UNITED STATES FEDERAL TRADE COMMISSION

and

UNITED STATES DEPARTMENT OF JUSTICE

# SHERMAN ACT SECTION 2 JOINT HEARING

# UNDERSTANDING SINGLE-FIRM BEHAVIOR:

## TYING SESSION

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MODERATORS:

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Federal Trade Commission
and
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Economist
Antitrust Division, U.S. Department of Justice

PANELISTS:

David Evans
Robin Cooper Feldman
Mark Popofsky
Donald J. Russell
Michael Waldman
Robert D. Willig

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MR. SALINGER: It is a very nice place to have a fire drill on a day like today.

Finally, we request that you not make comments or ask questions during the session. Thank you.

We are honored to have assembled a distinguished panel of practitioners and professors who are well versed in the issue we will tackle today involving tying and product design. Our panelists this morning are Michael Waldman, the Charles H. Dyson Professor of Management and Professor of Economics at Cornell; David Evans, who is the managing director of LECG's Global Competition Policy Practice and is Chairman of eSapience; Donald Russell, a partner at Robbins, Russell, Englert, Orseck & Untereiner; Mark Popofsky, an Adjunct Professor at Georgetown University Law Center and a partner at Kaye Scholer; Robin Cooper Feldman, an Associate Professor of Law at the Hastings College of Law at the University of California; and Robert Willig, Professor of Economics and Public Affairs at the Woodrow Wilson School at Princeton, Director of Competition Policy Associates, and a former Deputy Assistant Attorney General in DOJ's Antitrust Division.

In Jefferson Parish, the Court argues, "It is far too late in the history of our antitrust jurisprudence to question the proposition that certain

tying arrangements pose an unacceptable risk of stifling competition, and therefore, are unreasonable per se."

That was in 1984. We are now even later in the history of our antitrust jurisprudence, and yet we find ourselves reconsidering that question. We are doing so I think because the tying doctrine has turned out to be such a central issue in many of the most important antitrust cases of recent years.

I suspect, although I probably should not make forecasts of this sort, that the easy part of today will be to get agreement on the proposition that per se treatment is inappropriate. Indeed, I read the passage I just quoted as, in fact, an admission that if we were to start over, that the Court would not choose per se treatment.

The harder task is to figure out how, if the Court moves to a rule of reason, as many people think it might, how to go about deciding whether a tie is reasonable; how, in principle, you distinguish a competitive from an anticompetitive tie; and what sort of evidence you need. Do you rely on company documents about the rationale behind a tie, or if you are skeptical of the ability to use company documents to determine intent, what objective factors would you look to?

We have a really distinguished panel today to help us sort through those issues, and so I would like to thank them now, and I will probably do it again, but I wanted to take the time to do that.

Now I will turn the microphone over to June to make some introductory remarks of her own and to give a more complete introduction of the speakers.

MS. LEE: Welcome to the tying panel, part of an ongoing series of hearings into single-firm conduct. The Department of Justice's Antitrust Division and the Federal Trade Commission are jointly sponsoring these hearings to help the advancement of the development of the law of Section 2 of the Sherman Act. Transcripts and other materials from previous sessions can be found on the Department of Justice and Federal Trade Commission web sites. Upcoming panels include exclusive dealing on November 15th and bundled loyalty discounts on November 29th, so mark your calendars.

Today's session concerns the law and economics of tying. As Michael has noted, the treatment of tying under the antitrust laws has shifted significantly over time. Courts are far less likely to condemn ties today than 50 years ago when Justice Felix Frankfurter stated in Standard Stations that tying arrangements serve hardly any purpose beyond the suppression of

competition. While economists, some of whom are on this panel today, have identified situations where ties pose a threat to competition and situations where ties result in efficiencies, assessing likely competitive effects in a given situation remains a challenge.

I look forward to learning more about this complex topic today. I would like to thank my colleagues at the FTC and DOJ for organizing this hearing. In particular, I thank Don O'Brien and Joe Matelis, and I again reiterate Michael's thanks to the panelists for participating in today's panel.

The organization of the panel is as follows: The first four panelists will speak. We will then have a short break, followed by the final two panelists. Those speakers will then have an opportunity to respond to each other's presentations, and this will be followed by a moderated discussion.

Let me now introduce the first speaker. More complete biographical descriptions can be found in the handout and also can be found on the Antitrust Division and FTC's web sites.

Our first speaker is Michael Waldman, who holds the Charles H. Dyson Chair in Management and is a Professor of Economics at the Johnson Graduate School of Management at Cornell University. Professor Waldman's

main research area is applied microeconomic theory, and his main fields of interest are industrial organization and organizational economics. In these areas, he is best known for his work on learning and signaling in labor markets, the operation of durable goods markets, and the strategic use of tying and bundling in product markets.

Professor Waldman's work has been published in many of the top journals in economics, and he is currently a co-editor at the Journal of Economic Perspectives and an associate editor at the quarterly Journal of Economics.

Michael?

DR. WALDMAN: Thank you.

Sorry, I am used to using overheads, and they are not set up for that.

So, I want to start just by saying that a lot of my work on or a lot of my thinking on tying comes out of discussions with Dennis Carlton, so although Dennis is not responsible for any mistakes I make in the discussion, he is responsible for lots of the smart things I say during the discussionstart just by saying that a lo

that is that with the Microsoft case, there has been a lot more attention to it, and what has happened since the Microsoft case is there has been a lot of theoretical contributions trying to focus on getting a better understanding of tying. So, you know, as of 15 years ago, there was this sort of Chicago School argument sitting out there, and then Mike Whinston came along and sort of tried to sort of get a better sense of the Chicago School argument, and then when the Microsoft case came out, there has been lots of theory, some by me and Dennis, Choi and Stefanides, Barry Nalebuff, to try and get a better understanding of the theory associated with tying behavior, and there has been a lot of progress in terms of that issue, in terms of getting a better understanding of tying.

