were hardly trivial.

To seed the industry with the technology the company had to develop its own cellular handset business, a business that was filled with tremendously large multinational corporate players at the time.

Infrastructure equipment was even more complicated. In order to provide CDMA cellular base stations for trial systems, they then asked incumbent cellular operators to take a risk on a small company in San Diego, which was primarily known for surfing and blue skies, to trust for the deployment of their next-generation networks.

In the face of all these challenges, the company actually did manage to find some cellular operators who were facing serious capacity constraints in their analog networks at the time and were able to convince them that CDMA technology was actually far more advantageous to competing digital technology than was emerging in Europe, which was GSM technology. And I won't go into it, other than to say QUALCOMM had and still has a very firm conviction about the superiority of CDMA technology over GMS technology.

As part of having the operators' willingness to embrace QUALCOMM's technology, they actually placed a

requirement on the company that the company make other vendors of equipment available. There was concern that QUALCOMM would not be able to satisfy all of the needs for these wireless operators or have anywhere near the skill necessary to support the adoption and proliferation of these technologies.

So, very early in QUALCOMM's history, QUALCOMM entered into its first licensing agreements. Those were with Motorola and AT&T, who at that time were two of the largest companies operating in the cellular industry. QUALCOMM was a very small company at that time and was in a much weaker position with respect to negotiating leverage and strength as compared to those larger companies.

As I will discuss a little bit later, it was actually those early licensing deals that set the framework for QUALCOMM's future licensing activities and its efforts in licensing that continue to this day.

Having succeeded in seeing widespread adoption of QUALCOMM's technology, the company very quickly determined that it was actually not the company best suited to either be in the cellular infrastructure business or the cellular handset business. Vast manufacturing companies with tremendous expertise were far more suited. And, frankly, QUALCOMM didn't prove to be

the most competent manufacturer of these kinds of products.

So, in late '99 and early 2000, QUALCOMM actually sold its businesses for infrastructure equipment and handsets to companies far more able to run with those businesses.

QUALCOMM did retain its business of developing chipsets and software solutions for use in cellular handsets and maintained its licensing program, which it had started in the very early days through the deals with Motorola and AT&T, and through all of the '90s continued signing up licensees for manufacturing of wireless handsets and infrastructure equipment.

As a licensor of technology, there are some concerns I guess that need to be recognized. It was stated today that there are efforts by some licensing companies to maximize licensing revenue. And while there may be some goal in achieving maximal revenue from the licensing side, you have to recognize that in order to do that, your downstream licensees, the producers of handsets and infrastructure equipment that are paying you royalties, need to maximize their sales volumes.

We're not actually interested in seeing any one or two companies maximize their profit at the downstream level. We're looking at a downstream industry we want to

see as fiercely competitive as possible to drive price reductions and increase volumes. The total revenues generated that way will be higher licensing revenues at the upstream licensing level.

So, QUALCOMM's business model from the beginning and on the licensing side has been focused on proliferation of technology and enabling companies downstream to compete aggressively. We are able to take our licensing revenues that are generated, pump them into an R&D system, with now thousands of engineers producing chip and software solutions for use in handsets, and continuing development and improvement of the very wireless standards upon which our lifeblood depends.

We then make these products, our chips and software solutions and our patentable inventions, available to a very broad downstream industry, which then we've seen aggressively competing on introduction of new products, new features and rapid price reductions.

Last year we spent one-and-a-half billion dollars on research and development and we also have thousands of patents pending patent applications.

One of the interesting benchmarks we've seen some companies use at the handset level, with a different view of the universe than QUALCOMM, is their own vast R&D expenditures and patenting activities. What they don't

disclose, after suggesting that they spend billions of dollars on R&D and have many thousands of patents is that they don't make those products available to their competitors of handset technology, licensing only that small body of patents that they declared may be essential, and even then only in some instances.

I want to turn from the background of QUALCOMM's business model to the topic we've been focusing on today. The intersection of intellectual property and antitrust policies has been looked at closely for many years. It's often described as a conflict. But I think most recently Tom Barnett at the George Mason conference in September made a much clearer statement that strong intellectual property protection is not separate from competition, rather it is an integral part of antitrust policy and intellectual property rights and should not be viewed as protecting their owners from competition, but rather should be viewed as encouragement to engage in competition.

There's no debate on the incentives to innovate provided by a strong patent system. And it's in the light of the innovation incentives generated by the patent system that I want to speak today. I believe there are efforts to consolidate a number of attacks with respect to standard setting, legislative challenges, and lobbying the

Supreme Court to undermine the vitality of patents in the patent system today. And I think it should be recognized that these are primarily not driven by so-called desires for transparency of information, as has been suggested, but actually is purely an effort to shift bargaining power away from patent holders, to drive prices down, and which I believe will have the result of actually driving innovative companies and patent holders out altogether, robbing ultimately consumers of choice and opportunities for innovative technologies.

On the standards side, there are very few people that I think would challenge the procompetitive effects that standardization can bring. The interoperability between many companies' products, welfare-enhancing cooperation among many different kinds of firms, increases in choice, reductions in costs, broadening the size of the markets, all are procompetitive benefits of standards setting.

But one thing that needs to be remembered and recognized is that in general the standard setting activity is a participation of competitors in a market cooperating in a way that needs to be carefully watched. The suggestion that you can then take the step of technical development, which is the purpose of standards, and then move one more step toward collective price

discussions doesn't seem like a very big leap. But it is if you look at it from the context of the accommodations that have already been made by the antitrust laws and enforcement agencies to allow competitive companies to work together in concert for their procompetitive aspirations.

I will get to the reasons for concern, but there is a risk of undermining the very benefits provided by standardization through an anticompetitive result.

One of the reasons I gave a little more background on QUALCOMM than I might otherwise have is I think it's important to understand that the benefits of standardization do require cooperative industry efforts, but that all of the participants in standards setting activities don't wear the same hats. In some simple types of standards, you may only have participants who are producers of products who strictly need to ensure that their products all work together. That isn't the most common standards activity in QUALCOMM's experience, where we find that development standards involve very complex technologies, very long-term iterations of contributions of technical proposals, a process which benefits greatly not just from the participation of the end product manufacturers being in the process, but also innovative companies, companies like QUALCOMM, who don't

participate in the handset space or infrastructure equipment space. But we have a very significant interest in seeing optimal wireless technologies developed and employed for those industries.

Now, in the context of the development of wireless technologies, we do produce chips and software to be used in the downstream products such as handsets and wireless modems, but the bulk of our earnings is actually driven from our ability to license the technologies that come out of the innovations both in the standards settings and the innovative research and development.

So, in addition, you have the manufacturers that are clearly interested in developing their products, but you also want to have companies like QUALCOMM who are primarily motivated by improving and enhancing technologies.

QUALCOMM is not the typical type of company you think of in this capacity. Frequently you will think of start-ups, sole inventors, universities, other companies for whom valuable contributions can be made in advancing the technological frontiers.

Then there are companies that really are hybrids or vertically integrated firms, companies who do sell significant products downstream, which may incorporate their own innovations and the innovation of others, but

who also are contributors of innovation in the development of the underlying industry standards. These companies may have multiple interests in seeing both technology advance, but also assuring that their products benefit from early development opportunities.

Then, finally, we also are seeing more participation in the standards setting by a group of companies that are ultimately consumers of products. In our industry, that would be the wireless operators. They have an interest in seeing wireless standards developed that meet certain specifications and so they would participate in driving technical solutions or technical requests for innovators and early participants to try to solve.

It's important to recognize that these diverse firms who participate in the standards setting process have asymmetrical interests. Innovators who seek to promote and advance technology through the proliferation of their technology most often receive their return on investment in the form of licensing revenues. They don't sell products necessarily downstream and aren't able to extract any return on their investment from the end customers of the standards-implementing products that are involved.

Manufacturing companies, on the other hand, see

their returns on investment coming from their downstream sales. In our industry, sales of handsets is a good example.

Again, the vertically-integrated firms, the ones that are both manufacturers downstream and those that contribute technology in the standards setting process have mixed incentives. Now, on the one hand, they may be very interested in high licensing costs in order to keep their competitors out of their market. On the other hand, they find themselves exposed to licensing needs from other innovative companies and would like to see low royalty overhead in order to drive costs down, recognizing that they can recover their investments through sales of downstream products.

All of these business models have their advantages and their disadvantages. It's a little obvious to state, but I will, the choice made by each company should be where its strength lies. QUALCOMM clearly demonstrated itself as not having strength in the manufacturing of handsets and infrastructure equipment, but those businesses were necessary to start the proliferation of its technology. Having succeeded at that, QUALCOMM quickly divested itself of those businesses in order to increase efficiency in focusing on innovative developments and making available enabling technology

solutions.

I guess the caution or concern I request of the enforcement agencies is to tread cautiously in making decisions that favor one business model over another. The risk of driving certain kinds of companies out of standards setting bodies probably comes at a societal risk that isn't measurable, in that if that company is not participating, you don't know what contributions are lost and what welfare-enhancing solutions may have been foregone.

There may be some standards where there isn't a particularly high level of innovation wanted or needed, and in those instances, nothing is lost. And in other areas, the need for non-manufacturing companies to participate and provide, in some cases, phenomenal innovative solutions is something to be encouraged and I think guarded carefully.

One of the points I want to get back to which I raised before is the efforts that are going on in a variety of arenas today with the stated goal of transparency or the stated goals of avoiding certain types of hold up, which I am going to address further as to whether there really is a serious problem of hold up.

Recognizing that there are efforts going on to rewrite IPR policies in standards setting processes, I

think it is with a pretty simple goal: just to reduce costs for technologies included in the standards.

In order to reach those objectives, a number of proposals have been made in a variety of standards bodies in the last couple of years. There was an effort recently that went on at ETSI where a transparent effort to redefine the IPR policy was proposed which would establish royalty capping set by the standards body and established rules to share royalties on some sort of pro rata allocation basis. There was a lot of interesting debate that went on regarding those proposals which were ultimately not adopted.

Other approaches call for ex ante disclosure of licensing terms. While I appreciate the simplicity of the proposals and apparent requests for knowledge, it is firmly our belief that either compulsory ex ante disclosure of licensing terms, or voluntary disclosures with so-called strong encouragement, as some are calling it, more than run the risk of resulting in exercises that end in collective action. I think it's inevitable.

If you look at the very basis of standards activity, it is about collective action, but for the purpose of establishing technical specifications, adding cost and price information into the mix would inevitably be a factor which leads to collective discussions about

those topics which are not the purpose of standards setting.

Now, it may be that policies are explicit in their statements that such things shouldn't happen in the context of the standards working groups, but that leaves the sort of negative inference that there may be somewhere else where such discussions may occur.

Those arguing in favor of compulsory ex ante licensing disclosures typically make three criticisms of the present regime: lack of predictability or transparency; risk of hold up; and then somewhat related to that, the problem of royalty stacking.

In our experience, the alleged criticisms are not convincing and certainly don't prove that it's reasonably necessary to scuttle an existing system that has actually worked very well in favor of a system that brings with it inherent risk of collective price discussions, which could ultimately lead to disincentives to participate by those who seek to earn their returns from licensing.

The environment that gets created, as I indicated, in the standards setting, is one of cooperative development. Introducing price information will likely lead to efforts of price setting by strong buyers.

One important thing to understand with respect

to calls for compulsory ex ante licensing disclosure is that in fact ex ante licensing negotiations go on today. This notion that participants in a standard are unable to obtain sufficient information regarding price information of technology incorporated in standards are not correct. Voluntary ex ante disclosure and negotiation of licensing terms on a bilateral basis prior to setting standards are entirely consistent with the current FRAND regimes. They certainly don't prevent potential licensees from asking potential licensors about their planned licensing terms and conditions. This isn't a theoretical possibility. It actually goes on today and it frequently goes on.

As I indicated, QUALCOMM's own licensing program long predates standardization of any new technologies that we worked on in the wireless industry. We consistently engaged in licensing discussions before the beginning of the standardization process, during standardization, and long after, and are well aware that many other companies do too.

There's an argument that it's inefficient for a prospective implementer of a technology to ask prospective licensors what their licensing terms are. I don't fully understand that. The number of prospective licensors is typically dwarfed by the number of standards implementers,

and in all but the most complicated technologies there aren't that many licenses that need to be negotiated.

The second criticism is with respect to so-called patent hold up. There are a number of allegations made about what constitutes patent hold up. And I think there is recognition that some activities such as intentional withholding of patent disclosures has been decided. However, there are those that suggest patent hold-up also includes the case where a prospective licensor of an essential patent seeks a royalty rate that is surprisingly high.

In reality, licensees frequently claim to find licensing rates surprisingly high. It's part of the negotiation process. You start somewhere, you end somewhere, and that's the nature of the business. There are many give-and-takes in the licensing negotiation. So, to suggest that the rate information or lack of information on licensing terms, which would have been readily available if a prospective licensee asked, I fail to see how that justifies a need for mandatory ex ante disclosure rules.

Another argument to support notions of patent hold up is that essential patents gives a licensor the ability to impose unconstrained licensing terms on the licensees. And this just isn't the case. You have to

recognize even as a licensor of essential patents, there are a number of constraints that exist. There are horizontal constraints, constraints about wanting to see the market develop downstream, impacted by what other competitors are doing in the licensing community. Vertical constraints with respect to the licensor and licensee.

As I said, QUALCOMM is a licensor of technology. If its licensees succeed, then QUALCOMM succeeds. So, imposing onerous or technology-chilling licensing terms is not in our interest and it's not a reason to participate in the standards setting process.

And then there are dynamic constraints. The development of standards is not a single function in time in most cases. The standards continue to evolve. Other participants join standards setting groups. And the pressures and, shall we say, discipline that come upon companies participating in the standard setting process by other companies who have a history of not playing by the rules is a real threat.

The final point I wanted to touch on is -- and it's closely related to hold up arguments and the way they have been used recently -- is the issue of royalty stacking. The argument is fairly simple.

If there are multiple patent holders with

multiple essential patents in a standard, then the potential royalty burden that can be imposed on licensees may add up to some cumulative amount that's unreasonable.

First, it's important to recognize that many of the companies participating in the standards setting process have diverse incentives that I talked about before, and subject to the various constraints that I just talked about as well.

