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Secretary of the Commission

Meeting Before the Commission

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FEDERAL TRADE COMMISSION

In the Matter of:)
)
) Docket No.: P951201
HEARINGS ON GLOBAL AND)
INNOVATION-BASED COMPETITION)

Friday,
December 1, 1995

Federal Trade Commission
Sixth and Pennsylvania Avenues
Room 432
Washington, D.C. 20580

The above-entitled matter came on for hearing, pursuant to notice, at 9:00 a.m.

SPEAKERS:

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Chairman, Federal Trade Commission

JANET D. STEIGER
Commissioner, Federal Trade Commission

CHRISTINE A. VARNEY
Commissioner, Federal Trade Commission

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SPEAKERS (Continued):

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THOMAS ROSCH
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SPEAKERS (Continued):

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DAVID J. TEECE
Professor, University of California, Berkeley
STEVEN SALOP
Professor, Georgetown University

ROBERT WILLIG
Professor, Princeton University

P R O C E E D I N G S

CHAIRMAN PITOFSKY: Good morning, everyone. We meet again in these set of hearings dealing with global competition and innovation.

I was telling Dick Schmalensee a minute ago that the question that we have been dealing with the last day or two, this issue of how antitrust deals with networks and with bottleneck monopolies and high-tech industries, I believe has been about the most perplexing that we have addressed. We had some fairly sharp disagreements yesterday, everything from open access equals confiscation on the one hand to the claim that open access is the American way on the other hand. And we really look forward to this panel enlightening on us what the issues are and what we ought to do about them.

Our first speaker is Richard Schmalensee the Gordon Billard Professor of Economics and Management at MIT and Director of the MIT Center for Energy and Environmental Policy Research.

He served as a member of the President's Counsel of Economic Advisors from 1989 to 1991. And prior to joining the Council, he served as area head for economics, finance, and accounting at the MIT Sloan School of Management.

His academic work has centered on industrial organization, economics, and its application to a wide range of antitrust and regulatory issues. And, of course, he's published numerous articles and co-authored several books.

He has also been a consultant for many private firms as well as government agencies including the Antitrust Division of the Department of Justice.

Dick, it's a pleasure to welcome you here.

MR. SCHMALENSEE: Thank you, Mr. Chairman.

You have my written statement, which is much too long to read. So let me just go through some of the main points.

I'm going to conclude -- this is the sort of testimony when you realize you have become your father. I'm going to conclude that networks are very interesting, networks are very difficult, but that networks really do not justify new rules. Networks raise difficult problems, but they are not fundamentally new difficult problems.

A reason I think for confusion that I want to deal with first -- and it's dealt with first in my written statement -- is the tendency to use the term "network" in a very broad way and then to attach a specific meaning to it.

If you think about the number of things that are commonly called "networks," they range from the telephone system to a new MBA set of useful friends and acquaintances, to the set of suppliers serving a particular firm connected by long-term business relationships, to the set of users of a particular software product.

These, I contend, are very different animals. Some networks have single sponsors, say the set of individuals connected because they use a particular software product. Some networks have multiple sponsors, say the participants in bank credit card networks. There are a range of differences.

I think the confusion arises, in part, because the economic literature on networks deals with a particular network phenomenon that doesn't characterize everything we describe as a network.

The economic literature focuses on networks marked by a particular kind of externality in which, roughly speaking, the value of the network rises more than proportionally to the size of the network. Networks like the telephone system, in which the value of a telephone to me depends positively on how many people have phones; therefore, the total value of a million-person phone system is more than a million times greater the value of a one-person phone system, for instance.

Networks that have this feature, these network externalities, show a sort of economies of scale on the demand side as distinct from any economies of scale in provision of the networks or its services.

Economies of scale on the demand side, like economies of scale on the supply side, tend to point in the direction of, although it may not carry the system all the toward, natural monopoly or essential facilities status.

Not all things that we commonly call networks are obviously possessed of that attribute. So simply to say that something is a network is not to say that nature or market forces decree that there should be only one of them or of it. And I think that's important because we tend, when we think network, to think essential facility, to think only one. But as a logical matter, a network is something that has nodes and links. It's not something of which there is logically only one. So let me urge that distinction. And also make the point that simply having networks externalities by itself operating over some range of size of the network doesn't get you natural monopoly either. It may be important in a credit card network, let's us say, to have national coverage or world coverage. It doesn't follow that after that has been obtained there are further externalities that cause economies of scale.

Well, let me talk, then, that general point made, about some issues raised by single-sponsor networks and by multiple-sponsor networks.

The single-sponsor network situation is one -- it would be typified, say, by one that the Commission knows well: The situation involving Microsoft operating system products. That's a situation which one can argue for a network, that there are connections among users.

One can argue there are externalities, that the value of the system grows more than proportionally with the number of users. And that the issue that's raised -- and has been raised by a number of observers -- is whether one needs, in situations like, unusually strict conduct standards.

The argument, as I understand it, basically builds on the economics literature. The economics literature in situations of this sort says that, by accident of history, by dint of moving a little bit earlier, or as a logical matter, by dint of a small antitrust violation that gives an advantage, an inferior standard, an inferior network, can emerge as the dominant entity.

It follows, then, that because small actions can have large consequences -- it follows in this particular argument -- that one ought to be particularly careful about small actions. That is to say, to avoid losing kingdoms, you have to watch horseshoe nails closely.

Let me point out, first, that this argument hinges on scale economies. It hinges on a situation in which the outcome of an industry will not be perfectly competitive. It might be a monopoly depending on who wins the competition in a situation involving scale economies.

It applies equally as well -- although, I don't think this has been formally done, but it applies equally well to scale economies on the supply side, which are very familiar to us, or to learning economies, which are very familiar to us.

Now, one wouldn't want to say, I think, that because an industry has economies of scale in production that we have to be very, very careful, unusually careful, careful in ways that would otherwise be unjustified, to hold the industry to the a standard of near perfection, because after all, if we don't, then a small antitrust violation can lead to huge social costs.

It seems to me, we tend to apply -- we tend, obviously, to apply different set of standards -- and appropriately so -- to dominant firms or firms that can be arguably characterized as dominant. But I don't think that it makes sense any more in the case of scale economies than in the case of network effects to be obsessively concerned about the possibility that, if we don't prevent someone getting an illicit advantage, the world will end.

Let me also point out an important qualification. The theoretical models that say, indeed, an inefficient or undesirable standard or network can emerge as dominant because of accidents, it's unclear how seriously to take those models as an empirical matter. It is hard, as a number of people have pointed out, to find examples. And it's important to recognize that saying that standard X wins when standard Y is better, means there is a profit opportunity for vendors of Y if they can find a way to overcome whatever disadvantage they began with.

In the models if the journals, the vendors of Y have few strategies, typically. In the real world, the vendors of Y have a wide range of strategies that they can seek to employ to demonstrate their superiority to overcome disadvantages.

Given that difference and given the difference in the lack of empirical support for these models, one must be a little careful.

A third point to be made is that, as distinct from situations in which advantages rest on tangible supply side assets, when advantages rest on basically being popular because you're popular -- which is the classic network externalities case -- that's a very precarious position.

As vendors of a number of formerly popular software products like Word Star and Visicalc can attest.

Let me turn, now, to the issue of multi-sponsor networks. And I think the prototype case, from my point of view, would be, say, bank credit cards; although, obviously collective standard setting raises a set of related issues.

Again, it's important to understand that just because a situation is properly characterized as a network does not mean it is inevitably an essential facility, inevitably a natural monopoly, inevitably only one of them.

That said, as a general matter, I think it's useful -- indeed, I think it's important to distinguish between conduct issues related to operations and conduct issues related to membership.

Issues related to the operations of a network seem to me, essentially, indistinguishable from the issues of multi-sponsor network related to how any sort of joint venture carries on its business. And, you know, there are trade-offs between efficiencies from closer cooperation and risks of diminished competition from closer cooperation. There are broad policy issues, the extent of which the joint venture form should be a favored or disfavored form of organization. These are familiar issues and don't seem to me to turn on whether something is a network or has network externalities.

Now, I think much the same is true, despite a lot of recent writing, about membership issues. If you think about what issues are raised by considering a joint venture's membership policy, well, you could reduce competition by excluding firms from a joint venture because they could either be excluded from a market or rendered in effective as competitors in that market. Of course, excluding a few firms without special advantages from a competitive market, I know, can't have that effect. On the other hand, inclusion of a large fraction of actual or potential competitors may reduce or eliminate competition at the network level, either by effectively merging two networks or by reducing a network below critical size.

The familiar worry -- which we used to hear more about than we do now -- of having a large fraction of competitors in an industry in an industry making collective decisions is, I think, still a valid one. There are dangers from having a joint venture be over-broad.

Finally, I think there are broad policy issues raised by -- of several sorts -- raised by requiring a joint venture to admit members particularly if that joint venture, as is the case in all interesting situations, has actually created something of value.

That raises, first, the question of the appropriate price of membership for a late comer. That, I submit, is fundamentally a regulatory question of the sort that courts have traditional sought, properly I think, to avoid.

The second broad policy issue is that, given there's always some uncertainty about how access will be priced if it is forced, the prospect of facing that sort of uncertain outcome tends to disfavor the joint venture form and tends to reduce incentives to create property in that way, perhaps either leading to it's non-creation or it's creation by a merger or a single-firm form.

Now, I think none of these points have much to do with whether the joint venture being considered is a network.

Certainly changes in technology have made networks that use electronics -- have sort of increased the scope for productive networks of that sort -- and that's been important development -- but the points I just went through don't have anything to do with networks. They have to do with joint ventures, competition between joint ventures and other entities, competition within joint ventures, nature of markets, and so forth.

I think the fact that the Mountain West case involved a network is, in one sense, coincidental and in one sense not. It's coincidental because those issues could have been raised by other joint ventures. It's not coincidental because the technology means that a lot more joint ventures or related forms will be networks in the future.

I come down in these questions to something close to an essential facilities position; that is to say, I think the balance of policy considerations means that a joint venture should be required to admit a new member only when it can be shown in doing so is essential for effective competition or close to essential for effective competition in some market.

That is to say, I think the presumption is that refusal to admit a new member ought to be legal, just like that's the presumption -- rebuttal, of course -- just like a refusal to agree to a merger proposal is presumptively legal.

Now, that's not a per se rule despite things friends of mine have written. And various friends of mine would take another view, would apparently condemn any decision to exclude an applicant for membership in a joint venture if exclusion would reduce the applicant's effectiveness as a competitor, unless that exclusion could be shown to be reasonably necessary to achieve efficiencies.

Well, the contrast between the two approaches is what's to be proven and sort of what's the presumption.

My sense is it that a harmless exclusion should be treated as harmless, even if you can't provide an efficiency defense for it. That is to say, one could conclude -- I'm not offering this is a conclusion. One could conclude that the main reason that VISA declined do admit competitors, to admit Dean Witter was a visceral reaction that says -- the standard, typical business person's reactions -- these folks have been our competitors, and now they want to join our venture; no way.

Now, if that was the case, it's real hard to find an efficiency defense. But in my view, that ought to be a legitimate decision if it does not reduce, does not appreciably reduce market competition.

I think to go the other way, to put the presumption in favor of admission, makes sense only really if you think that, as a general matter, refusal to admit a new member tends to reduce competition. In light of the importance of competition at the network level or among joint ventures or between joint ventures and other firms, I don't see how that presumption is justified.

In addition, I think it's not justified because there are costs, potential competitive costs to having over-broad joint ventures. I think to ignore that, that traditional and proper concern, and to do that by saying, it's a network, is unjustified.

To circle back to the point with which I began, if you start with the presumption that because something's a network, network economies are important; because network economies are important, you're in a natural monopoly, essential facilities situation. If you begin with that, then, of course, there's no lost to admission because you're dealing with essential facilities by assumption; and why would you ever want the owners of an essential facilities to be permitted to exclude?

But it doesn't follow that anything that is properly labeled a network is a natural monopoly without proof.

If there is proof, then admission should be required and the difficult task of what is the price should be faced.

Now, as I said at the outset, this is the sort of testimony, when you have prepared it, you realize you have become your father. So I want to be clear that I'm not suggesting that antitrust industries should receive less vigorous -- or network industries should receive less vigorous scrutiny.

It seems to me, however, that existing -- that the issues raised in these industries are not intrinsically novel. They are issues that we have encountered in the antitrust area in other settings. They have been difficult in other settings. They are difficult here.

The recent work in economics -- it would be nice if the recent economic literature on networks were of the following character: I don't know about these other situations, but in a network context, here's how you deal with them. But the literature isn't of that character.

The literature is of the: Here is some

interesting and difficult things that can happen in networks. That, I submit, does not really provide new analytical tools to be used to deal with these old issues in a network context. So I am forced to conservative conclusions.

Thank you.

CHAIRMAN PITOFSKY: Well, thank you for an exceptionally clear presentation on this.

What we have been doing the last couple of days is maybe ask a clarifying or two but save discussion, including discussion among the panelists, for a little later in the morning or the afternoon.

Dick, let me make sure -- I believe I understand that you're drawing a distinction between an essential facility that's essential to the competitor. That's not enough. It's got to be essential to competition. If it's only essential to the competitor, that's your notion of a harmless error.

But let's assume it's essential to competition, even in that situation, would you allow the joint venture or the monopolist to say, yeah, but letting more people in is highly inefficient and will diminish the efficiency of the total operation?

MR. SCHMALENSEE: No. I think -- I was about to say I follow the traditional essential facilities doctrine, but that's not a clear statement.

In principle, there's a balance called for, of course. In practice, I think that's not likely to be feasible unless it can be shown that competition is simply not feasible.

Then it seems to me -- and that's a difficult showing in this day and age, and I think it's very difficult in these industries. I think to the extent there is a traditional essential facilities doctrine that says, if competition is feasible, if access to this facility is essential for competition to occur, then, reluctantly, painful, awkwardly, we must compel access.

So I would go that far. I think essential for a competitor is not far enough.

CHAIRMAN PITOFSKY: Right.

Thank you.

Other questions?

Our next speaker is Roel Pieper, President and Chief Executive Officer of UB Networks and a Senior Vice President of UB Networks' parent company Tandem Computers.

UB Networks is one of the largest network communications vendors worldwide and provides enterprise organizations with ATM, Ethernet, and others.

Prior to joining UB, Mr. Pieper served as President and CEO of UNIX Systems Laboratories. Before that he spent 10 years at Software AG, both in Germany and the U.S. There he served as Chief Technical Officer and Senior Vice President of the Technology Division.

Mr. Pieper.

MR. PIEPER: I would like to make an attempt to comment on the subject of networks probably more in a, what have been called a "real network sense."

Having had the experience of the leadership of the UNIX community, or the UNIX Operating System environment for a number of years 1990 to 1993, I would say I have been whipped into shape as to what real standards were and what real standards weren't and, even more importantly, what real processes were and what real processes weren't.

In that experience I detected that standards is not about technology. It's actually about attitude, and I want to explain that in the following way:

The opposite of "open" -- a lot of people make the mistake that when you talk about open standards, a lot of people make the mistake that think that the opposite of "open" is "proprietary"; and actually the opposite of "open" is "closed."

Whereas the opposite of "proprietary" is "public." So if you would draw a quadrant between the opposites of those determinations -- i.e., "open" and "closed" and "public" and "private" -- you come to the conclusion that the winning quadrant is "open" and "proprietary."

Now what does that mean?

That means that there must be some process by which standards evolve and proprietary value continues to be added. It must be a coexistence of proprietary evolution, you know, fostered by competition or fostered by invention, whatever that may be, off of the basis and process of at least a base of common, open standards that are moving ahead.

I concluded after those years leading the UNIX community that to be successful creating a valid standard, at the heart of the success lies the attitude of the providers, not the technology itself.

Now I'll come back to that particular point with regard to a number of activities that I'm currently trying to sponsor outside of my business activities in Silicon Valley and other prices, partially also for the Dutch Government. I'm a Dutch citizen, and I'm advising to a certain extent on somewhat sort of similar issues.

There are, you know, again, a whole bunch of battles in the industry today which are not visible yet. The ATM forum is one other, let's say, new community on the horizon trying to come to grips with a new set of standards, derivatives of ISBN, to try to foster, within the network sense, collaboration, competitiveness, interoperability, and, obviously, effective products, effective in the sense of functionality, price, et cetera.

We can debate if that process is going to be successful or not, giving the experience that we have had, in the operating system wars that have mostly, you know, subsided.

I believe that the risk of convergence, again around monopolistic standards that are driven through economies of scale, vendor dominance, in the sense of network functionalities, network capabilities, will, again, be derived off of what I would say "undocumented features" and "capabilities" similar as that has happened in the operating system types of environment.

Again, there is no real difference -- and I agree with you -- there is no real difference with a lot of these issues coming at it from a more technical point view, I understand. There are really not a real lot of differences between what has happened more from the single computer point of view than from the, let's say, networked computer point of view.

I would like to try to make a stab and explain some of the things we are trying to do out of an organization that is called "Smart Valley," not that there are no other smart valleys in the world; but there is a group in Silicon Valley that is called Smart Valley, which is composite of academia, business, and administration-type of, let me say, managers, leaders, and executives.

And this group has made a statement towards each other and to the Valley that their mission is going to be to try to foster sharing of technologies, sharing of ideas, but way ahead of actual product delivery to the market.

And around that concept, which I have been part of the founding of, the very specific new project has been founded; and I would like to maybe start with some foils to try to come to that conclusion and then fold in some other points that I believe are very relevant to how an administration in general -- this is my personal opinion -- should behave with regard to the participation in this whole standards process.

It might be a little controversial, and that's okay.

Okay. So the main point that I would like to talk about are these four -- talk about what I believe are the various choices of government positions and, again, the word attitude, because I think that's the central point; talk a little bit about standards, definition, and evolution of that -- I already started to position it a little bit by talking about these open, closed, public, proprietary types of dimensions -- and then try to position some of that all in the sense of the first mover effects and second mover effects and how one could address some of these issues, again, just bringing forward some suggestions.

Let me first try to put into perspective some of the things that have happened in the industry and that continue to happen in the industry.

The conclusion that I make is that paper standards will continue to fail if they are not tied to real-world evolution and are not in sync largely because of the lack of timing.

We've seen that with OSI. We have probably seen that with things around the UNIX Operating System. And we run the risk, again, of seeing that around the ATM standards.

There is a continuous risk that the more formal processes will be run over by the, let's say, exclusion of other technologies in that environment and, you know, typically short cuts by vendors of a particular nature could be made.

There are clearly de facto standards that are very, very important. I mentioned here in the network sense TCP/IP. I mean if TCP/IP is not a pure example of how an unnoticed technology can suddenly appear as a real market standard and actually work and actually be a real collaborative-type of technology, interesting risks though that these kinds of standards might actually be subsumed by economic volume leaders as their ownership going forward. That's actually another risk that could happen, even after a certain technology standard has been established.

There have been attempts of what I would call blended standards, blended standards where there is both a reality test as well as a paper compatibility test. And I mentioned just a few, X/Open, in the early 80's. And OSF in the mid 80's, and today, things like the ATM forum that you might be familiar with.

I absolutely am convinced that the early movers must be identified more by an organization like this Smart Valley that I mentioned or others around the world or in the U.S. By trying to bring these early movers, these early innovators to an environment that you could call a "collaboratory," a "reference lab," environments in which these early moving parts are identified and exposed to the fundamental question: Would sharing be better or not?

Sometimes sharing is not necessarily good for that single vendor; but after some, let's say, social pressure, public pressure there is the possibility -- and I've seen that work -- that some of these moving technologies could actually reach a much broader market with much more capabilities for a number of companies to be, you know, competitively and economically able to take advantage of a broader set of standards that have been made available through sharing of technology.

I think users, in general, have become much smarter and much more active in qualifying and disqualifying vendors through their behavior, not through their ability or willingness to apply standards in their products that they deliver but actually by their attitude. You see much more vendors making buying decisions blended by both their opinion of the attitude of the vendor as well as the, of course, technical and pricing proficiency of the products that are being offered.

At the same time, vendors have become much smarter as well. The way that proprietary values and undocumented capabilities are being hidden are getting substantially more sophisticated.

So there is a real question as to who is moving faster and smarter in the right direction.

I believe we can talk a lot about these standards in trying to come up with the right processes to write these things down to share them on paper, but my conclusion has been that the only way to really expose the issues of real working and collaboratory-type technologies, if it's a database application, a multi-media application, a telephony-based application, a set-top application, it is through exposure in live collaboratory.

So my conclusion in the sense of standard definition and evolution is that the only place where standards and evolution can happen is in the real world, but we must find a way that this collaboratory-type of environment is fostered by a number of different organizations. And one I believe clearly has to be the administration or government. So let me switch to that point.

As I have done for the Dutch Government, maybe contrary to some belief in the U.S., I believe that there is almost a black and white decision only for an administration to decide to engage or not.

When you engage -- and what I mean by that I'll explain a little bit later -- but when you engage as an administration to participate in the evolution of the market process, you have no choice but to go all the way. There is no middle ground. You must try to be on top of the issues. You try to have the best technical people, the best business people, the best economic people on board to try to understand what's going on in the industry.

The other side, which you could call black or white, is to not do anything at all; and you basically let it go the way it goes, a market free for all.

A governing body -- and I'm just mentioning a few of them. Obviously in the U.S., NIST, in Germany, Deutsche Industry Norm, you know, there are different types of examples of norming bodies and norming organizations that could exist if they are powerful and knowledgeable and active in the sense of participation, not controlling.

I believe that there is a possibility -- and we are experimenting in Holland with that -- that there is a possibility by having both government guidelines, academic guidelines, and business guidelines to create an environment in which sponsoring tax incentives, public academic and business frameworks are created that are, in a way, coexisting with the real-world market dynamics but within which these newer technologies, the early mover technologies, as well, let's say, as the second mover types of technologies, are continuously brought together, are continuously tested, are continuously validated; and key areas of misnomers are identified.

They are not identified by laws or fines or whatever. But that are identified by different types of attitudes of different vendors coming together in a fairly public place.

So what needs to happen, my opinion is, that this decision to engage or not must happen. I believe the decision to engage is better than the decision not to engage. If the decision is to engage, it might be a difficult one and a costly one; but it is definitely one that could lead to more powerful interoperability standards in the network sense that would allow better economies of scale between different companies. I suggest, for example, that the early notions of EDI, "electronic data interchange," could evolve much more broadly and much more efficiently if the business-to-business communication procedures and processes could be done on the basis of much more capability technologies that would be derived off of network functionality, inventory matching, order processing, customer administration -- I could go on and on and on -- a lot of very valuable applications that can become very effective through the usage of a network, let alone the distribution of goods in general as another discussion of value that a network could bring.

Let me talk about first mover and second mover subjects for just a little bit. Again, I'm identifying here some organizations. I'm labelling it NIST, but for me that is not so relevant. It has to be some kind of organization or some group of organizations that I believe need to be put into light that really drives the definition, behavior of these various reference laboratories and applications.