But in terms of antitrust, it is not so clear-cut. So, there is lots of progress on the theory side, less progress or less consensus, I should say, in terms of what the progress on the theory side tells us for what the right policies concerning antitrust should be given our advances in terms of the theory.

So, what I am going to try to do in this presentation is use theory and to some extent the old theory and the new theory to use as a guide to think about, okay, now, if we want to think about

to have a very interventionist policy, because on net, given the difficulty the courts have in trying to identify the relevant motivations, very aggressive interventionist policy is likely to lower social welfare more often than raise it.

So, here is what I will go through. I will talk

transactions costs standpoint, there are very many reasons to tie goods. So, you would have right shoes and left shoes. People do not want to go shopping for a right shoe and then go to a different box for a left shoe. You know, cars and radios, people typically want to have the radio put directly into the car. So, there are lots of efficiency rationales for tying, and in some sense, almost any good you can find, defined in some sense, is a tying of various goods. So, when I bought this shirt, clearly the buttons were in some sense tied on, both figuratively and literally, okay?

So, other efficiency rationales are search and sorting, which goes back to the old Kenney and Klein argument, and then you have variable proportion. So, the variable proportions arguments says that, well, suppose you have two goods, one that is someone with power and one without, if the goods are not tied, then there is going to be this inefficient substitution that consumers are going to do trying to substitute away from the product with market power which has an above marginal cost price.

There has been a fair amount of research on that idea, Malella and Nahata has an early paper talking about it, Tirole talks about that, in terms of extending to after-market monopolization, and I have a paper with

Dennis and a paper with a Dr. Morita showing how you can sort of take that same idea and extend it to after-market monopolization by competitive selling.

I am going to skip over the details of after-market monopolization and go straight to price discrimination. So, another important reason that one might tie is for price discrimination reasons. So, there are sort of basically two arguments there. The initial argument goes back to a paper by George Stigler, 1968, which talks about negative correlations of values, and in Stigler -- so, there is just a simple example. Suppose you have an individual one who has a valuation on product A of 10 and product B of 6, and individual two has the reverse, product A of six and product B of ten, well, if you try to sell just product A or if you try to sell just product B, you have these heterogenous valuations, and so you cannot extract all the consumer surplus. By tying them together, creating a bundle, you have homogenized the valuations, you are able to extract all the surplus.

Since that initial paper, it has been pointed out by a number of authors, in particular McAfee, McMillan and Whinston, that, in fact, this negative correlation of values is not required to get their argument to go through, and so there, I just give an

example where the valuations are actually independent of each other, equal probabilities, and if you worked out the profits associated with it, you will see the same basic result that Stigler found even though there is no negative correlation of values.

The second price discrimination story is the classic metered sales story that goes back to the old IBM punch card case kind of concerning -- actually, before computers, concerning -- oh, what is the term -- well, anyway, and basically the idea that you have punch cards and you have, let's say, computers -- it was not computers -- and what you are doing is you are trying to price discriminate. You are trying to give the higher price to the individuals who use the good more intensively. If the individuals who use the good more intensively use the variable commodity, in this case the punch cards, at a higher rate, what you do is then you can charge a higher price for the variable commodity, the punch cards, a lower price on the machine, and that allows you to price discriminate.

Clearly there are social welfare implications. It is well known that price discrimination has ambiguous social welfare implications, so from the standpoint of tying behavior in terms of antitrust, it is not clear why you would want to eliminate the ability to use tying

for price discrimination and allow price discrimination in lots of other types of activities. That is likely to cause distortions in terms of people trying to price discriminate in other ways and might create additional distortions.

Okay, the more recent literature is focused on exclusionary tying, and it starts with the Chicago School arguments. So, the Chicago School argument says you would never tie to extend your market power from market A to market B if you are already a monopolist in market A, and the standard example that is given is think about right shoes and left shoes, and there I just work through a little example of suppose P equals A minus bX as demand for pairs of shoes and there is a constant marginal cost for shoes, then by basically being a monopolist on right shoes, you can extract all the monopoly power into left shoes as being sold competitively.

Mike Whinston, in a very important paper, shows that that argument is correct in some settings but is not completely robust. What he shows is that in a one-period setting, if the monopolist's primary good is essential, then that argument goes through, but if you -- for various reasons or in various ways, if you move away from that basic one-period essential setting,

the argument breaks down. So, in Mike's initial paper, he says, well, suppose that the primary good is not essential, and so there are some uses for the complementary good that do not use the primary good, then in some cases, what you can do is you can tie, you can drive out the competitors in the complementary market, and that allows you to monopolize this part of the market that does not use the primary good.

He and Barry Nalebuff also have arguments where the goods are independent and show that tying can sometimes be used to get the monopolist to become a more aggressive competitor, and that can cause exit, which again, is similar to his original argument, and then improve profitability.

Dennis and I have a working paper where we move away from the one-period setting, and you still have this essential nature of the good, but by moving away from the one-period setting as we specifically do in terms of durable goods, we show that tying can be used to capture later profits given upgrades and switching costs, which are com ij.000003l000 cm'sty.