In some empirical research that's going on, despite the claims of royalty stacking, there have actually been very few instances identified. And several years ago in the biotech industry, a paper was written on the tragedy of the anti-commons in biotech. But twenty years later, a paper on the fallacy of the anti-commons came out. Royalty stacking is just not something that has manifested itself. There is a lot of public rhetoric and misinformation that's being spread, particularly in our industry, that cumulative royalty rates are going to amount to hundreds of percentage points.

And yet even some of the companies that QUALCOMM is fiercely at odds with have publicly stated that they don't think that anybody is paying double digit rates. And there are a lot of factors to explain that. There's a lot of cross-licensing that goes on. A lot of companies maintain patents for defense purposes. There are many

dynamics that work together that result in the limiting of royalty stacking despite the sort of argument that if there's lots of patents, there's lots of royalties.

So, the proposals for compulsory ex ante that are being proposed are being proposed to fix a problem that either doesn't exist or certainly doesn't exist in the widespread extent to which it has been attributed. And the fact is these proposals run severe risks of driving anticompetitive results and provoking the elimination of innovators willing to participate in the process.

There were a few comments that Bob made on the efforts of VITA to revise its IPR policy that I feel I ought to respond to. Having the benefit of going last and having heard them, I will take that opportunity.

As I said, there may be standards in which fairly low technology proposals are made. Complete solutions are brought in by each company and they're weighed on their respective merits and a selection among them is made.

And I don't profess to know much about what VITA does or its technologies. I've read descriptions that it's focused on plugs and connectors and bus signaling protocols. And I don't know the level of significant innovation that goes on in those areas, but it may in fact

be an organization in which little harm would be done in the face of compulsory disclosure of cost information with technical solutions.

But the notion that such a solution would fit all standards is deeply concerning. One size doesn't fit all. I think in the vast majority of cases such a disclosure regime will actually lead to the things that I've expressed concern about, which is that there will be collective discussion of price by large groups of purchasers who produce product for the downstream market, leading to some form of concerted purchasing power, the end result being the driving out of innovative companies who seek a return on investment based on licensing.

And I do note that a significant founding member of VITA, very soon after the passage of the approval of the policy by the board, withdrew its membership from VITA. That company is Motorola, who I think is one of the more innovative companies in America today.

The advice -- not advice, but the request I would make of the enforcement agencies when asked to look at revisions to IPR policies, and Bob's suggestion would actually encourage such guidance, is to pay particular attention to the facts and circumstances that exist in each situation.

Efforts should be taken to avoid taking as

gospel allegations of hold up and royalty stacking. The evidence isn't there. And there's a lot of research coming out now in the last year combatting -- addressing these many years of literature that's stated sort of the contrary.

I will submit a bibliography with some notes that can be included on the FTC's website identifying some of the recent efforts to challenge these premises with robust analysis.

Thank you.

(Applause.)

MR. COHEN: Well, we're a bit behind on our schedule. We had talked about doing a 15 minute break. I suggest that we take about two or three minutes in our own seats to give us an opportunity to stand up, then we're going to go forward so we can try to get as much of a moderated discussion as possible. So, in about three minutes I'm going to start again.

(A brief recess was taken.)

MR. COHEN: I am one of the belief that with the panel as the meat and any questions that we have as the gravy, we're going to try and get as much of the meat as we can.

And probably the way to do that is to divide our remaining time into two segments. One will be more of

the general issues which David Heiner was so good to raise. And following that, the other segment would deal specifically with some of the standard setting issues that have been discussed already.

And what I'd like to do is begin and see if any of the other panelists have comments or responses to anything raised by David in particular, because you get a chance to respond to the standard setting issues in about 15 minutes.

Anything you want to say? No? Okay, then I will pick some questions to get you going.

You all have been people who have received or watched others receive over the years antitrust counsel of the various kinds of single-firm conduct.

I'm wondering if anything strikes you as having been an area where advice or the legal tests that you're trying to articulate has been particularly easy to understand or particularly difficult to understand, any recurring problems that you're facing?

MR. SKITOL: I will take a shot.

In my experience over the last couple of years, I think the single most difficult area of Section 2 law to advise on has been the loyalty rebate and bundled pricing area. And you had an excellent panel on that subject a couple of months ago, with a number of competing

suggestions for what the standards should be.

It's a tangled mess. It's been a tangled mess in particular ever since the LePage's decision. And the world is divided between those who think Lepage's is about the right approach and those who think it isn't.

It's extremely difficult to give clear advice to business people on what kinds of loyalty discounts are and are not okay, what is the legal standard.

And so I would certainly urge special attention and priority to the agencies in giving advice to the courts because this is an area that's gotten terribly muddled, not because of anything the government has done but because of conflicting decisions in private litigation.

MR. HEINER: I would agree with Bob that that's a pretty tough area and one that I think gets all the more challenging when you overlay the European focus on top as well, as articulated in the Draft Article 82 Discussion Paper.

More broadly to your question, I think I'd say that it's a clear divide between Section 1 and Section 2, where the Section 1 counseling is pretty easy, frankly, and Section 2 is pretty hard.

MR. HARTOGS: I will agree that the issues on joint conduct out participation and cooperation, I

think is fairly clear. I particularly echo the sentiment about needing some measure of global harmonization in knowing what the rules are for multinational companies participating with other multinational companies in the face of enforcement agencies and regimes in which they are not in agreement on an application of a particular standard.

We find ourselves trying to determine what is the most restrictive set of rules under which we should do our analysis and guide our conduct.

MR. COHEN: Okay. That leads me to some questions on the international situation.

We just had one view of trying to find the sort of the least common denominator. Have you found that your businesses -- in general, have you tried to decentralize to adapt to local competition rules, or do you find that most of you are being forced in one way or another to fly with the most restrictive laws potentially applicable to you in different jurisdictions?

MR. HARTOGS: I think, unfortunately, localizing is an idea that wouldn't work for us. We develop product in the U.S., Europe, India, Korea and Japan. We sell products to companies everyone in the word. They sell their products further downstream everywhere else in the world.

Agreements with respect to various related entities with affiliates that are not U.S. entities probably render it still necessary to look for the most restrictive set of rules in guiding our conduct.

MR. COHEN: And we heard from Microsoft that some of these -- the way this works with licensing.

Did similar issues arise with regard to your contract practices?

MR. HEINER: It's very much a global business. So, the answer is kind of the same as what Mike was saying. We have looked at whether in particular cases you can try to localize the business practices to the local jurisdiction. The issues that come up are mostly not around local facts, however. It's not as if the issue is relations with a retailer in any particular country. The issue, rather, is of a global nature, what is the design of Windows around the world, what is the licensing paradigm of Windows around the world?

And so we do find ourselves kind of looking to what's the most restrictive set of rules. And that's what we have to adhere to.

We have given some thought to whether it would be possible -- notwithstanding the costs that it would entail -- would it be possible to have different products, different licensing plans in one part of the

world versus another. And it may come to that some day. But if it does come to that, it would certainly be with a certain loss of efficiency, and for customers as well.

MR. COHEN: Bringing us back to the United States, one of our concerns at this hearing is to find out the degree or whether, and if so the degree to which, uncertainties about antitrust analysis of single-firm conduct have been chilling potentially procompetitive conduct.

We heard some examples and a discussion of that in David's talk this morning.

Have any of you others found similar experiences where business practices that may have been beneficial to consumers have been put on hold because of uncertainty about antitrust exposure?

MR. HARTOGS: I guess I would just quickly say, Bob's comment before that guidance on pricing is particularly difficult where you lack clarity here, you lack clarity in Europe. And again not having sort of flexibility to always choose what may be the most price friendly, consumer friendly result, is a risk.

MR. SKITOL: There are lots of situations involving Kodak aftermarket kinds of issues. We've all been living with the difficulties of Kodak aftermarket Section 2 as well as Section 1 problems for fifteen

years now. There are lots of situations I find where a client has in mind doing X, Y, Z with its consumables, which would be of significant consumer value, would enhance the product, and it looks great. But because of Kodak and all of the law that's built up around it, this is problematic, and Trinko doesn't do that much to help. There is hesitation and sometimes desirable developments are canned because of concern about what aftermarket rivals might be able to stir up by way of mischief about it.

I think the whole Kodak aftermarket area is one that could benefit from agency guidance. Where are we on legitimate versus illegitimate aftermarket practices fifteen years after Kodak and three years after Trinko? Because the courts in private cases still don't get it right. We still have not gotten the rules.

MR. COHEN: And just per a request for more agency guidance, guidance can take different forms. And because of time constraints, I'm going to throw three of them out at once and see how you react to them and see if they're suggestions you might want in one of these areas.

Guidance can take the form of explanatory text such as we often give through reports on hearings and some business review letters. It can take the form of safe harbors, which can be announced. And it can take the form

of presumption. And we heard one suggestion for presumptions today about conduct that's used by firms with particularly great market power in competitive situations.

Would any of these three forms be particularly useful to you? Do any of you have ideas of things that you would like us to provide in any of these areas?

MR. HEINER: I think all three can be very helpful. With respect to the text, of course it depends what the text is.

MR. COHEN: Right.

MR. HEINER: There's always the possibility of obfuscation instead of the intended fact. As one of my colleagues pointed out to me before I came down here today, we could have very predictable antitrust law in a way that wouldn't be at all favorable to our firm. That's the risk as well, I suppose.

MR. COHEN: Beware of what you ask for because you might not like it when you get it.

I guess I should ask questions directed to the other side of things, too.

We looked at the chilling as procompetitive conduct. But do any of you have issues which you haven't already touched on in which conduct involving dominant firms has hurt you and that you think the agency should be looking at but hasn't been paying full attention to or

much -- close enough attention to that might be desirable?

Anybody have anything in that area? Already touched on.

Okay, let's go to the standard setting area. And I think probably the way to begin would be to give an opportunity for Scott and Bob to offer responses to what they've heard. We had a response to them, so I guess you should have a rebuttal opportunity. And we'll probably open it up to a third rebuttal as well.

MR. PETERSON: I am going to yield my time to the agencies. I'd much rather hear your questions.

MR. SKITOL: Can I just make a couple of comments? I listened closely to Michael's discussion about the QUALCOMM business model and the importance of there being respect for diversity of business models and that there shouldn't be a thumb on the scale against one business model in favor of another. I agree with all of those points.

I think from the standpoint of an organization like my client VITA, from the standpoint of anybody who supports open standards processes, competing business models are good. But that's on the assumption, on the premise, that all of the competing business models should play by the same free-market rules and the same transparency rules. All business models are subject to the same

antitrust laws. No business model should be imposed on a group of standard setting participants.

It's good if all of the cards are up rather than down. It's good for standard setting participants to have choices. It's good for standard setting participants sitting around in a working group with multiple possible solutions to the specification writing, one of which may well come from a business model that emphasizes licensing revenue, and another comes from a business model that enables the solution to be offered royalty free. It's good to have that choice as long as everyone knows what the respective costs are as well as what the respective differences in quality and performance will be. And then performance-cost tradeoffs can be collectively made and there can be informed decision-making. That's all to the good.

So, those of us who believe that ex ante license terms disclosures and similar transparency policies are good are not anti-licensing business models. We're not anti-patent. We are pro free market, pro choice.

MR. COHEN: Any rebuttal?

MR. HARTOGS: To the extent Bob agreed with me, I don't have any comments.

On the -- just a cautionary comment. In his talk he suggested that the next step actually ought to be

a sanctioning for group discussions. And I do believe that the ultimate result of that would be a chilling of willingness of participants in the standard setting organizations who do rely on licensing.

I think it should be recognized that the bulk of participants in standards setting activities are prospective licensees and the impact the proposed changes can have is on more than transparency, but directed toward driving pricing down where there is no return on investment. That is something that needs to be watched and watched carefully.

MR. HEINER: One time on this.

I think all of the speakers on this topic identified the threshold question of how great a problem is it this so-called hold up problem.

And from Microsoft's perspective, and we're a company that's involved in dozens, I am sure hundreds, of standard setting endeavors, and from our perspective, we do not have a business model of really trying to make any significant revenue licensing of IP into standards.

In our experience in participating in standard setting bodies, we really have not experienced these sort of hold up situations in standards that we wish to implement in Windows and Office and other products. And these products do implement huge number of standards.

So I offer that comment on the extent of the problem we had about weighing against the collusive kind of risk that [unintelligible].

MR. COHEN: You called that a threshold question, but it was my first.

Let me direct toward the end of the table, anything you might want to say as to the frequency of hold up? I know you have identified four instances within VITA. But how about the consideration that reputational considerations and a desire to see downstream success of the product is going to put a real limit on the likelihood of hold up activity?

MR. PETERSON: So, yes, I think my discussion earlier about patent mobility goes directly to that point. And that decades ago where there was more stability in a particular industry and much less patent movement, those kind of reputational effects could have been more valuable than they are likely to be in the future because the fact is that patents have become separated from the reputation that once was associated with them and thus that constraint is no longer as strong.

MR. SKITOL: I would just add a comment that the interest in growing the market and in the market being successful is a factor in any monopoly, any monopolization case. Every monopoly has its limits. A monopoly price

which is not limitless. It's got a limit.

So, in this respect, Section 2 monopolization through patent hold up is no different than Section 2 monopolization through any other kind of predatory conduct.

MR. COHEN: Let's lead into some of the predicates for the ex ante disclosure rules. I guess there's some other alternatives to that which I'd like to get reactions to first.

I'm wondering whether a mere disclosure of relevant patents, not disclosure of licensing terms, followed by an opportunity for bilateral ex ante negotiations would be sufficient? Why or why not?

MR. SKITOL: The point made about bilateral negotiation is always out there and possible. That's inviting secret behind closed doors bilateral special deals between the big guys at the expense of new entrants and smaller players.

Why isn't it preferable to do the negotiation out in the open as part of the open standards development deliberation process itself that is available to all parties that want to participate? After all, this is all in the context of the traditional RAND commitment which has a nondiscriminatory as well as a reasonable component to it.

So, the idea that we should stay away from more transparency for everyone because we already have bilateral opportunities, it doesn't make sense.