We are, in the sense of networking, at a very early stage. There is a lot of opportunity, I believe, to identify the key types of technologies, applications, and companies that should be brought together by public pressure, social pressure, technical pressure, economic pressure, whatever might apply.

The example that I would like to point to of some of these concepts that is happening in the U.S. -- a similar project is happening in Holland -- is called BAMTA. BAMTA is the "Bay Area Multi-media Technology Alliance." It was started by Smart Valley. There is about 50 organizations that are participating in that, both from academic, administrative, as well as from business entities.

It is also sponsored, to a large degree by NASA, AMES, in which the role of NASA, in this particular case, is both the, let's say, monitoring of attitude as well as the pursuing of certain objectives with regard to standards and evolution in the network sense, in this particular case for the health care education subject.

This organization has been surprisingly successful in trying to bring together technologies and ideas that I had originally thought would be really kept close to the vest by a whole bunch of different companies. And I'm talking about companies such as Oracle, Kodak, Intel, Hewlett Packard, Sun Microsystems, UB, Bay Networks, et cetera, where I would believe that early technologies, in the sense of trying to create a better cooperating network set of capabilities, both at the physical level as well as at the application level, surprisingly, by simply trying to establish this kind of different collaborative type of environment, these things did happen; and there was no formal process for it other than this type of a, I would call it, somewhat of a social economic pressure model.

Obviously these kinds of organizations cannot be a singular one. There must be a whole number of these, and it cannot clearly happen just from a nation point of view. There must be very strong international coordination and verification.

I believe that these things will happen within the European Community. I believe the European Community has another, let's say, organization forum that will try to drive and foster examples of these kinds of collaboratory or projects that would have that common theme of sharing or collaborative technology of the early mover category.

Now, obviously, for second mover technologies, the situation is a little different. Let me use the example of TCP/IP. There is a substantial risk that TCP/IP will be taken over by some organization that simply subsumes it and makes it economically inclusive in other capabilities. And so that's just one example. There are probably other technologies that could be subsumed by economic leaders.

There must be, again, an environment in which some of these evolutionary steps of new technologies that have to be added to an existing environment, similar to some of the joint venture ideas, that when a new party with some value-added ideas is coming to the same place, the real market, the real application, or the role business-to-business communication environments, then we should find a process by which these technologies can be added. If that is not possible by normal collaboration between the business entities, there should be adjacent procedures in place, such as these collaboratories that I talked about, where that kind of a problem or opportunity could be identified.

So this is very similar to the first mover effect; although, the second mover types of environments could be a little more hard to establish and to validate.

Again, I'm trying to stay away very farm from formal processes. I'm trying to focus really on the idea of public exposure, public pressure between the various organizations either from an engineering point of view or simply from a social point of view.

For the sake of time, let me try to conclude here. I think that, you know, from my point of view, if an administration in general decides to be passive, it will have to give up a lot of its ability to judge what is really happening and what is not, simply because of the speed by which some of these technologies are developing and because of the proficiency that is being exposed by the vendors. And I'm talking as a vendor as well.

The smartness, if you want to call it that, by hiding proprietary capabilities and closing them is getting pretty special.

I think by engaged behavior, not controlled behavior, by engaged behavior, one could sponsor, through tax incentives, project incentives, according to specific guidelines. I want to mention here some ideas that I have derived from having been both in Finland and Singapore. I mention Finland and Singapore as some countries that have taken a very rigorous step along these lines of what I would call engaged behavior.

Let me take Singapore as one example. In Singapore there are a whole range of tax incentives, of model suggestions that are being put forward by the administration of Singapore but are derived of a very clear project and model that they call "IT 2000," which is their model to create an infrastructure, a society infrastructure, a business infrastructure in that, let's say, physical territory called Singapore, where companies that follow those guidelines, or at least stay within, you know, a reasonable definition of those guidelines, are given substantial incentives to stay within those rather than to disregard them.

We can debate that that's good or bad behavior, but it's at least a stab ahead by an administration to try to create more commonality in the public services, in the infrastructure services that are being offered indirectly or directly through an administration in the country or region that they are operating in.

I believe a norm, an effective norm -- maybe not a standard -- can be set and can be evolved by this collaborative process by academia, business, and administration. And somebody will have to step up to a leadership role in the form of not controlling but actively guiding that collaborative process forward.

And, you know, as a final statement, I know that this is not the easiest solution, and maybe it is one of very, very few.

CHAIRMAN PITOFSKY: Thank you very much for some very provocative and interesting ideas.

Our next speaker is someone who --

COMMISSIONER VARNEY: Could I clarify?

CHAIRMAN PITOFSKY: Yes. Yes.

COMMISSIONER VARNEY: Is it fair to say, then, that your belief that the collaboratories are pro-competitive is only true where there is government involvement?

MR. PIEPER: No, that is not true. I think collaboratories could be pro-competitive even without government involvement.

But I believe, especially if we starting to think about the usage of networks both by administration as well as by public entities, you know, going forward, there is going to be more and more interaction, I believe, through networks either for, you know, personal, citizen-type of administration activities or business-to-business or business-to-government communication activities through networks. There would be a lot of advantages and economies of scales if government would evolve as an organization themselves the same way.

COMMISSIONER VARNEY: I'll hold my others questions for later.

CHAIRMAN PITOFSKY: I'm sorry to say our next speaker has lived in the real world in this question of access, joint ventures, and so forth.

Christine Edwards is Executive Vice President, General Counsel and Secretary of Dean Witter, Discover, the parent company of Dean Witter Reynolds and NOVUS Credit Services, Inc.

As General Counsel at Dean Witter Reynolds, Ms. Edwards has responsibility for the legal and compliance functions of the broker/dealer, mutual fund, and investment banking businesses.

As general counsel for NOVUS, she has responsibility for the legal function of the three NOVUS businesses: Discover Card, Lending Services Division, and SPS Transactions.

Welcome to the FTC.

Am I right in assuming that you have paid some attention to the Discover/VISA-MasterCard controversy?

MS. EDWARDS: I have paid a little attention to it, yes, Mr. Chairman.

Thank you and good morning.

First of all, I would like to start out by taking note of the tremendous antitrust expertise resident on this panel this morning and promptly exclude myself from that description. Instead, I'm going to testify today from the perspective of having been involved in the credit and charge card industry for about 25 years now, which, of course, means that I started, obviously, well before any child labor laws existed; at least that's how I like to think about it.

I did submit written testimony, but I'm going to streamline my presentation for this morning. And my observations begin from the premise that various horizontal issues are presented by networks that operate in this industry, which this morning I'm going to refer to as the charge card industry.

Networks play a vital role in that industry. VISA and MasterCard, joint venture networks which include nearly every issuer of general purpose charge cards have achieved a position of dominance and collective market power.

The policy issues I'm going to pose this morning arise from the fact that changes in marketing and processing technology have created, for the first time, the opportunity for non-association proprietary networks to provide the same kinds of services as the two associations and to do so equally, if not more, efficiently than the bankcard associations.

But at a time when there is a real opportunity to encourage efficiency proprietary networks, at a time when there's a real question whether there is a need any longer for the associations, the associations are aggressively using their substantial incumbency advantages to impede competition from proprietary networks. They are also working to extend those advantages into new financial products and services like the electronic delivery of home banking services.

These developments, I believe, raise important policy issues which I think can be summarized in a question: How should antitrust enforcement respond when two industry-wide charge card networks use their market power to impede the entry and the growth of efficient, competing proprietary networks?

How these issues are resolved will determine structure and competitiveness of the charge card industry;

but perhaps more important is whether the bankcard associations are going to be allowed to use their market power to impede competitors in other emerging payment system markets, affecting other areas of electronic commerce.

Similar issues will, no doubt, come up in other industries. We've heard about them this morning. The policy decisions you make regarding these issues, whether by affirmative decisions or by inaction, will have a significant impact elsewhere in the economy.

For these reason, I applaud the Commission, and you, Mr. Chairman, for holding these far-ranging hearings and taking seriously the observations of business people and their counsel, along with academicians and other antitrust professionals.

In the United States today, there are only two models for charge card networks. One is represented by the networks operated by the VISA and MasterCard. They were formed about 25 years ago. Both are extremely broad joint ventures with virtually identical memberships that include almost every issuer of general purpose charge cards in the United States.

And I use the term "bankcard" to refer to the charge cards that are supported by the two association networks.

Now the competitive dynamics between the two associations are curious. Since almost all card issuers belong to both associations, their members gain no competitive advantages against other charge card issuers if either associations tries to make its brand more desirable to consumers than the others. And any innovations that result in differences in operational requirements between VISA and MasterCard actually can cause substantial additional expenses for their memberships, and their members don't appreciate that. As a result, the associations don't compete with one another.

The other network model which is represented at the bottom of the chart is the proprietary network. Three proprietary networks exist in the United States today, and they are operated by my company, which NOVUS, by American Express, and by the largest issuer of bankcards in the United States, Citicorp.

In contrast with the association networks, substantial incentives exist for a proprietary to compete against other proprietary networks as well as against association networks.

The evolution of our network, which we call the "NOVUS Network," demonstrates how proprietary networks operate.

Back in 1985, Sears, which was then the parent company of Dean Witter, decided to enter into the general purpose credit card market. Our strategy was to pursue a model like Citicorp, which at the time participated not only in the VISA and MasterCard networks but also operated several proprietary networks of its own, including Diners Club and Carte Blanche.

We decided to enter the charge card market by first launching a proprietary charge, which we did by rolling out the Discover Card in late 1985. We faced enormous barriers to entry of our new network.

We had to deal with the classic chicken-and-egg problem. We sent eager, young salespeople, who probably didn't know any better, out with the assignment of persuading hundreds of thousands of merchants to accept a card that not one cardholder held.

At the same time, we had to persuade millions of consumers to accept a card that they didn't know whether they could use it in with any merchant.

It was a high-risk strategy. And it is very likely that without the substantial business credibility that Sears and Dean Witter had built over the years, that both merchants and consumes would not have accepted the card.

But we were successful. But to achieve our success, we had to overcome not only fair competitive responses from existing competitors but also a variety of efforts by the bankcard associations to prevent Discover Card from having a chance to compete in the market at all.

For example, VISA orchestrated an elaborate disinformation campaign to try to persuade merchants not to accept the Discover Card on the basis of a false claim that Sears somehow was going to use Discover Card information to steal their merchant customer base.

Another association-led program was designed so prevent our card from being process over the bankcard authorization terminals. We did, however, succeed in making the Discover Card a viable competitor in the charge card market.

Then, about threes years ago, we made a decision. Now this was after the trial court antitrust decision that did give us some comfort that the law would provide practical protection against the associations' collective interference in our competitive efforts.

Our decision was to enhance our proprietary network. We invested tens of millions of dollars in converting the network that we had built for Discover Card into one that could be used not only for that card but for other cards as well. The result was the NOVUS Network.

Dean Witter offers three cards on the network presently: the Discover Card, Private Issue, and the new Bravo card. Other cards are in the works. The system that are we were building also has the capacity of supporting NOVUS-marked cards that are issued by other firms.

But there are some very significant differences between the association networks and proprietary networks.

First, the association networks enjoy huge incumbency advantages. Thousands of banks promote VISA and MasterCard brands. And most merchants feel that they must, as a practical matter, accept those cards.

Second, proprietary networks are simpler to operate. And changes in marketing and processing technology are making it possible for proprietary networks to compete with increasing efficiency against the association networks. Now that wasn't always true.

The industry has dramatically changed since when the associations were formed. Banks have been permitted to expand geographically. They have become more willing to compete nationally. Credit cards are marketed across the country by banks with no local presents. Transaction processing is almost entirely electronic with no local presence required. And firms with enormous resources, such as General Motors and AT&T have entered the charge card market either individually or in combination with other firms.

If the industry were first coming into existence today, there would probably be no need for networks operated by giant industry-wide ventures like VISA and MasterCard. A series of interlinked proprietary networks and processors could perform the same services equally, if not more efficiently.

You don't have to look farther than the Internet for an example of how unnecessary a huge central clearing house is today for the operation of an efficient, electronically based network.

Third, in studying these industry changes, you would expect to see a decline in the dominance of the bankcard networks. Yet the market share of the bankcard networks has ban rising steadily. In fact, in just the last three years it has risen from an already-lopsided 72 percent of the market to 76 percent of the market.

The market share trend is not accidental. It is the direct result of the bankcard associations' using their market power.

But the associations' goals are not a matter of speculation. A few years ago, we obtained a videotape of one of the closed-door meetings that VISA held with its members in connection with the launch of the orchestrated anti-Discover campaign.

On the tape, which I'm going to show you this morning, is Fran Schall, who is VISA's Vice President of marketing, who summarized VISA's goal in dealing with proprietary networks like ours.

At the beginning of the tape, she refers to a tape which was just shown to all of their bank members featuring Claude Aikens who was an actor. He is now deceased.

The video was shown to all association members during the course of that year and was basically indicating to banks that they should go to their merchants and tell them not to accept Discover Card.

Let me show you the video.

(Whereupon a videotape provided by Ms. Edwards was played.)

"Meeting the challenge of Discover"

"Copyright, August 1982"

"Presented by VISA S.A., Inc."

"John Bennett, Senior Vice President, Consumer Products"

"Brian Ruder, Vice President VisaNet Marking"

"Fran Schall, Vice President Member Relations"

"Phil Skarston, Market Research and Planning"

"MS. SCHALL: If you weren't convinced before that there was a threat, I hope that Claude got the message across.

"By working together, which was really his close, we can be effective. And not only can we slow down Sear's effort, but we can prosper from the investment which has been made over the years in the VISA program.

"It's important for all of us to keep in mind that Discover has not succeeded to date and that we're in the position of strength. We have 150 million cardholders worldwide; we have five million merchants on a worldwide basis.

"And by working together and by being proactive, rather than reactive, I think we can thwart the efforts not only of Sears but of other outside competitors. And we can develop a very effective means to compete.

"It's important that we not do anything in the process to give away or dilute our market advantage.

"If we're successful in responding to Sears, than other non-bank competitors, who are likely sitting on the sidelines, will think again when they try to follow Sears' lead.

"If we aren't successful, then there are going to be many more "Discovers" that we're going to be hearing about in coming years. And all of them are going to be looking for a share of your business and your profits.

"Remember, it's not likely that Discover is going to create new business. They're out to take away your business, your business in the bankcard industry and your bank's business."

MS. EDWARDS: Well, the associations have stated that proprietary alternatives like the NOVUS Network are a potential competitive threat to their dominance that must be suppressed.

And they have a variety of actions, first, to impede the growth and development of networks that already exist and, second, to deter the formation of new ones.

Let me give you a few examples.

VISA bylaw 2.10(e), which is not the bylaw that we challenged several years ago, automatically terminates the membership of any VISA issuer that begins to issue a card, quote, "deemed to be competitive" with VISA cards.

VISA applies this rule only to Dean Witter and American Express networks and not to VISA membership participation in MasterCard or to Citicorp's Diner Club and Carte Blanche program.

The punitive effect of this rule is clear: No VISA member is likely to even consider signing onto a proprietary network at the cost of automatic loss of its ability to issue VISA cards.

The impact was very deliberate. When VISA's board adopted the first version of this rule, the board asked VISA's management to draw up a list of all of the non-bank firms that had the capacity to introduce a competing network.

The resulting list named more than 100 non-bank firms, including General Motors, Ford, Chrysler, Shell Oil, Amoco, and AT&T. The VISA board then instructed VISA's management to monitor all of these firms, many of which were then VISA members, and to expel or exclude them from VISA if they actually began issuing proprietary cards.

Many of those firms were not, then, issuing cards; but they have since entered the market. And not unsurprising, in light of VISA's bylaw, a single one of them have come forward which a proprietary card program.

Another example relates to processing charge card transactions for merchants. In order to build a merchant base for the NOVUS Network, it's been extremely important that we offer merchants, particularly smaller ones, cost-effective processing for their charge card transactions. But merchants have no interest in a processor who can't also process their VISA and MasterCard transactions.

VISA has adopted rules that are designed to prevent Dean Witter and American Express from efficiently offering bankcard transaction processing. This has limited our ability to achieve maximum efficiency and limited the growth of our network.

Bankcard associations which account for 76 percent of all transaction volume engage in standard setting. Because of the associations' overwhelming market dominance, these standards drive the market.

Our technology and our ability to change must be nimble enough to comply with the standards that they have set. We don't even have a seat at the table on the discussions on standards. The recent VISA-Microsoft discussions about setting security standards for transactions over the Internet are a good example of that.

A final example is one that I find particularly troubling. I start from the perspective that VISA has been quite careful over the years to describe itself as a joint venture association, only engaging in activities on behalf and for the direct benefit of its members.

But VISA recently announced a for-profit merchant processing joint venture with Total Systems Services Inc.

The significance of that announcement is that VISA will be directly competing in a for-profit corporation with its members in the marketplace at the same level as others who do business with its network.

Now, with VISA's simultaneous role in setting industry rules and standards, this is a development I think that deserves careful attention in a part of this market that Commissioner Varney recently described as "increasingly concentrated."

Bankcard associations are also working to capture other payment system markets, including on- and off-line debit cards, stored value cards, Internet commerce, and the new and potentially huge market for electronic delivery of retail banking services to the home.

In some cases they are clearly leveraging their market power with respect to charge cards in these new markets.

Now, the facts that I have described this morning raise several important antitrust enforcement policy issues, I believe.

The goal of antitrust enforcement, I think, should be to foster increased efficiency and innovation through unfettered competition.

This kind of competition will occur only if the activities of the two bankcard joint ventures that dominate the industry are actively monitored.

This is the opposite, I think, of the hands-off antitrust treatment that VISA advocates, but I believe it's justified by the competitive landscape of this industry.

Antitrust enforcement should monitor association practices like those that I have described this morning that are designed to disadvantage proprietary network competitors.

Antitrust enforcement should also be prepared to challenge each new area of association activity. The bankcard associations are antitrust anomalies. They are extraordinarily large joint ventures of competitors, cutting across virtually an entire industry.

Antitrust policy, I thought has always strongly disfavored collective competitor activity of this magnitude unless it can be justified by compelling efficiencies. At the dawn of the general purpose charge card industry, legitimate efficiency justifications probably existed for the scale and scope of the bankcard associations. But should historical fact also dictate the appropriateness of the associations moving into new activities today?

We believe expansion of the activities of these joint ventures should receive precisely the same searching scrutiny as would the formation of a new joint venture to engage in the same activities.

I believe it would be prudent antitrust policy for the enforcement agencies to actively discourage the VISA and MasterCard associations from engaging in any new activities.

If there are efficiencies that necessitate joint activity in order, for example, for the debit card market to develop or for home banking to take off or for health care provider reimbursement processings to succeed, let appropriately scaled new joint ventures to be formed. If not and if individual companies can be compete efficiently, then let they do to. But bankcard association joint ventures should not be permitted to quietly take the market power that they have achieved in the charge card industry and parlay it into similar power in entirely new areas.

Only one significant, proprietary network has entered the charge card market in over 35 thanks largely to the bankcard associations. Antitrust review should not permit them to have the same stifling effect in other markets.

I also think that bankcard associations should be prohibited from engaging directly in for-profit activities. Their central rulemaking and standard setting role, coupled with their market power, creates far too much risk of the associations' leveraging their not-for-profit activities into an unfair competitive advantage in their related for-profit businesses.

At approach that antitrust takes to the bankcard associations and their networks will have a critical impact on the industry's competitive landscape.

The business people who I advise will make decisions about where they take the NOVUS Network based on their assessment of the legal ground rules under which they and the bankcard networks will be operating.

But the same will be true for anyone else who considers a business challenge to the bankcard networks. This is an industry in which antitrust policy will influence real investment decisions, decisions that will determine the intensity and the innovation of the competition in the future competitive structure of the charge card market.

A structure today is clearly far from optimal. We do not ask you to prejudge the outcome of free competition between bankcard associations and their competitors. We only ask for the opportunity to have the market, not the associations, decide that outcome.

Let me close by relating what I have said this morning to the specific questions that you posed on the agenda for this morning's session.

Networks, particularly ones operated by joint venture that encompass virtually an entire industry, as the bankcard associations do, very definitely can give rise to opportunity for strategic anti-competitive conduct.

Jointly owned networks can amass a substantial market power and can use it to prevent the entry and growth of new competitors who want to offer more efficient network processing by taking advantage of technological innovation.

As for the criterion assessing whether strategic conduct and industry standard setting are pro-competitive or anti-competitive, I believe it continues to be traditional fact-specific inquiry: Does the conduct in question increase the efficiency of the parties that engage in it? Or is its primary purpose and effect to reduce the intensity of competition among themselves and from others?

The bankcard association conduct that I've described this morning I think clearly fails that test. That's why I think it deserves your attention.

I thank you for the opportunity to testify this morning, and I appreciate the efforts of the Commission to examine these issues.

CHAIRMAN PITOFSKY: Well, thank you very much for directing our attention so forcefully to a real-world controversy that relates to these theoretical issues.

Let me just ask one question to make sure we set the stage for our later discussion and to make sure we understand that there is a real difference view here.

Let me recall Professor Schmalensee's earlier comments. His thought was that where there is a successful joint venture, access is only mandated where it's essential for competition.

Discover was already in the market and competing rather successfully in that market. So without trying to decide which is right or wrong or what the policy issues are, you would be urging a broader view of mandatory access than one that says it only is required where essential to competition?

MS. EDWARDS: Actually, first of all let me start out by answering that question by observing that, to begin with, we did not use an essential facility argument in our case against VISA.

Second, I think that although the bankcard associations do exhibit many of the qualities of an essential facility, we were very careful this morning in putting together our testimony in not dealing with issues of membership.

Instead, I think what we attempted to do is look at competition from the network's perspective and look at future issues that we think the enforcement agencies should be focusing on there in terms of competition between networks of the bankcards versus proprietary networks.

If what you're addressing by the essential facilities doctrine is actual membership, those are issues I think we tried to effectively battle before and have lost; and those are previous battles.

CHAIRMAN PITOFSKY: I see. All right. Good. Good.

Any other comments or questions?

All right. Let's have one more presentation, and then we can take a break and open it up for a broader discussion.

Amy Marasco is Vice President and General Counsel of American National Standards Institute, ANSI. She is primarily responsible for overseeing ANSI's Procedures and Standards Administration Department which provides support to the Board of Standards Review, the Executive Standards Council, and the Appeals Board.

Ms. Marasco also assists those bodies in formulating and implementing policies and procedures regarding the accreditation of standards developers and standards development process.

Before joining ANSI in July 1994, Ms. Marasco was an attorney with a law firm in New York for 11 years.

Ms. Marasco.

MS. MARASCO: Thank you, Mr. Chairman. Good morning.

My name is Amy Marasco, and I am the Vice President and General Counsel of the American National Standards Institute, which is usually referred to by its acronym ANSI.

ANSI is a federation of industry, professional, technical, trade, labor, consumer, and academic organizations and some 40 government agencies.