It is not going to be a profitable thing to do, but there are various reasons that that old Chicago result, classic Chicago result is going to go away as you move away. It is not as robust a finding as people have

you have this alternative product where, say, Bertrand competition with identical products, then you know there is going to be zero profits in that market, and what they show is that by tying, you get away from that Bertrand competition/zero profit result, and that can actually improve profitability.

The other one which I will just mention very briefly is Dennis and I, along with Joshua Gans from the University of Melbourne, are looking at an argument where tying is used to shift rents from an alternative producer to the monopolist. The sort of novel part of that argument is that what happens is actually you tie, and the consumers still use the alternative producer's product, but that you have changed the nature of the pricing game, and it moves some of the profits from the alternative producer to the monopolist, and that turns out to be, in general, not a good thing for social welfare, because the monopolist is spending resources producing this alternative product, in which stuff winds up not getting used. We are hoping to have a finished product in just a month or two.

So, just in terms of summary, there are a number of different rationales for tying, and they have different social welfare implications. Efficiency rationales tend to increase social welfare when there is

tying. Price discrimination results tend to be ambiguous. Exclusionary tying, social welfare tends to fall if you go through the details of these analyses, though it is not always guaranteed to do so, and the other strategic rationales, the product differentiation argument tends to have ambiguous welfare consequences, while the rent-shifting argument tends to lower social welfare.

So, now let's turn to what this means in terms of antitrust policy. So, I think what it means in terms of antitrust policy is that for various types of tying, the tying should basically be allowed. So, if it looks like efficiency, then clearly there is no reason to intervene. If it looks like price discrimination, again, price discrimination could hurt, but it could also help. Price discrimination has ambiguous social welfare consequences, and generally, given that price discrimination is allowed in lots and lots of other types of activities, it seems odd and probably decreases social welfare to just rule this particular type of price discrimination illegal.

Product differentiation, again, if you go through the details of those analyses, it tends to be ambiguous social welfare effects, and finally, our sense or my sense is if the motivation is unclear but the

primary market is competitive, like in the 1992 U.S.-Kodak case, it basically makes sense to allow the tying, because we know that competitive markets tend to maximize social welfare, and in particular, in that case, I think that the courts made a mistake, because sort of the theory for what was going on there had not been spelled out, and they went with some very speculative theories. I think the right theory was actually one where they were using it to increase profits.

When might courts think about intervening? Well, they might think about intervening in cases of exclusion or rent shifting, although I think the rent-shifting argument, which Dennis and Joshua and I are working on, is one that is very difficult, because the details of that argument say that that only works when, in fact, there is an efficiency associated with the tie if the tie had actually been used. So, I think it is very hard in that case to sort of say that there was not an efficiency possibility in that.

So, evidentiary hurdles should be high in these cases. Why should the evidentiary hurdle be high? They should be high because it is very difficult to judge motivation, and as I was just saying earlier on, in the absence of being able to judge motivation, if you try to

intervene aggressively, you are going to wind up hurting social welfare more often than helping social welfare. I do believe that it makes more sense to intervene on contractual ties rather than product design ties, because in product design ties, you are getting into the kind of internal workings of the firm, and it is a very dangerous thing for firms to be doing.

So, I know we do not have any time, so just to give a 15-second conclusion, there has been a lot of recent progress in terms of the theory of tying sort of going beyond the old Chicago School argument. Although we have identified various reasons for why tying could make sense from an exclusionary standpoint and we have a much better sense of that than before, I think at the end of the day, even with those extra things in the literature by Barry Melba (ph), myself, Mike Whinston, given the difficulty courts have in terms of judging motivation, there still should be a very high hurdle before intervening in a tying case.

Okay, thank you very much.

(Applause.)

MS. LEE: Thank you.

Our next speaker is David Evans, who is the Managing Director of LECG's Global Competition Policy Practice and Chairman of eSapience. The author of four

and competition authorities should presume that tying is efficient or at least benign in the absence of significant contrary evidence.

So, what I would like to do is to turn to my first point. So, under Jefferson Parish versus Hyde, at least as it is widely understood, a firm that has market power in product A is liable under Section 1 of the Sherman Act for requiring consumers to take product B.

Now, hardly anyone in the antitrust profession supports what we might call a conditional per se analysis. There are lots of articles on tying, many of which Michael has surveyed, but you are more likely to be hit by lightning than to find a paper by an economist that comes close to supporting the Jefferson Parish test or anything really like it. Hardly any legal scholars advocate that test either. There is just no significant economic or judicial learning that supports the view that tying should be an especially pernicious business practice for which there ought to be an especially high level of judicial scrutiny.

Now, despite that consensus, per se tying cases keep on trucking. More than 30 private antitrust cases with a per se tying claim have been filed in the last

versus Qualcom, which is a case not only in the U.S. but is pretty much worldwide, Munford versus GMNC Franchising, and so forth.

Now, you might also recall that the biggest settlement in antitrust history came just three years ago after a District Court judge found that MasterCard and Visa failed the major elements of the Jefferson Parish test as a matter of law on summary judgment. He noted, the District Court judge noted, the possibility that the courts might require a showing of competitive harm, and he left that issue and essentially that issue alone for a jury trial. Not surprisingly, MasterCard and Visa settled very soon after that.

Now, some commentators have suggested that Independent Ink shows that the Supreme Court has backed away from Jefferson Parish. I think there is a recent Seventh Circuit decision that suggests just that. Now, I really wish it were true in the sense that matters for lower courts and businesses, but Justice Stevens appears to have been quite careful, at least in my reading, in saying nothing whatsoever in his decision in Independent Ink that repudiates his decision in Jefferson Parish. We continue to have conditional per se liability for tying that follows really all too easily from having market power in the tying product.

that.