MR. HARTOGS: I guess in answer, what you describe actually is the system that does exist today about disclosure and bilateral negotiations. And it's worked well. We had descriptions relabeling of things today as hold up, which wouldn't have been viewed as hold up previously.

I didn't hear any suggestion about discrimination being part of the motivation of licensors prior to the discussion. But to the extent that companies are committed to licensing on a nondiscriminatory basis, there are structural remedies and opportunities to fix abuses there as well.

So, I don't see how ex ante disclosures of licensing terms and collective negotiation or licensing agreements fixes that. As indicated before, the large number of potential licensees for any essential patent will greatly exceed the single licensor.

MR. COHEN: I notice you talk about the nondiscriminatory aspects of RAND. Let's focus on the reasonable for just a moment.

What's the feeling of the panel as to whether that has a well-defined meaning? And to what degree has

arbitration procedures of the type that VITA has talked about been applied in the past? We have a history to go on as to whether this is really successful in resolving disputes in the area.

MR. SKITOL: Nobody knows what RAND means. I defy anybody on this panel to tell us what reasonable means and what the standard for it is. It's a meaningless term that facilitates deception and facilitates hold up for the very reason that it fools everyone involved into thinking that it's a real limitation on what the patent owner will do, when in fact it isn't.

MR. HARTOGS: I would strongly disagree. If you look at the origins of IPR policies that call for RAND declarations, the purpose is directed at eliminating outright refusals to make licenses available for patents that become essential for standards.

What RAND intended is an important flexibility that recognizes that licensors and licensees are almost always differently situated. And having the ability to bilaterally determine mutually agreeable solutions that satisfy both is probably the best test of reasonableness.

In some cases you might be able to look to pre-standardization licensing activity. I am not suggesting that there will always be circumstances where we can point to ex ante licensing results as a benchmark to compare to

post standardization licensing to demonstrate reasonableness or at least confirm that standardization didn't lead to a change in licensing terms. Certainly they do exist. In some cases and when they do exist, they seem a fair benchmark as to establishing reasonableness.

MR. COHEN: Moving now to the idea of ex ante disclosure of relevant terms, you need to tie this of course to perhaps essential patents under the standard, some concept along those lines.

I'm wondering if anybody has a sense of what the impediments are to giving meaningful -- to even identifying in advance what's likely to be in a standard and what's likely to evolve out of the patent application process in order to determine what you have and before you can explain what the terms would be on it. Anybody want to comment?

MR. PETERSON: Yes. So, it may be an evolving thing over the course of a standard. It shouldn't be an expectation that this is something that should be known up front.

On the other hand, people are making judgments about other aspects in the standard on an ongoing basis, and this is information that ought to be brought forward in that same spirit -- as it becomes apparent what will be needed, information will be made available about it.

And, I'm sorry, there was another point I was going to make.

Well, I'm sorry, go ahead.

MR. HARTOGS: So, I think it's an important question because it goes back to my comment that the proposal for VITA's policy may well work for VITA. But that if you look at our experience in some very complex wireless standards, there are multiple years of development, multiple iterations of contribution of technology and of innovation. And being forced to place a stake in the ground from which you can't retract your position or change it, it really is an important timing question as to when you would do that. You have to make an assumption on sort of the most optimistic view about how successful you have been in providing your innovations in developing the standard, and then make your proposals based on that, on the assumption that if you have something more valuable to contribute, you no longer retain the right to price that effectively.

MR. PETERSON: The thought that I was missing a moment ago is that one doesn't necessarily always have to wait until a patent is matured into a patent, or even a patent application, because it's often in many cases possible to make judgements about what one's licensing intentions would be, even not knowing what the particular

patents might ultimately be, because the judgments are in many cases informed by other factors.

MR. COHEN: Assuming now that we've reached the point that we're talking about some form of ex ante activity that type of term requirement.

Perhaps the requirement of disclosing terms may be at one end of the spectrum. You might then go a little farther and have some provision for discussion or clarification of the term, sort of at the middle of the spectrum. And then go all the way to the far end and actually have clear joint negotiation of the term.

Does anybody see -- or could you give your thoughts on whether going beyond mere announcement of the terms is necessary? What are the considerations?

MR. PETERSON: So, I think there will be different -- this is an area where there should be diversity and variety could be explored. So, I think there may be certain kinds of product or technology areas in which the exploration of the license term issue might profitably go farther than in others. In others, it may be that very little needs to be done. It may be simple disclosure needs to be done.

So, I think there is a variety -- there are a variety of different kinds of cases. Some are worthy of more detailed attention than others.

One thing I would point out is that, if there is a perception of this cliff that you step off of after disclosure and that if you embark on anything beyond disclosure that there's some kind of interactive discussion is a very serious matter, then that chills even the value of the disclosure.

So, I think, although I see the need for the more collective action regarding the terms as being perhaps very much the unusual case, to say that -- to make it clear that's it's only disclosure which is procompetitive and the discussion of the terms is a high risk activity, it has that chilling effect. As I have seen already in organizations that have been toying with introducing more consideration of license terms, the idea -- the steps that they feel they need to take in order to assure themselves that nobody will ever talk about them is seriously chilling just that first step about getting information made available.

MR. SKITOL: I think the time has come to recognize that a lot of the information technology and communications technology standard setting processes that we are talking about are really indistinguishable from an antitrust analysis standpoint from all kinds of joint product development, joint technology development ventures. That's essentially what this kind of standards

development activity is. It is a group of companies getting together, combining their resources and their IP and collectively developing something new.

It is standard joint venture law today that when you have a lawful joint venture, it is lawful for the participants in that venture to make collective decisions about which input to buy for this and which input to buy for that. There are collective decisions and collective negotiations over cost as well as other features of one versus the other. That's what standard setting is about today.

Now, there could be lots of situations where the result of ex ante license terms disclosure is that the parties sitting around the table in the working group recognize that they've got two main good proposals. One comes with a two percent royalty disclosure and the other comes with a five percent royalty disclosure. And they all agree that the latter is technically superior to the former, but five percent is too much to pay.

What is wrong with a non-coercive negotiation process, arms length process, in which the group collectively discusses with patent owner B that we really prefer your solution, we would go with your solution if you could reduce that rate somewhat. And if that patent owner decides to do so, to go ahead and accommodate that

interest, then what's wrong with that? That's an arm's length decision and everybody ends up all the better for it except for the solution A guy whose solution ends up being excluded. But exclusion of one or the other is inherent in the process.

MR. HARTOGS: I'd like to comment on two points.

One, I think the joint venture analogy breaks down when you look at the sort of absence of certain kind of participants you want involved in standard setting. You wouldn't typically have the nonproduct companies such as the universities. You may engage them to do contract work, but the kind of joint venture activity you're suggesting is very different from the standard setting, where in fact your very customer may be a participant in the standard setting process. In the joint venture context, you wouldn't condone discussions collectively with our co-developers with respect to dictating the price that each can ask of its customers.

On the collective discussions that aren't diversified, I had trouble sort of parsing that because I think the effect is going to be exactly what I suggested that we would fear, which was a shift to strong buyer power by a much larger group of prospective licensees. It may be that in an idealized simple A versus B scenario where there are pure substitutes available, and it really is

distinguished on price, there may be an effect that selection of one over the other will be determined by pricing and it's a fair discussion. But the reality is that in none of the groups that I am familiar with do such black and white distinctions arise in practice. There's always tradeoffs on performance, abilities, time to market, and costs being one additional factor, but one additional factor that if pressed would lead to potentially alienating the very participants making the proposals.

MR. HEINER: I guess I too wonder if the joint venture analogy is really right. In a joint venture context, the parties to a venture are not competing with one another. That's the essence of it. Whereas in the standard setting context, the implementers typically will be competing with each other in the implementation of the standard. And that's very important.

So in one you're trying to preserve competition and in the other you're not. In the standard setting area, as you said, Bob, it's already something that raises some concern in antitrust law since it's essentially a group of firms coming together and agreeing on how something should be done, rather than competing about how that should be done. So, I think there is a legitimate risk here.

I could then take it to the next level and say,

let's also have discussions about agreeing on pricing of the technology that is the input to that standard.

MR. SKITOL: Well, see --

MR. PETERSON: Let me respond to that.

So, the pricing discussion that would be -- that should be undertaken is only that pricing discussion that is related to the cost of where they have agreed they're not competing. So, in fact these are competitors as to products which include implementations of standards. But as to the standard, they're not competing. That's what the exercise is about.

And I think too -- it's important to realize that the decision to select the standard is the relevant decision to which the price needs to be a factor. And to suggest that the price can somehow efficiently, in a market sense, be determined later is -- you know, the prices of products, the prices of other cost components will absolutely need to be determined later -- but the decision on what this particular feature will be is being made collectively.

And if that was not a procompetitive thing to do, then that's a problem. There is a collective choice of a particular thing where there will be no competition. And it's entirely appropriate to consider the full economic scenario of what will be the costs associated

with making that.

MR. HEINER: That is a little bit of a strong statement because you may often have standards competing with one another.

MR. PETERSON: And I agree. I make it a strong statement in the extreme case. But there are a range.

But in the case where there is lock-in, yes.

MR. COHEN: Well, let me see if there's a consensus on that.

The joint negotiation could in theory represent al la monopsy with effects that might impede innovation incentives.

MR. SKITOL: Well, that is a potential problem that should be recognized but would rarely occur in the real world. It's an antitrust problem only to the extent that it would have the likely effect of reducing output or reducing innovation, and that's a real stretch.

I would refer you to the extensive discussion on the monopsony issue in Sony versus Soundview, where I think the district court got it about right and made it clear that the plaintiff's attack on the collective negotiation that went on in that case involving the consumer electronic players that the viability of the attack, the antitrust claim against the collective negotiation that occurred there, would depend on a showing of actual output

restraint or reduction. And it's a real stretch.

To my mind, it's a potential anticompetitive effect of small likelihood, balanced against a major procompetitive benefit that is very likely to occur in many circumstances where negotiation would occur.

MR. HARTOGS: I probably already answered this question. I clearly view that not only is it not a rare occurrence, but it would be a frequent occurrence and potentially one debilitating to the willingness of some companies to participate in setting the standards.

To the extent that ex ante licensing already does occur in certain instances, there's no prohibitions on seeking licensing terms on a bilateral basis prior to the setting of a standard. It does occur. When we look at ourselves, we actually do provide transparencies to all of the companies in the industry that we deal with. We do deals ex ante, as probably many do.

MR. PETERSON: So, on this point, again, all that we're talking about is a discussion of the cost of a choice which is going to be made. And in fact to decide the price of that later is not to postpone competition, but in fact to make the choice without it having been informed by the price information. So, in other words, the idea that there is some -- the choice is whether or not a particular technology is going to be collectively

decided to be put into the standard or not.

If the owner of the technology doesn't like the price, at the end of the day, they can walk away at that point. In other words, that's the power of the patent. The patent has the power to be able to say, this is what I have to offer. And so that's their walk-away opportunity after the standard has been set.

The flip side walk-away opportunity, it seems, in this event, is a collective one. And it in general would be procompetitive because the value of creating these standards is so useful. But it is a collective event and it should include the economics associated with it.

MR. COHEN: You touched on my last question, whether there's an ability of the patentholders to discipline a standard setting organization which too aggressively pursues a price negotiation by either withholding its technology or entirely leaving the standard setting organization.

MR. SKITOL: On an ex ante basis, everybody has got choice. The participants who are the potential licensees have choices, but the patent owners who would like to see their patented solutions adopted also more often than not have choices.

So, if there's any dissatisfaction with what the

willing buyers seem willing to pay, then those patent owners have the ability to go off and productize their technology on their own or find some way to turn it into a proprietary standard.

MR. COHEN: Is that realistic?

MR. HARTOGS: I think it's rarely realistic. There are scenarios. I look at Motorola's now withdrawal from their participation with VITA. But where you have an organization like IEEE where you have such a broad spectrum of standards and technologies, that viability of not participating, not being a member severely handicaps your ability to participate in business for the technologies they address.

MR. PETERSON: I think this is an area where we, as we said before, have many different experiences going forward. There will be different sets of rules explored and we'll develop experience with that in going forward.

In the past we had something that was a fairly extreme policy, the W3C introduced a policy that requires royalty free -- a royalty free result in a sense that they don't want to issue a standard to which they're aware there's some non-free patent. And the world has continued to work with that. I don't think that that approach applies to a wide range of other technologies, but that's an example of where I think we need to try some things to

see where we actually stand.

MR. COHEN: Unless I hear an objection from any of my panelists, I think we've covered the topic.

I want to thank all of you for your interesting and insightful remarks. And I'd like to encourage the audience to join me in a round of applause for our speakers today.

(Applause.)

MR. COHEN: Our afternoon session will begin at 2:00. There's going to be a speaker luncheon at the Berkeley Women's Faculty Club. Thank you.

(Whereupon, at 12:46 p.m., a lunch recess was taken.)

AFTERNOON SESSION

(2:10 p.m.)

MS. GRIMM: Good afternoon everyone. I would like to welcome you all to this session of our business testimony hearings and I'm glad that you all could join us.

I am Karen Grimm. I am Assistant General Counsel for Policy Studies at the Federal Trade Commission, and I am also one of the moderators of this session.

My co-moderator is Joe Matelis, who you met this morning, an attorney in the Legal Policy Section of the Antitrust Division, U.S. Department of Justice.

Before we start, I just have to cover two housekeeping matters. As a courtesy to our speakers, please turn off your cell phones, your Blackberries, any other devices you may have. And also we request that you not make any comments or ask questions during the session.

We are honored to have a distinguished group of panelists from the business community with us this afternoon. They are, in order, Thomas McCoy, who is the Executive Vice President of Legal Affairs and Chief Administrative Officer at AMD; Michael Haglund, who is a partner in Haglund Kelley Horngren Jones & Wilder in Portland, Oregon, and counsel to Ross-Simmons, the

Weyerhaeuser -- and counsel to Ross-Simmons in the Weyerhaeuser/Ross-Simmons predatory buying case; finally, we have David Dull, who is the Vice President of Business Affairs, General Counsel and Secretary of Broadcom Corporation.