I will focus my comments today on two more general issues than those relating to networks.

The first being: How should enforcement agencies and the courts approach the voluntary consensus standards development process to determine whether impermissible anti-competitive conduct is present?

And, second: What is or should be the process by which patented technology is incorporate into standards?

And this will lead me to some brief comments on the proposed consent decree in FTC v. Dell Computer Corporation.

The benefits and pro-competitive effects of voluntary standards are not in dispute. Standards do everything from solving issues of product compatibility to addressing consumer safety and health concerns.

The standards also allow for the systemic elimination of non-value added product differences, reduce costs, and often simplify product development. They also are a fundamental building block in international trade.

That is why the rule of reason, typically, is applied to standards activities. Weighing positive effects against anti-competitive ones, however, is not always easy to do.

One of the principle difficulties confronted by enforcement agencies and the courts when applying the rule of reason to standardization activities is that any cost benefit analysis or consideration of possible alternative standards often requires a technical expertise that these bodies normally admittedly lack.

ANSI's view is that the best alternative is to leave the resolution of technical issues to the experts who participate in the standards development process and focus, instead, on the process itself.

Focusing on the process also has the benefit of being easier for courts and enforcement agencies to analyze; providing clearer guidance to the business community; and the process can be designed and, if necessary, to modify, if not eliminate, the possibility of anti-competitive activity.

This has been ANSI's approach, and we believe it has been effective. In its role as the accreditor of U.S. standards developing organizations, ANSI seeks to further the integrity of the standards development process and to determine whether candidate standards meet the necessary criteria to become American National Standards.

ANSI approval of these standards is intended to verify that the principles of openness and due process have been followed and that a consensus of all interested parties has been reached. These requirements ensure that the playing field for standards development is a level one.

Standards are market driven. If a standard is developed according to ANSI requirements, there should be sufficient evidence that the standard has the substantive reasonable basis for its existence and that it meets the needs of producers, users, and other interest groups.

Is the ANSI system absolutely foolproof? The answer is no. But it offers several advantages to other methods when evaluating whether anti-competitive activity is present in the standards development process.

First, it only requires a procedural and process-based review and not a dissection of the technical merits of the standard. We agree that due process in and of itself is and never can be a complete defense to an antitrust claim. However, the value of an open system and due process-based procedures derives from the fact that they are designed, in large measure, to cause antitrust-related issues to surface as early in the process as possible.

In addition, we realize that proper procedures are of little value if they are not followed in practice. As a result, in addition to the review ANSI undertakes when a standard is submitted to it for approval as an American National Standard, ANSI also has implemented a mandatory standards developer audit program.

The ANSI system has a long-standing history of effective self-policing. As a result, there are very few examples of enforcement or private action decisions relating to anti-competitive conduct in the standards development process.

I also want to say that ANSI would welcome any input or comments from the FTC regarding ANSI's procedures or requirements.

The second issue I want to address is what is or should be the process by which patented technology is incorporated into a standard?

The issue is this seemingly incongruous marriage between what is essentially a government-granted monopoly and a standard which is often viewed as a public good.

In place of wedding vows, ANSI has developed and implemented a patent policy. The ANSI patent policy encourages early disclosure of patent rights that may be implicated by a proposed standard. And it requires that the patent holder supply to ANSI a written assurance that either it will license the technology to would-be users for free or that it would license the technology on reasonable and non-discriminatory terms.

Very often this occurs before the standard is completed. Otherwise, it is requested as soon as the patent right at issue is discovered.

ISO and IEC, the two principal, non-treaty international standards organizations, of which ANSI is the U.S. member body, have a similar patent policy that applies to international standards.

This brings me to the FTC's proposed consent order with Dell Computer Corporation. By way of the background, for those not familiar with this matter, the FTC filed a complaint against Dell because a Dell engineer participated on a VESA, which stands for Video Electronics Standards Association, Standards Development Committee, which, by the way, is not ANSI accredited.

When asked, the engineer stated that he had no knowledge of any Dell patents that would be implicated by the standard under development. After the standard was finalized and in widespread use, Dell began asserting patent rights against users of the standard.

In paragraph 4 of the proposed consent order between the FTC and Dell, Dell would have to license its technology for free if it, quote: "Intentionally failed to disclose," its patent rights in response to an inquiry from a standards setting body.

I would like to emphasis the word "intentionally." ANSI absolutely agrees with the Dell consent agreement to the extent it applies to situations when a participant in the standards development process intentionally and deliberately fails to disclose that his or her organization holds a patent relating to the standard in question in an attempt to gain an unfair competitive advantage. This would violate ANSI's and ISO's and IEC 's patent policies as well.

What is possibly of more concern to us is paragraph 5 of the consent order. That paragraph appears to impose some sort of duty on Dell to set up a mechanism to check whether or not it has any patents implicated by a standard under development in order to disclose those interests prior to the standard's completion.

In essence, the consent agreement could set a precedent to the effect that the corporate representatives participating in the development of a standard are under an affirmative duty to exhaustively review their patent portfolio and disclose their company's patent rights before the standard is finalized or be required to license their technology for free.

Unintentional failure to disclose a patent right would be treated the same as an intentional one.

First, as a practical, matter, some companies would find this affirmative duty to identify all possibly applicable patents virtually impossible to fulfill. Many U.S. participants, at any given moment, of literally hundreds of employees, participating in as many standards development activities and in excess of 10,000 in their intellectual property portfolio. Often the implication of a specific patent in connection with the portion of a very complicated standard is not easy to determine or to evaluate.

These companies often have invested billions of dollars in research and development in order to develop this portfolio. By requiring them to assume an enormous research burden each time they participate in a standards development process, these companies may effectively be denied the opportunity to participate in that process for fear of making their intellectual property a public good.

This would be unfortunate in that we all benefit when what the experts decide is the best technology is incorporated into standards and what was once available exclusively to one company becomes available to all on reasonable terms.

Without incorporating this technology into standards, we would have standards and products that may be free and clear of licensing issues, but then standardized products would be that much less relevant and effective. It also could slow the process down as well by not taking advantage of what already took years to develop.

Second, in addition to the practical concerns, there are incentives built into the ANSI system to prevent the snake-in-the-grass problem. The risks that these snakes face are that: First of all, approval of the standard is subject to withdraw, which can often render the company's innovation relatively useless, it's self-policing; often the best police are a company's competitors who, among others things, can avail themselves of their legal rights in court; and in the case of deliberate misconduct, enforcement agencies such as the FTC can intervene.

Moreover, the burden that an overextended view of the consent order would impose on U.S. businesses is reminiscent of similar burdens that other countries have pursued and which have been repeatedly and successfully prevented from becoming a requirement in the international standards arena.

For example, a fee years ago, the European Telecommunications Standards Institute, or ETSI, proposed an intellectual property policy that many U.S. businesses believed to be coercive; and it became the subject of a trade dispute between the European Community and the United States.

The plan was that ETSI would announce a one-page work program when it undertook a new standards development project; and if a member did not quickly disclose any possible patent rights, then the patent would be deemed automatically licensed on terms that were, in effect, acceptable to ETSI.

The U.S. Government, working with ANSI and the U.S. industry, was successful in preventing the ETSI policy from becoming a reality.

In the global marketplace, there have been and continue to be efforts such as ETSI's to establish a process to facilitate what some would call a technology grab of U.S. intellectual property in an effort to reduce or eliminate any competitive advantage the U.S. enjoys as a result of its collective intellectual property portfolio.

ANSI would caution the FTC from enunciating any "disclose it or loose it" policy that competitors in other nations could then point to as a reason why the U.S. should accept a similar condition for participating in the global marketplace.

Thank you very much. I appreciate this opportunity to comment on these issues, and I am very willing to provide additional information upon request and/or receive any input from the FTC on what we at ANSI can do to address anti-competitive concerns or issues as they relate to the voluntary consensus standards development process.

CHAIRMAN PITOFSKY: Thank you very much for participating here.

Let's take about a 10-minutes break; and then we can begin by opening things up to questions, comments, exchanges among panelists. And then we will go on with other presentations.

(Whereupon, a brief recess was taken.)

COMMISSIONER VARNEY: Why don't we take a little bit of time just to talk about what we've heard this morning before we do some further presentations.

I would like to start by asking Professor Schmalensee what you thought of a couple of the presentations, particularly what we heard from Merrill Lynch and from Roel Pieper.

MS. EDWARDS: Dean Witter.

COMMISSIONER VARNEY: Dean Witter. I'm sorry. I'm not feeling too well today, Christine. I really apologize.

MS. EDWARDS: It happens all the time.

COMMISSIONER VARNEY: Dean Witter.

MR. SCHMALENSEE: Mr. Pieper raised a number of issues that I confess I haven't thought a lot about. I understand both the utility and the frequency of relatively informal discussions among actual or potential competitors about evolving standards in high-tech industries. It happens in a variety of settings. It clearly has values. There are clearly risks posed by it. And I don't have any particular constructive thoughts to add.

MS. VALENTINE: Actually, maybe to focus that a little more, one thing we did here yesterday in a telecom and computer context was that, if a firm or a competitor is required to disclose relatively early on in the process standards or technology or interfaces -- they're not standards yet, technology or interfaces -- that this leads to a real dully of incentives for innovation --

MR. SCHMALENSEE: Well, I think that's right.

MS. VALENTINE: -- and that's, I suppose, one issue.

MR. SCHMALENSEE: It's the question of what does "require" mean?

And if I understood Mr. Pieper correctly, he's dealing with a situation in part in which you have standards and technologies that need to interoperate; and so I have a reason to disclose the way I'm thinking because I'd like you to be thinking in a way that will work with what I'm thinking.

That's a little different from a situation in which you have a set of competitors that are all, as it were, head to head and you're requiring early disclosure.

I don't have any particular informed thoughts to offer. But I do think that distinction is worth keeping in mind. If I have to interoperate, then preventing people from talking has high costs.

I mean, despite the fact that there are difficulties between them from time to time, Microsoft and Novell have a variety of technical communications and have had over the years and has noted this publicly and privately, because their systems need to operate. And to prohibit that has high cost. To have too much of it also has potential risks.

I disagree with less of Ms. Edwards' than one might think. She said relatively little about membership, and I don't have a whole lot to say, except I would remind us all that the lack of competition between VISA and

MasterCard, to which she point, is a result of an antitrust-induced shotgun wedding between the members of the two associations.

And it, I think, illustrates perfectly the notion that exclusion isn't always anti-competitive. If VISA had been able to exclude MasterCard issuers, arguably, we would have today two competing bankcard associations instead of two associations that do compete to some extent but are surely not independent competitive entities.

On the hole question on the kinds of conduct that she described, I don't have any particular to say about the joint marketing. There are issues involved in, is it appropriate to market collective since they have marketed -- done marketing collectively, the notion that you would have a meeting of members of an association faced with an entrant that wouldn't discuss the entrant and competing against it I find a little far-fetched.

But I think the issue of principal on which she and I do agree and that potentially looks at the new activities, there are two.

First is that a joint venture, association, whatever, that has such wide coverage in an industry that its operations are properly subject to closely antitrust scrutiny. I don't think there's any plausible grounds for a claim of immunity. It's collective action by a large fraction of an industry that is properly a subject of concern.

And the second is -- and I hadn't thought of it until she mentioned it, but on first blush it strikes me as an appropriate notion -- that a significant change in the scope of a joint venture ought to be though of like a new joint venture.

As to the particular incidents involving terminals and standards and new enterprises, I'm simply don't -- I'm not familiar with them. I'm not here to defend VISA. And I don't have any thoughts on those factual matters. But on the principles, I don't think we -- at least as to operations, we don't differ dramatically.

COMMISSIONER VARNEY: Okay. Before I turn to my colleagues, do any of the panelists have questions of each other at this point or comments on the presentations they heard this morning?

MR. ORDOVER: Let me just make one point on the issue that Mr. Pieper raised about the extent to which discussions and commonality of interest should play themselves out in the software area.

It strikes me that -- I would agree with the fact that extensive communications may be desirable in some circumstances.

What I am troubled by is reliance on European or

East Asian models that seem to have extensive government involvement, and I find that troubling partly because I have yet to see any effective software or advancements coming out of these models and, therefore, to use them as guides for what we should be doing in the United States is somewhat nerve-racking to me.

I think that obviously there are circumstances in which government participation is desirable when we are talking about substantial market failure. But even there, after the initial seeding of the ground, it strikes me, again, that it's much more desirable to rely on private incentives, whether cooperatively or individually, to promote future development.

I think that there are dangers through government participation leading to uniformity, leading to the use of federal government funds for projects that may or may not be wise; and, in the end, I think we would end up with less competition, less progress, and less development than we would if we had simply relied, to the maximum extent possible, on private incentives.

I must say that I found his four-part model of the standards to be extremely useful in thinking about developments. And there are very few boxes that I would think that "public" and "open" is the right box. I think most of the right boxes that contain anything that is really on people's agendas are probably in the three other ones.

So the dangers that I think arise is when there is a decision to move either horizontally or vertically amongst these boxes because that changes the playing field and creates the kind of competitive concerns that we have heard expressed in many other forums. I will probably talk about it a little bit more later on.

But the idea of box is really superb and I think that it will help a lot of people organize their thinking about the standard-setting processes and how to structure antitrust and public policy around them.

COMMISSIONER VARNEY: Yes.

MR. PIEPER: Maybe I could just quickly answer that. Obviously, my statement with regard to how much and how government interaction and participation should happen is not an easy subject, and I'm fully aware of that.

I believe that by participation and engagement, as I described it, of both business, academia, and government administrative, local, federal or state, I believe one will arrive at capabilities both within the business environment as well as in the administration environment, because in the end administrative functions and organizations are as much a company in the sense of procedures and activities as a normal company in its administrative processes.

So I believe there is a lot of value if there is active participation as to how much the government should be engaged in setting more harness-like or dulling effect-like guidelines. I mean obviously that should work its way out by having enough of a balance between both academia and business participation in this collaborative-type of environment that I described.

The examples that I used the -- and I can make them a little bit more specific. For example the administration in Finland made a very strong suggestion both to business and academia that they wanted to be the leading country by providing the best ATM network infrastructure to business in general. And they provided tax incentives. They provided funding projects, examples, et cetera, et cetera. They did not necessarily influence the standard. They did not necessarily influence what was being built.

But they did force a particular, let's say, momentum that I think is going to be -- in that particular case is going to be very beneficial for that country. And I'm just using it as one example where active government engagement -- maybe not control and maybe not direction -- did create a much higher momentum in that particular example of ATM connectivity for businesses that is not found anywhere in the world.

COMMISSIONER VARNEY: Okay. Let me start down on this end of the table, and we'll work our way up

Becky.

MS. BURR: Mr. Pieper, one of the things that we heard in a slightly different context over the last few weeks is that the capital formation industry is increasingly requiring a strong, well-protected, proprietary system. And one of the questions I had for you is: How is the capital formation industry responding to the kind of collaboration, early collaboration that you're talking about?

Is there participation from the venture capitalists, for example? And is the desire to have a locked-out, protected technology interfering with the collaboration process?

MR. PIEPER: Well, being in Silicon Valley, I would say that almost anything that you do, either overtly or not, will be shared by venture capitalist in some form anyway. There is not a lot you can hide in Silicon Valley.

But I would say that, given the role of the size and dominance of the companies like Microsoft and Intel, that most of the activities today, both with regard to computing and networking, get a lot of support of the those organizations in the sense that people are trying to, one, find new ways to create a more level playing field. The Internet clearly is a space where there is a wide open door at the moment to escape some of the current monopolies in place of Microsoft and Intel. And there's an enormous amount of money rushing into that space.

At the same time, there's a big concern that effective applications, networked applications, multi-media applications -- and what I mean by "effective" actually working together, actually, you know, usefully communicating and transmitting data, images, voice and text -- if they are not created, that will also die. You know, it will peak up and then it will come down again because it simply will not work together.

So that's why this collaborative perspective is really focused on making that networked application environment, for whatever business, work. And there's a lot of investment going into that space by private and public financial institutions.

MR. COHEN: I have a question for Professor Schmalensee and perhaps anybody else on the panel who would like to join in.

I understand you made the point that existing economic theory of narrowsense networks doesn't provide much in the way of general rules for antitrust policy.

But at the same time, I would ask you to try to shift your point of view a little bit and suppose that you are controlling or allocating antitrust enforcement resources and you do find an industry in which there's a presence of very strong network effects, does that suggest to you any particular practices at which you would want to take a particularly close look?

MR. SCHMALENSEE: One of the ways you might come to the conclusion that there were such strong effects would be the emergence of a highly concentrated structure, particularly the emergence of what might be characterized as a dominant seller.

It seems to me -- if one has an industry that has a fragmented structure, then one is reaching to conclude that there are strong -- one is reaching to conclude that there are strong network effects.

So if you have an industry with a dominant firm, let us say, that can be properly characterized, worry about the usual things you worry about in a dominant firm industry. You worry about exclusionary strategies. Now, it may be that because the network -- because the industry has network characteristics that there are particular strategies that are attractive because of the nature of the business.

But it seems to me the basic question, what do I worry about when I see a dominant firm, doesn't depend on there being a network. You can worry about a dominant vendor of sand, or you can worry about dominant vendor of operating systems. In both cases, your initial worry is exclusion. The strategies you look at depend on the nature of the network, what's available. They may have to do with standards. They have to do with pricing. They may have to do with whatever.

And I don't think there is an answer that goes across all networks. I think it depends on the fact of the business. When somebody charges that Strategy X is exclusionary, you got to ask: Does that make sense?

MS. VALENTINE: Let's try to tease out just one last part, because I do think I keep hearing the same thing.

What were you getting at at the very end of your testimony when you suggested that, in industries in which innovation is an important form of rivalry, that, perhaps, should be viewed through a different lens than in more technologically stagnant industries?

COMMISSIONER VARNEY: Clearly, Debra, he was advocating an innovative market theory.

MR. SCHMALENSEE: No, I just realized I hadn't said anything about innovation and thought, oops, I ought to make the point that in industries where innovation is an important form of rivalry tend to look different. Like they tend to have shorter life times of products. They tend to have shorter life times of leading entities. Depending, again, on the industry.

So that was not intended as a button which, when clicked on in the Internet sense, will produce a nice outline because I don't have one in my head. But I think it is an important way in which markets differ. It is an important way in which some network industries differ from some non-network industries. And you have to think about it.

But, again, I don't think that -- some industries that have a high degree of innovation also are marked by the importance of patents. Some industries that have a high degree of innovation, patents don't play an important role. How you think about those two industries and a variety of issues would be different.

So, again, I don't think there is a simple, single answer that covers innovation. But where it's there, its implications have to be addressed.

COMMISSIONER VARNEY: Professor Teece, do you have a comment on that, or do you want to wait for your presentation?

MR. TEECE: I'll wait.

COMMISSIONER VARNEY: Okay.

You had a question, didn't you?

MR. ANTALICS: Yeah. I had a question for Amy Marasco.

COMMISSIONER VARNEY: Okay. Go ahead.

MR. ANTALICS: Relating to the negligence aspects of your comments with respect to standard setting, would your opinion on the burden change if the company simply had the option of not making the certification on behalf of the corporation as to a patent right?

And also, I guess, would your opinion change if that standard ultimately became the dominant standard in the industry so that the choice, then, is between the company that made the mistake and consumers that are ultimately going to have to pay the price?

MS. MARASCO: Well, I do believe that most companies want to disclose their patent rights. There's a lot of peer pressure that they do do it. I think there are a lot of incentives for them to do so. And in our experience, we've seen that that typically happens, that they tend to disclose as soon as possible.

I think our concern is that there's a potential affirmative burden of making them search would just be too great; and I think, then, you would loose some of your key players in the standards process.

Did that answer your question? Or did you --

MR. ANTALICS: Well, suppose they had the option of not making it, it's clear that they didn't have to affirmatively make the certification, would there be a role for the Commission in a case like that if there was a perception that there was going to be some harm?

MS. MARASCO: I think there is a role. And I think, though, because the system, to system extent, is self-policing that you'd find out about it because some competitors would say, this is unfair, for these various reasons, or there is some severe anti-competitive effect.

So I would agree with that.

COMMISSIONER VARNEY: Okay. Jonathan.

MR. BAKER: My question is for Professor Schmalensee and anyone else who might be interested in it.

Suppose we went down the road of identifying, in an industry with big network externalities and sort of national monopoly properties, a problem that, where access to the natural monopoly facility somehow seemed essential for competition and we decided that we decided that we would seek mandatory access or interconnection of some sort.

Should we worry, in that sort of case, that the -- about the possibility that the market which had chosen the standard or whatever, which had given them the natural monopoly in the first place, that the market had tipped to the wrong standard and that we might be further entrenching a less than perfect standard and making it more difficult for the succeeding generation of products or standards or approaches to supplant it in the future?

Is this something that's just too distant and too hard get at or it should be a serious concern?

How do you respond?

MR. SCHMALENSEE: Well, I mean, I think the enforcement agencies should be constantly worried about a range of things.

But I guess that one strikes me, in the situation you described, as not something at least that it's productive to lose sleep over. You hypothesized a situation in which access in one form or another to the network is important for there to be effective competition.

And the situation -- that is one in which you want to compel access perhaps by standards and open architecture or something like that or perhaps by forced membership or depending on what's happening.

There will still be an incentive for someone to supplant the network. We always tend to think of natural monopoly or network-based monopolies or near monopolies as things that endure. Henry Ford's Model T lasted a lot longer than Word Star.

Should the antitrust agencies had been worried that the economy had tipped to the wrong cheap black car? Well, I suppose; but what are you going to do about it, productively?

The last thing, it seems to me, you want to do is say, well, we have an apparent winner; it could be the wrong winner, so we'll handicap it. It seems to me that's the only option you've got is to say: We want to handicap this to make, possibly, emergence of something else. Well, there may not be anything else. There will be no shortage of people who will come forward and say: We are actually better if only you would handicap these guys. That's certainly true.

But it seems to me, as an enforcement matter, you can't make that call.

MR. BAKER: My question -- let me rephrase it in terms of the Henry Ford example.

Suppose we had decided that, in the ancient past, that all car manufacturers ought to have access to Henry Ford's design, for the reason you suppose, does that dampen the incentive of the other manufacturers to come up with a new design of their own that would seek to supplant Henry Ford's design? And should we care?

MR. SCHMALENSEE: It does to some extent, just as a mathematical model, because you now have an asset, which is access to that design, which, if you supplant the design will be rendered less valuable.

But if you're not a major player in the use of that design, then that asset isn't worth a lot to you. So you're not -- you know, if you overturn the design, that term, the "sacrifice," is relatively small.

And particularly in that example, the rewards to being the next generation, to being the closed body car and so forth, were huge.

So, I mean, I think in principle there is a diminution of incentive. It operates most strongly against those who are most vested, the big players in the old design.

But if it's a situation in which tipping is possible, the rewards to being the tipper are sufficiently large, again, that if you have more than a couple of players, I don't think you need to worry about the diminution of incentives.