The two enforcement agencies should also encourage Congress to modify or kill Section 3 of the Clayton Act. By the way, and maybe I am just not on top of what is going on, it is unfathomable to me that the Antitrust Modernization Commission has not considered tying as part of its agenda for reform. It seems to me that the antitrust laws for the 21st Century should not target tying as an especially pernicious practice, and I think from what we have heard thus far from Michael, I think there is a consensus in the profession on this.

My third point for the agencies is there is a bill in Congress now to repeal certain exemptions that the insurance industry has from the antitrust laws. This is the McCarran-Ferguson Act. Now, that is a debate that I sure do not want to wade into today, but HR-2401 perpetuates the mistake of treating tying as a separate and presumably especially harmful antitrust offense, and in my view, the enforcement agencies should oppose that provision of the bill.

Fourth, the Justice Department should embark on a global recall of American tying law, perhaps prodded by the FTC's Bureau of Consumer Protection. Following our lead, the courts and competition authorities in many jurisdictions have subjected tying to some form of per

se or conditional per se liability. We should let them

less this kind of Bayesian or error cost kind of analysis.

When it comes to single-firm conduct, I think it is helpful then to think about what prior information tells us, what the likelihood of error is, and the cost of those errors, and with that I have three general observations on analyzing single-firm conduct.

First and perhaps most importantly, when practices are common in pretty competitive markets, we have prior information that these practices are efficient. That does not mean that they could not be used to harm competition, but it does mean that there should be a presumption that these practices are procompetitive. They really could not survive otherwise in competitive markets. Will Baumol and Dan Swanson have made this point in their article on price discrimination, and the Supreme Court recognized it, precisely that point, in Independent Ink, citing their paper.

Second, juries have a lot of trouble deciding complex cases. I have testified before a lot of juries, and I have a great respect for the jury system, but

rebates. Asking 12 average citizens to do so, to analyze single-firm conduct cases, I think really invites error, and this is a particular problem, of course, in private litigation and especially in treble damage class action litigation involving single-firm conduct.

My third point, and I think I am in complete agreement with Michael Waldman, modern industrial organization economics, at least insofar as he has discussed it with respect to tying, really I think emphasizes the need for caution. We can define in the industrial organization literature that businesses have the incentive and ability to engage in anticompetitive conduct in fairly limited circumstances, and there is not a lot of empirical evidence that these circumstances hold in practice and not a lot of guidance on how to figure them out, and, of course, that varies between different practices. I want to be careful in not generalizing too much, but I generally think that the thrust of the IO literature really does need to suggest caution.

Now, I am absolutely, positively not arguing for the repeal of Section 2 or for gutting Section 2 in practice. It plays a very important role in disciplining businesses with significant market power.

I also believe, as Michael pointed out, that as economic learning progresses, we may find that it is easier to separate bad business practices from good ones, but for now, we ought to be pretty cautious about letting the courts and ultimately jurors in private litigation embark on a rule of reason inquiry without some structure, some discipline on it, to reduce the likelihood and cost of errors.

So, let me apply those considerations to tying, and at the risk of restating what everyone knows and what the courts have acknowledged in Fortner, Jefferson Parish and Indc1son

series of papers that go into many of these considerations. Perhaps the most important observation from that line of papers is that there are fixed costs of offering different product combinations, and that necessarily limits the variants offered by firms and can result in pure bundling or tying.

Now, the case law sometimes talks about tying denying consumers' choice. The fact of the matter is that a lot of times, consumers do not want choice. They want producers to make decisions for them, because the producers are in a better position to really do that, and consumer choice is not costless. It can raise prices for all consumers as the market gets fragmented.

So, our prior explication, when we see tying, is it is probably efficient and as a result of market forces. As the D.C. Circuit noted in its unanimous decision in Microsoft, "Bundling by all competitive firms implies strong net efficiencies."

Now, that does not end the analysis. One might imagine that economists have spent the last 20 years researching the subject of tying and concluded that, as a matter of theory, it was a highly plausible, anticompetitive strategy for firms with significant market power, and you might imagine that economists had actually discovered empirical evidence that supported

Michael that plaintiffs should have a high hurdle, and if I could have perhaps one extra minute, I will tell you what I think that hurdle should be.

First, plaintiffs should, of course, as a starting matter have to show that the defendant has significant market power in the tying product that the plaintiff has posited, and that, in itself, is a movement away from Jefferson Parish, merely inserting the words "significant market power" or "monopoly power."

Second, plaintiffs should have to show that the tying practice has the likely effect of excluding a significant amount of competition from the market for the tied product. Such exclusion, at least as I understand the literature, is really the source of competitive harm in really all the economic work or much of the economic work in this area.

Third, plaintiffs should have to raise significant doubts that the tying practice is not just normal competitive practice that is explained by efficiencies for consumers or firms. That means plaintiffs should have to show that there are two separate products and that in the absence of an anticompetitive, exclusionary strategy, we would expect that consumers would be offered the tied product without

the tying product. So, I would put that burden onto the plaintiff in the first instance.

And fourth, plaintiffs should have to show by way of economic theory and empirical evidence that the defendant has, in fact, embarked on a plausible anticompetitive strategy, and we can leave for the discussion what that actually requires.