Our format this afternoon will be essentially the same as this morning's. Each speaker will make a 20 to 30 minute presentation. After the presentations are finished, we will take about a 15-minute break. And after the break, we will reconvene and have a moderated discussion with two of our panelists. Unfortunately, David, who has a scheduling conflict, will not be able to join us for the roundtable discussion. We are, however, very grateful that he is still able to participate as a presenter here this afternoon.

As Bill Cohen said this morning, these business sessions are an extremely important component of the Section 2 hearings overall. Over the last seven months or so, we have held conduct specific hearings on predatory pricing and buying, refusals to deal, tying, exclusive dealing, bundled and royalty rebates and discounts, and misleading and deceptive conduct.

Some of these prior panels have included business executives or their in-house attorneys who are typically heavily involved in the company's business

decision-making processes.

The sessions today are designed to further our goal of obtaining as much real world insight as possible into Section 2 issues from a business perspective and basically from business executives and their counsel.

To that end, we have invited our business panel to address whatever Section 2 issues they consider important to their respective businesses and to share with us any views they may have on how we at the FTC and the Justice Department can better address those issues from an enforcement perspective.

We heard a number of helpful suggestions this morning. We look forward to our panelists' remarks in the roundtable discussion this afternoon.

I want to thank all of today's panelists for their participation. We appreciate all of them taking time out of their very busy schedules to prepare for and participate in these hearings.

I would now like to turn the podium over to my DOJ colleague and co-moderator, Joe Matelis, for any remarks he would want to make.

MR. MATELIS: Thank you, Karen.

I just have brief additional remarks to make in addition to what Karen said.

On behalf of the Antitrust Division, I just

want to thank the Berkeley Center for Law and Technology and the Competition Policy Center at the University of California Berkeley for hosting these hearings today.

And also on behalf of the Antitrust Division, I want to thank all of the panelists for volunteering your time and sharing your insights with us

And finally I'd like to thank Karen and her colleagues at the FTC for all of their hard work in organizing this hearing and assembling such a fine panel.

MS. GRIMM: Our first speaker today is Tom McCoy. He is Executive Vice President of Legal Affairs and Chief Administrative Officer of AMD. Tom joined AMD in January 1995 and was Senior Vice President, General Counsel and Secretary until 2003.

Tom's current leadership responsibilities include legal, business development, employee communications, international policy, government and community affairs, corporate secretary, environmental health and safety, and global real estate. He's busy.

Mr. McCoy holds an undergraduate degree in history from Stanford University and a law degree from the University of Southern California.

Prior to coming to AMD, Tom spent 17 years practicing law at O'Melveny & Myers, where he specialized in business litigation. Tom.

MR. McCOY: Karen, thank you very much. And thanks to everybody in the room. Thank you for having me here today to share my thoughts and experience on this very important topic. I'm particularly pleased to join my fellow representatives in the technology industry in presenting here today.

I believe our presence is a testament to a common belief in the critical role that enforcement of Section 2 plays in ensuring innovation and competition in high technology sectors

Technology is often cited, and I believe correctly so, as the driver of our new economy in a rapidly globalizing world.

As Federal Reserve Chairman Ben Bernanke emphasized in a speech just last August, the innovation that technology companies produce spurs economic growth and innovation, not only within the sector itself, but outside the IP sector as well. His remarks cited numerous economic studies demonstrating that information technology was the single greatest impetus for the tremendous rise in productivity our national economy experienced in the late 1990s.

So, what was behind the innovation surge? Ask economic experts and their answer is simple: competition. And, not coincidentally, more competition in

the microprocessor market, which produces the brains of computers.

I've been with AMD for over a decade now and I was a business and antitrust lawyer for nearly twenty years before that, as was mentioned. I believe the competitive dynamic within the microprocessor market provides a particularly important example as we discuss Section 2.

Look at the late 1990s and the impact of the speed of innovation in this market, before and after AMD transformed from a second source follower to an innovation leader. As Professor Michael Scherer testified in an earlier hearing, that difference was dynamic. When competition arrived, the pace of innovation quickened.

But as the Japanese Fair Trade Commission ruled in 2005, that innovation of AMD did not go unpunished.

Because of the critical importance of the technology sector to the strength of our national economy, there is perhaps no market in which the committed enforcement of antitrust law and competition policies are more important.

But if we are to do so effectively, we must first dispel the most common myths about the technology marketplace. Namely, myth number one: Market power is inherently transient in high tech industries. Myth number two: Section 2 is not equipped to deal with the special

characteristics of high tech markets. And myth number three: Consumers are not harmed if technology solution prices are coming down.

The fact is, each of these myths is simply wrong and acceptance would stand in the way of fair and open competition in technology markets. Indeed, these myths would empower a monopoly of use and consumer harm of the very kind Section 2 is intended to stop.

Accordingly, we must rigorously consider how firms, and dominant firms in particular, actually behave in real markets. When we do, we will discover the provable truths that should inform this discussion of Section 2.

So, allow me to address these myths one by one.

First, myth number one, market power is inherently transient in high technology industries. The truth? In many high tech industries, just as in low and no tech firms, customers are tied to the dominant firm for a very large percentage of their requirements, at least in the intermediate term. With their customers at their mercy, dominant firms can use a combination of exclusionary tactics, monopoly to both price and nonprice behaviors in order to deter competition and preserve their position in the marketplace. Monopoly tactics signal the customers and the marketplace that other actors should

play ball.

This disrupts the natural balance of a free market as innovators are no longer rewarded for building a better mouse trap and selling it at a better price. I can think of no better example then the global market in microprocessors in which AMD competes. In its March 2005 ruling that I noted above, the JFDC cited evidence that showed quite clearly from the beginning of this decade until it was able to fend off competitive technologies from AMD, which had been gaining market share, by using its entrenched position in Japanese OEMs to crack down through anticompetitive tactics, level of those that would strive to bring differentiation and choice to endusers around the world.

AMD has competed against a persistent monopolist in a global market. We've confronted a variety of exclusionary abuses, including payments for exclusivity; rebates to make it too costly to ship to a rival even a small share of the customer's business; threats to withhold road maps, technical information and support; discriminatory allocations and scarce parts; and delay or reduced marketing share or substance.

In a vacuum, with names and faces attached, the damaging impact of each of these individual acts may seem less obvious. While the FTC and DOJ appropriately have

been examining specific practices one by one that occurred previously, it is important not to lose sight of the fact, as business firms competing against dominant firms know, that dominant firms can and do use a combination of practices, seldom just one, to maintain dominance. They can modulate the mix of practices as rivals try to adjust and react to maintain the marketplace in a prisoner's dilemma.

What's important to understand is the collective impact. These bad acts often add up to a pattern of conduct that sends very strong signals to the marketplace, signals that are direct and punitive and that have a chilling effect on competition and the innovation process.

Once a monopolist has injected enough fear into the marketplace, the need to explicitly threaten rivals every time is eliminated. It becomes understood and all too often accepted as the natural condition of the market.

This is how our rival, even when lagging behind on the technological innovation front, manages to always maintain more than eighty percent revenue share for more than a decade. In other words, the dominant firm is perfectly capable of maintaining its market share through abusive conduct, even in a high technology market, for indefinite periods of time. This is particularly true in markets where the barriers to entry, including

intellectual property and capital, are so very, very high.

Which leads me to myth number two: Section 2 is not equipped to deal with the special characteristics of high tech markets. The truth? There is general agreement among global regulatory bodies as to what constitutes bad conduct on the part of dominant players in the market.

And under those standards, bad conduct is bad conduct, plain and simple, no matter the industry in question. There is nothing unique about technology, whether it's the oil business, the pharmaceutical business, the chemical business or the computer business.

The microprocessor market, once again, provides an example. In 2002, when AMD set out to earn its place in HP's commercial desktop product road map, AMD agreed to provide HP with one million processors for free, not just any processors, but the most advanced chips in its portfolio. HP was able to use only 140,000 and left 860,000 units, free units, on the table. We believe because, had it taken more, its AMD-related savings would have been cancelled out several times over because of penalty Intel would have exacted in the form of higher prices on HP's Intel purchases.

The result? Customers paid more; were forcibly deprived of an AMD alternative that might have been more suitable for their needs.

Or take the recent revelation in the "Financial Times Deutschland" that Intel has entered into an exclusive contract Germany Media-Saturn-Holding, stipulating that competitors of Intel such as chipmaker AMD are not allowed to sell their products in Germany's dominant PC retail.

The result? While consumers elsewhere in Europe favor AMD-powered computers, because they get a better equipped system for the same number of Euros, any German customers don't get to choose. The product in the marketplace in question are indeed complex, but the abuse of that should be a question for [unintelligible].

Nor are these examples unique. Consider the Rambus 2006 Federal Trade Commission order, which stated that, quote, "Rambus engaged in exclusionary conduct which significantly contributed to its acquisition of monopoly power in four-related markets." Or the often overlooked original Microsoft decree that banned Microsoft from requiring its OEMs to pay the same licensing fees whether they installed the Windows operating system or not, thereby forcing the buyers and substitute operating systems to give their product away for free.

In fact, if we take a moment to consider the fundamental considerations underlying the most high profile technology industry cases that come before the

courts, we find at their core anticompetitive conduct that is almost universally recognized as impermissible under antitrust standards around the globe, which clearly falls within the band of Section 2.

Perceptions like these exist around the industry and they cloud our ability to protect consumers.

But none is more damaging than the industry myth that I'd like to address here today. Myth number three: Consumers aren't harmed if system prices are coming down. The truth? Apparent discounts are not always real discounts. Exclusionary conduct by monopolies keeps prices higher, slows innovation and limits consumer choice.

There's plenty of real precedent from around the world from every industry to support this point. Consider "The United States vs. Dentsply International, Inc.," Third Circuit case. The Third Circuit recognized that Dentsply's exclusive dealing arrangement improperly limited the ability of its rivals to compete, thus denying customer choice.

And in its decision in LePage's, Inc, which is 3M, the Third Circuit similarly made the claim that the application of Section 2 to exclusionary conduct, explaining that, quote, "Even the foreclosure of one significant competitor from the market may lead to higher

prices and reduced output."

And the European Commission acted recently in the "Tomra" decision to make plain that, as its Competition Commissioner explained, quote, "I will not tolerate dominant companies hindering competition or excluding other players from the market as this harms innovation and consumers. Rebates and discounts cannot be used by a dominant company as part of the strategy to exclude actual and potential competitors."

For instance, industry analysts have recently suggested that if the x86 microprocessor market were fully competitive, it would have allowed AMD to gain a greater share of the market and far more benefits would have been delivered to consumers in the form of lower prices and better and faster innovation.

In recent economic analysis by Cal Tech Professor Preston McAfee shows that the U.S. Government pays higher prices and squanders taxpayer dollars when procurement prices are curbed by brand-specific specifications and contracts that foreclose competition and the benefits that open procurement policies promote.

As with the aforementioned Microsoft decree, often what passes for pricing is just the imposition of a legal condition and the veiled threat of yet higher prices to exclude competition.

That's why I believe these hearings are so important. And I commend the Department of Justice and the Federal Trade Commission for bringing them here to Berkeley, so close to the heart of the U.S. technology industry in Silicon Valley. Because, while rigorous enforcement of Section 2 is important, it is absolutely vital to the continued success of the United States technology industries.

As we look to craft sound competition policy to govern our industries, we must consider the way in which these markets function in the real world. We cannot get caught ignoring tangible truths in favor of marketplace myths. We must send a strong deterrent message to all industries, including technology, Section 2 applies to what we do and who you harm. And crossing the line into illegality will not be permitted, no matter how cool the product, how familiar the logo or how high tech the industry.

In the technology market, the stakes are particularly high because the progress of innovation and the health of our broader national economy in a globalizing world requires both robust competition and robust and enforced competition policy

Thank you very much.

MS. GRIMM: Thank you, Tom.

Our next speaker is Michael Haglund. Can you hear me?

Mike is a partner in Haglund Kelley Horngren Jones & Wilder in Portland, Oregon, and counsel to Ross-Simmons. He graduated in 1973 from Western Oregon University with a B.A. in Education, and he received his law degree from Boston University in 1977

Mr. Haglund has primarily practiced in natural resources, admiralty and general business law throughout his career, and is experienced in a wide range of legal representation, including antitrust

In 2003, he acted as lead counsel for the largest antitrust verdict in the history of the Pacific Northwest, a $79 million dollar judgment against Weyerhaeuser.

In November of 2006, Mr. Haglund argued in the U.S. Supreme Court on behalf of Ross-Simmons in "Ross-Simmons v. Weyerhaeuser," a Section 2 case involving allegations of predatory bidding or buying

Mike.

MR. HAGLUND: Thank you.

I wish to thank the Federal Trade Commission and the U.S. Department of Justice Antitrust Division for the invitation to present testimony today as part of this series of hearings on Section 2 of the Sherman Act

I offer this testimony, not on behalf of any individual business or client, but from the perspective of the many small and medium-sized businesses, mostly family owned, that I have been privileged to represent throughout the course of my career in the resource-based industries of the Pacific Northwest.

I am the exception on the program today. I'm more of a bricks-and-mortar or in-the-ground kind of antitrust practitioner. I'm in my thirtieth year of law practice and have devoted most of that to the representation of the small and medium-sized participants in the forest products, fishing and agricultural industries.

One of the common threads of this client base has been the production or is the production of commodities derived from the rich natural resources of our region in the Pacific Northwest: logs, lumber and plywood in the forest products industry; salmon and crab in the fishing industry; and essential oils like peppermint or spearmint, in agriculture.

The application of Section 2 to these types of markets is important and must be analyzed within the context of the unique market realities that govern those markets, where in many cases there is the potential for a dominant buyer to exercise monopsony power to the

detriment of its small competitors, input or commodity sellers generally, and ultimately consumers.

These markets may be localized in that they're confined to a region of the United States and they are often exemplified by what Professor Warren Grimes refers to as, quote, "small atomistic sellers," unquote, who are more vulnerable to market abuses than consumers.

There are multiple such markets in the Pacific Northwest, where a large and diverse number of small players are selling their commodity products to firms that process the logs, the fish, or the agricultural product into a host of other products.

In some markets, the processor base may be quite small and dominated by one or a few large firms. As Professor Roger Noel has observed, "Local monopsony in conditions where the monopsonist does not have market power at the output level in a national or regional market, causes harm to consumers by misallocating production across regions or across localities."