And, in any case, as in all membership issues, there is a problem, of course; but I guess my inclination would be to choose competition in the present, if you really think it's an essential facility, over the possible slight increase in the incentives for the emergence for the next design.

MR. BAKER: Thank you.

MR. ORDOVER: Let me just make one point. I think that there was an incomplete hypothetical from Baker. And that is that, he did not specify the terms of access.

I always get nervous when people talk about "access" as if it were enough to say that. I guess it's important to specify all the dimensions which access can take place, the price, the terms. Other than the price, the obligations and the duties that come along with having access. For example, to the Ford Model T design, I might also compel to therefore defray the additional R&D cost that Ford may decide to embark upon to modify the design; or I'm just going to be allowed to take part of the old version of it.

So if I have to anything to say -- which is not much today, somehow -- I have never done that; I always say something -- and that is when we talk about access and access rules and we don't talk about it in the abstract, but really we are talking about it in a very concrete sense, specifying all the key dimensions and all the rules that would govern access along these key dimensions, such as price and contribution to costs, all those things will matter to incentives, goes to stimulate current competition but also to overcome at preexisting standard or to supplant Model T because these things will interplay in firm's decisionmaking processes.

And the big gap that we have I think now in our learning so far, still is in my perspective, is that we don't know how to specify these rules of access. We can only talking about granting access but not specifying the rule. And that's the a big danger, relying on access while not really being clear on the next step.

COMMISSIONER VARNEY: Before we continue this discussion further, let's turn to Professor Teece for your presentation, and then I think part of that will fold into this; and we will continue with the questions.

Please go ahead.

MR. TEECE: My presentation will rather short and crisp, in part because my colleagues have already helped me out by covering important issues about standards and antitrust policy.

What I thought I would do is focus somewhat more narrowly on the question of standard setting and intellectual property, because, increasingly, as intellectual property gets more value and as standards become more important, there are an increasing number of circumstances -- and Amy has already reminded us of one -- where these two issues become joined.

Now, as an opening statement, I think it's important to recognize that standards are important for markets to form. So in some sense, standards and getting standards set are really almost a precondition for competition in many circumstances. I think about multi-media, for instance, and why isn't much going on there?

Well, in part it's because of the absence of standards and there isn't this sort of coalescence around a major standard. And on a general philosophical level, that should lead us to want to see efforts, including cooperative efforts, to get standards formed. Because in some sense, that is an enabling factor for competition.

So in a Schumpeterian sense where really what's important to competition is new products and new innovations, standard setting is an early, upfront step that's necessary to kick off a new round of competition.

Having said that, I also recognize that there is, in sort of antitrust, almost an implicit bias that sort of open standards are better than closed and public is better than proprietary. But having said all of that, I think we have to recognize that very often standards increasingly involve proprietary elements; and that, indeed, one has to recognize that if, in fact, technology that's proprietary becomes anointed as a standard, it necessarily increases the value of that technology.

Now, some standards bodies -- and ANSI is one of them, SEMI is another -- attempt to minimize the advantages that flow from intellectual property.

But it is important -- and I did look at the SEMI constitution. It is important to recognize that most of these bodies do recognize that in some cases it's desirable to have a standard that is -- or that it's okay for intellectual property to be wound up in a standard. And, indeed, there's normally some requirement for non-discriminatory licensing, reasonable royalties, and the like.

And I guess I'm saying this because, in some part, there's a lot of natural protection already out there in the standard setting process for the kinds of concerns that the Federal Trade Commission and other antitrust agencies might have.

So let me turn and address specifically the very narrow point about the Federal Trade Commission and what, for want of a better term, I'll call the rule of Dell. This is -- I think Dick Schmalensee started talking off by saying, you know, in the area of standards at a conceptual level, one of the properties is, you know, that there aren't any clear rules so the government is trying to craft clear rules in an environment where it's not clear from the conceptual level what's right and what's wrong.

But also, here there are enormous practical problem. And the practical problems are almost deeper than the conceptual ones.

And remember here the circumstances was Dell had some intellectual property that was wound up in a standard for, I think it was called the VO Bus, and it didn't disclose this ahead of time; and the Federal Trade Commission, in a proposed settlement, has said, okay, you must give this technology away, basically, to get out of our hair.

And this, I think, is a very problematic rule.

Amy pointed to one aspect of it, namely -- and it was a very obvious one -- large companies don't know what their intellectual property is. And it's not just a question of patents. One of the virtues of patents is at least, you know, they get filed and you can look them up. There are many other elements of intellectual property: copyright, copyrightable material, maybe even trade secrets, where it's not so apparent.

So the notion of a mechanical intellectual property audit that will expose everything so whoever's sitting there on the standard committee knows what the company's portfolio of intellectual property is, I mean, that's a myth. I then it's theoretically a valid concept, but as a practical matter, it's a myth.

A second issue that you didn't point out but I think is an even larger one is that -- and it's not really revealed so much by the Dell facts -- but in the Dell case, you know, there was a patent that read on a standard and vice versa. But there may be other circumstances where someone has a very broad-based patent that may be implicated in a standard.

So quite unknowingly, a standard may touch on some broad-based patent of enormous scope. So what you could find under this sort of rule is that a firm that had a very valuable patent that wasn't sort of directly implicated in a standard but indirectly was implicated because a standard may, in fact -- or conceivably could read on many different patents and many different pieces of intellectual property that the Dell-type rule could end up torpedoing the value of a broad-based patent.

And if that is the case or if there's any significant danger of that, I think what most prudent firms should do, given that they can't accurately audit their intellectual property is stay out of the standard-setting process. And that's the fundamental problem with the sort of the Dell-type rule is that, given the uncertainties that occur because of the difficulty of auditing intellectual property, the prudent thing to do, in many cases, may be to stay out of the process. And that, in turn, slows down standard setting and slows down competition. So what on its face may look like a pro-competitive rule could, in some more fundamental sense, be anti-competitive.

And, likewise, the notion of compulsory licensing takes away the value or the possibility of an injunction. And this is something that goes to other aspects of your charter and other people's charter that's I suppose already there; and I wouldn't argue with it too much, but only simply to point out that if there is a compulsory licensing requirement, you know, any potential infringer might just as well say: Well, look let me risk infringement and we'll pay up in the courts because we won't pay more than a reasonable royalty there. In other words, taking away the power to bring about an injunction grossly diminishes the value of much intellectual property and orders the Dell rule deal, with the whole question of what do you do with pending patents and intellectual property that's incipient. The deeper you look into these questions, the messier they get, I suppose, is a basic message.

And I think Commissioner Azcuenaga's instinct that there wasn't something quite right here -- at lest she didn't see a section 5 issue, that my be true; I'm not a lawyer -- but I certainly see the creation of a tremendous amount of uncertainty. And uncertainty is the bane of new investment.

So all of this simply comes down to the fact that, indeed, I don't think networks justify new rules, to echo another speaker; and that, if this be the type of rule that we are creating to deal with these problems, I think it has strong practical problems as well as fundamental conceptual weaknesses as well.

So that's enough for an opening statement about some of the new emerging issues in standard setting.

COMMISSIONER VARNEY: Well, Professor Teece, let's postulate the Dell rule slightly differently and get your reaction to it.

MR. TEECE: All right.

COMMISSIONER VARNEY: Suppose the Dell rule says, only when the official that's participating in the standard setting has knowledge of an existing patent that could be exerted against those who eventually adopt the standard should the company be held liable, is that reasonable?

MR. TEECE: Yeah. I think, you know, there's sort of a deliberate sort of opportunism here. But my understanding is that's already -- isn't there strong case law that already provides support for that? In which case, you know, it's not clear the FTC has a role.

But, yeah, I mean, clearly one doesn't want to support deliberate opportunism in the standard setting processes. But sorting out deliberate opportunism and strategic opportunism from the absence of omniscience is the task at hand.

And I would be much more comfortable with something along those lines.

COMMISSIONER VARNEY: Other comments.

MR. ANTALICS: Yeah, I have a question. This was actually raised by somebody in the audience.

Isn't the patent holder the person who has the best -- the most efficient person to do the search and the person put in the best position to identify whether or not they have a conflict in the technology with what's going to be incorporated in the standard and together they have the option of either certifying or not certifying? Shouldn't they be the ones who make the decision of, if they are going to certify, they do the search?

MR. TEECE: Well, that presumes that a search ought to be the done and a search, when completed, will, in fact, display whether or not there's infringing technology.

I don't disagree that the owners of the intellectual property are in the best position to determine whether there is the prospective infringement. But I'm not sure that's the right question to ask.

MR. ANTALICS: Janusz?

MR. ORDOVER: I have a comment. I think that it's easier to take the view as David has taken of the owner of the intellectual property rights, and I'm very sympathetic to that viewpoint because I think that owners of intellectual property rights do greatly contribute to the welfare of the economy.

But there is also another angle to that, and that is the viewpoint of those who actually do participate in the standard setting process as well.

And somehow we have not heard about the incentives or the effects of the rule or the absence of the rule on how willing they are going to be to participate in such a process.

And the point being that at a time that a particular standards being developed, there are many difference routes along which one can proceed. And, therefore, the outcome of the standard setting process maybe to -- I guess the right word from the Silicon Valley is evangelize a particular standard and, therefore, to create value where, potentially, initially was very little value to begin with. It was one of many particular ways to proceed; and once the road is chosen, the value is created.

And the question to my mind is: While having been a part of the that process, who should be allowed to extract the additional value that was created as a result of the standard setting procedure?

And I think that if that value is fully allocated to the one whose particular patent or piece of intellectual property right was actually evangelized through the process is allowed to capture all of it without disclosing the initial interest, I think that the wrong incentive is potentially being created. And also it creates a disincentive, potentially, for other players to engage in the standard setting process that creates values for others.

So the rule, perhaps, may be too strong. I have not studied the rule at any great length. But I would suggest that if there is a problem of resolving the conflict, that the way to approach it would be to grant --

not to expropriate the intellectual property right. But, again, to come back to what I have been harping upon, which is to say that the benefits of the standard setting value creation should be somehow divided amongst the owner as well as those who participate in the process of enhancing the value.

In other words, the value should not all rest with the original owner who, at some point, realizes whether by mistake that he or she failed to inform or obviously if it was a strategic withholding that the matter is quite different.

But I believe that there are trade-offs going both ways; and, therefore, to take only the viewpoint of the owner distracts from the fact that the other players have a stake in resolution of the conflict in a way that does not expropriate all the value from them and does not transfer all of it onto the owner of the intellectual property right.

And that viewpoint also has to be respected in some way. I don't have the solution to it, but I would not want it to become completely disregarded.

MR. TEECE: No. Let me just say, nor would I. But the Dell rule, is you'll give it up for zero royalty, if I understand it correctly. Right? The Dell settlement did not allow Dell to take a reasonable royalty.

Am I right about that?

MR. ANTALICS: The Dell settlement would say, with respect to the standard, you know.

MR. TEECE: Okay. So zero royalty, which presumes -- so you and I agree

MR. ANTALICS: It would also presume you have to look at other facts as to whether or not the patent itself had any value apart from --

MR. TEECE: As a standard, right

MR. ANTALICS: Right. And certainly that's part of the analysis.

MR. TEECE: Well, the standard setting bodies, basically, are consistent in their approach to what Janusz just advanced.

Because if there isn't -- you know, the usual approach is we prefer not to have a standard that's proprietary; if there's a close substitute, we'll move to that; and if there's not a closed substitute, than a reasonable royalty over the intellectual property that's involved is acceptable.

And in this case, the thing that I think both of us would find troubling is the zero royalty.

CHAIRMAN PITOFSKY: All right.

It's a pleasure to welcome back Professor Janusz Ordover, who has participated in these hearings before and also has worked with us and has been instrumental in organizing these hearings from their very beginning.

He's a Professor of Economics at New York University and Advisor to the World Bank on privatization and regulation of infrastructure industries and is affiliated with the Law and Economics Consulting Group in Berkely, California.

In the past, Professor Ordover served as Deputy Attorney Assistant Attorney General for Economics at the Antitrust Division of the Department of Justice.

Professor Ordover.

MR. ORDOVER: Thank you, Mr. Chairman. Again it's a great pleasure to be back. I will be very brief because I think it's more fun to listen to other people than to myself.

I would like it make a few points, somewhat in disagreeing with my friend Dick Schmalensee, who advises that the network industry does not create new problems. I think that, in fact, to some extent they do, primarily because the problems of supplanting a dominant sand or gravel vendor may be quite distinct in terms of their magnitude and the technological prowess, the expertise, the access to intellectual property and to the consumer base that might be present when network effects are particularly strong, both on the cost side and the demand side, not only for any particular time slots but also inter-temporarily.

In other words, the networks effects can, indeed, cause dominant firms to unravel very quickly, maybe perhaps more quickly than a sand or gravel monopoly would unravel. On the other hand, the time that it takes to cause the tipping may be much longer than we would find desirable or socially desirable.

Now, nevertheless, I would agree with Dick to the extent that one should be very careful in crafting rules designed to supplant the network dominant firm before its time.

Who said they will not serve Gallo before it's ready, I don't think Gallo is ever ready to be drunk.

Sorry about that. I just like wine.

It seems to me there are great dangers to coming to a viewpoint that somehow the particular technology has run its course and it should be supplanted by a newer and better technology with the assistance, especially of those who have a vested interest in supplanted the preexisting one, which is the brand of competitors.

I believe strongly that network industries require very careful application of economic theory, which, unfortunately, has not developed to the point to offering clear enough guidance what to do.

So we are now in a very difficult position, I think, because we need to address these issues; they come up in front of the Commission on a daily basis and in front of the courts. Yet very little guidance can be gleaned from the literature that has emerged thus far. I think the literature is superbly summarized in Bill Cohen's background paper. And I think we all should be grateful, yet again, for his efforts.

The fact of the matter is that the results that we have on these theoretical results are very specific to the assumptions that people have made about the nature of the problem they are modeling. And, as such, they are not robust, the change in these assumptions.

Nevertheless, I think that there are some things perhaps we can learn. And I tried to summarize a few of them that, at least I have learned over the years. Let me just share those with you very quickly because I would like to move on to questions and answers as opposed to presentation.

First of all, I would say, agreeing again with Dick, I think that the anti-competitive dangers of these network of industries, network markets, are much less pronounced; but there is at least some scope for internetwork competition, or what I to used to call "intersystem competition." But now we have to advance to bigger and better ways of thinking about it.

So thinking about internetwork competition, I think, as a starting point: Is there a scope for such competition? What other forces are preventing it? And if internetwork or intersystem competition is adequately, sufficiently potent, then I believe that we are safely in the world in which antitrust can fall back on some of the principles that we had learned before.

Coming to the discussion as to the VISA/MasterCard problem -- again, I'm not aware of the history leading up to this particular unity of VISA and MasterCard membership, but it would strike me that many of the problems that we have encountered in that area would have completely disappeared had there been two competing interbank consortia. Because in such a world, if Dean Witter, for example, were to be a valuable entrant into any one of these consortia, if anything, you would expect both of them to vie for such a new participant to participate and to extend the scope of the bankcard business within a particular joint venture or association, whatever you want to call it.

So the presence of some competition among systems or networks, I think, is a strong guarantor that a market is likely to work reasonably well and, therefore, to minimize significantly the need for any sort of intervention, as to the rules of access, as to the membership rules, as to the kind of activities that the joint venture can venture out of and enhance its market presence in the new and exciting possibilities that open up.

Now, that is, I think fairly uncontroversial because I think that competition works much better than any regulator can.

However, when exclusion -- and this is sort of a second point, when exclusion from a network is potential substantially detrimental to the excluded firm or firms and when the excluded firms cannot reasonably overcome the impediment, there is a need, perhaps, for some antitrust scrutiny.

And the antitrust scrutiny, to my mind, should be governed by a fairly simple question or simple principle which, as I admitted over the years, is not easy to apply. And the principle ought to be -- at least the way I have it in my mind -- is whether or not the conduct of the excluding network of the excluding association that has these network features is best explained by reasonably direct efficiency rationale or can best be rationalized as a desire to exclude an equally or more efficient competitor.

In other words, I would like to see an exploration that proceeds along three steps.

In step one there are various structural indicia that one may want to look at that will shed light on whether that particular network that isn't dominant at the moment is likely to maintain its dominance over a medium hall. I am not talking about being displaced next week but over the hall that we would view as reasonably short so as to not to be concerned about potential anti-competitive effects.

These structure indicia relate to the question of how easy it is to tip one network's dominance into a losing proposition, Visicalc and whatever other things that we have heard from the software world, of course, that are examples of networks that were falling by the wayside.

So a structural evidence suggests that the persistence of a network is not likely to be prolonged, I would say, forget about worrying individual conduct and let's just dissipate market power.

Step two, I would look at the reasons why these exclusion takes place. We know from the old fashion literature -- and I guess we will come back to it this afternoon -- that generally there's only one monopoly profit to be had. So if there is one monopoly profit to be had and you have some scarce assets, maybe membership in the VISA, why can't you get all your profits by charging the appropriate amount for a VISA membership?

Well, the problem, of course, here would be that the membership rules are anonymous and you cannot charge different people different access fees. You cannot charge Dean Witter a different amount for playing with VISA than you can charge Ordover Bank. I don't have a bank, but I could start one up to issue VISA cards, for example.

So that is a problem, that the owner of a scarce asset, be it the network or be it anybody, cannot always extract that maximum amount of monopoly that is, perhaps, available from the assets. And that may be a good explanation why exclusion takes place.

Some reasons for exclusion I think are more pernicious than others. I believe that the reason for exclusion driven by the desire to enhance one's ability to price discriminate is substantially less pernicious than the one designed to stymie competition in the next rounds of technological developments. I think that's the most pernicious reason I can imagine to stifle dynamics as opposed to worry about current reshuffling of consumer versus producer surplus, which doesn't strike me as a horribly problematic issue.

And step three would go to core of what I'm really concerned about, and that is whether this exclusionary conduct can be most readily explained by the fact that it's profitable only because it excludes a more efficient competitor who, by the process of exclusion, is really rendered non-viable or substantially less viable than the competitor would be in the case of admission.

So going back, again to this generic VISA problem, the question then would be whether or not Dean Witter is substantially less capable of providing its proprietary card if it's excluded from VISA and MasterCard as opposed to whether it's merely an inconvenience and of marginal benefit that perhaps does not substantially effect the competitive balance.

And I think that this sort of three-step inquiry can help along in trying to sort out the pro- from anti-competitive types of exclusionary conduct.

I would also want to make a point, going back to the standard setting issue a little bit and this unilateral networks or private network, that when firms individually race to establish a dominant network, I think that it should be, in my opinion, reasonably -- that kind of race should be reasonably free of antitrust scrutiny. I think that races leads to winners, and it's very dangerous to handicap the race on a continuous basis though antitrust scrutiny along the path of competition.

I believe, with Dick Schmalensee and Liebowitz and Margolis, that it's only rare, if ever, that the wrong winner actually wins. I believe that it's very unlikely that the winner will be, in fact, able to extract surplus and behave anti-competitively once victory has taken place. There are some situations, but they are very limited in scope; and, therefore, I believe that such competitive races should be left to the market with most minimal amount of supervision.

I think that the most dangerous problem that can come up is when the nature of the race is sort of changed or the nature of competition is changed ex post with what we have come about to call the installed base opportunism, I guess, thanks to Steve Salop, who's in the audience and who's such a marvelous crafter of ideas and terms.

I believe that, as long as we can protect against installed base opportunism through antitrust intervention, then races towards patents, towards standards, towards networks, are going to be pro-competitive on the whole. And the thing that we ought to make sure is that once these networks and standards and dominant positions are established that they are not then used as a springboard for changing, substantially, the rules of the game for the next rounds of competition.

Thank you.

CHAIRMAN PITOFSKY: Thank you. Just one question.

You say that where there is a single firm or a joint venture with dominant market power and somebody is applying and seeks access, you're focus is on what's the reason for the exclusion. And certainly if the reason is to exclude a more efficient competitor, I gather you would say that would be unacceptable?

MR. ORDOVER: Well, I would say it certainly creates a presumption of a competitive problem from the standpoint that, assuming that such action exclusion is costly in some way. It might be costly for -- I'm just using VISA generically. Please don't hold to any of it. I don't know anything about VISA, other than my balances.

If it's costly for VISA to engage in rules which are exclusionary, for example, withholding an entry to someone who can benefit the VISA organization by expanding the size of the VISA market, then I would be concerned why such a beneficial entry is blockaded.

And perhaps the reason might be that such a beneficial entry is mostly rational because it affects the intensity of competition elsewhere.

CHAIRMAN PITOFSKY: Well, suppose that the joint venture -- get away from VISA. Suppose the joint venture, in a burst of candor, says: Look, they're not more efficient than we are; but the fact of the matter is, we make more money with them out than with them in. Is --

MR. ORDOVER: I don't see there is any problem with that, as long as the excluded firm can fend for itself.

CHAIRMAN PITOFSKY: No, no. It can't. It's an essential facility. It's a dominant player in the joint venture or the monopoly. It's a decisive competitive advantage to have the benefits of membership in the joint venture, and the reason for excluding them is, we make more money with them out, as the defendants said in Otter Tail in a burst of candor, they gouge holes in our profits.

Is that a justifiable reason to keep them out?

MR. ORDOVER: Well, I think it's certainly a justifiable reason to keep them out if the dissipation of profit -- one would have to -- I think I would like to ask: What's the reason for the dissipation of profit caused by the new entry?

Is it because they're going to free ride? It's because they are not going to contribute to the future development of joint venture product? What is it that dissipates this profit?

If you take a joint venture that has a large number of firms and firms are already competing, then it raises a question of what's different about this particular entrant or potential entrant as opposed to the ones who are already in. I mean all of those who went in dissipated profits to some extent. Is the joint venture of just the optimal size? Who knows.

But I think it's the absence of the ability to negotiate entry terms on more individualistic bases that creates, potentially these disincentives to admit.

And if you go back to Otter Tail, I think the reason exclusion was to place there was not because of the -- it was partly because of the regulator rate. It could not negotiate rates; and, therefore, you had absolutely no incentive, as we know, to enter the contract with somebody who would purely divert profit from you and would not be able to compensate you for any portion of that.

So I think that one answer to that kind of a quandary would be to allow joint ventures or networks to negotiate more personalized contracts with potential entrants, especially those who appear late in the game as opposed to require or mandate that so-called non-discriminatory access out to be granted. I think that would probably lead to fewer problems, more entry, less tension than a very simple rule which says you have to grant non-discriminatory access.

I think that entrants are different; therefore, they should be potentially treated differently.

CHAIRMAN PITOFSKY: Dick, you were going to comment?

MR. SCHMALENSEE: Yeah. That brings back a point that Janusz raised earlier that I wanted to react to in the context of Jon Bakers's hypothetical. Janusz, in his response to that, reminded us that when you declare something an essential facility, you are starting a regulatory process.