Ultimately, of course, plaintiffs need to be able to demonstrate persuasively that tying will cause a net reduction in consumer welfare. I do not think that these are impossible hurdles by any means. Plaintiffs ought to be able to find evidence to support each of these tests if, in fact, a firm has engaged in tying to acquire a monopoly in a secondary market or maintain a monopoly in a primary market, as might be suggested by some of the Carlton/Waldman works.

So, that is where I end up, all in all pretty consistent with Michael. Thank you very much.

MS. LEE: Thank you.

(Applause.)

MS. LEE: Our next speaker is Don Russell, who is a partner at Robbins, Russell, Englert, Orseck & Untereiner. In 1977, he joined the Antitrust Division of the U.S. Department of Justice, where he served for 24 years. He was Assistant Chief of the Communications

and Finance Section from 1986 to 1992, lead attorney in the Division's 1994 monopolization case against Microsoft, and Chief of the Telecommunications Task Force from 1995 to 2001. He is a founding partner of his law firm, where he maintains an active antitrust practice.

Don?

MR. RUSSELL: Thank you. I am happy to be here this morning with five very smart panelists who are going to answer the hard questions, and I am going to address the easy one, to a large extent repeating and emphasizing, again, what you just heard from David Evans, with very small areas of disagreement.

My basic proposition this morning -- the two basic propositions I want to assert are, number one, the single most important thing that the FTC and the Antitrust Division can do and the easiest thing for them to do in this area is to say publicly, clearly, frequently and to the Supreme Court, as soon as they get a chance to do so, get rid of the per se rule for tying, whatever is left of it. We all recognize that it is not a true per se rule, but as David explained, it is enough of a per se rule that it still causes substantial harm and confusion and harm to consumer welfare. So, we ought to get rid of it.

The second point I want to make, and the one that I want to spend most of my time on, is the point that I think the Supreme Court has indicated very, very clearly they are ready to take this step. Certainly lower courts have recognized that it would be an appropriate step, and many other people have as well, and this is the area where I might have a slight disagreement with David's reading of the Independent Ink decision, which I will get to in a few minutes.

Let's start with the Jefferson Parish decision in 1984. I think you are all probably familiar with the basic facts there. I will point out the holding of that case, which is that there was no violation of the antitrust laws, no tying violation, when the defendant did not have market power. That is the holding. Now, there are many other things that were said in the case that I would describe as dicta, the most famous part of that being the one that is up on the slide now and the one that Mike Salinger referred to earlier.

In the opinion, the majority opinion by Justice Stevens, he said, "It is far too late in the history of our antitrust jurisprudence to question the proposition that certain tying arrangements pose an unacceptable risk of stifling competition and therefore are unreasonable per se." A couple of things I want to

point out about this sentence, first, as you heard earlier, one very easy way to read this sentence is that Justice Stevens is saying, well, we really are not sure that this is right, but it is far too late to do anything about it.

The second thing I want to point out, going to the underlined language on the screen, is the sentence is really fundamentally inconsistent with virtually everything else that the Supreme Court has said about per se rules, the proposition that certain tying arrangements, but not necessarily all, pose an unacceptable risk to competition. In every other context the Supreme Court has said the fact that certain do does not mean that you need to have a per se rule that encompasses all of them. Per se treatment is reserved only for those situations in which it is virtually always the case that there is harm to competition and virtually never the case that there is a substantial efficiency rationale. Therefore, just reading this sentence in that context, it makes no sense.

Going to one of the concurring opinions in Jefferson Parish signed by two of the justices, they, again, make this point very clearly, that whatever merit the policy arguments against the per se rule might have,

Congress has not done anything about it, and again, this seems to me to be pretty clear even back then that these two Justices had substantial doubts that the rule made any sense, but for other reasons, they did not think it was appropriate at that time to do anything about it.

There were four Justices in that case who, as you know, came out and said very plainly and straightforwardly, tying should not be regarded as per se illegal in any sense, it should be evaluated under the rule of reason, and the reason that they said that was stated very clearly. It incurs the cost of a rule of reason approach without achieving its benefits.

The second quote there, "The legality of

defendant has market power, he is saying in almost the same breath, well, of course, you really have to look at the competitive consequences, not labels, which sounds to me an awful lot like rule of reason.

Looking more specifically at what Justice Stevens said were the competitive concerns with tying, he identified two. The first is that it would insulate the tied product from competitive pressures, and the second is that it might increase the social costs of market power by facilitating price discrimination, and those were the reasons that he advanced for the Court's historical hostility towards tying.

So, let's fast forward to the case that the Supreme Court decided earlier this term, the Independent Ink case, and again, the basic pattern in the proceedings below were quite similar to what had happened in Jefferson Parish. The District Court had the good sense to rule in favor of the defendant. The Court of Appeals, thinking that it was bound by old Supreme Court precedence, said no, you cannot rule in favor of the defendant here. In Independent Ink, it was because of the statementSo70000 it here. bodnr.Favor of the def

the product elsewhere gives the seller market power.

So, when the Supreme Court got this case, which had been decided below based on what Justice Stevens had said in Jefferson Parish, the Supreme Court unanimously reversed in an opinion written by Justice Stevens, ironically enough. Why does it change here between what Stevens said in Jefferson Parish and what Stevens said in Independent Ink?

The one area where I think I may disagree with David Evans is he looks at the Independent Ink decision and says Justice Stevens was very careful not to say anything that would undermine what he had said about per

that was presented in the case had absolutely nothing to do with assuming that there is market power, what is the appropriate mode of analysis of the antitrust issues? But when you look at the Independent Ink decision, the Court spends a great deal of time and devotes a great deal of attention to precisely that second issue which was not raised in this case, and I think it is significant that they did so.