Antitrust cases associated with input markets have received very little attention until quite recently. In fact, a good share of the scholarship on the subject that exists today is found in this quarterly 2005 issue of the "Antitrust Law Journal," which contains a symposium collection of nine articles, including the two I've

referenced from Professors Grimes and Noel a moment ago.

The application of Section 2 to input markets is an area of antitrust law deserving of more attention, in my view, and it is about to receive it from the United States Supreme Court in its forthcoming decision in "Weyerhaeuser vs. Ross-Simmons Hardwood Lumber Company," which will likely be handed down in March or April of this year.

I argued the Weyerhaeuser case on behalf of respondent Ross-Simmons before the Supreme Court the end of November. Although it is difficult, and some would say dangerous, to make predictions based upon the briefs and the oral argument, but having been with the case since its inception and lead counsel at trial, and arguing counsel both in the Ninth Circuit and the Supreme Court, I believe the result is going to surprise people.

When cert was granted, all of the pundits predicted that the court had taken the case to reverse it. And that view is still being expressed post argument on various blogs that follow the Supreme Court docket.

For those of you who may not be fully aware, the Weyerhaeuser case as to predatory bidding or buying in input markets presents two issues. The first, whether the Brooke Group Price Cost Test, which was adopted in 1993, should be extended from the sell side to the buy side,

first issue. And, second, whether the jury instruction regarding predatory bidding was flawed on grounds other than Brooke Group.

The first issue, based upon the briefing and based upon the tenor of the oral argument, we are optimistic that the Supreme Court is going to affirm the Ninth Circuit in its decision that the safe harbor for pricing behavior that exists on the sell side through Brooke Group does not apply with the same force and should not be extended at least to inelastic input markets like the alder saw market at issue in the Weyerhaeuser case.

Over the last quarter century, except for Brooke Group, the Supreme Court has eliminated or narrowed per se rules that did not have a sound economic foundation in the market realities of the individual case.

The wisdom of Brooke Group most I think would say is its protection of inherently procompetitive price cutting in output markets. In the context of input markets, the challenged conduct involves price raising, bidding, resource prices up. Very few cases in the last fifty years and scholarship in its infancy. Conditions that are the exact opposite of those that prevail when Brooke Group's per se rule was developed.

In these circumstances, the correct approach is the one that has always been the gold standard of

antitrust rules, the rule of reason.

The rationale underlying Brooke Group was also rounded substantially in concern about false positives, based in large part upon a sizable body of literature to that effect.

In the predatory bidding context, there is no similar body of economic literature offering a similar warning. In point of fact, the very few cases of overbidding that do exist show that it is a rational strategy that does work. And I'm referring here to just a very few cases: American Tobacco from the Supreme Court; the Ross-Simmons case about to be decided; and the Reed Brothers case also out of the timber market that was decided by the Ninth Circuit in 1983.

There are two reasons underlying my optimism that the Supreme Court will refuse to extend Brooke Group from the predatory selling context to immunize bidding conduct by a dominant buyer.

First, the position of Weyerhaeuser and its many big business amici is based upon the notion of symmetry, that a rule that works for predatory selling and output markets should apply equally in predatory bidding to input markets by the sheer force of logic alone.

The law, however, is no slave to symmetry. As Justice Holmes has written in what has been characterized

by Judge Posner as the single most famous sentence in American legal scholarship, quote, "The life of the law has not been logic; it has been experience."

In the past, notions of symmetry have influenced the antitrust juris prudence of the U.S. Supreme Court. However, in the last twenty-five years, market realities have consistently trumped symmetry and the per se rules which were sometimes developed as a result.

The Supreme Court embraced symmetry, for example, in equating maximum and minimum vertical resale price constraints as per se illegal in "Albrecht vs. Harold Company" in 1968, but relied on market realities in overruling Albrecht's prohibition against maximum resale pricing agreements nearly thirty years later in "State Oil vs. Khan" in 1997.

The other half of that rule, by the way, now appears in some jeopardy with the Supreme Court's recent decision to reexamine whether vertical minimum resale price maintenance agreements should be deemed per se illegal under Section 1 of the Sherman Act, or whether they should instead be evaluated under the rule of reason. I refer here to "Leegin Creative Leather Products vs. PSKS," a decision out of the Fifth Circuit on which cert was granted just last month.

In my view, the Supreme Court is clearly focused

on eliminating per se rules or presumptions in antitrust which are not justified by market realities or which distort the fact-finding process at trial in a way that unfairly disadvantages one party or the other.

The Independent Ink case of last term, in which the court abandoned the per se rule that patent equals market power in a tie-in case is the most recent example of this trend.

My second reason for optimism on the Brooke Group issues comes from the oral argument. We were struck by the apparent lack of enthusiasm among the Supreme Court Justices for extending Brooke Group from the sell side to the buy side. Several justices, including Justice Kennedy, who wrote the 6-3 majority opinion in Brooke Group, expressed concern about the workability of converting the Brooke Group price cost test into a price revenue test on the buy side.

There was record evidence that Weyerhaeuser used below-market transfers of all their saw logs from its company fee lands to subsidize its bidding up of saw log prices in the so-called open market in which it competed with Ross-Simmons. Weyerhaeuser argued that such bidding was immune from antitrust scrutiny so long as its alder division was not losing money overall.

Adoption of such a rule, however, in this type

of resource market would put a large company that had amassed low cost raw materials in a position to eliminate its competition by bidding up scarce supplies of open market sources and subsidizing that predation with below market transfer prices from its own captive supplies.

The result would be under-deterrence of predatory bidding behavior, while impeding the most efficient allocation of scare resources.

Another administrability problem not found with Brooke Group on the sell side is associated with the fact that the relevant input in the Weyerhaeuser case, alder saw logs, are used to produce very different products. In an alder saw mill those are chips; pallet lumber, which is a low-grade type of lumber which you see underneath products in various Costcos and elsewhere; and kiln-dried finish lumber. But Weyerhaeuser actually had 25 to 50 different lumber grades in the finished lumber category

Each of the saw logs that went through any given alder mill produces products in all three of these categories, but the larger the diameter of the log, the even more higher grade lumber you're going to produce.

Applying Brooke Group is extremely difficult in this sort of single input but multiple product output environment. And there is no comparable corollary on the buy side to the commonly utilized average variable

cost or marginal cost formulation used in the sell side predatory pricing case.

In sum, regarding the primary question in Weyerhaeuser, whether to extend Brooke Group to the buy side, we are guardedly optimistic that the Supreme Court will decline to do so because of the court's consistency over the last quarter century in refusing to create new per se rules or to extend old ones unless justified by the market realities of the particular industry or the particular type of antitrust claim.

And, also, because of the TENOR of the oral argument. Brooke Group really was an exceptional case. Today, 14 years after it was decided, the rule of reason shines even more brightly as the gold standard of antitrust analysis.

Now, assuming the Supreme Court does not extend Brooke Group to the buy side in Weyerhaeuser, it must then examine a second issue, whether the district court's instructions defining when predatory bidding will constitute anticompetitive conduct were flawed on some other basis.

This was the instruction in which the district judge, having given the standard ABA model instructions for monopolization and anticompetitive conduct, instructed the jury that it could find that Weyerhaeuser engaged in

anticompetitive conduct if it bought more logs than it needed or, quote, "paid a higher price than necessary in order to prevent plaintiffs from obtaining the logs that they needed at a fair price," unquote.

This formulation was pounced upon by Weyerhaeuser and its amicis as, in their words, "standard gibberish," which constituted an independent ground beyond Brooke Group for reversal of the Ninth Circuit opinion. However, as pointed out in our merits brief, Weyerhaeuser never preserved any such alternative objection to the instruction. Attacking a pair of sentences in the jury instructions as unduly subjective or as an invitation for unguided speculation, proved an effective springboard for a grant of certiorari. But deciding the case on the merits requires an assessment of the instructions as a whole in light of the evidence, the closing arguments and the other instructions.

In the trial court, Weyerhaeuser's counsel actually invited the formulation of the two sentences that have been so criticized in the commentary about this case. But in opening statements, and again in closing argument, Weyerhaeuser's counsel told the jury that multiple witnesses would be called who would and then did testify that the company never bought more than it needed and never pushed log prices up in order to hurt its

competition. And a litany of two questions was put to 13 different witnesses, obtaining denials on each of those same two points.

It's worth noting that the Supreme Court has already decided the case from the very first one of this term involving a challenge to ambiguous language in a jury instruction. In "Aires vs. Del Montes," the court examined California's catch-all mitigation instruction and using the instructions in the penalty phase of a capital murder case.

Based upon the way the case was tried and the evidence presented, a 5-4 majority found no reasonable likelihood that the jury had applied the admittedly ambiguous instruction in a way that prevented consideration of constitutionally relevant evidence.

If the type of common sense -- and I put that word in quotes because that was the court's term. If that type of common sense approach is to apply in a capital murder case to consideration of ambiguous instruction, it's hard to see how there is a reason for a stricter approach in antitrust, especially in a case where the defendant tried the case in a manner that invited the very formulation of that jury instruction.

In fairness, however, it should be noted that I was pressed at oral argument, particularly by Justice

Souter, regarding the vagueness of the instruction on predatory bidding and the need for the Supreme Court to say something about that instruction. I conceded that the instruction was not perfect, but emphasized that neither the district judge nor plaintiff's counsel was given any chance through a defense objection on that ground to consider whether the instruction could be made more precise with other language.

At trial, we in fact never attempted to exploit the nature of that couple of sentences and urged the jury to just award whatever they considered was fair. Instead, through economists, forest economists, we presented detailed market evidence to show how much the market for alder saw logs was artificially elevated above where it would have been but for the mix of anticompetitive practices, including manipulative bidding by the defendant

Ultimately, the jury in Weyerhaeuser selected to the dollar one of the three damages scenarios presented by these forest economists. Had Weyerhaeuser challenged the, quote," paid a higher price than necessary," unquote, language, we would have had no problem adding precision to that instruction by linking the higher log prices to market factors tied to Weyerhaeuser's manipulative behavior as opposed to the normal operation of the market

In fact, we could have accepted the suggestion

made by the eight amicus states that filed a brief supporting Ross-Simmons, including Oregon and California, that the instruction that defined predatory bidding as having anticompetitive effect, quote, if the conduct raised the price that the buyers' rivals had to pay for the input beyond the level that could be justified or explained by other market factors and substantially affected the ability of the buyers' rivals to compete for the input.

Because our evidence was designed to show how the historical relative equilibrium between finished lumber prices and log prices had been distorted by Weyerhaeuser's behavior in order to kill off rivals, I'm confident that there would have been no change in the result at trial with a more precise formulation for defining when bidding conduct in an input market can be found anticompetitive.

What happens, you might ask, however, if my admittedly optimistic view is wrong and the Supreme Court reaches the vague instruction issue and reverses on that basis. In all likelihood, a retrial will then be necessary, but we are confident of a similar plaintiff's verdict for two reasons.

First, the Ross-Simmons verdict generated several follow-on cases in which Weyerhaeuser produced

thousands of additional incriminating documents, demonstrating the deliberate character of its multi-tactic plan to monopsonize the alder saw log market in the Pacific Northwest.

By the way, the Pacific Northwest is the only place west of the Mississippi where there is a hardwood industry, in stark contrast to the east, where hardwood species predominate and there's a substantial hardwood industry.

In other words, we're even stronger on liability in the retrial than we were the first time around, and perhaps that's why Weyerhaeuser settled three follow-on cases we handled on behalf of ten other plaintiffs for a total of $62 million.

Provided we are not saddled with a Brooke Group test, we believe our damages theory can easily be matched up with a more objective formulation of the market distorting bidding conduct than the two-sentence formulation now at issue before the Supreme Court.

But however it turns out, the Weyerhaeuser case will be important for all resource space input markets, particularly those at the inelastic end of the spectrum. Section 2 has a real role to play in these markets. If you are a tree farmer, you want to have a healthy number of saw mills competing for your log production within a

reasonable distance of your tree farm. And even if you happen to sell your logs of a particular species to a rising or emerging monopsonist, paying premium prices during this period of predation, you're concerned about the long-term health of your input market for that particular species and will likely cause you not to replant it if you fear that there will only be a single buyer 30 to 50 years down the road when those seedlings are now mature and ready for harvest. And we have evidence to that effect.

It was precisely this type of real market consideration that caused most of the log seller community in the U.S., represented by the National Woodland Owners Association and the American Loggers Council, to support Ross-Simmons in an amicus brief in the Supreme Court.

Avoiding expansion of Brooke Group from the sell side to the buy side is important in other input markets as well. Most U.S. fish markets are classically inelastic because the total catch is fixed by state and federal regulators. The crab fishermen plying U.S. waters off the coast of Oregon, Washington and Alaska need a healthy mix of seafood processors to ensure market prices that sustain the crab industry and its U.S. fleet.

A flexible rule of reason approach to exclusionary conduct in this type of market is vital both

to deterring illegal conduct and to ensuring fair results at trial

Also, many agricultural markets, especially those like peppermint where production is regulated by federal marketing orders, are susceptible to abuse in the form of artificially low prices dictated by a dominant buyer, or oligopolistic behavior in a highly concentrated processor market

I would like to take this opportunity to thank the FTC and the DOJ Antitrust Division for holding this hearing out on the west coast rather than in Washington, D.C. I believe it is critically important for federal antitrust enforcers to be out in the field regularly to have a full appreciation of the importance of local and regional markets

Indeed, the lack of consideration of local and regional markets in the Solicitor General's brief supporting Weyerhaeuser was one of the primary reasons, I am told by state officials, that eight states on short notice submitted their amicus briefs on Ross-Simmons' side in this case.

In its antitrust jurisprudence, the Supreme Court has repeatedly emphasized that antitrust analysis, quote, "must be attuned to the particular structure and circumstance of the industry at issue," unquote.

In my view, this can only be accomplished if one is immersed in the facts and circumstances of a given industry, what I call the who, what, when, where and how that requires extensive use of investigative interviewing in addition to and not as a substitute for analysis of raw data.

From my experience in the northwest corner of the United States, I have three suggestions for the FTC and DOJ in its evaluation of antitrust issues to resource space input markets

First, please do not discount or dismiss the significance of a local or regional market simply because the dominant buyer/processor may not have the market -- may not have market power in the downstream output market.