And letting them negotiate doesn't necessarily do it. It needs to be a supervised negotiation, which is why it is not something you want to do lightly.

Particularly, Jon's hypothetical had to do with, suppose you were worried about incentives for tipping and you were worried about incentives for coming out with the next standard, let us say, I guess that I would argue that in a situation -- and Janusz also reminded us of the time dimension of essentiality.

I guess I would argue that the shorter the likely duration of an essential facility, the less likely you really want to think of it as essential and go down that regulatory road. That if historically things get overturned every five or ten years, you might want to think twice about creating a structure to supervise individualized access fees.

I also think, just to react to some of what he said, the question of whether you have to have an efficiency rationale for exclusion, whether that's a necessary test, I think raises some operational questions that are difficult.

Suppose, to get away from VISA, I decide to operate Schmalensee's Raspberry yogurt stands. It's a great name. And I'm going to run it as a joint venture because I don't have a lot of money. So we have this group, and I want to get nationwide coverage. So we set up these yogurt stands and I get nationwide coverage. And I say, that's terrific, we have what we want, we have nationwide coverage, we're all very happy. Janusz, who has two or three yogurt stands says, I want to join. We have a meeting. My co-venturers says, no, why should we let a competitor in?

Now, can I do that? Well, I can't do it if there's going to be a material adverse affect on competition. It really is essential to use my terrific name to sell raspberry yogurt, let us say, assuming that's a market.

But suppose there isn't a huge material affect on competition, then it seems to me requiring us to come up with an efficiency rationale for not letting competitors in, for not expanding the scope of the joint venture, for not going down the road of having to explain why we don't want to go through the hassle of negotiating access fees and set up an apparatus to vet the special fees we want to charge Janusz because he's a difficult person -- which, of course, he isn't -- I think placing a high burden on that kind of decision serves no useful purpose.

So I think you really only reach the efficiency issue properly after you have reached the competitive effect issue. And I think it's got to be an effect on competition, not on competitors.

I think that's what Janusz meant. Although he said necessary for a firm or firms, I think he must have meant necessary for a firm or firms which would increase the effectiveness of competition in the market.

MR. ORDOVER: Can I just say one thing?

That is, I never understood how can I have competition without competitors? I always thought the dictum about protecting competition of competitors is very clever. That is slightly shaky in my own little head. But I think that competition requires either actual firms competing or at least potential competitors pressing on the dominant firm.

CHAIRMAN PITOFSKY: Suppose there are enough competitors to allow for a process, do you have to let the other one in if there's going to be an effect on party --

MR. ORDOVER: Oh, no. Of course. The whole issue arises only when there is a substantial potential problem.

If there are 55 different flavors of yogurt competing, there's absolutely no problem. And if there is even one, but I can reasonably well offer the "Ordover Coffee Yogurt" in competition with Dick's, there's no problem.

There's a question that arises whether or not I am going to be vanquished. And even if I am vanquished, that's still all right as long as I would have died because nobody wants to have my yogurt in competition with yours. That's still fine by me.

So I'm not that concerned that the rule will be over-broad.

CHAIRMAN PITOFSKY: Let me interrupt the discussion and make sure we hear from our speaker this morning, and then we'll come back to an exchange.

Tom Rosch is managing partner of the San Francisco office of Latham & Watkins, nationally regarded as one of the preeminent practitioners in the areas of antitrust trade regulation law. He has been lead counsel in more than 50 federal and state court antitrust cases.

Tom served as Chair of the ABA's Antitrust Section in 1990. He currently serves as Vice Chair of the California Bar Association's Antitrust Section.

And I remember him best as Director of the FTC's Bureau of Consumer Protection from 1973 to 1995.

In 1989 he was a member of the special committee to study the role of the Federal Trade Commission.

It's a great pleasure to welcome you back to the FTC.

MR. ROSCH: Thank you, Mr. Chairman, and Commissioner Varney, and members of the senior staff.

I do have a couple of things I would like to say at the beginning. First, I must join Christine and the numerous other witnesses before us who have expressed their appreciation to the Commission for this process and for our being able to participate in it.

Whatever comes of the process, it's, I think, enormously valuable to the American people that the Commission take stock of the extraordinary things that are going on in the market today, things that simply were not going on when the Chairman and I started practicing law 30-plus years ago and at least to ask whether or not antitrust ought to be applied to those market dynamics in the same way they have traditionally.

Second, I have to remark on my reaction to the economic literature which Debra and Susan sent to me about 10 days ago. I had no idea, quite frankly, that the economic literature on the subject of antitrust and networks standards was as deep and broad and rich and, quite frankly, as intimidating as it is to those of us who are non-economists.

And, again, to be perfectly frank, I wondered whether or not I really ought to come under those circumstances. But I concluded to do so to at least give the perspective of someone, on behalf of others, who deals with the Commission most directly, more specifically the antitrust bar and also judges who sit and second guess Commission decisions from time to time.

And I thought that perhaps I would confine my remarks -- and I will make them briefer than they are in written form -- to addressing the possible process by which the Commission might exercise prosecutorial discretion in determining whether to attack the formation or practices of networks.

Let me say at the outset that I have defined networks rather differently than Dick Schmalensee has or, indeed, that many of the other folks who have spoken today have.

They seem to have defined networks as essentially being alliances of competitors of really more than two competitors, multiple competitors but more than two. And I would define networks more broadly than that, to include simple joint ventures including two actual or potential competitors. And I'm not at all clear that, as I have listened, that what I have to say about that subject differs because there's more than two.

I can't help but remark on the explosion of networks that we are seeing today, and the different kinds after networks. I mean, 10 years ago the Toyota/General Motors production joint venture was a real novelty. Today, at least in my practice, I encounter a variety of teaming agreements by defense contractors; I see joint operating agreements by hospitals; and all sorts of communications providers; I see joint research and development; joint ventures by biotech firms. I'm seeing an enormous number of embryonic buying arrangements, group buying arrangements by competitors.

It is true explosion. Now, one, under those circumstances, might ask oneself, well, why? Why are we witnessing this? I suppose a cynic might say that competitors are looking for strategic sort of anti-competitive behavior, and this is one form of it.

A more benign explanation, however -- let me stop right there and say that I acknowledge that there are several forms of strategic anti-competitive behavior that can stem from joint venture activity. I guess I could just lump them into three categories: price stabilization, quality stabilization, and market exclusion. But they're covered much more adequately in the economic literature and by the economists who are here than I could ever do. So I'm not going to undertake to do that.

But there are other benign explanations, I think, for this activity; and they have to do with the search, I think, for optimum efficient scale and the search for efficiencies, including the efficiencies in the form of the development of new products and services.

And I think that it behooves the Commission and the Justice Department, in examining these ventures and their formation and their extension -- and I happen to agree with Christine that the same analysis ought to apply to extension of joint venture activities as applies to formation of joint -- I think that was a very astute observation.

I think it behooves the Commission and the Justice Department to take a very close look at whether or not the venture is being formed or is engaging in practices for the former reasons rather than the latter.

And, indeed, I would suggest that the courts and the Congress have counseled that as well. For example, the Supreme Court in Broadcast Music recognized that there were substantial efficiencies that could flow from even a marketing joint venture.

And the Congress, in enacting the Research and Production Act in 1993, recognized that there were substantial efficiencies that could flow from a production joint venture as well as from a research and development joint venture.

So to some extent what I'm about to say about efficiencies is rooted in the law.

Let me just suggest, then, a multi-part test that the agencies might wish to employ in determining whether and in what circumstances they should exercise prosecutorial discretion in addressing the formation or extension of joint ventures -- horizontal, now I'm talking about -- and the practices of joint ventures.

It is quite a different calculus, I might add, than Janusz has proposed.

It starts with an assessment of whether or not there are efficiencies involved. Now, why does it start there? Two reasons.

First of all, because, I would suggest, most respectfully, that it is easier to make that determination than it is to predict the sorts of things that one is required to predict under the Merger Guidelines, that is to say, whether or not what will happen if there's a small but significant non-transitory price increase, or whether entry is likely to occur within two years.

Efficiency questions frequently turn on facts which can be determined relatively easily. Over-capacity either exists in an industry like a hospital market or it doesn't. And one can make a fairly clean determination as to whether or not a joint venture, under those circumstances, is likely to lead to competitive equilibrium and to a maximizing of resources.

The same thing is true of redundancies and complementarities. In the context of biotech transactions, for example, it's pretty easy to assess claims of complementarities. And it's fairly easy to determine whether or not redundancies exist whose elimination can yield efficiencies.

Second, the second reason for focusing on efficiencies first is that it is a decent filter through which to eliminate those transactions which are nothing more than a subterfuge for price fixing or other per se or near per se type horizontal conduct.

If there is no efficiency at all involved, then one must stop and ask oneself why the participants are doing the deal. And if they don't have a pretty compelling reason, then the inquiry should stop right there.

Now, I think that that only works with respect to an assessment of the formation or extension of a joint venture. I don't think it works as well with respect to practices. And I'm talking now, also, with respect to exclusionary practices, whether or not the joint venture is excluding other folks from joining.

In those circumstances, I think the absence of efficiencies is indicative but not Talismanic. But with respect to the formation or extension of a joint venture, I would suggest that if there are no efficiencies, a very heavy burden then shifts to the venturers to justify the existence of the venture.

Now, suppose that some efficiencies are identifiable -- or, more specifically, suppose that the agency concludes that there are substantial efficiencies and those are relatively certain. Under those circumstances, I would respectfully suggest that the presumption ought to be in favor of legality and that that presumption ought to get stronger the more substantial and certain the efficiencies are.

Let me speak to the point that was just made. A potentially efficiency-enhancing venture should not be dismantled just because it may also potentially stabilize the price or quality of the product sold by the venturers themselves. That shouldn't matter if there's enough other competition in the marketplace to discipline the venturers' price and quality.

Similarly, a potentially efficiency enhancing venturer should be challenged just because it may, by membership restrictions or otherwise, prevent some firms from competing. That shouldn't matter either, so long as there's enough other competition in the marketplace to discipline price and quality; and that's where the focus should be.

Indeed, it's strongly arguable that structural relief should not be sought whenever there is enough competition in the market that it's likely that the efficiencies will be shared in any respect with consumers.

Now, the trick there, of course, is to identify how much competition is enough. The Merger Guidelines, quite frankly, are not very helpful in that respect. As both agencies have tacitly acknowledged in their treatment of hospital joint ventures and even hospital mergers, competition in markets with HHI's well in access of 1800 may be sufficient to discipline price and quality, especially if the purchasers are powerful and sophisticated and/or the purchases are made by a bidding process which prevents collusion or if there are other forces at work which ensure competition.

I can't help but comment on this notion, for example, that by sharing information we are somehow stifling competition. And I'm talking now about an innovation markets like biotech or semi-conductor or other markets of that kind. I think that badly underestimates the non-economic rivalry that exists among scientists and engineers today. It exists entirely independently of the sorts of economic aspects that the economic models are mostly concerned with. And those forces, I think, should be taken into account in determining whether or not there's likely to be enough continuing rivalry and competition and even in a highly concentrated marketplace, to ensure that some of the efficiencies yielded by a combination of competitors will be passed on to consumers.

Frankly, I mean, Intel has been thrown up from time to time as being a good example of -- or the semi-conductor market is thrown up from time to tim as being a good example of a highly concentrated market where competition has suffered.

I must say, from my observation, nothing could be further from the truth. That firm behaves as though it is under competitive siege, and it has been -- it's behaved that way for the last 10 years. And I think it's because the mentality down there is being driven, to be sure, to some extent by economic considerations but also, to some extent, by a fear that they are not going to be first in science. And I don't think that that can be disregarded in the calculus.

In short, particularly where you're talking about transactions which are not as enduring as mergers, I don't think that the agency should treat the Horizontal Merger Guidelines as gospel in assessing the effects of these arrangements.

Now, third, the presumptions against structural relief, based on efficiencies, should not extend, necessarily, to challenges to ancillary provisions which aren't reasonably necessary to achieve the efficiencies offered by the network and which may potentially stabilize price or quality or exclude competitors from the market.

To the contrary, I think that proper antitrust enforcement demands that, under those circumstances, that kind of activity should be prohibited.

I have to comment in one respect here, though, about an issue that has come up with respect to the external conduct of network participants, raised by Christine's testimony with respect to Discover and VISA.

The interesting question there, to me, is whether or not the external conduct of that kind should be judged under section 1 or section 2. And it makes a difference -- it may make a difference as a matter of law because Copperweld suggests that the standards of performance required by section 1 are more stringent than they are under section two.

I have no doubt at all that the external activity of a joint venture should be subject to a consent decree, and one should not hesitate to impose a consent decree when it is exclusionary in a sense that it injures competition.

But I also have no idea, at this point, as to what the proper legal standard ought to be in evaluating that kind of conduct.

Now, this three-step calculus obviously reflects a bias against stifling the kind of developments of the kinds of networks that we're witnessing; and it reflects a view which may be naive, I will admit, but it is still my view, that the purposes and potential effects of these networks are generally efficiency enhancing and that the agencies ought to be very, very careful about second guessing them.

The stakes here are enormous. There are genuine efficiencies involved. If the agencies get in the way of the achievement of those efficiencies, we are not going to be doing anybody a favor. If, on the other hand, the agencies get it right, we are going to see an explosion of the development of consumer products, particularly in the biotech area and the communications area, that are going to drive this economy for the next half century, just as the development of the electric light and the combustion engine at the beginning of the century drove our economy for that half century.

CHAIRMAN PITOFSKY: Well, thank you for yet another provocative set of proposals.

Any questions? Comments? We have a few minutes.

I had a question. Hardly a word about market power.

MS. VALENTINE: That's my question.

CHAIRMAN PITOFSKY: Let's assume it is a highly efficient teaming arrangement, only two companies left, making a certain kind of missile, they get together in a joint venture and bid together to the Department of Defense, highly efficient, is that presumptively -- could the presumption be overcome because of the market power in that situation?

MR. ROSCH: Yes. It is a presumption that is rebuttable. But I'm suggesting that if the efficiencies are clear and substantial, very substantial, one ought to be very, very careful before proceeding if there is even another competitor there. And the Defense Department situation is a very good example of that where you have a power buyer, essentially, there so that you have a good deal of countervailing power at work.

MS. VALENTINE: Can you look at the other end? Let's say there's no market power or let's say there are, I don't know, five van lines that operate across a whole state and two that operate only, one in the northern half and one in the southern half and they want to get together and offer statewide moving services as well.

And let's say there are no real integration efficiencies, or very, very few, do you want us, before we ask what market share that sixth entrant in the statewide service would have -- you want us to ask what the efficiencies are?

MR. ROSCH: Well, I think in your hypothetical, if I understand it correctly, Debra, you have assumed that there are no efficiencies from the transaction.

MS. VALENTINE: I'm trying to give you one where there are very few, and I haven't thought about this long.

MR. ROSCH: Okay. And, frankly, the one that you posit seems to me to be one in which there would be substantial efficiencies.

MS. VALENTINE: There is certainly a new product that they couldn't offer. Okay. In the BMI sense.

MR. ROSCH: Okay. And, again, the question is?

MS. VALENTINE: Do you want us to look at the efficiencies first?

I think I understood from your example --

MR. ROSCH: I would always look at the efficiencies first.

MS. VALENTINE: -- that you would approach this as opposed to Janusz.

And then I guess, Janusz, what's your perspective on this?

MR. ORDOVER: I would say stop looking right away. There are five already. Sixth one, nothing can go wrong. Nothing can go wrong.

MS. VALENTINE: I would hope not.

CHAIRMAN PITOFSKY: Dick.

MR. SCHMALENSEE: I think it's important to keep in mind Tom's point. You do want to take a different algorithm to the formation of a venture versus the question of membership.

And I guess my view would be that there is some question as to how serious an efficiency test you want, whether it's a quick-look plausibility test, which your hypothetical passed, for all us, I think in 30 seconds; or whether it really is a "let me see what the investment bankers told you" kind of efficiency test, let's walk through the numbers.

And I guess I would opt for the first level on the formation, then see if there is a potential structural problem using, plainly, a test weaker than the Merger Guidelines, because it's not complete integration and only if you're in a trade-off situation, fall back to the detailed analysis.

CHAIRMAN PITOFSKY: David?

MR. TEECE: I would like to make a few comments.

And, Tom, I'm basically very much in agreement with what you had to say. But I thought there were a few things you said that were worth highlighting.

One is an acceptance of the notion that efficiencies are transparent. Historically, in antitrust, that's been a controversial point. But I think you're close to being right in a lot of the new industries that we're talking about -- and you mentioned biotech, you talked about telecommunications. I mean, if a new biotech firm has a teaming arrangement with an established pharmaceutical firm, you don't have to be a rocket scientist to see that there are some basic complementaries and distribution and work in the FDA process and so forth.

I think the basic point that comes from this is that some of these efficiencies are a lot easier to ascertain and identify than what we're looking at, say, 15 years ago when firms were talking about consolidating plants and, you know, bringing about production efficiencies. You ran into a different sort of managerial calculus about efficiencies.

So I would certainly like to underscore what you've just said that, namely, when it comes to complementaries, over-capacities, redundancies in these high-technology industries, it's actually easier once you understand the technologies and once you understand the commercialization process.

One thing which I would like to ask you -- I presume it's embedded in your framework -- presumably you would support a safe harbor-type exception. I mean the fact that you're willing to give a presumption for efficiencies is, in fact, perhaps even stronger than sort of giving a safe harbor exemption for cooperative arrangements that are, say, less than 25 percent of the market.

Am I right about that?

MR. ROSCH: In ordinary circumstances, I would think so.

But that's not really a safe harbor. I guess I would want to leave myself -- if I were on the staff, I would want to leave myself an out, where 25 percent would not be enough. But generally speaking, yes.

MR. TEECE: Okay.

CHAIRMAN PITOFSKY: Other questions or comments?

MS. VALENTINE: I had one question from the audience earlier. And this one is really for Janusz and if Dick Schmalensee comes back. I'm not sure if he's here any more or not.

MR. ORDOVER: He's deregulating transport now.

MS. VALENTINE: Right.

I think -- and this isn't critical to the question -- that duality or joint membership -- and we can try to make it abstract -- two joint ventures came about because earlier the Department of Justice declined to opine as to whether one of those networks were to exclude someone who was in the other network, would not be an antitrust problem.

But let's say now we do have joint membership in two industry networks in which about 70 or 80 percent of the participants of that industry are a member of each network.

Would you think there was a role for antitrust scrutiny or enforcement in that situation?

MR. ORDOVER: I think that I can fall back on an easy answer, which is, yes, to the extent that these firms now under the joint grouping engage in new activities which are not directly related to the original purposes of the network.

For example, the original purpose was to offer Product X, but now they are going to become involved, one way or the other, through offering Product Y. And unless there are any obvious reasons why the joint membership should get engaged in such a project, then I would like to see a new look. There is no justification any more, perhaps, but may be.

But I think there isn't because the underlying technologies have changed so that the -- again, generically speaking, a merchant can get on some particular electronic box and process any particular stream of digits. It doesn't make any difference whether it's coming from American Express, coming from Discover, or coming from VISA or wherever. To the extent technology has progressed to that level, there may be no rationale for joint activity on the new front.

I would say it would be a mistake to now decide that the old membership ought to be somehow sorted out as between the two potentially competing joint ventures. I think that would be a big mistake because that would create fears for formation that at some point somebody says, well, we've got to divide you up; you go to one side of the court, you got to other side of the court. I would not advocate that.

But I think that, as always, going forward at the potentially appropriate time to review the new activities to see how they are directly related to the activities that were initially a rationale for the formation and to see whether any efficiencies, as Tom would say, would be lost as a result of limiting the activities to a subset.

I believe that there's always a great virtue in competition. That's why I always was of the view that it's goods to have more than one network if you can sustain it. In some markets you can't with standards that are often impossible. But to the extent that you can sustain more than one network, I think you should move towards that goal, but protecting the efficiencies that might be otherwise lost. I don't see any reason why such efficiencies would dissipate in the hypothetical that you gave.

CHAIRMAN PITOFSKY: Well, I want to thank the members of this panel very particular for an extraordinary session. I started the morning off by saying that I truly believe this is among the most difficult questions that modern antitrust needs to address, and they seem a little less difficult having the benefit of these exchanges.

So, thank you very much.

I think we are going to move up our starting time this afternoon from 2:30 to 2:00. We'll resume at 2 o'clock and perhaps be able to adjourn a little earlier on a Friday afternoon.

Thank you.

(Whereupon, at 12:55 p.m., the hearing was recessed, to reconvene at 2:00 p.m., this same day.)

A F T E R N O O N S E S S I O N

2:00 p.m.

CHAIRMAN PITOFSKY: Good afternoon. We resume these hearings. We had a great session this morning, and I look forward to an equally great or greater session this afternoon.

We start with Steven Salop, Professor of Economics and Law at Georgetown University. He also serves on the Board of Directors of Charles River Associates.

From 1990 to 1991 Professor Salop was a guest scholar at Brookings, and in the spring of 1986, he was a visiting professor at MIT.

Before joining the Georgetown faculty in 1982, Professor Salop held various positions in the Bureau of Economics at the Federal Trade Commission, including the positions of Associate Director for Special Projects and Assistant Director for Industry Analysis.

Steve, welcome back to the FTC.

MR. SALOP: Thanks, Bob. You, too.

It's good to be back here at the FTC, back at the hearings as well. As I said the last time I was at the hearings, I think that it's terrific to see the FTC at the forefront of intellectual endeavor and antitrust; and I think you're going to do a great job with this in the staff report.

My topic today is antitrust analysis foreclosure concerns in standards and network joint ventures. It has been a longstanding interest of mine. There's a paper outside that I've done with Dennis Carlton on network joint ventures. And I've also done a recent paper on vertical mergers.

I should say about the Carlton/Salop paper, it is the Chicago/Chicago approach to network joint ventures. But the testimony today are my opinions and not necessarily those of Dennis.

What I want to talk about today are what I call input joint ventures. I put up a basic framework for an input joint venture.

The idea is that many joint ventures provide some input to the members and then the members compete, or at least potentially complete, in the output market.

There may also be rival input suppliers. And they may supply inputs to the joint venture or simply to the non-member. And, of course, in the output market there's not just competition among the members and between members and non-member, as there's just not intra-system competition and inter-system competition; but there may be other products as well.

So some examples of these things could be an ATM network that this is the network switch and these are the members. It could be credit cards. This could be the standard. This could be like DOS-compatible standard, and then these are the people that use it.

For old antitrusters, like me, Northwest Stationers would be up here, and they provide stationery to all the members. And then you have Pacific which gets driven out of the co-op.

And one of the allegations is that Pacific gets kicked out because they were vertically integrating to becoming their own wholesaler.

Fashion Originators Guild, the situation where the non-members are the style pirates; and then the input might be retailing where we had the white cards and they refused to provide retailing services to the non-members, who were, instead, forced to rely on the red cards.

Now, for those of you who don't teach antitrust or haven't had it, I commend Fashion Originators Guild to you as one of the great cases of 30's, Associated Press and so on.