For those of you who are particularly fascinated by these issues, I will recommend to you an article that was written by Kevin MacDonald, "There's No Tying in Baseball," in which I think Kevin does a very, very good job of explaining why if you want to look at the narrow issue that was presented in Independent Ink, there are many, many, many ways the Court could have come out, as it did, addressing only the fact that all of its old precedence about patents and copyrights and presumptions were really being misread. People were relying on dicta, and the Court very easily could have distinguished those cases and said, you know, that is just wrong. When we look at this narrow issue, it has to come out the other way. But they went well beyond that.

The first reason they gave for the way they came out was the presumption that a patent confers market

power is a vestige of the Court's historical distrust of tying arrangements, which seems to me a very odd thing

than they had in the past. They emphasized over and over again that there was a very, very solid consensus among economists and legal scholars that the old rule made no sense, and I think what we have heard from this morning and what we probably all knew before we came in this morning is as to the per se rule against tying, there is a very substantial, very solid, very long-standing scholarly consensus that that rule makes no sense. In Independent Ink, the Supreme Court is saying that kind of a consensus is a very important consideration when we are deciding these cases.

The third rule, which is particularly interesting, I think, is the Supreme Court talked about congressional action that kind of ratified this view that maybe tying arrangements are not so bad after all. Now, if you look at the legislation they were pointing to, they were actually pointing to legislation about, you know, this presumption of market power, but look again at the way Justice Stevens described this concept. "At the same time that our antitrust jurisprudence continued to rely on the assumption" -- not about market power -- "the assumption that tying arrangements generally serve no legitimate purpose, Congress began chipping away at the assumption."

So, again, I think this opinion in a way is

misleading and misstating what actually happened but in a way that suggests to me that the Court is paving the way to get rid of the last vestige of the per se rule.

is telling us something very different, and we are going to follow the Government's advice, suggesting, again, to me that it would be very, very important for the Division, for the FTC, to offer that advice to the Court and that there is a very high likelihood that the Court will accept that advice.

So, if you want to sum up what the Supreme Court said in Independent Ink to explain their decision there, almost the last sentence of the opinion says, "Congress, the antitrust enforcement agencies, and most economists have all reached this conclusion. Today, we reach the same conclusion."

I think that is a very clear indication, you know, here is the road map, here are the things we will look at if this remaining per se rule comes before us, and I think when you look at the record, it is pretty clear how they would come out on that.

Now, I will admit that I may be reading too much into this, and I will certainly agree with David, virtually every quotation I have put on the screen there, you can read it in a different context and you can say, well, it is not really inconsistent with the per se rule, it is not really inconsistent with Jefferson Parish, and they were really just talking about this narrow issue about patents and presumptions,

but I do not really think that that is right, and one of the reasons that I do not think it is right, in addition to the things that the opinion itself says, are the questions and the comments that various Justices made during the argument in Independent Ink.

Justice Stevens was the most active questioner and the most active participant in this argument, and time after time after time, the issue he focused on is, does this per se rule make sense? And if you want to get to what seems to be his tentative conclusion, the last quote on this screen, "It doesn't seem to me it makes any difference whether General Motors has a monopoly or not," that is, whether they have market power or not, "when it wants to sell two components as part of the same package." What he seems to be saying here, the question that he keeps asking is, you know, why shouldn't that be okay?

Justice Roberts had an even stronger statement. "Much of the economic literature sort of sweeps away this question because it rejects the notion of tying as a problem in the first place."

Justice Breyer, again, had many questions all devoted to the same point, and, among other things, focusing specifically on price discrimination, in which he says, "I think most economists, in fact, everyone I

have read agrees with the notion that price discrimination is sometimes good and sometimes bad. The scholarly consensus that you see later on when the opinion comes out.

And Justice Scalia, again, in a provocative way says, is there anything to this notion of tying as an anticompetitive practice at all?

So, to focus here, I think the Supreme Court in the Independent Ink decision has laid out very clearly what arguments it needs to hear with respect to the remaining per se rule, and they have indicated, I think pretty clearly, how they will come out on that question if and when it is put in front of them. The first point, they point to the Supreme Court's prior recognition that tying is often a procompetitive practice, which is the way they are now reading that history.

Second, they point to a scholarly consensus, which I think we will hear today and we have heard elsewhere is clearly in place with regard to the per se treatment of tying.

Third, congressional action, the Supreme Court has already identified congressional action that they think is an indication that maybe tying is not so bad all the time anyway.

The thing that is missing at the moment and the thing that I think is critical, which is why I focused my remarks this morning on this, is support for a change in the rule from the antitrust agencies. There was an opportunity for the Government to do this in the Independent Ink case. The question was asked very clearly, what is your position on this? And the Government's lawyer said, well, Justice O'Connor, who argued for rule of reason treatment, made persuasive points, but we have not taken a position on that question.

I want to make it clear I am not criticizing that answer. I think it was perfectly appropriate in the context of that case, but I also think it is very important, very critical, that the next time the question comes up that the Government does take a position, which is the per se rule makes no sense. This should be a rule of reason analysis.

(Applause.)

MS. LEE: Thank you.

Our final speaker before we take a short break is Mark Popofsky, who has been a partner at Kaye Scholer since leaving the Antitrust Division of the Department of Justice in 1999, where he was senior counsel to the Assistant Attorney General. Mark works in the

antitrust, intellectual property and technology practice groups at Kaye Scholer and chairs the firm's technology and competition practices.