As Professor Noel so convincingly demonstrated in his article, this is an area where input sellers are vulnerable and can be abused by a monopsonist to the detriment of both regional and national economies.

Second, please be aware of the influential impact of the extraordinary legal and organizational talent brought to bear by large corporations and their affiliated support organizations on the antitrust issues that come before you. The small, atomistic sellers who make up so many of the local and regional input resource based input markets in the U.S. are no where near as well

organized and have precious little in the way of financial resources to devote to long-term efforts to influence the direction of Sherman Act jurisprudence.

It is therefore particularly important that federal and state antitrust enforcers to look behind the incredibly capable advocacy available to large corporate interests, and to independently investigate the relevant facts of each market and each industry, and I emphasize, in the field.

Third and finally, from my perspective, throughout a now 30-year career involved in three resource based sectors of the U.S. economy in the Pacific Northwest, I have been struck by the close match between my own experience and two bedrock principles of antitrust law.

One, that the forms of anticompetitive conduct are myriad. And, two, that sound antitrust analysis is joined at the hip with the fact-laden structure of the particular market and industry at issue. This amazing factual variability, in my view, makes the quest for a unitary standard of exclusionary conduct under Section 2 illusionary. It is a much sounder policy to embrace the flexibility of the rule of reason standard and to apply it appropriately to the market realities of the industry in the particular antitrust case.

On this last point, I think it's interesting to note that our own -- excuse me, that own new Chief Justice appears to be no fan of etiological purity in the way the Supreme Court decides its cases. In a very insightful article by Jeffrey Rosen in the January/February issue of "The Atlantic Monthly," Chief Justice Roberts says the following when asked to define the qualities of judicial temperament that he thought successful Chief Justices like Marshall, who was Chief Justice Roberts own personal model, embodied. Quote, "I think judicial temperament is a willingness to step back from your own committed views of the correct jurisprudential approach and evaluate those views in terms of your role as a judge. It's the difference between being a judge and being a law professor," unquote.

I think the quest by some in the antitrust division to develop an overarching standard defining all anticompetitive conduct under Section 2 of the Sherman Act is inconsistent with the highly fact-laden and industry-specific character of antitrust. Such a quest is too much of law professor and too little of the practical fact-based enforcer. It should be abandoned and the energy of our antitrust agencies refocused on investigation and enforcement.

Thank you for the opportunity to present this

testimony.

(Applause.)

MS. GRIMM: Thank you, Mike.

Our third and final speaker this afternoon is David Dull, who is Senior Vice President of Business Affairs, General Counsel and Secretary of Broadcom Corporation.

Mr. Dull is responsible for the company's acquisition, outside investment and licensing activities, in addition to advising on all legal matters.

Mr. Dull joined Broadcom as Vice President of Business Affairs and General Counsel in March 1998, and was elected Secretary of the corporation in April 1998

Mr. Dull received a B.A. and a J.D. from Yale university.

MR. DULL: Thanks, Karen, for that kind introduction. And thanks to the Haas School and its affiliates here in Berkeley for hosting this event today.

I want to compliment the FTC and the Department of Justice for convening these hearings. While like many in the business, we at Broadcom are of course wary of regulation and other governmental and court interventions that may stifle growth and cause inefficiency.

We nonetheless recognize the positive role our government has played and can still play in facilitating

economic growth, efficiency and innovation, which ultimately is what drives our economy.

I thank and commend the FTC and the DOJ for taking the time to solicit views from across the spectrum and across the country and hope that what comes out of this process will promote that positive role.

Let me begin my remarks by telling you a little bit about the company I've been with since 1998, Broadcom Corporation. In 1991, a graduate student by the name of Henry Nicholas, and his professor, our current chairman, Dr. Henry Samueli, had a vision of an innovative company that would provide semiconductors, computer chips, to facilitate high speed digital communications for business and consumer applications.

In a world where television and cell phones were still analog, no one had heard of HD TV, dial-up modems were considered cutting edge technology, and few even contemplated the potential of the internet and today's laptops and hand-held devices. These two visionaries saw that the demand for high bandwidth digital communications would skyrocket. And of course it has.

Broadcom's revenue now exceeds three billion dollars a year. We've retained our roots in Southern California, but we now have facilities all over the United States and around the world, including several facilities

and over 1,250 employees here in the Bay Area.

We continue to focus on semiconductors for high speed, high bandwidth applications, such as set-top boxes for television, gigabit ethernet, DSL modems, wireless networking, and cellular phones. We also produce closely-related devices, such as digital TV chips and multimedia chips for iPods and cell phones.

Indeed, it is far to say that, as much as any other party or any other factor, Broadcom has enabled the digital communications revolution that touches each of us every day.

And we continue to follow the example of our founders. We have built our entire business model around continuing innovation. Our products are state of the art and Broadcom is a technology leader in every market in which we play.

Our engineers are top-notch. In fact, of our 5,200 or so employees, more than 3,800 are engaged in R&D; 439 are Ph.Ds. We spend about 40% of our gross profit on R&D, on innovation.

In keeping with the purpose of these hearings, today I plan to talk a bit about real issues that we confront in the high tech industry in which we operate. These are not your father's competition issues.

Everyone in this room is keenly aware that the

antitrust laws date back to the end of the 19th century. So, one overriding theme I hope you will take away from my remarks today is that antitrust laws must not get trapped in traditional analysis or outmoded or dated thinking. They must be dynamic and flexible.

With due deference to economic analysis and marketplace realities, our antitrust regime, including that addressing single-firm conduct, must remain robust to deal with the issues of the 21st century. And, as we all know, many of those issues revolve around technologies in the high tech industries.

We at Broadcom firmly believe that competition is what makes our innovation economy work. When coupled with a well-educated and highly motivated work force, competition unleashes creative energy and creativity spawns the amazing innovations that we have seen just in the past decade alone.

In the semiconductor industry, as Tom knows, competition creates efficiency on a scale greater than anywhere else. The capability of today's high tech products dwarf those of just a few years ago, yet prices continue to drop.

The antitrust laws serve their most useful role when they promote competition and prevent companies that have obtained a strong position in one area from

exploiting it to prevent competition in other areas.

Before addressing that in greater detail, let me be clear about two things. First, it is important not to penalize innovation by attacking those companies that have achieved strong market positions solely through innovation. Innovation must be encouraged because it is the key to our country's continued success in the increasingly challenging global economy.

Secondly, it is important that the intellectual property rights of innovation be respected. Our patent system encourages innovation by ensuring that its vendors will reap a portion of the economic benefits of their inventions, while at the same time requiring those inventions to be shared with the public. That is a good thing and we must not sacrifice it in the name of competition.

At Broadcom, we hold over 1,900 U.S. patents and have another 5,900 U.S. and foreign patent applications pending. We care deeply about intellectual property rights. But companies that use the strong positions they have obtained, even if attained by innovation, to close other markets to competition, or that use deception and false promises to obtain their strong position in the first place, are not innovative, but rather are standing in the way of innovation. The antitrust law must address

that type of behavior.

As I said, Broadcom designs and sells computer chips. In today's highly sophisticated electronic applications, be they computers, cell phones or cable boxes, no one produces all of the systems and components for a particular application. In fact, a typical consumer product incorporates chips and software from a number of different suppliers.

In our vernacular, no one company produces all of the silicon on the motherboard. Today, in hardware and software, open systems is the name of the game. Open systems are why we have the PCs and the internet. Interfaces between one component and another are therefore necessary. Some of those interfaces are specified by standards developed with broad industry participation under the auspices of standard setting bodies such as the IEEE and ANSI.

The highly successful 802.11B and G wireless networking standards fall into this category. The proliferation of Wi-Fi networking, supported by devices from hundreds of manufacturers, demonstrate the power of industry standards arrived at through non-partisan processes.

Other interfaces are de facto industry standards that arose without a formal standard setting process, but

are generally open for industry participants to use in deploying their own standards compliant price.

And some interfaces are entirely proprietary, which is to say they're put into place unilaterally by one or another industry player who claims ownership of that, quote, "standard," unquote, and asserts the right to prevent or control its use by others.

Obtaining control of key interfaces through anticompetitive means, or using control of key interfaces to extend a dominant position in one market into other markets is a real danger in our industry. It is of major concern to companies like Broadcom who win through their ability to innovate.

It should also be of concern to consumers and to their representatives in the antitrust agencies. That sort of behavior chokes off competition among industry players, which deprives consumers of the innovations and lower prices that come from vigorous competition.

At its most extreme, in our industry, interface control could enable a dominant firm in one critical piece of the motherboard to take control of the whole system, even if the quality and cost of its products do not support that result.

Those of us of a certain age know what an end-to-end monopolist in a communication space looks like.

It was the old totally vertically integrated telephone company. One company controlled all of the equipment, all of the connections, all of the interfaces. Indeed, everything from the chips to the telephone repairman.

It wasn't simply that they had a lock on the industry. They, not competition, decided what innovations made their way to the consumer and when. That slowed down the transfer of innovation, and as a consequence, telecommunications innovation in this country was outpaced by that in others.

In an increasingly competitive global economy, we cannot afford to return to those days. And the antitrust laws governing single-firm conduct were the means by which that situation was remedied.

Today different technologies from different companies come together to create a plethora of consumer products, which we all enjoy and to a substantial extent take for granted. This creates an ongoing challenge in defining how those technologies will interconnect and interoperate and the rules that will apply to that endeavor.

Even the best technology is of little use in isolation. The antitrust laws have an important role in policing the conduct of firms who would seek to take control of those interconnections so as to eliminate

competition and thus harm consumers.

In my remaining remarks today, I will focus on two areas of concern which, in Broadcom's experience, are particularly important to preserving competition.

The first is standard setting. I know there was a fair amount of discussion on that this morning. There will be more of it this afternoon. The second is the use of proprietary interfaces from one market to another.

These are not theoretical issues. These are real issues that Broadcom has faced in the past and continues to face today.

We come at this from the perspective of a highly innovative company with world-class technology, attempting to break into new markets dominated by entrenched rivals.

At the same time, we are an example of a company that has thrived through key contributions to important industry standards and, today, without charging royalties for those innovations.

Standard setting refers to the process of creating and implementing a way of doing things. As a simple example known to all of us, there's the standard format for video known as VHS. That standard makes it possible for a variety of competing manufacturers to make the various components that are needed to record and play home video: the camera, the tape, the VCR, and so forth.

Similar standards exist for CDs, DVDs, as well as standards that allow voice video data and multimedia to be shared among various wired and wireless devices.

In addition to facilitating competition by enabling different companies to produce products that will interconnect and interoperate, standard setting, when done properly, can also resolve intellectual property rights or IPR issues that might otherwise impede progress.

With the complexity of today's products, often multiple parties own IPR that is needed to implement a particular technology-based application. If Company A owns essential IPR and so do Companies B, C, D and E, each can block the other and everyone else from making a product using the best available technical solutions.

In the standard setting process, companies typically are required to agree that they will disclose their IP rights that are essential to practice this standard before the standard is adopted. This gives the standard setting body and the participants in the standard setting process the ability to avoid such IPR or to address the means by which that IPR will be licensed to those who practice the standard.

I will get to licensing in a minute, but first a word on IPR disclosure in standards making.

There are those who say that disclosure is not a

significant problem because companies generally play by the disclosure rules. They say that failure to disclose is rare and therefore not really a problem. At Broadcom, we aren't sure whether failure to disclose is in fact rare in all standard setting bodies. But even if that is the case, it can still be a serious problem.

Indeed, the fact that participants in standard setting expect disclosure and rely upon it makes those instances of failure to disclose all the more problematic. Without disclosure, the standard is at constant risk of being hijacked by an IPR holder that has hidden in the weeds during the development of the standard or, even worse, has helped steer development toward its own undisclosed proprietary technology only to spring its trap after the standard has been set and millions or even billions of dollars have been invested in its implementation.

This risk is not an abstract or a theoretical concern. In fact, these hearings are particularly timely. Just this past Friday, four days ago, the jury in San Diego rejected an attack on my own company by a firm attempting to force us out of certain technology spaces by asserting two patents that it controlled. Its infringement case was based in substantial part on our implementation of an industry standard for video

compression. The jury found no infringement, thank god. And, perhaps more significantly, also found that our adversary had violated the disclosure rules of the standard setting body by failing to disclose its patents which allegedly covered the standard.

Sadly, the company that launched this ill-founded patent assault on an international standard, cynically justified its actions afterwards on the grounds that it had nothing to lose, even though after a nine-day trial, a jury unanimously agreed that the company had used the standards process and had also violated its duty of honesty and fair dealing with the U.S. Patent and Trademark Office.

Meanwhile, defending itself against those illegitimate claims cost Broadcom millions of dollars. And the lawsuit created confusion and concern among our customers and the many others who use the H.264 video compression technology.

So, this is a very real risk. If an opportunistic company can get away with these tactics, it would be in a position to dominate components for an important ubiquitous video compression technology by asserting its patents against all would be competitors.

But disclosure, important as it is, is not enough. Disclosure is only the first step in assuring

that hijacking will not occur. Disclosure merely allows the standards development body to thwart attempts to insert proprietary technology into the standard.

It is at least equally important for industry participants to abide by the rules after the standard is in practice, is in place. A key element of that is licensing terms and conditions.

The rules of standards bodies typically provide that IPR that is essential to practice the standard will not be included in the standard unless the owner agrees to license that IPR to those who wish to practice the standard on either a royalty free or fair reasonable and nondiscriminatory, so-called FRAND, sometimes called RAND, terms.

What happens when someone fails to live up to these commitments? As I noted, once a standard is set, the industry moves forward and invests millions if not billions of dollars in implementing the standard. That investment is based on the understanding and assumption that IPR issues are resolved. Either there will be no need to take a license to the IPR, or any licensing will be on FRAND terms.

If a company with essential IPR seeks to impose non-FRAND licenses, the balance is completely upset. Suddenly the industry which adopted the standard with the

understanding that licensing costs would be reasonable, is confronted with a monopolist seeking to charge monopoly rates.