My focus with this diagram is going to be on exclusionary access rules. What I mean by that is membership rules, primarily membership rules that have exclusivities involved.

I want to first talk about anti-competitive concerns. I'll lay a framework for that. I then will talk a little bit about efficiencies. And then I'll talk about how I think the Commission or the courts should analyze issues of exclusion in network joint ventures.

There are three anti-competitive concerns: one, supporting collusion; two, input market exclusion; and, three, output market exclusion.

Supporting collusion is very simple. You would view it as kind of purely horizontal. You tell a member, if you don't restrict output, then we'll terminate your membership; we'll kick you out. That somebody would not be allowed in if they're a price cutter, or they'll be kicked out if they cut price.

Examples of that in antitrust, NCAA can be viewed as supporting collusion is what started the whole deal; Fashion Originators Guild again. There were retailers that cut price and were kicked out.

You know, it would be in the Detroit autodealers' case if the autodealers had an association that did something valuable and members wanted to stay in the association and if you stayed up on Saturdays, they'd kick you out.

These are situations in which the focus for the JV is collusion, but they use the exclusionary rule in order to discipline members that compete.

The second two theories are more vertical and ones that you would more likely view as kind of the central concerns of antitrust.

The first is what I call "input market exclusion." And that's a situation in which the joint venture passes a rule or tells its members that they must buy exclusively from the JV. They are not permitted to buy from rival input suppliers.

Now, why would a joint venture -- what anti-competitive purpose could it serve to not permit your members to buy from outsiders?

Well, by doing it, by refusing to allow them to buy from outsiders, you might kill the outsider or handicap them. The outsider by be denied economies of sale and, therefore, go out of business. And so the input JV would gain power or maintain market power at the input level. And that could be -- of course, if they have power in the input level through two-tier entry, that could make entry by non-members less likely at the output market as well.

Okay. So the first exclusionary theory would be that you cause exclusion at the input level. Again, that's one interpretation of what was going in Northwest, was that they were trying to prevent Pacific from entering at the upstream level.

Now, this morning, Chairman Pitofsky asked a question to Christine Edwards about what Dean Witter's concern was. And what the Chairman focused on was exclusion at the output level where these are VISA members here, here's VISA; and then Dean Witter is here, Discover; and that's going to be the theory of output market exclusion I talk about next. But what Ms. Edwards said was -- what she was talking about in her testimony today was ways in which VISA's conduct was going to deter Dean Witter from entering with its NOVUS Network, which is at this level. But that's what she was concerned with.

Now, the third theory -- which is the one that people talk about the most -- is output market exclusion. And in that situation the input joint venture refuses membership to non-members. And that is to say just refuses to sell them input; and, under certain circumstances, that can give the members market power in the output market. Sometimes, not always. And those are the conditions I want to talk about.

If the non-members can get equally good input from rival input suppliers, then they will be not be harmed, no harm to competitors even. There's only going to be harm to competitors if, for some reason, what the joint venture sells, given its price is better and more efficient, as if the rival's are less efficient.

And in the VISA case, which I worked on for Dean Witter, Dean Witter's argument was that the economies of scope with the VISA card and issuing other cards so that they would be more efficient as a VISA issuer, that it was not a perfect substitute for Discover.

But, in any event, that case aside, you need to prove harm to competitors.

Secondly, even if you prove harm to competitors, even if you knocked this non-member out, there may still be ample competition in the output market to prevent any anti-competitive effects.

If the input joint venture is selling, for example, the input to its members at cost and these members are competing against one another, then competition among the members could prevent any anti-competitive effect.

In addition, there may be other products that could prevent prices from rising.

Okay. So input market exclusion, in order to prove market exclusion to the competition that has harmed the consumers, the plaintiff would need to show not only harm to the competitor, the non-member, but also harm to consumers as well, prove a harm in the input market and then also in the output market. You need to show limited competition in both markets.

Now, the key to understanding that -- I think now I can sit down -- is the concept of exclusionary market power. Exclusionary market power is the ability to raise prices by raising the cost to the competitors. In order to have exclusionary market power, you need not have classical market power, that is the ability just to restrict your own output.

In classical market power, you restrict your own output. In exclusionary market power, you restrict your competitor's output. What John Baker has called, getting your competitor to involuntarily join a cartel.

And Carlton/Salop, in our paper, propose a merger test to measure exclusionary market power in the context of network joint ventures. And it's a merger test that's different, say from the Jorde and Teece -- quite different from the Jorde and Teece merger test.

I want to make three points about exclusionary market power.

The first is -- and it follows from my analysis -- exclusionary access rules can harm competition, that is can harm consumers, even if it does not cause the firm to exit from the market. Creating barriers to expansion can harm consumers as well as driving the firm out of business.

So that is, if you handicap the non-member, raise its costs but you don't raise it so much that he's driven out of business, nonetheless, the members may be able to raise price in the output market.

So an implication to that is that the essential facilities standard that we talked about this morning is too permissive on joint ventures, even if the input provided by the joint venture is not essential, there, nonetheless, could be harm by denying that input to rivals because it disadvantages them because it raises their costs.

Second point, the harm to competition that may be at issue -- and is an issue in many joint venture cases, especially network joint venture cases -- does not involve raising price above the initial level. Rather it involves preventing further -- rather, it involves maintaining high prices, preventing price from falling.

So you could have a joint venture that the members are competing against one another, but along comes a very efficient new firm that if they are permitted to join the joint venture, they'll lead to more intense competition, which will lead prices to fall.

By denying that firm access to the joint venture, by denying it membership, the members are able to maintain high prices rather than leaving prices to fall.

So, again, essential facility is not the issue. And, again, on market -- this has important implications for market definition, because the question is not whether the joint venture has the ability to raise price -- that's classical market power -- rather, the issue is whether, by the conduct, they are going to prevent prices from falling.

And there are many antitrust cases in which what's at stake is maintaining prices at the monopoly level rather than forcing them above.

If this issue is ignored, the exclusionary market power often involves preventing price decreases, then the agencies and the courts will fall for the Cellophane fallacy, because if you just ask, at the downstream level, whether the members have the power to raise price, their ability to raise price is irrelevant to the issue at hand in the allegation, which is: Can they maintain that price level? Whereas, if the rival gets into the joint venture, he'll cause prices to fall below the current level.

Again, the standard merger test, say, of Jorde and Teece only looks at price increases where the focus here should be on preventing price decreases.

Third implication, even if the membership is unconcentrated, that does not mean that there cannot be any anti-competitive harm, in two ways.

First, as I just said, even if the membership is unconcentrated, if you prevent a more efficient rival from entering the market, that will prevent prices from falling. And the fact that the members are unconcentrated and compete against one another is no protection.

Secondly, in many joint ventures, the joint venture does not set the input price it charges to members at cost. Rather it takes its profits upstream. That's a point that's made in Carl Shapiro and Bobby Willig's article on joint ventures.

If you take your profits upstream, and even if the membership is unconcentrated, you can still achieve the monopoly price. You can simply bump up the input price to the monopoly level, and then the members pass it along.

So the implications of this are, one, you need to distinguish among allegations. If the plaintiff is alleging that as a result of the exclusion, it is going to lead to higher prices, then the plaintiff has to prove that the joint venture is taking profits upstream if the venture is unconcentrated.

So lack of concentration matters where the allegation price is increasing prices. However, if the plaintiff's alleging that the restriction is going to prevent prices from falling, then lack of concentration is no defense.

Okay. So one needs to be careful. You need to require the plaintiff, whereas the Commission is the plaintiff, you need to write our complaint with specificity. You need to state the allegations quite precisely in order to do the right type of analysis.

Okay. Those are the three basic anti-competitive theories.

Efficiency rationales. Well, you know, most joint ventures are efficient; and most exclusionary access rules can contribute to efficiency. The question is finding the ones that don't or the ones where the efficiency benefits don't outweigh the anti-competitive problems.

Two basic classes of efficiencies: one, efficiency from cost reduction, eliminating duplicative costs and so on; and, second, broad classes maintaining investment incentives.

Now, I am not so taken with efficiencies that I would give joint ventures a free pass to set whatever access rules they want. Instead, I think the efficiencies should be subject to a reasonable necessity standard where the joint venture has to show that the exclusion is reasonably necessary, not the joint venture.

The joint venture may be highly efficient, but the exclusionary access rules may be chosen not for the incremental efficiency benefits but rather for anti-competitive harms.

I would not require the joint venturers to show that the exclusives are essential for viability of the joint venture. I think simply "contribute to" is enough for it to be a cognizable efficiencies.

At the same time, I'm quite skeptical -- and I think courts should be skeptical -- of investment incentive claims, that you need exclusion in order to maintain investment incentive claims where it's a large network joint venture.

I think for a small joint venture, you know, kind of the three semi-conductor firms that get together, I think investment incentives is a good reason to have exclusionary access rules. They bore the risks, and nobody should be allowed to force themselves in.

But if it's a dominant network joint venture that's always been open, well, then that joint venture has not been worried about investment incentives in the past because it's been open. The existence of network externalities would suggest that they benefit from additional members. And in those cases, I would be quite skeptical of the investment incentives justification for not permitting somebody in.

So that's my basic economic analysis.

The legal analysis, I think the per se standards in Northwest and in the recent VISA case are not good standards. I think these things should be rule of reason but not an open-ended Chicago Board of Trade rule of reason, but rather one that's structured over proof of anti-competitive effects, proof of efficiencies; and if you prove both, both efficiencies and anti-competitive effects, then a balancing.

I'd require the plaintiff to state claims with specificity, as I said before. I would recommend the balancing be down without regard to the essentiality.

I would not require the plaintiff to prove that membership is essential for its viability in the market; that is, I would reject the essential facilities approach.

Similarly, I would not require the defendant to prove that the exclusion was essential to the viability of the venture.

I say it's not essential versus essential, rather it's balancing with the proper weight being placed on efficiencies and anti-competitive effect.

I think this morning we talked a little bit about treating the joint ventures as a single firm. I think that would be a mistake. I think it should be recognized that a joint venture is a group of competitors getting together, and we should not create the fiction that they're a single firm.

As Areeda has quite cogently pointed out, mandating access to a single firm raises remedy issues that mandating access to joint ventures does not.

The fact that it's a joint venture proves that sharing is possible. Whereas, with a single firm, you can't tell. If it's a joint venture, you don't need to set price the way you would, you know, as Janusz discussed this morning. You don't need at set a price with a joint venture. Instead you could just require a non-discrimination rule. Tell them they need to -- they can charge the same price to the excluded firm that they charge to anyone else.

Based on my experience, I think that where there is a dominant network joint venture and if it's shown with good evidence that there's a significant anti-competitive harm arising from the exclusion, I doubt that the benefits of maintaining investment incentives will very often be big enough to compensate for the proven anti-competitive harms. But there's no reason why defendants should not be allowed to try in a particular situation.

I stated earlier why I think it would be unlikely to succeed, but I wouldn't rule that out. At the same time, I would not rule out the plaintiffs getting an opportunity to prove anti-competitive effects that's larger than the efficiency benefits for the exclusion.

Thank you.

CHAIRMAN PITOFSKY: Thank you.

A couple of questions. First of all, on setting the price, I presume you would allow the entrenched joint venture to charge the new entrant some premium, some risk factor that the originators had taken?

Doesn't that throw you right into the soup in terms of who's going to decide what the premium is? how much it can be? and so forth?

MR. SALOP: No, I don't think it does. Because most joint venture exclusion cases do not involve joint ventures that are closed and someone's trying to force their way in. They're very commonly situations where the joint venture has been opened so there is a membership price, but then they selectively discriminate.

Where you have a closed joint venture and there is no price, well, yeah, then you run into the price setting situation -- you run into the need to set a price; and that's a thorny issue, I agree.

CHAIRMAN PITOFSKY: How do you respond to the charge that you have converted every large dominant joint venture into a kind of public utility, taking everybody in, so long as the party that's coming in is likely to result in a reduced price to consumers?

MR. SALOP: Well, I guess I say that's what antitrust is all about. Where there is anti-competitive harm proved from excluding a firm, then it's the proper role of antitrust to prevent that consumer harm.

CHAIRMAN PITOFSKY: But you wouldn't do it with a shopping mall, for example? That's not your big network, dominant network situation?

MR. SALOP: No. I mean where there's internetwork competition that's intense, no, I wouldn't do that.

And in the shopping mall, there's going to be somebody in the -- with a shopping mall problem, if it's is there going to be Store A versus Store B, that's of course a harder call for the Commission to make than a situation where the dominant department stores refuse to allow the shopping mall to expand and, thereby, deter entry of a new chain coming into town.

CHAIRMAN PITOFSKY: Suppose there's an empty lot and the founding member just doesn't want to bring in a competitor.

MR. SALOP: You mean, that they don't raise an efficiency defense?

CHAIRMAN PITOFSKY: Right.

MR. SALOP: I mean, they just say: We have a right --

CHAIRMAN PITOFSKY: They would say: Why should I bring in a competitor? Who's going to benefit? It's all those consumers.

MR. SALOP: I think you just answered your own question.

CHAIRMAN PITOFSKY: So you would say in a shopping mall --

MR. SALOP: No. You need to --

CHAIRMAN PITOFSKY: -- that there's an obligation to bring them in?

MR. SALOP: If they concede the offense.

Under your situation, they conceded the offense. They conceded that the entry of the new store would benefit consumers.

CHAIRMAN PITOFSKY: Right. And, therefore, since you're skeptical that it had any impact on their original decision to --

MR. SALOP: I'm sorry. You conceded there was no efficiency benefit.

CHAIRMAN PITOFSKY: Well, I was thinking of the investment.

MR. SALOP: Well, if they make out a credible investment incentives argument, yeah, they're allowed to make that.

CHAIRMAN PITOFSKY: Well, I think others will chime in with questions a little later.

Our second speaker is Robert Willig, Professor of Economics and Public Affairs at Princeton University, a position he's held since 1978.

From 1989 to 1991 he served as Deputy Assistant Attorney General at the Justice Department.

Professor Willig is a member of the National Research Council Highway Cost Allocation Study Review Committee, and he served on the Defense Science Board Task

Force on antitrust aspects of defense industry consolidation.

Professor Willig.

MR. WILLIG: Thank you, Bob.

The title of this session is an intriguingly challenging one. The title bonds together, with open access, the notion of the network along with the entire area of vertical practices. Talk about the toughest session of these entire sequence of hearings. You've really bundled the two hardest things together, but luckily access is open to all of the great minds on the subject.

One issue is: What is a network anyway? There's no real physicist here that I can identify. I guess we all learned in school that networks have nodes and links and you plug into it and it's a TV or, who knows what the heck it is physically; but it has become one of our favorite economic metaphors for what's basically an economic or a business situation.

And I take it that part of the motivation for putting networks into the title is to ask the fundamental question whether antitrust should be something different when it applies to, quote, a "network industry." And that's a very, very good question I think and, to me, a very helpful one to focus.

To me, as a metaphor, what a network is from the point of view of economics is an industry with a list of characteristics. And it turns out that all of those characteristics are ones that lead to challenging elements for antitrust analysis but not uniquely so, difficult elements that we collectively have a great deal of experience in grappling with, for better or worse; certainly a list of very challenging elements, though.

Let me try to list them, and you'll see that I think this list catches the essence of what an economist means by a network.

First, economies of scale; economies of scope; coordination problems that lead to the need to expend sunk costs to solve them. That's associated with the clever little lingo, the installed base. Part of what you need to do to form a network is get yourself an installed base.

What's so hard about that? Well, you've got to coordinate lots of disparate elements. And in the activity of performing that coordination, I would say generally so, sunk costs of substantial magnitude need to be expanded.

At the moment we have a network, we have interconnection issues. How do get into it? How do you have access to it? How do you become part of it? How do you use it? These are all elements of what we might call "interconnection" or "access."

And then, finally, to me, most intriguing, is the notion of, quote, "network externalities," the notion that the more players there are of the right character in the network, the more beneficial is the network to the others who are associated or who are members of it.

Now, these are all economic elements that we have a lot of experience with, but they're all pretty tough nuts in other context, too, when it comes to antitrust; and here they all come together and pose one great big bundle of challenges.

But I personally don't think that these challenges are in any way unique or different in character than the same challenges when they appear in other instances, other industries, other settings, having all of or some of those characteristics.

I'll try to remember to keep coming back to that list as we think about some of the antitrust applications.

The first application that I wanted to mention avoids the notion of access. Soon enough I'll take that plunge.

But, first, when I think about a network, the most obvious example is computer networks that we all love to plug in. And I like to keep track of what goes on. And I think about some of the disputes lately over joint ventures maybe even mergers involving network industries that actually employ competing network technology. And I ask myself what special competition issues are posed by a network joint venture or a network merger?

I think there is something different there, but it's not unique to networks. It's something which I think is part of the technology trend of this part of the century.

A bunch of years ago, I went through the Wall Street Journal and tabulated joint ventures, for one reason or another, back over the prior 20 years, putting them into various categories. And recently I repeated that exercise for a different purpose. And I was quite struck at the differences.

The kinds of joint ventures that we are seeing today, statistically, as reported by at least the "Wall Street Journal have changed the locus of industry away from metals, away from smokestack industries, away from chemicals, away from energy; and, instead, moved more toward the higher technology sectors of today. Biotech, pharmaceuticals, medical equipment, financial services, computing, telecommunications: These are the industries where the joint ventures take place today. And, of course, they're also industries with lots and lots of examples where network technology or the network metaphor does apply.

What I like to call these joint ventures is "complementarity merges," or "complementarity combinations" because these are not joint ventures among people who would otherwise be building separate factories. Instead, these are people with complementary technologies who are coming together to provide some sort of bottom-line service or product that draws on their separate elements of expertise, puts them together in a complementary way and perhaps can do something different than either could do alone.

The question is whether there's any possibility for competitive harm from such a combination? And the answer is: Sure. If there's nobody else who can do did it, if there's nobody else who can provide the end service that these two firms might able to do together, then maybe what we're losing is choice and competition among separate sellers of the end products that might result without this joint venture.

And if one of the players were a network, which were truly an essential facilities for the creation of the end service, then there is the real possibility that there would be ultimate harm to competition from the combination.

On the other hand, the question I think that that example poses is a somewhat different one than we ordinarily cover in what might be a horizontal merger analysis; and that is: How many other such combinations might there be out there in the economy who could succeed in providing the end user service? Who else might be bringing in different but equally workable sources of competitive advantage to a market for the end user service?

Just because Network A and Software Producer B together could provide us End User Service X doesn't mean that two entirely different sources of competitive advantage might not be able to come together and provide End User Service Y that would be competing with End Use Service X.

So the relevant market and the notion of what is horizontal versus vertical relationships in a setting like this breaks out of some of our old rhetorical boundaries. But I think the bottom line antitrust analysis is really nothing very surprising nor especially difficult if you just keep your eye on the ball of asking the question: What could be the diminution of competition from the combination?

I think the same sort of run of conclusions comes out of the intrinsically more difficult area of what might be special about networks as a locus of vertical practices?

If we have a network that's involved in exclusivity practices, foreclosure, alleged refusals to deal, some sort of bundling or tie-in activity and these are vertical practices that might fall into the precise subject of this afternoon's session. Because that's really the reverse of open access. If we're going to have some sort of impacted access which poses an antitrust problem, then there must be a more conventional vertical practice that underlies the closure of the access that others might like to see.

To me, the most clear example of that sort of issue comes when the network could be labeled as a true essential facility. Someone really needs access to the network, really needs a cooperative relationship or a joint venture perhaps with the network in order to compete successfully in a truly relevant market; and the question is whether something special comes out of network analysis that poses a special challenge for that analysis.

And I think the answer is, well, yes and no. Again, this is an issue that comes up whenever access to an important asset is on the table as a question. And yet it takes on a particularly severe and complex form when the asset is inherently a network.

When a network is formed, because it has externalities intrinsic to its structure, the pricing of the relationships within the network, must, as a matter of logic, involve pricing that is well outside the domain of anything close to marginal cost pricing. It may very well involve not only linear pricing, multi-part pricing, discriminatory pricing of all different kinds, in order for the network to be able to cover its total costs and make an entrepreneurial profit, in the face of all of the externalities involved among the members.

What that means is that if someone is to be given access to that network, that the internal pricing of network services may very well be undermine severely and drastically for the finances of the network, if that access pricing is too heavily regulated or too much seen as a source of anti-competitive forces, if that pricing is difficult or high or viewed as onerous by those who would like to have access to that network.

So the party wishing to have access to the network says, My God, you're going to charge me that much to get in on such a complex formula, this really amounts, de facto, to foreclosure; I'm weakened as a competitor; there must some monopolization here; come, help me, antitrust authorities; or, come, help me, judge, in an antitrust court.

I think there can be anti-competitive foreclosure from a network, but I'm very worried that any doctrine that is based on sensitivity to that concern can too readily become a vehicle for over-regulating access to a network in a way that suppresses the originality to invest in the network to secure the assets, to solve the coordination problems, to do the R&D that it takes to create a successful network, and that if our doctrine from antitrust is too much regulatory, too much "let people in" "let them in on, quote, reasonable terms" that the ability of the network to internalize its externalities and to pay its fixed costs and to internalize the benefits of economies of scope and scale, is going to be undermined to the ultimate detriment of consumers.

Janusz and I, a long time ago, came to a formulation of the idea of compensatory pricing.

And, Janusz I understand you put some of this on the record this morning.

MR. ORDOVER: Meekly.

MR. WILLIG: I would like to just repeat it equally briefly right now in this context.

What we were able to prove in economics language is that if a network were going to be forced to open itself to access that it would be seriously threatening of anti-competitive views of antitrust law to force that network to open itself up on terms that were anything less than fully compensatory.

And the notion of fully compensatory is this: The baseline compensatory level for access prices and terms is that which compensates the network not only for the direct and immediate costs of conferring access on an outsider, but also terms that will compensate the network or its members for the lost mark-up, the lost contribution, or even the lost profits that the entry of the new player would cause those who are previously or currently the members of the network.

So the outsider, yes, you might say, should, in some regulatory, sense be given access but not on terms any less desirable to the network than those that would return to the network its costs of giving that access and also the lost profits or the opportunity costs from the membership of that new player.

The good properties of that rule are, first of all, that it honors the ability of entrepreneurs to build the asset to create the network in the first place without being concerned that there will be a taking of that property through inappropriate use of antitrust or regulatory rule.

But second, and most important from the economic point of view, given that the network is already there, is that that rule tends to conduce to efficiency in the selection of activity between current members of the network and those who would wish to become members or wish to have access to the network. Those who are truly more efficient, if they are paying a compensatory price for access to the network can succeed in the final product or service market.

And those who are not efficient, as compared to those who are presently in the network or have access to it, those who are not efficient cannot make it, given that they are being asked to pay a compensatory price for their access.