Mark is an Adjunct Professor at Georgetown University Law Center where for several years he has taught the Advanced Antitrust Law and Economics Seminar.

Mark?

MR. POPOFSKY: Thanks, June. It is a pleasure to be here today. I would like to thank both enforcement agencies for holding these hearings and for inviting me to participate in them, and it is nice to see so many familiar and well-respected faces here in this room, both in the audience and on the panel today. I approach this topic like Don Russell as a simple country practitioner, a formal federal enforcer, and a veteran of several rounds in the Microsoft jungle, a veteran of those wars.

I see the opinion in Independent Ink as very craftily written by Justice Stevens, who has had a 40-year agenda in this area, to say, well, what we are talking about today is not Jefferson Parish at all but a special per se rule that was applicable to intellectual property and perhaps even only to patent ties, and I am here today, Justice Stevens, writing for the Court, to address only the viability of that per se rule.

To be sure, much in the decision and especially in his reasoning probably was prompted by many of his colleagues to get them all on board, and this suggests exactly what I said a few minutes ago, there is a majority out there to overrule Jefferson Parish, but I think it would indeed need a swift kick in the Supreme Court's rear by the enforcement agencies, among others, to get them to take that next step. I do not think it is inevitable.

senses, as Jefferson Parish articulated, or under a full or truncated rule of reason. Why are we here, in other words, to talk about tying under Section 2 of the Sherman Act? What does it accomplish?

In my view, that question depends on answering two questions. The first is the conduct subject to Section 2 from a legal perspective. I am not one of these fancy guys with a Ph.D. or fancy gals with a Ph.D. In a legal sense, does Section 2 reach a broader range of conduct that can be labeled tying in Section 1? And two, and perhaps most importantly, regardless of the answer to that first question, should we have different rules of liability for Section 2 for tying-like conduct than Section 1? I will address each of these briefly in turn.

I believe it is fairly clear that Section 2 does reach a broader array of tying-like conduct than Section 1. Let me give you three examples. A conditioned refusal to deal, which is set up like a good old fashioned Colgate policy. The monopolist says to its customers, I will not deal with you in the future unless you take this tied good with the tying good. The customer acquiesces.

Suppose, like in a Colgate situation, we do not have enough of a basis to infer a Section 1 vertical

agreement and all we have is, technically, unilateral conduct. That is something that Section 2 and, indeed, perhaps even Clayton Act Section 3 would reach that Sherman Act Section 1 does not, the conditional refusal to deal, which could, of course, ripen into an agreement but need not.

The second and more intriguing and important example, which I gather we will discuss after the break, is technological tying and product design. Now, it is notable that the Microsoft case, which I lived, did treat technological tying and product design as conduct subject to both Section 1 and Section 2, but I think the Court really glossed over the issue there. If all you have is a monopolist or would-be monopolist designing a product, it is not clear to me that every court is going to reach the conclusion that that is the functional equivalent of an agreement or a contractual tie. I think it is an issue of great dispute in the case law, and that might be yet a second area where a Section 2 liability rule used for tying makes a substantial difference.

The third and presently very hot area brought to us by one of Don Russell's partners in the LePage's cases is bundled discounts, which, of course, is a category of conduct that can achieve similar results to

tying and exclusive dealing. Indeed, tying and exclusive dealing, of which there is, of course, going to be another forum and of which tying is but a form, are just extreme forms of bundled discount. There is a discrete rule here. There is law dating back at least to the Way and Means case in the Northern District of California as to when a bundled discount should be treated as an outright tie depending on what percentage of the tied item is purchased outside of the bundle, but that rule, as I just mentioned, is discreet. It would only capture some forms of bundled discounting under Section 1, and there will be a large number of bundled discounts reached only under Section 2 and not Section 1.

Bottom line, in my view, there very much is a difference between the coverage of the two provisions, Section 1 and Section 2, with respect to tying and tying-like conduct, and I think it is largely settled that there is a difference and it will remain.

The second issue I wish to address today, the appropriate legal standard, is, by contrast, extremely unsettled. The issue, put brightly, is whether Section 2's legal test for liability for tying is different than

being under the full rule of reason. So, what I am

rule of reason -- so this is presumably the post-Jefferson Parish world come a little sooner because the Microsoft Court created an exception to Jefferson Parish -- the Court said Section 1 is concerned exclusively with harms to competition in the tied product market. Look only to harms in the browser market, the Court said, ignore this monopoly of maintenance in the tying product market, operating systems. The Court said, we are, in other words, concerned only with how the tied market can be affected.

Strikingly, the Court also said the standard of liability here is higher in some sense under Section 1 when you are looking at a tied product market than Section 2, which, of course, the Court said had to do with in that case the tying product market. The Court said for a Section 1 rule of reason tying claim, we need actual harm to competition in the tied product market. The Government must define that market with precision, they must show a substantial likelihood of anticompetitive effects. Government, you have not even gotten past go on that issue, you are likely to lose. We are not willing to do what we did in the Section 2

willing to infer causation of anticompetitive harm merely from the fact that Microsoft engaged in a category of conduct which the Court said was likely to cause anticompetitive effects.

So, just to step back and summarize, we have a clear difference, the Court of Appeals says, for Section 2 tying and Section 1 tying. Section 1, give me actual effects in the tied product market. Section 2 tying, give me a reasonable likelihood that we have conduct likely to cause upstream monopolization for Section 2 tying. The liability standard in a very discrete way is lower, ironically, under Section 2 after the Microsoft decision than Section 1, at least in terms of what is the nuance and the measure and the strength of the story you have to have as a plaintiff to infer competitive or show competitive harm.