In industries that are involved in standard setting, there are certain practices that I would venture to say everyone understands are not FRAND terms. For starters, refusing to license at all violates a FRAND commitment. Amazingly, there are some in the industry who take the position that, notwithstanding their commitment to license all who wish to practice the standard, essential IPR holders can pick and choose among potential licensees for any reason, including, it would seem, whether the potential licensee is a downstream competitor

Another example: Broadcom has been confronted by a licensor who participated in the standard setting process, insisting that, as a condition to being granted a license to the intellectual property essential to practice the standard, it would have to give back a royalty-free license to a much broader sweep of Broadcom's own intellectual property, including IP-covered features and functions entirely unrelated to the standard.

To usurp the blood, sweat, tears and genius of interface companies in such a manner as a condition to practicing an industry standard runs directly contrary to the fundamental objectives of standard setting bodies.

If this sort of practice is allowed, what incentive will any company have to innovate or invest, knowing that unrelated technology can be appropriated as the price for making standardized products.

Another example that we have seen is a company attempting to use access to essential IPR to coerce customers into buying its products, rather than letting the merits of the products determine who gets the sale.

And we have examples where a company has thought to stack a standard setting organization with supposedly independent voters to skew the standard towards it own technology or away from the technology of its rivals.

To be clear, I do not suggest that a company should be required to share its technology with others. Far from it. Patents are available to protect innovation and Broadcom is a firm believer in the patent system.

But it is imperative that, when a company has made a commitment to license on FRAND terms as a condition of getting its technology included in a standard, it must not then be allowed to exploit the market position it gained through incorporation in its IPR and the standard, by reneging on that commitment.

And a company, likewise, should not be allowed to subvert the rules that are put into place to ensure that standard setting is a nonpartisan exercise.

These are very real and contemporaneous examples of the kind of anticompetitive single-firm conduct we at Broadcom believe the antitrust laws are intended to address.

Some say that determining what is fair and reasonable is too hard a task. That is a standard that cannot be enforced. We heard some discussion along those lines this morning.

Often the firms that say this are the very firms that fail to disclose their patents, have engaged in rampant discrimination that cannot possibly be reconciled with a FRAND obligation, and have engaged in other behavior that demonstrates that it is a lack of will, not a lack of ability, that has resulted in their FRAND violations.

Fair and reasonable simply means that the technology will be available on competitive terms, rather than on terms that reflect a market power gain through inclusion of technology in the standard.

It also means that no participant will charge a disproportionately high royalty so as to hobble the standard or render it uncompetitive.

Technology companies are often engaged in patent litigation where a question before the court is how to assess a reasonable royalty in damages. There's no reason

to believe that the courts would have a harder time figuring out what reasonable royalty is in the standards context than in any other context. The court can take due account of the competitive goal of the standard setting body in requiring a FRAND commitment up front, and otherwise undertake the same exercise it goes through when evaluating damages and so forth.

It has also been suggested that failure to comply with a FRAND obligation is a matter better left to contract than antitrust law. One might ask, if a court applying contract law can figure out what FRAND means, why can't the same court apply antitrust law?

Contract law is a private remedy to redress private rights. FRAND violations can eliminate competition and hurt consumers, competitors, innovation and the economy as a whole. Isn't preventing such an injury exactly what the antitrust regime is all about?

Moreover, if companies are willing to break their commitment because they conclude they have little or nothing to lose by doing so, the contract remedy is inherently insufficient to protect innovation, competition and consumers. And that becomes the job of antitrust law.

The second area I would like to talk about is interfaces. As I noted before, interfaces are the way one

piece of technology connects to another. By manipulating the interface and making it proprietary, a company with a monopoly over one area of technology can effectively shut out competitors and technology that would connect with the monopoly technology.

For example, if a company had a monopoly in amplifiers, it could obtain a monopoly in speakers by creating a proprietary amplifier-to-speaker interface and refusing to license that interface to anyone. The speaker market, which previously enjoyed vigorous competition that fostered innovation and lower prices, would suddenly be controlled by one firm with little incentive to innovate or reduce prices.

We've seen this in practice. Broadcom is a communications chip company. Our chips connect devices and systems. We've seen, for example, companies that control the main processor of a particular system, one that was at one time characterized by an open interface, suddenly making that interface proprietary. For no good technological reason, they make it harder to interconnect with that chip, while at the same time launching their own communications chips that competes with Broadcom and others.

This two-prong strategy, control the connection with the dominant product and compete in the adjoining

market, has a predictable result. The dominant firm leverages its monopoly from one area outward into ever greater areas

Over time, the dominant firm expands its empire to the entire motherboard, destroying its competitors and the innovation they would bring along the way. There certainly are instances where the development of new interfaces is real innovation.

Where there is real innovation in the interface, innovators should have the opportunity to be appropriately compensated. But that compensation should at best take the form of a modest, truly nondiscriminatory royalty. It should not be a vehicle for extending dominance from one kind of chip to another by, for example, the kind of asymmetrical brand back of IPR from the licensee to the licensor that I discussed earlier.

And a small improvement in interface technology should not come at the sacrifice of innovations of orders of magnitude more significant in the adjacent communications markets if innovators' chips can no longer communicate with the now closed interface.

Of course sometimes the new interface does not even represent an improvement, just a difference. When a company has a history of using open interfaces or of licensing its interfaces to third parties and then stops

doing so, while at the same time entering the market on the other side of the interface, one ought to become suspicious.

We've experienced that in our industry. Again, there is a role for antitrust when such changes provide little or no benefit but substantially hurt innovation and therefore consumers and the economy as a whole.

I recognize that today I barely scratched the surface of the issues that I talked about. And of course much depends on the individual facts and circumstances of any particular case and market.

That said, the antitrust laws and the courts and agencies that are called upon to enforce them should not shy away. Usually, once the facts are separated from the noise, it is not difficult to separate the procompetitive stories from the anticompetitive ones, particularly in the area of deceptive conduct in standard setting processes there is little risk that procompetitive behavior will be deterred.

In closing, I hope the FTC and DOJ and those who are thinking seriously about antitrust in the 21st Century will take away from my remarks three basic concepts

First, antitrust, as it relates to single-firm conduct, remains important to ensuring competition in our high technology markets.

Second, we have seen in recent years the creation and abuse of monopoly positions through conduct that serves no useful purpose and therefore should be counteracted by the antitrust laws.

Third, the antitrust laws must remain flexible and responsive to these ever-changing conditions. Blind reliance on outmoded principles, and even more importantly, a refusal to consider the particular facts of a particular case is a terrible mistake that the courts and the agencies should not make.

I thank the FTC and Department of Justice for the opportunity to speak today and for your thoughtful consideration of these important issues.

(Applause.)

MS. GRIMM: Thank you very much.

We'll now take a 15-minute break and we'll reconvene here then for the round-table discussion. Thank you.

(A brief recess was taken.)

MS. GRIMM: I'd like to start this portion of our program by asking our two panelists if they would like to comment in any way on each other's presentations and respond to any questions between them

Would either of you like to comment or ask any questions?

MR. McCOY: I think I'm going to pass. I think I'm here to answer your questions

MS. GRIMM: Okay. What we're going to do is very similar to what we did this morning. We're going to ask some general questions, then we're going to ask some specific questions on predatory buying that Michael will answer and some questions on loyalty discounts that we'll talk about with you, Tom

MR. McCOY: Great.

MS. GRIMM: So, to begin, we have heard a lot this morning about the lack of uniform standards among and between antitrust enforcement agencies throughout the world. And AMD operates globally, clearly. I believe that you filed a complaint against Intel in Japan, Korea, the EC, and of course the case in District Court in this country.

Could you please address the question of standards, whether they are different globally, and also tell us if it does cause a problem for AMD or whether it is not a problem?

MR. McCOY: I'd be glad to.

We did not file a complaint in Korea --

MS. GRIMM: Oh, I'm sorry.

MR. McCOY: In fact, we found out about the investigation of Korea in Intel disclosures, so ... But,

more generally, it's a very interesting time, I think, for Commission authorities around the world, particularly as the world has globalized and the markets are global. And AMD and Intel, for example we are the only two suppliers of X86 processors for the world. The whole world is dependent on us and probably eighty percent of IP runs on X86. And I think more and more we're seeing business conditions like that.

My experience is that there is a great opportunity. It shouldn't be viewed as a difficult problem, as Judge Posner has posited in some of his remarks. I think it's an opportunity for the mature competition authorities around the world to establish their common ground.

And, in my experience, there is tremendous common ground that I don't see really any outlines out there when it comes to the valuation of unilateral conduct by dominant companies. I see an effort to come together on guiding principles as to what the desired results competition policy are.

It's about competition, not about competitors. It's about innovation. It's about competitiveness. You can't have competitiveness without competition. It's about consumer value and consumer choice. It's about a very thoughtful look at barriers to entry and their

permanency relative to assumptions about their transient nature. And it's about looking for behavior that makes no sense for a long period of time. So, where rational business people are making irrational decisions that suggests that there is a persistent problem.

And, in my experience around the world in today's agencies, there is tremendous interaction between those people involved in policy, those people involved in economics, and those people involved in advocacy, in trying to bring together guiding principles where we can all agree that the values of antitrust enforcement have been historically used in this country in terms of promoting efficiency and consumer welfare are far more common.

MS. GRIMM: So, just following up on that, you really don't perceive it as a problem. Is that overstating it?

MR. McCOY: I have not seen a problem and I have not seen -- and, I'll be honest, in the AMD and Intel, you know, fronts around the world, I don't see a big set of differences in the way that people are looking at this.

We may get into a little bit more of that when we look at retrospective rebates. But in terms of what's the appropriate focus, you know, what's happening to the innovation process, what are the barriers to entry, why do

we have persistent behavior that is out of character for people who are smart business people, why has it endured so long, and what are the effects on the innovation process and the effect on consumers, I think everybody is asking the same questions,.

MS. GRIMM: Let's follow up with the loyalty discount and just take rebates and loyalty discounts as one type of conduct that we're looking at.

Is there any difference in the standards that you perceive that are being applied in different jurisdictions as to that particular subject?

MR. McCOY: I believe that in my experience, and let me make it clear, I don't pretend to be the latest, you know, gift to antitrust academics, but I have been around the block in my career on all these issues.

I think the law is pretty settled and policy is pretty settled every where in the world but here in the United States about retrospective rebates. And I think one has to be careful to take a hard look at what really happens in a marketplace, beware of labels. Because we can all agree that price competition is a good thing. And we can all agree, generally speaking, that a discount is a good thing.

But a retrospective discount or rebate, and I use those words in quotes, is usually, when deployed by a

monopolist, not a rebate or discount at all. It's a price coupled with a threat of a price increase it can go to here in demands for market share and monopoly margin.

So, there's simply a device, a mechanism, to impose a penalty on capital customers from erring to try to balance out their suppliers.

MS. GRIMM: This morning I believe we heard that with respect to discounts there really is no standard that's generally accepted even in this country.

Do you agree with that or not?

MR. McCOY: I think that (a) the way that most jurisdictions look at this is in terms of exclusion.

What's really happening is a matter of fact. What is really happening, which requires a look at relative market share. But I believe that most of the world looks at it in terms of exclusion.

In this country, I think the debate is very confused and there are a lot of discussions about words and concepts, but they tend to be -- discussions tend to be somewhat divorced from what really happens in the marketplace, in my experience.

So, I don't think we have a settled view on when and if a dominant firm should be permitted to use a retrospective rebate. And I think the debate in the U.S. is far behind some of the more closed debates and

jurisprudence of other jurisdictions, where they've had a lot of experience in looking at them and actually coming to decisions and enforcement actions. They're coming up with remedies.

MS. GRIMM: Let me follow up on that also.

What remedies are they coming up with with respect to discounts that are found to be illegal?

MR. McCOY: Well, I encourage everybody to actually look at what they do rather than rely on me. As I said, I don't pretend to be a professor.

But they're fairly clear remedies in the other jurisdictions about preventing quantity-forcing contractual terms.

And, in fact, as I observed in my opening prepared remarks, we have a very clear example coming out of the Microsoft case, where you have a quantity-forcing term that Microsoft had imposed on the world, which is basically you're selling a computer, you're going to pay a royalty to us whether you are selling that computer with an operating system or not.

And everybody agreed that was clearly above the line as a quantity-forcing predatory contractual term. And there's no reason why in and out of this context we can't figure out appropriate, clear and fair remedies here as they have elsewhere.

MS. GRIMM: In your view, are DOJ and the FTC failing to challenge single-firm conduct that they should be challenging? And, if so, what types of conduct?

MR. McCOY: Well, I think that we are in a period of having a very healthy and appropriate debate about when there should be regulatory intervention into managed markets where the management is as a result of the unilateral conduct of the dominant firm.

And, particularly in a world that is changing rapidly and globalizing, it's very -- I think it's very appropriate to step back and take a look at -- a fresh look at the policy objectives that underlie antitrust law and policy and enforcement, and whether the tools, the analytical tools, are the right tools, whether the right facts are being evaluated, the right priorities being set, and whether enforcement is appropriate and effective.

And that is likewise appropriate that that be a global debate. As I said, it shouldn't be viewed as a problem or a burden. I think it should be viewed as an opportunity for competition authorities around the world, particularly in mature jurisdictions and marketplaces to try to find as much common ground as possible, and I believe it can be done. In fact, progress has probably been made.

Right now, from a business perspective, it

appears, frankly, that there has been a retreat from Section 2 enforcement, and that not getting the same kind of energetic investigation and enforcement of Section 2 in unilateral conduct, which to me is surprising when we look at the continued investment of resources appropriately.

MS. GRIMM: Mike, are you there?

MR. HAGLUND: Yes, I'm here.

MS. GRIMM: May I ask you the same question?

Are the FTC and the DOJ failing to challenge single-firm conduct that they should be challenging? We know about predatory buying. Are there any other forms of conduct that you encountered in counseling your small- to medium-sized clients that we should know about?

MR. HAGLUND: Well, I think that there is a -- what I've observed in the last five, ten years is a shift, I think, in emphasis at the national levels by the Federal antitrust agencies to having a greater concern with national markets and international markets. And I think that with that -- and some of that is understandable.

Some of it I think is a mistake because I think that when one really drills down into some of these lower tech industries that I've been involved in, you find real regionalization and relevant distinct markets that meet the test of that term for purposes of antitrust law and can be significantly hurt in terms of their competitive

health unless there's significant enforcement of the antitrust laws.