And so that's a good baseline rule. And if one sees a network offering access on compensatory terms, even though some complainants may not be able to pay those terms or may not wish to, according to the Ordover-Willig theory -- which Janusz may want to repudiate as soon as I'm finished -- according to that theory, there's really no anti-competitive practice or anti-competitive effect from holding out for truly compensatory terms.

So I think we have gone a long way towards solving that complex set of problems with that line of work.

The other area that comes to my mind on the subject network access has to do with the terms of access, beyond mere price.

I think one of the more challenging examples of terms comes up in the bevy of antitrust concerns in the last few years surrounding vertical mergers. On the subject of the terms that others outside the vertical combination have imposed on them by the vertically merged company or by the court or by an agency in their relationships to the vertically merged company after the fact of the merger.

So A and B merge, they're vertically related. A or B could be a network. In some of these examples they certainly are. And there's a worry that Firm C, which is not integrated, in dealing with the integrated Firm A-B, will somehow convey through dealing with A-B competitively sensitive information that, say, Firm A, or Division A, can use gainfully later in some additional market activity in a fashion that impedes competition.

There's a pharmaceutical manufacturer and a distributor of pharmaceuticals, they merge; another pharmaceutical manufacturer is bidding to the distribution arm of the vertically integrated company. The concern is that, through that bidding for the business, information is conveyed that softens competition between the two pharmaceuticals manufacturers in their bidding activity later to a different distributor, would be in our typical example.

Or two electronics firms and they are selling systems to an aircraft manufacturer, one might worry about the information being revealed after the merger that, before, would not have been available and that revelation of information later harming competition, harming consumer interests in some fashion.

I assume everyone in this room is sensitized to that kind of issue from a number of interesting cases in the last few years.

So the terms on which the information is made available to the firm is one example, more generally, of the terms of vertical relationships; and this is a particularly interesting and challenging one to me.

I think we all have some instinct that suggests that if that information from the outside bidder is revealed, then it might, in fact, influence the way competition proceeds in that and other markets; and there's certainly the possibility that the influence would be a negative one from the point of view of the public interest.

I put a graduate student to work on this over the last few years. He's on the job market now if anyone's looking for a brilliant young man doing economics. He has proven, in a confessedly, narrow model -- these are hard issues even for gifted young modelers -- oversimplified in many ways. But he came up with a fairly stunning conclusion from the point of view of antitrust enforcement.

His conclusion -- and it comes out of the mathematical economics model -- is, first of all, that the merger that raises the kinds of concerns that I was just alluding to, the merger itself is a good thing for consumers.

Second of all, the possibility of an information wall, after the merger, shielding the upstream part of the merged company from information about the prowess of some outside bidder, such an information wall is something that should not, at all, be imposed on the firm. And, in fact, to the extent that such a wall, if privately mounted would not be credible or would be full of holes, ultimately inures to consumer benefit, not to consumer harm.

It's actually a good thing to keep the information out of one another's hands. It's pro-consumer for there to be no wall and certainly no wall imposed from the outside.

Now, I say that in this room to this audience with the full respect of what you have all been trying to do, no matter what the defense economists have said from time to time. But, nevertheless, this is certainly a challenging area; and I think it's fair to say that economic theory has, in no way, closed its book on the area. And my student's work, while stimulating, is certainly not the final answer. It's a very simple model. And who knows what Steve could do it if he were on the other side of some such issue.

What this teaches me, though, is yet another instance of respect for the difficulty of figuring out the full effect of vertical practices.

I gave a speech at Georgetown about a year and a half ago back to back with Steve on the subject of our ignorance as economists in general of the empirical correlates of what facts to you use to help us reliable to separate out vertical practices that are efficient, pro-competitive, pro-consumer from those that are the opposite.

Especially in the context of practices that a vertical merger might or might not make possible in terms of practicality and might or might not stimulate in terms of the incentives the merger would create.

And this comes back, I think, in the network context even more strongly than in other context. And that is my belief that we do not have a checklist of empirical facts to go after as antitrust investigators to teach us reliably whether or not a practice is good or bad and whether or not a merge that makes the practice possible and predictable is a good or bad thing.

So a process comment, if I might put on this record, is my suggestion, or my proposal, or my desire, most personally, that as a continuation or an afterward to this process of hearings that the FTC, either alone or together with Justice, in cooperation with the Bar and in cooperation with academia, undertake a process of organized thinking about vertical practices and about vertical mergers that make those practices possible and maybe stimulate them to drive toward a better understanding, with all sides represented, to an understanding of what facts really are critical for reaching good antitrust conclusions.

And this is beyond networks, but networks would certainly be an element of the checklist of factors that would be pushing us one way or the other in coming to a judgment about those practices.

I think companies certainly ought to be involved, perhaps through learned counsel, who, if they have nothing better to do, could certainly be spending lots of times gainfully for participants, are bringing some facts or some business stories from either their own experience or from their clients' experience to the table as a form of data for those who prefer to take a more theoretical approach to work over; but also how great to have the talent, which is just amazingly well stocked in Washington right now, on both the economics and the legal side in the antitrust community, have that talent going to work in a rather organized way on these most important questions of antitrust enforcement.

Nothing could please me more than to be some small part of that and to see you folks undertaking it with some real energy.

So let me close on that thought, and thank you for the opportunity to say these things to you.

And thank you.

CHAIRMAN PITOFSKY: Thank you. As someone who has managed to change the antitrust world through the writing of guidelines, it's encouraging that you think another process like that would be useful.

MR. WILLIG: I didn't want to call them guidelines, though.

CHAIRMAN PITOFSKY: Let's see, we have one more speaker and then Professor Ordover gets to comment.

Our third speaker is Tom Rosch who we already introduced for the record earlier today but who will address some of these vertical questions.

Tom.

MR. ROSCH: Mr. Chairman, once again, thank you. And, once again, I'm cowed by the world class economists that you have assembled here; so, frankly, I'm not going to touch most of what Steve said or Bobby said with a 10-foot pole.

And I'd like to come at this, again, from the standpoint of an antitrust practitioner and also for how the courts are likely to view these matter.

Muse a little bit, if I may, about that because, to a very large extent, I think that informs both the Commission and its staff as to how its prosecutorial discretion ought to be exercised. Again, I'd like to come become to that.

One thing I want to pick up that Bobby said is that, in large measure, the issues posed by vertical networks are the same kinds of issues that are posed by other forms of vertical restriction. In fact, I'd go one step further and say, frankly, I do not see any difference at all.

As Bobby said, if one has a close working relationship with somebody upstream or downstream, the same sort of risks of information disclosure exist as exist in networks.

The same sort of market foreclosure potential exists in networks that exist when you're talking about exclusive dealing arrangements, packaged pricing arrangements, and even most favored nation clauses. As I see it, it's the same thing.

What catches my attention -- I'm going to, incidentally, completely depart from the paper here because I'm sure that's available if you want to read it. I'd just like to muse about some other things.

First of all, what catches my attention is the anomaly between the Supreme Court case law on vertical mergers, on the one hand, and the Supreme Court case law on other forms of vertical restrictions and, more particularly, the more recent Court of Appeals case law on vertical restrictions. They are totally different.

The case law on vertical restrictions is basically Brown Shoe and Ford Motor. And virtually any kind of vertical joint venture or merger that I know of today would probably violate Brown Shoe and Ford Motor, that the amount of foreclosure in those markets was de minimis: 5 percent in one I think and 3 percent in the other.

Contrast that with Tampa Electric, which sees efficiencies -- or at least the possibility of efficiencies and exclusive dealing arrangement -- and in the recent Court of Appeals law, the "Barry Wright case in the First Circuit, Rowland Machinery in the Seventh Circuit, U.S. Healthcare in the First, and Barr v. Abbot Laboratories in the Third, all by very distinguished judges, Justice Briar in Barry Wright, Judge Posner in Rowland, and Judge Boudine in U.S. Healthcare.

And they're all taking a very, very hard look at claims about market foreclosure. And for the most part, they are all stressing that it has to be foreclosure, not of a competitor, but of competition. Every single one of them is saying that.

They are stressing that the foreclosure has to be enduring. Both Judge Boudine and Judge Posner set up, essentially, a presumption in favor of vertical arrangements, completely exclusive arrangements which last for less then a year.

Barr v. Abbot Laboratories blessed a package pricing arrangement which it analogized to an exclusive dealing arrangement where the party had 50 percent of the market, but it did so because the exclusive dealing arrangements only covered 15 percent of the market so that the rest of it was contestable.

Now those are very, very different views from the old Supreme Court cases. And so I think the first lesson to be learned is that, quite frankly, the vertical merger law is a relic of a bygone era. It's a relic of the era that produced Standard Oil in the Supreme Court, one in which the

Supreme Court was simply, generally hostile to vertical arrangement restrictions generally.

And I think today that any exercise of prosecutorial discretion has to take into account this modern trend, this modern case law that recognizes that vertical arrangements are, number one, efficient; and, number, two is very skeptical about claims of market foreclosure.

Now that brings me to the four-step process with respect to vertical mergers or vertical networks, if you will, that I think is kind of byproduct of that law.

Step number one, again, is focus on efficiency for the same reasons that we discussed this morning. The only difference is that I think that the absence of efficiencies doesn't have quite the weight that it has in the horizontal context.

As best I can determine, there really is no per se rule that operates any more in the vertical context. So I just don't see that the absence of efficiencies can have the effect of ending the inquiry.

Step two is that if there are efficiencies and especially if they look like they are real and substantial, there should be a presumption in favor of the transaction.

Now I would suggest that that's especially important here. With respect -- and I do mean this -- I respect what Steve has written. I think it's extraordinarily powerful and interesting. But the fact of the matter, I think, is that in large measure and in many settings it is theory. And the flip side of Kodak is that economic theory, to be sure, doesn't trump facts in order to produce antitrust defenses; but neither does economic theory trump facts in terms of presenting a case.

And I'm inclined to think that in many settings, at least, theories of foreclosure simply do not take account of the countermeasures that are available to competitors, particularly in this fast-moving world or with other factors which produce the same kind of results.

Let me just touch on a couple of examples. In the case of package pricing arrangements, which are one of the threats that can occur from Steve's chart up there, where the joint venturers, by virtue of having -- the input joint venture, by virtue of having available to it a broad variety of products, can make those products available on a package basis.

Whereas one other -- there may be no other competitor in the market that can make those products available itself. Should that be thought to be a viable form of market foreclosure with respect to the competitor that doesn't have the ability to produce those products itself? The answer, at least from the package pricing case law -- the most recent package pricing case law -- is, no, those folks have countermeasures available to them; they can marry other people who have those products available or create new entry; and thereby create the same array of products.

It seems to me that the burden is going to have to be, on whoever is attacking the transaction, demonstrate that that is not feasible.

Similarly, if I could take a jab at the most favored nation cases and decrees, to be perfectly honest, it's not clear to me how most favored nation clauses, even in the most concentrated markets, produce much results that are much different from what the Robinson-Patman Act does.

Essentially it imposes on the industry uniform pricing, if at least the Robinson-Patman Act is being enforced.

The long and the short of it is that, again, I think where you have efficiencies present, you ought to look long and hard about whether or not the foreclosure claims really are viable.

Step number three, the presumption, however, is rebuttal. If the phenomena that Steve has talked about exists, then I think that, under those circumstances, structural relief is appropriate.

Step number four is that that high presumption need not necessarily extend to practices which may occur in the course of the vertical joint venture.

I'm looking forward eagerly to hearing what Bobby's colleague produces with respect to this study about sharing of information. But unless and until there's some pretty good research on that point, I've got to say that I think that what the Commission did in Martin Marietta was probably appropriate.

I also think that there are circumstances in which it is appropriate for the Commission to do what it did in Silicon Graphics and Lilly, which is essentially to require the upstream input competitor to provide products on the same terms to outsiders that it's providing to its downstream affiliate.

I would add this, though: There is a danger in that kind of a decree to, essentially, working the same result that you get with a most favored nation clause; that is to say, you disincentivize the supplier from supplying its own buyer, if you will, at any prices which are any lower than it has to provided them for the rest of the market. And if the rest of the market is -- in other words, if it's going to have to sacrifice enough by servicing the rest of the market by a discount, it's not going to discount to anybody. So I think there is that danger.

But having said that, I think carefully, crafted, practiced consent decrees, which do not impinge ont the efficiencies involved, are perfectly appropriate.

But let me say one final thing, and then I will stop. I wonder, quick frankly, why those practices decrees need be imposed at the threshold.

The agencies don't need to obtain consent decrees at the time that a vertical network is established in order to preserve the option to attack anti-competitive practice if, as, and when they occur.

And I think there's a danger to a hair trigger approach. I think in most circumstances, it's better to wait and see. There is simply too much uncertainty, in most circumstances, I would suggest, as to whether the practices will occur; what their affect on competition, not just competitors, will be, if they do occur; and, for that matter, what the effect of the decree might be on either efficiencies or competition.

Thank you.

CHAIRMAN PITOFSKY: Once again, thank you for enlightening us on these issues. I agree with Bobby, these are the toughest issues of those that we have been talking about in the last two days.

Jon, would you like to start off?

MR. BAKER: I have a question that Janusz could just as well answer it

CHAIRMAN PITOFSKY: What's that?

MR. BAKER: I said I have a question.

CHAIRMAN PITOFSKY: All right.

MR. BAKER: Would that be all right?

Okay. I just want to say first that I am thrilled to sit at the table with so many of my mentors. I was Special Assistant to both Bobby and Janusz when they were Deputy Assistant Attorney General in the Justice Department; and Steve has been my mentor in so many things -- even though never quite formally -- that I have to count him as well.

But it does distress me, though, when colleagues I respect so much don't perfectly agree. But now that I've turned 40, I suppose I have to think for myself. So I will ask my question.

As I understand the state of play on one of the issues that's under discussion here, that Steve has highlighted that the potential for exclusionary market power from input joint ventures in network industries and otherwise; and Bobby says, well, yes, in principle, but you can't practically remedy it or, in any event, don't worry so long as the joint venture uses the compensatory pricing rule to price to everybody.

And my question is really about that. And Janusz or Bobby could answer it because it's about the compensatory pricing rule, which is: How does the compensatory pricing rule work to solve all of our problems here if the joint venture is exercising market power so that the access price it's charging its members is distorted from a what a competitive joint venture would charge?

Does it really get to the right answer there? And why?

MR. ORDOVER: I am supposed to comment on the two of you. You go first.

MR. WILLIG: The question of what is the baseline level of opportunity cost or terms or prices on which these efficient components, prices, or efficient access prices should be based is a big subject.

And Janusz and I were just finishing up a long paper on the subject, and there's a risk of saying it too simply here to cover all the different cases that actually might arise.

The simplest example which goes back to our original and formulation and is heavy on my mind because it's the other part of the "terms" discussion that I didn't get to in these vertical merger situations, comes about where the anti-competitive harm, as threatened, is outside the main line of the vertical action between the network and its possible affiliates, what I like to call non-coincident market effect.

And, Steve, I think it's covered among one of your antitrust --

MR. SALOP: Ancillary.

MR. WILLIG: -- and I would like -- ancillary market? Is that what you call it?

So here's a part company, and the part company is selling some special parts to an automobile manufacturer; and there could be network in here some place; but it's all the same thing.

And the parts company sells these wonderful parts to the car company and refuses to sell the parts to some other competing automobile company.

And the foreclosure issue arises, the exclusivity issue arises.

And the question is: What are we trying to do if we consider forcing the parts company to sell its parts to a different competing automobile maker? Which market are we trying to save from anti-competitive harm?

My view of that situation is that it's very dangerous, as a matter of policy, to try to save competition in the market in which the automobile manufacturer that is affiliated with the parts company, and the other automobile manufacturer. The direct market in which the two of them compete is a dangerous one to try to save from these exclusive relationships with the parts company.

And the reason for that is that the relationship between the parts company and the first car company may very well, and is likely to be, an efficient relationship which helps that car company to make better cars and offer them at lower price by solving all the usual vertical relations problems that would otherwise afflict a relationship with an important parts company.

So their exclusive relationship may very well be -- and actually I think predictably is pro-consumer. An unfortunate, perhaps, side effect of that is the other car company can't get these very nice parts; but if we try to force the parts company to sell parts to the other car company for the sake of competition in the car market, you may very well be harming consumers for that reason.

So that's the coincident market effect. And it's one that scares the life out of me when it comes to an aggressive antitrust stance for saving.

What I'm much more comfortable about is the case where the foreclosure of the other company from getting the parts is influencing a non-coincident market. Maybe there's another market for downstream products -- call it the truck market -- and what's really going on s that the other -- the outside automobile manufacturer is being harmed, being weakened, it its ability to compete in the non-coincident truck market. And maybe that's a market that's very thin.

Maybe there's only two possible players, the original car company and this other car company so that the weakening of the outside car company and its ability to compete in the truck market actually, substantially diminishes competition in the truck market.

Now, enter the efficient component pricing rule or access pricing. I could imagine thinking about imposing on the parts company the obligation to sell parts to the other automobile company for the purpose of saving competition in the truck market, not competition in the auto market.

Question: What's an appropriate price for the parts under those circumstances?

And my answer is -- and this comes out of Janusz' and my work. The answer would be: Think about what the lost profits would be to the combine parts company and automobile company from selling these very special parts to the outside car company.

Well, on a one-for-one basis -- to make life very simple -- suppose that every parts that goes to the outside car company threatens to, and may actually, divert the sale of one car from the car company with the special relationship to the parts company.

Then the compensatory price to the outside car company would be the cost of the part plus the lost profits to the vertically integrated combine from the diverted sale of the car that the outside company achieves at the expense of the original car company.

And now you would say, quite properly: But doesn't that involve market power? Isn't that price a price that includes some sort of profit from the same of cars into the car market? And my answer is: It my very well; but the aim here is not to impose some new, pseudo competition into the car market. The aim is to accept that market as we find it, because we have got no practices that particularly seem offensive to that competition.

Rather, we're out to save the market that we allege is being levered into monopolization off of the power in the car market; and we are doing that by enabling the outside firm to have access to these special parts on prices that are truly compensatory with respect to the functioning automobile market.

So in that circumstances, I understand a simple answer and it's one that we've worked out. In other circumstances -- and there's a lot of them that Janusz and I have been recently working out -- the answers depend upon what the policy purpose of the forced access is. And every time you articulate the purpose fairly directly comes out a clear view of what the right price ought to be.

But I think this case that I just articulated is the trickiest one, and it's the original one that we worked on.

MS. DeSANTI: Janusz, would you like an opportunity at this point to comment on your friends' positions?

MR. ORDOVER: Let me just say a couple of words.

See, the reason I'm here is I am probably the only person in the world that wrote papers both with Bobby and Steve.

But I would like to pick up on the point that Jonathan raised because it really goes to the heart of the compensatory pricing approach that Bobby and I have been working on now for about 15 years, with breaks.

And we should be grateful for Steve because he actually paid for the first paper that we wrote on the subject when he was at the FTC.

MR. SALOP: I didn't pay.

MR. ORDOVER: Oh, you didn't pay.

MR. BAKER: The taxpayers paid.

MR. ORDOVER: The taxpayers paid at Steve's suggestion.

MR. BAKER: And we want our money back.

MR. ORDOVER: You're getting it in spades.

Well, the point, I think, that emerges is that I don't think either Bobby or I claimed that one can give a very clear answer to what the compensatory price can be or how it should be calculated in every conceivable scenario. And, indeed, we have been working our way through a whole litany of those. And in every case, additional issues arise.

But what -- I don't really want to talk about the compensatory pricing rule. I really wanted to say that the same problem really arises in Steve Salop's context -- in the context of his analysis. Precisely the same issue comes up in spades. Because now Steve teaches us -- he's been trying to teach me, but I can never understand it -- that we should be worrying about exclusionary market power, that there is a market power that prevents price from falling.

Now that's a good point. I think we all like prices to fall. But you know you immediately have to realize that whether or not the price is going to fall as a result of a new entrant coming into a network joint venture very much depends on the terms of which that new entrant is admitted.

And if that entrant is admitted on the compensatory pricing terms, that, indeed, that entrant is going to cause the price, potentially, to fall while compensating the existing participant in a joint venture, precisely because that new entrant is more efficient to at least some of the people who are in the JV to begin with.

So one cannot say a priori, I don't think, whether or not a particular entrant is going to be the one who is going to cause the prices to fall. Everybody is going to cause prices to fall if they don't have to pay for the input.

MR. SALOP: I don't assume he doesn't pay for the input. I assume he pays the same price everybody else does.

MR. ORDOVER: Wait. You can respond. There was a pregnant pause. That was not the end of my statement.

MR. SALOP: I was just trying to help you along.

MS. DeSANTI: It was a rhetorical pause.

MR. ORDOVER: No, you're not helping me along.

So the point I'm making is I think both the lens through which Bobby and I have been viewing some of these issues and the lens through which Steve is viewing the issue is not, in many ways, that distinct. Because it all brings us back to the question on the terms of access.

And once these terms of access are specified and the, not only price, but other features, too -- it may be a quality of interconnection, all the other issues that I raised briefly in the morning -- they're all going to determine whether or not, in fact, the exclusion of that entrant has the anti-competitive effect of preventing price from falling or not.

I just went through the horror of the Kodak case, which we lost to the jury in San Francisco. And now the issue comes up of what are the prices for the parts that this horrible monopolist Kodak -- who has 20 percent of markets for copiers and 3 percent of some micrographic markets -- will have to charge to the independent service organization.

And I put in an affidavit saying that they should charge prices that are equal to about 20 times what they are charging themselves, given the margins which they are earning in their service operation.

Of course, everybody's going to go berserk once they read what I said; but if that's what the margins are, that's what you're supposed to be allowed to pick up from pricing the parts.

Obviously, the ISO's are going to be rendered poorly competitive vis-a-vis Kodak under this pricing scenario. And I have no doubt they are going to be asking for different access terms than the ones that I have suggested.

And the same problem is going to come up in Steve's diagram. Every time there's going to be a request for entry, there's going to be a statement made: I'm going to bring prices down. Of course I'm going to bring prices down if you let me come in at preferential terms. But there's absolutely no reason why preferential terms should be given, terms that are anything but compensatory to the members of the joint venture.

And I think that once we begin to join these two approaches, perhaps the kind of work that Bobby has been suggesting for us will result in a coherent -- set of consistent and coherent set of answer as to how and when to price -- to force access to a network joint venture or any joint venture that access is required.

MR. BAKER: Let me interject. Your Kodak example reminds me. I think there's a useful clarifying comment I could make here for the record, which is this discussion of the compensatory pricing rule sounds like it's technical arcana. But it's actually really of the essence of what the concern is here, because what you're, in effect, saying when you say Kodak ought to be entitled to charge a really high price is that the efficiencies of the joint venture operation would be destroyed by the forcing the access in at a lower price than this level.

And it's really a way of calibrating the difference between -- calibration where exclusion is in the service of efficient conduct and in the service of exercise of market power, which is the very problem we're trying to solve here to understood what the pricing rule is.

So I just thought that would be useful to put on the record.

MS. DeSANTI: Go ahead, Steve.

MR. SALOP: I'm really very confused. I mean, it's -- my understanding is Bobby is now saying we should write Vertical Merger Guidelines.

MR. WILLIG: Realizing that we can.

MR. SALOP: But let outsiders in this time.

MR. BAKER: And he volunteered to help, as recall.

MR. SALOP: Yeah, I think you volunteered to be on the committee.

And Janusz said he never understood this paper we wrote anyway.

I agree that the access price is key to this. And the way I thought to handle it is that, in the case of the applicants to new joint venture, that they would pay the same price as all the other new members. Okay?

I mean, that -- the cases that I've seen are typically ones -- you know, it's not a closed joint venture that's being asked to open up. I think that's a tough question. But there are lots of other cases in which the joint ventures open, it runs as a non-profit, and it let's people in on certain terms; and then one guys comes in and they say to that applicant, you can't come. Okay? You can't come in at the price we charge everybody else.

And so, there, there is a price. It's not a matter of price setting. No doubt that's not the compensatory price because it was a non-profit. But that would be the price on which I propose you let the person in on.

With respect to Kodak, how does this play with Kodak, well, I mean whenever you mandate access for a single-firm monopoly, there's this problem. Usually we say, you're a monopolist; you can charge whatever price you're allowed.

Now, for some reason your monopolist was told he had to give access. And to the extent that you need to come up with the right price, it would seem to me the obvious first step on the price would be to let Kodak charge whatever they charge the self-servicers.

It's not as if Kodak's not selling those parts to anyone. They are selling the parts to lots of other people. And why not that price?

MR. ORDOVER: I have an answer. Can I give an answer why not? I that's a very simple answer, that even I can understand.

And that is that the reason Kodak is selling parts to self-servicers is because if they don't sell parts to the self-servicers, they will go to Xerox. They will not go to the ISO to service their machine.

MR. SALOP: Can I answer?

MR. ORDOVER: Just one second.

And, therefore, the compensatory price and therefore the context of the transaction is quite distinct.

I can let my kid drive my car for free. I certainly would not let my drunken friend drive my car for free.

So there are two different issues. There is the self-servicers that, if I don't sell, I lose all the margin on; and there are the ISOs, that if I sell, they take my margin away.

I think even simple-minded economics would teach us that these transactions are so distinct as to provide no guidance to anything that is at all rational, because what it may call for is closing down of the self-service market. I said if I have to sell -- there are 15 people who service their own Kodak equipment.

If I were to use these prices to service dozens and thousands upon thousands of Kodak machines, I'd rather shut down the self-service.

Is that a social gain? I think it's a social loss.

So clearly, the compensatory pricing rule, as Bobby enunciated it, clearly and succinctly, provides just the right way to go through the analysis.

Look at what is being diverted and reflect that in the access charge. Very simple.

MR. ROSCH: Well, another possibility, though, would be simply to charge the ISOs the same prices you charge the self-servicers, but you increase the price to the self-servicers to the monopoly price.

And then who are you helping?

MR. SALOP: Well, let me -- I take it you also worked for Kodak?

MR. ROSCH: No. I'm just trying -- actually what I --

MR. SALOP: I'm just kidding.

Okay. Look, I understand why Kodak wouldn't want to charge that price. Okay? I mean, the compensatory price is, after all, kind of their minimum reservation price.

But the thing is that, very often you allow uninformed buyers to get the benefit, if you will, free ride on the informed buyers and get the low price. And that's what I'm proposing that you do in the case of the parts price.

Kodak is not a monopolist with respect to the self-servicers. They are a monopolist with respect to the ISOs. And so you let the ISOs get the same price as the self-servicers.

Now, yes, Kodak may raise the price to the self-servicers. But as I understand what Janusz said, Kodak wouldn't have the clout to raise the price to the self-servicers, because they would be afraid they'd lose all of that equipment business.

And so there's no reason to think that Kodak would destroy that market.

MR. BAKER: We need to get the self-servicers out of the example in order to make Steve's point a little more clear -- or question a little less loaded.

Suppose Kodak was only able to do its servicing east of the Mississippi but allowed ISOs west of the Mississippi to have access to its parts? Then what would be wrong with requiring Kodak to sell to ISOs east of the Mississippi where it's doing its own service at the same terms at which it's selling west of the Mississippi?

Is that a --

MR. WILLIG: That's a terrible example, Jon.

Who knows why they're doing it differently in the east and the west, and you're going to have to put that in and deal with it before you can come up with too glib an answer.

MR. SALOP: Well, suppose --

MR. WILLIG: It's my floor.

MR. BAKER: History

MR. WILLIG: I think this discussion actually highlights the necessity of paying attention to what the coercion here is trying to do in the way of solving a market power problem.

And we, to discuss this intelligently and courts, when they're applying these ideas, to save the public interest, need to be very, very clear about what is the offense and what is the relevant market in which that offense is alleged to be harming competition.

The way I articulated my example, it was very clear in that way. And let me just remind you of it. There the harm was alleged to be to competition in the truck market. And so the opportunity costs in the car market was a perfectly appropriate baseline for saving competition in the truck market.

The reason the discussion so far of the Kodak case here, and maybe elsewhere, is so painfully confusing is that no one is being clear in this discussion about what's the market in which competition is being saved by the coercion to Kodak on parts pricing?

So if you could start there, I think maybe the question would answer itself thereafter.

MS. DeSANTI: I'm wondering if we can actually move to a different topic, briefly? I'm sure we'll get back to terms of access.

But I wanted to ask you, Tom -- I didn't have a chance this morning; sorry I missed part of your testimony -- just a few questions about your focus on efficiencies. Because it seems to me that it sounds very easy the way that you've put it; but I'm not sure that it always is. And, obviously, the results would depend a great deal on what courts or antitrust enforcers consider to be efficiencies and what they didn't consider to be efficiencies.

And I would just like to probe -- there's another part of your paper that talks about the efficiencies needing to be substantial. And I'd just like to try probing with a few examples -- and maybe others can think of better ones as we go along -- to see sort of what passes the laugh test in your lexicon of efficiencies.

Just one example, suppose you a small rural town, the nearest down is 50 miles away -- sort of like the town that I grew up in -- and there are only three garages that repair cars in town and they get together and there's no financial integration but they all agree that they're going to hire one answering service and, you call that answering service, and they're going to rotate who's going to be available to service your car, depending on when you have an emergency during the night.

Is that sufficient? Is that enough that we should then apply a presumption that this is a legal arrangement?

MR. ROSCH: Well, I'm you sure exactly -- you've got two joint arrangements there. One is the hiring of the answering service, which is obviously an efficiency I think. You have a cost saving in that respect.

But you build into it a market allocation, however -- at least a customer allocation scheme, if you will; and I can conceive of a circumstance in which that might be an efficiency.

For example, it might be an efficiency if demand for these services was far less than supply so that you have a tremendous deficit between the available supply and available demand.

Under those circumstances, it may well be that one of those buildings, if you will, could be used in a more optimal fashion if there were some sort of allocation method.

So I wouldn't write that off all together.

Does that pass the laugh test? No, I'd at least want to hear about it.

On the other hand, we do have rules against horizontal customer allocation; so I would think that I'd be pretty skeptical about it.

MS. DeSANTI: And what kind of evidence would you want to see that would tell you about demand and supply and whether you'd go beyond?

MR. ROSCH: Well, frankly, the example you give is one that we see a lot of today in the hospital context, where you have small communities that have three hospitals, and you have large communities that are 50 miles away and two of them are merging, two of the three are merging; and one of the reasons they're merging is because the demand for hospitality services in that community is far less than what capacity is.

Is there less competition after that? Yes.

Does it violate the Merger Guidelines? Yes. Probably. Unless you conjure up, as in Dubuque, some kind of a hospital market that includes the bigger city.

But the fact of the matter is that there is a tremendous amount of over-capacity. That's an inefficiency. And it may well be that that other facility can be used in a higher and more appropriate use in the community.

I wouldn't just write that off, no.

MS. DeSANTI: How would you do the balancing?

You wouldn't write it off, and then you go farther down the road in the analysis.

MR. ROSCH: Susan, what I would do is I would allow the efficiency to trump whenever there is enough competition left that there was some prospect that the efficiencies would be shared with consumers.

And it seems to me that that can be the case even in a market where there's just one other competitor left.

MS. DeSANTI: Thank you.

MR. COHEN: I have got a couple of related questions, one of which I direct to Professor Salop and the other to the panel as a whole.

I'm wondering if you could try to summarize for us, or highlight for us, any aspects of your analysis which are affected significantly by the presence of network externalities. How that fits in, it at all.

And for the panel as a whole, very much related, Herbert Hovenkamp has given us some testimony in which he suggests that exclusion from a network joint venture is different from exclusion from a traditional joint venture in that costs climb as the number of network members increases so that exclusions of a network joint venture is tantamount to exclusion from sizeable portion of the market.

And I wonder if you would like to comment on whether you regard this as significant

MS. VALENTINE: And that's probably in a horizontal context that he was thinking of. But you could apply it in either place.

And that will bring us back to your initial point, which I'm not sure we ever really answered, which is the role of all those economies of scale, which can be demand or supply side.

MR. SALOP: Okay. Where I think the -- well, I'm not sure whether I would count this as two or three things that are special about networks.

First is that where you have a network there's often barriers to entry upstream. So you're less likely to have the rival input suppliers as a viable and equally efficient source, because of the natural monopoly of network externality aspect.

The second -- I guess this is really the same -- that it makes it more important that the applicants, who I listed as a non-member -- get into the venture or get access to the venture in order to compete.

And then the second point is that where you have network externalities, then the efficiency justification for the exclusivity is weaker. You should be more skeptical of the efficiency rationale -- of the efficiency claims, rather, for excluding the guidelines.

So those two aspects.

MR. BAKER: So if there's only one car, Janusz has to take the drunk?

MR. SALOP: But he can charge an appropriate insurance premium.

MR. BAKER: I just wanted to clarify that.

MR. SALOP: You know, I mean, I don't think you should let the applicant in on preferable terms. And, you know, the applicant has to pay the risk-adjusted cost.

But I don't see why the applicant should have to pay the monopoly price for, you know, a non-profit joint venture that's charging everybody else marginal cost.

MR. COHEN: Anybody want to comment on the Hovenkamp approach?

MR. WILLIG: I didn't read that paper, frankly; but I heard what you said, though.

I think you're right that where the aspect of network creates overwhelmingly important scale economies, that that's a route to an issue which comes up in a variety other ways as well, but might be, conceivably, more likely to arise in the context of a network industry.

Unless the circumstance where foreclosure or exclusivity or tying or bundling or any one of those many practices might be especially likely to weaken a competitor who is being allegedly denied access to some major part of the market, a market in which scale economies, by assumption, are very important that might weaken the ability of that competitor to function well in the market where we're concerned about market power being elevated by the this foreclosure.

So I'd worry about the rest of the market. It's relatively small because the network is big. And it's not big enough, maybe, in some hypothetical for the excluded competitor to achieve a good level of cost or a good level of product quality or to lay off the R&D costs or the acquisition of some product with a lot of fixed cost.

And so the excluded competitor is substantially weakened in a way that diminishes competition outside the domain of the network. And that might become the motivation for the exclusion from the network, as well as the principal effect.

And now we're back to something like my truck and car example because there, if we found, as a matter of analysis, the network to be an essential facility for competition in the part of the world outside of the network, we wanted to force access to cure that problem, it makes a lot of sense to apply the idea of access pricing in a way that does permit compensation of all costs, including opportunity costs, from within the network but not including the monopoly effect as part of the compensatory price that rises from the world outside the network.

It does fit, I think, in an interesting way.

Let me try to answer the externality question a different way. It's a classic example.

Imagine we're talking about competition, open openness of market, regulatory and competition rules involving a telephone network starting up in some part of the rest of the world where network externalities are all important because they've got 7 percent penetration of the population right now. And it might very well make sense at that stage of development of a telecom network to, essentially, give away the instrument, give away connection at a price that's well under anybody's view of physical marginal cost like it was said was done by some observers in our phone network in this country a long time ago. You might still do it, but it might not be a good idea any more. But in some underdeveloped country, it might still be a fine idea.

Now, how is the network operator to cover those costs which are not being covered directly by the pricing of the membership in the network which confers all these positive externalities?

Well, it might be a good idea to, in essence, overcharge or put the markup on network use -- like on long distance back in the good old days -- in sufficient amounts to recover the loses on the access account.

That could be rational pricing if there's no other way to get those costs covered. If the Treasury is not willing to cut in with some general money or you don't have the power of taxation, that could be the only source of money to cover that deficit. And with those restrictions on the structure, it might be an efficient solution to the network externality problem.

Now, along comes another person who wants to sell transport, long-distance services. The MCI goes into an underdeveloped country and says: I need access to all of your subscribers. Now, what's a fair price? What's an efficient price?

And this is an example where the externalities do come into play because, as a result of the externalities, the long distance price has a hefty markup. It may be a volume-sensitive sort of markup. And MCI had better be asked, in my example, to pay, on a compensatory basis, those same markups in order not to undermine the pricing regime which is important for the externalities and in order, also, to make sure that the MCI of the example can prevail if it's more efficient and will not prevail if it's not more efficient.

It's a good example of the way externalities can affect what is the efficient component pricing and why this is a framework that makes a lot of sense for networks at that stage of their development.

MR. SALOP: Could I ask a question? Because I think it's a great example, and I think to kind of work on -- I mean, that's kind of the best example I've heard of this.

Where I see the controversy is that, suppose that the AT&T of Thailand is giving away the phones and the efficient price for them to break even on long-distance service would be 50 cents a minutes, whatever, in dollars, not in whatever the currency is there. But suppose since AT&T has got a long-distance monopoly, they don't charge 50 cents; they charge $1.50.

Now, MCI comes along and I would agree that MCI should have to compensate AT&T for the phones that AT&T gave away to get the network started. But I would think the proper compensatory price, the competitive compensatory price would be based on the 50-cent figure not on the $1.50 and that where the objection seems to be is, not that AT&T get compensated for what it put out, which is the 50 cents, but rather it also gets to keep that dollar in monopoly overcharge.

MR. WILLIG: It could be. This discussion is a great example of why the idea of what is an efficient price for access depends upon the policy circumstance.

If this Thailand telephone monopoly is regulated and if the regulators think they're doing a good job of regulating prices but along comes the idea from some U.S. consultant, why don't you open up the competition also, then the regulators might say, well, gee, Steve thinks $1.50 is too high but we just had a year's worth of proceedings saying that's right.

MR. SALOP: Suppose it's not regulated.

MR. WILLIG: Then the question is whether the best way to bust the monopoly, which is no longer thought to --

MR. SALOP: Suppose they gave AT&T the franchise and said, get the thing started for us; and we're not going to regulate what you charge for long distance for now.

MR. WILLIG: Well, the important point here is that, in your scenario, the decision would be made to, in essence, regulate the long-distance price through mechanism of the regulation of the access price, because the moment the regulators listen to you and say, I'm sorry, 50 cents is the right access price, not a dollar, they are, indirectly, but very forcefully, in essence, regulating the long-distance through the evenhanded mechanism of regulating the access price.

Now, conceivably that's the best way to do it under some circumstances. But a more natural impulse might be, if the regulators think pricing is out of line, then regulate the long-distance price directly and then infer the correct access price from what is the finding about the correct long-distance price.

I'm not clear which is the better regulatory architecture. And it's a mistake to forget that that is the relevant issue.

MR. BAKER: Would your have changed if the way phone service evolved in Thailand was a bunch of guys tried to start up numbers and one of the them got a little bit of a lead and everyone tipped to it because that was the best way to reach everyone else; and so, quickly, it got to be 70 percent or 80 percent penetration and nobody else wanted to join the other phone, they didn't interconnect, so that there was never any regulation? Would that affect the answer here?

MR. WILLIG: Well, still, the fundamental question would be: Is this a society in a circumstance where -- can somebody quote judge Lazinski -- the fact of the dominance of the successful network is to be honored as the success of an honest business enterprise and, therefore, not subject to regulatory or even antitrust control; but where there is some limitation on the ability of that operator to lever that monopoly power which was obtained through honest foresight, business acumen, et cetera.

But the issue is: How do you lever that into a different market? Or is society looking to strip away the consumer harm after the fact from that market power in the first place.

MR. BAKER: I'm postulating a natural monopoly that was allowed to become one without regulation. And now someone wakes up to the fact that, yeah, it's sufficient to have one; but they sure are charging a high price.

MR. WILLIG: And we want to regulate.

MR. BAKER: And we want to regulate.

And the way we want to regulate is to allow MCI access.

MR. WILLIG: Hu-hu-hu. No, no. Two separate thoughts. And it's very important to keep them separate.

Let's have a discussion in this country about whether we should be regulating the successful network operator.

If the conclusion of that discussion is, yes, we should, there's an enormously constricting natural monopoly there. It made enough money for God's sake. We're not so worried about chilling investment for the next network industry, let's really regulate the son-of-a-gun. Fine. That's the first answer.

Now begins a second dialogue: What's the best way to regulate this new natural monopoly on the block?

One way might entail access prices but no direct regulation of end user prices. That's a conceivable option for this group to consider.

But another, I submit, more natural option -- not necessarily better but a more natural option -- is to regulate the end user prices directly, and then perhaps back out of those end user prices what might be a compensatory, corresponding access price for those who just want to the jump in at that level.

MR. SALOP: Bobby, let me ask a question in a slight different way.

Suppose these regulators say the following: If MCI comes into long distance, then the next thing you know, they're going to be able to enter in the local loops as well -- whatever they would call that in Thailand.

MR. WILLIG: Well, make up a name, Steve.

MR. SALOP: Are you going to permit AT&T, in this compensatory price, to also charge MCI an even higher price to account for the fact that they're going to lose their local loop monopoly if MCI comes in? Is that also compensatory?

MR. WILLIG: I don't think so.

MR. SALOP: Why not?

MR. WILLIG: Because in your example, that would be analogous to my trucking market, that what we're trying to protect here with this regulatory apparatus is the competition that we think might occur in the, what you call, "ancillary," I call "non-coincidence" market.

In your example, that's the market for loops. And so any profit that the firm might, on that theory, be hoping to gather for itself through the creation or protection of market power in the ancillary market should definitely not be in the efficient component price.

MR. ORDOVER: Can I just elaborate on that and change the situation a little bit more?

As opposed to having MCI, something coming in and saying, I would like to rent a loop from you, and that, of course, changes the calculus quite significantly, right?

MR. SALOP: You can screw him on the loop.

MR. ORDOVER: You can screw him on the loop because that's a diversion that is going to occur as a result of entry, which may have implications for the long-distance business, obviously, as long as you are pricing the route.

MR. SALOP: I think where the difference is, you assume it's a legitimate monopoly and so he's entitled to the monopoly profits.

Whereas Jon and I start off with the examples -- or we were trying to construct examples in which there's no reason to think it's a legitimate monopoly who -- and that deserved the profits.

So you split it when we do the downstream, when we do the -- you know, my last hypothetical and you said they're not entitled to the loops, because there you're saying, well, that's not a legitimate monopoly. And I think that's really where the action is on all of this.

MS. DeSANTI: I think we have one more question.

MR. ANTALICS: Okay. I don't know if it's an easy one to answer. I don't want to generate a whole lot more.

But I was wondering maybe if somebody could explain it to me in lawyer's terms or in layman's terms. In the compensatory pricing setting, something strikes me at first when you say, well, you have to give them their lost profits. My immediate reaction is, well, if they're giving them the lost profits, how are consumers benefiting?

And maybe if you could explain to me how this filters down to consumers and how they ultimately get lower prices or better services, that might be helpful.

MR. WILLIG: Let me go back to my car and truck example. If you were a lawyer bringing that case, the case I'm imagining you bringing is a leverage case, that there is a market power that's been created through innovation at the parts level; and CarCo, which is an affiliate of PartCo has a legitimate relationship with the part company, you're not attacking any of that. But, instead, what you're attacking is leverage of that market power in the parts and car market, into an adjacent market, into the truck market. That's what you're attacking is the creation of new untoward monopoly power in the truck market off the base of legitimate market power through innovation at the parts level.

So that's what you're attacking, the creation of monopoly in the trucking market.

And so now I say, well, yeah, I mean, the compensatory price of those parts permits the same markup in those parts that is earned in the legitimate car market because of the superiority of those parts in the car market. Those are legitimate profits. If you want to use fairness kind of language, they're efficient profits because they result in an efficient entrepreneurial process.

What's not a good idea for customers, consumers, for antitrust is the leverage off of that honest power into a separate market.

And so consumers in the trucking market are being saved from the monopolization that would otherwise result in the trucking market.

It's pro-consumer in trucking, and it's neutral to consumers in the automobile market, because that's the nature of the case that you're bringing.

MS. DeSANTI: Will?

MR. COHEN: Yeah, I have one more.

I listened carefully to your phrasing, and at one point you said that this approach tends to conduce to efficiency. And you used some similar phrasing back, I think, when this was first written up in the early 80's.

And I know at that time there was quite a bit of comment from people who questioned the efficiency properties and the social welfare properties, Dave Shefman, for example.

And I'm wondering if either or both of you would like to comment on sort of the welfare consequences of this type of approach?

MR. WILLIG: I'm just laughing because it's such a big subject. I mean, there's a lot of controversy in the 80's and now again, for some reason. And we can trace it. But there's about 20 new working payments by disparate teams of authors, all of whom come out with models with variety of fascinating features to them; and all of them again finding that this is not an efficiently perfect rule. And that's part of what's stimulating our latest back-to-the-wall, draw-the-swords-in-the-hand with 20 more papers attack.

The one-liner in terms of what's going on -- and this is slightly self-serving, but I think it's accurate -- is that all of these attacks are being based on models where there's lots of other things going on.

And the question is: Can the sufficient component pricing rule solve all the problems at once?

And the answer is: Absolutely not.

Our Yale journal paper, a long time ago, wa brilliantly crafted. It stated one problem, one instrument, we can solve it. The moment you start putting in other problems, even ones that we're used to putting in our models -- like market power here and there monopolistic competition issues, quality issues -- the moment you start putting more things in, the one instrument fails to handle everything perfectly, naturally enough.

And that's what seems to be going on in this literature, as far as I can tell.

MS. DeSANTI: Well, given that these are the most difficult topics that we've been trying to address and there may be any number of problems that we could add into the equations and probably go on forever, I think we will draw this to a close now.

But on behalf of the Commission, thank you very much for coming. And I certainly would never -- I don't know what will happen to Bobby Willig's proposal, but I would never want to discuss vertical restraints issues without all of you at the table.

MR. BAKER: And Janusz' drunk friend as well.

MR. ORDOVER: And then we know who smashed up the car.

MS. DeSANTI: Thank you.

(Whereupon, at 4:06 p.m., the hearing was concluded.)

C E R T I F I C A T E

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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: December 1, 1995

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SIGNATURE OF REPORTER

GREGG J. POSS

(NAME OF REPORTER - TYPED)