And I think that more energy needs to go into knowing the facts of those local and regional markets because the smalls tend not to be able to watch out for themselves because of the level of antitrust expertise out there generally. And I think that the states vary widely in terms of the level of commitment they have to antitrust.

So, I think there's more to be in that sector.

MR. McCOY: Can I make a positive comment?

To give you an example of what the technology industry would view as a very, very good signal. The Federal Trade Commission has obviously invested an incredible amount of time and resources into the Rambus situation. And I am not carrying a brief on either side of those issues, but those issues are very important.

They're very important to innovation and competitiveness. They're very important to market entry. And they're very timely. Market standards are a very good thing from the consumer welfare perspective. They drive scale and they drive the entrepreneurial opportunity.

And I think that we have a lot of evidence now to evaluate how standards are a very, very positive thing. They drive competitors and innovation, and therefore, the integrity of the standardization process is something that

should be really looked at very carefully. And when there is not integrity in that process, the world needs to know that there is going to be enforcement.

However the Rambus case ultimately comes out, I think the Federal Trade Commission sends a very appropriate signal to the marketplace that this is important and it's strategic, and it's quite clear that there is going to be some behavior that is simply not going to be tolerated.

MS. GRIMM: Let me kind of reverse the question and ask the opposite.

Based on your experience, are there certain types of conduct that are benign or procompetitive, deserving of more lenient treatment than they are currently afforded?

Either one.

MR. HAGLUND: I guess I come at it from the standpoint of looking at the forms of anticompetitive conduct being able to take many, many different shapes.

One of the interesting things I heard in Tom's talk was his reference to the potential that a mix of acts can work very effectively for a dominant firm. In the Weyerhaeuser case, for example, we had 15 different types of anticompetitive conduct, but all the attention has been showered on predatory buying, but in fact the table was

set for the price-raising behavior in the log market by exclusive contracts, by a number of other anticompetitive tactics that worked together in combination to become effective overall.

But I guess I'm not able to identify conduct that should be benign, other than that I do see some of the rationale for why Brooke Group was decided wanting to immunize price cutting with the price cost test in terms of not trying to hinder or chill price cutting conduct.

But where it's beyond that, I have trouble -- my experience doesn't reveal areas where I think there's too much attention or it shouldn't be used.

MR. McCOY: Well, I have been practicing law and business for over thirty years now and been through many different seasons of policy views and the relative oversight by competition authorities.

And I guess I would say this: In my career, I have never seen a company hold back. I mean, it's a hardball world out there and I've not seen a client in the days I was a law partner or certainly at AMD where businesses were pulling punches because of worry about the activity. So, that's number one.

Number two, depending on what side of the bar you sit on, in any particular matter, you always have one

side that wants to disaggregate all the behavior and just look at everything piecemeal. But the reality, the reality of life in the business world, is that there is a tapestry of activities. That's just the way the world works.

And one really does have to be careful of trying to judge the beauty of the picture by just looking at the eye or the ear or the nose. You really have to look at the whole thing.

And, finally, I think that the challenge is always going to be pretty much the same because, if a company is fortunate enough to have a dominant position, however they got there -- let's assume they got there through skill -- and they're now enjoying a big market capitalization of software, they're going to do everything that they can to protect that market place. And that's what they're going to do.

And, therefore, there's always going to be, in my view, need for a strong antitrust policy articulation, communication and enforcement, because otherwise you're going to end up with cultures, business cultures, that their compliance programs are not going to be able to keep under control.

MS. GRIMM: I'd like to turn to a little different subject now.

As you may know, antitrust lawyers and judges are battling -- I guess that's too strong a word -- but how much weight do you give to business documents containing evidence of bad predatory intent? What consideration in your view should the antitrust enforcers give to intent documents in assessing a firm's conduct?

MR. HAGLUND: Well, I think you hear two schools of thought on this. One is that, oh, every good business wants to kill its competition, that's just the way of the world in terms of being a good competitor. You hear experts talk about juries getting too carried away about statements that they think are just characterizations of a robust effort to compete hard.

And I think you need to distinguish between cheerleader-type phraseology that somebody might use in an e-mail, which I don't find to be terribly meaningful, and the documents that really help demonstrate what the intent is relative to a particular business practice and its ultimate effect on the structure in the industry.

And where the documents really -- where I find intent helpful, and I think this is where the court in Microsoft and a number of Supreme Court cases have said in "Aspen," for example, and "Trinko," what's important, intent can help give one a means of interpreting what are otherwise ambiguous acts and give you a more firm and

clear view of what the defendant really intended. And especially if they speak to the structure and the change they wish to achieve in the industry. And if they're already above the fifty percent mark, then I think it's very helpful stuff.

MS. GRIMM: Tom, any views?

MR. McCOY: Well, I think that government officials involved in antitrust enforcement should look at everything. But I think everybody agrees that the documents that a trial lawyer would love on the plaintiff's side have to be looked at objectively and in context. That of course a dominant company is going to try to preserve that dominant position. That's what they're going to do. That's what they're paid to do. That's what their shareholders expect them to do.

So, documents that manifest that obvious reality, so what.

But I think that it's important, you know, in being a fact-finder, being a dispassionate fact-finder and evaluating, you know, the purpose of a strategy and whether the advocates are credible or not in trying to defend whether the strategy is being pursued for reasons that really relate to growing a market, satisfying a customer, being creative and innovative in products and marketing, or whether it's simply a design, and a heavily

lawyer design, for a monopoly to use their power to preserve a monopoly.

One needs to look at what people say about what it is they're doing, particularly trying to get a hold of the evidence that matches up externally as to what is the marketplace perceiving as to why the dominant company is doing what it is doing.

And I think it is the unity of the evidence on those boundaries that can be generally fairly helpful figuring out whether it's just straight forward hardball business or whether it's a monopoly simply trying to protect its position using their power.

MS. GRIMM: Thank you. I think you're pretty much in agreement on that question.

MR. McCOY: And I believe, by the way, that that is the view of most of the people in the other jurisdictions in terms of when they're looking at evidence. I think your colleagues and sister agencies from around the world all say, look, if we get a document from a lower-level sales employee that says, you know, we're going to go kill those guys, that we would take that document with somewhat of a grain of salt. That, standing alone, doesn't tell us any about structure, about efficiency, and certainly about what's happening in the industry.

MS. GRIMM: When we were doing some background research, Google research for this panel, we came across a recent article in "Fortune," August of 2006, that quoted you. And it quoted you as saying, "As a matter of economics, the monopolies probably begin somewhere between thirty percent and thirty-five percent," and it then goes on to explain that at this point a rival's rising market share would imperil a dominant firm's hold on a market. You were talking about Intel in this article.

Do you have any experience in suggesting that attaining any particular market share, whether it's thirty or thirty-five percent or whatever, has particular significance for competition against a large competitor?

MR. McCOY: Well, my comments were in the context of the X86 processor market where Intel has, for more years than I can count, enjoyed a revenue share of at least eighty percent, and there's really no other rival, but that which typically had a revenue share of somewhere in the ten to fifteen percent range.

And so in order to think about specific points where monopoly power begins to erode, you need a lot of context, you need to know where the companies are starting from, and you need to know a lot about the various entries, and you need to know a lot about what is the psychology of the marketplace. Because one of the things

that gets missed in the academic debates is that markets are comprised of real people making human decisions. And so, that psychological, you know, culture of the market explanation has been patterned by monopoly behavior.

My comments are taking a look at where we are and where the competitor is and the penalties that are imposed or that have been imposed on customers for incremental market share provided to us, and where we would have to be as a revenue share before we could overcome those kinds of penalties.

And one of the examples that I talked about in the prepared remarks is that, in a situation where you go to a very big and powerful company and you say, we're going to give you a million units for free, units where probably your average procurement cost is running at least $150.00, we're going to give you a million of them free. And they can't be used, they can't be used because the penalty, the retaliatory penalty that is imposed for not maintaining market share margin of the incumbent, tells you something about you got a ways to go as a matter of, quote, economic -- economics. Capital markets and psychology you can amass what you need to overcome the barriers that have been erected that you have to get over, particularly in markets where only a small slice of it is contestable in any relatively short term or intermediate

period.

In some markets, a company could wake up on Friday and say, on Monday I'm going to buy twenty percent more of my needs from a different company. But that's not true in technology.

In technology, there is -- a lot of switching costs takes time. It can't be done quickly. And, therefore, getting a relevant market share to be able to overcome the power of the tendency is difficult.

MS. GRIMM: Let me follow up with just one further question.

With respect to loyalty discounts and rebates, does market share provide any kind of useful screening mechanism that we could use for assessing legality?

MR. McCOY: Well, yes. But, again, I believe you have to look at market share and I think you have to look at entry, and you have to have in mind the relative margins of a monopoly supplier and the customer base.

So, you can have a situation, as we do in technology, where you have an ingredient supplier with margins that are -- operating margins in the forty percent range, serving customers whose operating margins are in the zero to six percent range. And they're public companies, with people who are trying to manage shareholder expectation, capital market expectations,

employee morale, and their tenures, with a board of directors looking over them.

So, I don't think there are any bright lines here. I know everybody wants a bright line and everybody wants to talk about safe harbors. But in the real world, there are a number of factors that I think is a matter of making sure that you're doing the right thing in the right market at the right time.

The unfortunate reality is, from a resources vendor standpoint, that a fair amount of homework should be done. But certainly in marketplaces where you have an enduring monopoly that is enjoying fifty, sixty or more percent of the revenue share, that tells you, frankly any time you have a dominant company using a retrospective rebate, it's -- in my experience, the odds are one hundred percent that a retrospective rebate is being used for no other reasons.

MS. GRIMM: Mike, I'd like to ask you one more question on predatory pricing, then we're getting pretty close to closing the session.

You've practiced, as you pointed out, for many years representing small- and mid-sized resource companies.

Is the issue of predatory buying, the type of conduct that we saw in Ross-Simmons, is it rare, or is it

more common practice than the case law might reflect?

MR. HAGLUND: I think it's fairly rare. And it happens only, from what I've seen in these markets -- at least in the resource sector, in markets where the supply of the inputs is fairly elastic and -- I mean, alder, for example, doesn't get harvested except as a byproduct of the much larger softwood harvest in the Pacific Northwest. Fish stocks, for example, that are so rigidly regulated. Those are the kinds of markets where a really predatory dominant buyer can eliminate its processor or sawmill or other competitors.

But, in looking at the case law, there are a very, very few number of cases. And in my own experience, there are so many resource markets, you don't see any evidence of it.

So, in the big picture of things, it is a relatively rare situation.

MS. GRIMM: Joe, would you like to close with any questions that you might have of our panelists?

MR. MATELIS: Sure, I'll ask one.

I guess this is primarily for Tom, although I'd be interested in Mike's thoughts.

One of our panelist at the morning session talked about, in view of the emerging overlapping international enforcement that's taking place, what he

termed a principle of comity and, in general, it's the notion that there ought to be principles where one enforcement agency presumptively takes the lead on a certain matter. He proposed home jurisdiction and there had been other proposals.

I'd be interested in your thoughts on the potential problem of overlapping enforcement across countries.

MR. McCOY: Well, as I said, the issue of harmonization across the borders in the competition network, I think that's very important.

I think that particular proposal is absurd. If you were to apply that proposal, particularly with any view of the way the world is going to look to AMD and Intel, you would conclude that the dispute should be resolved in the states.

And, the fact of the matter is, for AMD and Intel, if you were to take -- our revenues are probably seventy-five percent coming from outside the U.S. We are -- big multinational companies are citizens of the world. We have productive capacity all over the world. We have employees all over the world. The innovation process is one that is built on human resources located around the world, in no particular jurisdiction. And the marketplaces are global.

So, to look at where a company is chartered or where the CEO sits is not a relevant variable to determine competition policy.

MR. MATELIS: Just to press you a little bit on that: Even if we don't like that specific proposal, is overlapping enforcement from different countries something that we ought to be worried about or a healthy thing?

MR. McCOY: Well, I think that I'll be -- I think the competition authorities should compete, just to throw out a radical thought.

MS. GRIMM: We heard that [laughter].

MR. McCOY: No, I'm serious, that there should be intellectual competition. And that's the free flow of ideas, just like free trade in IP. Nobody has a monopoly on these ideas.

But be careful when you talk about who ought to take the lead. I don't think it's ever going to, in the practical world, occur, because in a globalized world, what a dominant company does in any particular jurisdiction affects all the other jurisdictions. So, for example, I think one of the reasons why Europe became so active in the Intel investigation after Japan is because it was so clear that the behavior that was judged to be a violation of the antimonopoly laws and the public policies in Japan had a direct effect on consumers in Europe.

So, when you have these -- when you have a more globalized world where the dominance, you know, extends globally, behavior anywhere can affect consumers everywhere. And in those scenarios, I just don't think it's -- one has to be practical, including politically practical. To think that any jurisdiction is going to advocate or forebear the protection of its own consumers in favor of another jurisdiction, that would be a remarkable thing. And I just don't think it's healthy.

MR. HAGLUND: I'd agree with Tom.

MS. GRIMM: And on that note, it is a little past 4:30, I believe. Yes.

I again want to thank our panelists for participating in our hearings today. I'd like everyone to please join may in a round of applause for them.

(Applause.)

MS. GRIMM: I'd also add you're all invited to a reception following this hearing. It will be at the Woman's Faculty Club over here

You're also invited to join us tomorrow. We're going to have a number of very distinguished faculty members from both Berkeley and Stanford. The session in the morning will be from 9:30 to noon, and the afternoon session will be from 1:30 to 4:30.

Thank you all for attending. I think our

panelists did a remarkable job. Thank you.

(Applause.)

(Whereupon, at 4:35 p.m., the hearing was concluded.)

C E R T I F I C A T I O N O F R E P O R T E R

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DATE: JANUARY 30, 2007

I HEREBY CERTIFY that the transcript contained herein is a full and accurate transcript of the notes taken by me at the hearing on the above cause before the FEDERAL TRADE COMMISSION to the best of my knowledge and belief.

DATED: February 17, 2007

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KATHLEEN CARR MEHEEN, CSR 8748