I think this was no accident in this unanimous per curiam en banc opinion. Tying, as we have heard, is ubiquitous in competitive markets. If you have a legal rule that m.elrule 7dpuem to chow cnticompetitive TjET1.00000 0.

have any story of plausible anticompetitive effects and have a story of some market power. Differentiated products, we all know, is very easy to show some market power over.

So, the Court is saying, higher standard for liability, at least under some categories of cases under Section 1, there -- technological tying. Perhaps a break to the plaintiff under Section 2, provided the plaintiff has a clear story of how the tie-in can actually lead to monopolization of the tying market, and it was a story of how NetScape's distribution of browsers would enable Microsoft to prevent NetScape from reaching certain economies of scale to grow into a threat for Microsoft.

So, whether or not one agrees with what the Microsoft Court said about the concern of each provision of the Sherman Act, exclusively downstream for Section 1, exclusively upstream for Section 2, you have a court saying the rules are different depending on what you are looking at for tying, and this leads to my final major point.

This says something more general, I think, about Section 2 tying, where we are going in this area, and importantly, what the enforcement agencies can contribute. As I have written recently in an Antitrust

Law Journal article, there is a holy war raging over the appropriate liability standard under Section 2 generally. Everything, at least almost everything, save perhaps very discrete areas like charging a monopoly price and after-Trinko refusals to deal, are up for grabs.

In fact, I think this revolution in Section 2 is inherent in Trinko, where Trinko itself, often read as a very pro-defendant decision, says in designing Section 2 legal standards, we should be Bayesians, as David Evans said. We should look at the risk of type one errors, the risk of false positives, type two errors, the risk of false negatives, the relative likelihood and the magnitude of the likely effects of each, and enforcement costs, and under that process, in a very common law fashion, courts will arrive at the appropriate Section 2 doctrine or legal rule for the conduct at issue.

I think that is where we really are with Section 2 law and tying. Much is up for grabs despite what Microsoft said about the difference and focus between Section 1 and Section 2, and I think what is yet to be written in the next ten years I think will show us is where the courts go applying many of the principles that Dr. Waldman, Dr. Evans, and I am sure Ms. Feldman will enlighten us of about the economic learning and

translating that into concrete legal tests for discrete situations.

Now, there is no time today for me to lay out plausible stories of where this will take us and specific examples of what legal rules might emerge for Section 2 law in tying, but let me give you sort of three rules of thumb as I see it.

First, I think as Dr. Waldman said, condemning tying through contracts likely poses fewer risks of false positives than condemning unilateral tying, true unilateral tying, like product design. This suggests that some forms of "unilateral tying" reached only under Section 2 might have applied to them a more lenient legal test for the defendant than Section 1. We might indeed have the courts leading to a higher standard of what the plaintiff has to show.

Now, there have been some cases which have gone the other way recently. The Teva-Abbott decision, which some of you may be aware of, held that a monopolist product design decision should be analyzed under the rule of reason, did not really get into what that means. The next step will be deciding what that rule of reason entails under Section 2, whether it is a different standard than under Section 1 or the same, and there is a good argument it should be different.

That said, how tying should be treated under Section 2 really should not depend on a game of formalisms, is it unilateral, is it contractual, form of a condiETtiwefusti to a Fhe most plaintiff fri0etry comi although that can inform, as I just said, the analysis. What is important in this area is that related forms of conduct, related from an economic perspective, be treated similarly under the antitrust laws. The last thing we want is courts all over the country coming up with different legal rules that create incentives for firms to inefficiently substitute to different conduct to avoid the most plaintiff friendly doctrine, and let me give you an example of that.

Suppose courts come out with a rule that exclusive dealing, if you have a contract, is under the full rule of reason, but exclusive dealing done in the form of a condiETtiwefusti to a Fhe most plaintiff fri0etry comi

13 Suppose courts come out with a rule that

forms of tying present strong or unusual cases for efficiencies. Certain bundles of IP rights, for example, may provide an insurance function that other tying arrangements lack. There may be special efficiencies for certain forms of bundled discounting or volume discounts, and those situations might argue for differently restructured analyses than the traditional general rule of reason, taking into account, as I said, you want to treat what the economists demonstrate to be economically similar arrangements similarly.

Backing up in my final point, what does this suggest about the role of the enforcement agencies in this area? Putting aside the issue of whether the agencies should jump on the next opportunity to overrule Jefferson Parish v. Hyde, I think through their closing statements at the end of investigations, the Section 2 cases they elect to bring, importantly, the amicus briefs they elect to file (a lot of the actions are private), the business review letters they issue, and the competition advocacy in which the agencies engage, particularly as regimes overseas decide what their Section 2-like rules of the road are going to be, the agencies can play an important role in shaping what Section 2's rule of reason looks like as applied to tying arrangements in the years to come.

As I said, much is up for grabs, and this is the moment when the agencies should seize the initiative and set forth what their views should be of where these arrangements should and should not cross the line.

view, pharma and biotech are the next frontiers for antitrust enforcement in general and for Section 2 in particular, and I have chosen some of my examples with that in mind.

I also want to frame my comments in terms of what is different about technology markets and what is not different about technology markets. In terms of what is different about technology markets, I want to talk about a particular kind of leveraging, and that is what I call defensive leveraging. For almost a century legal scholars and economists have struggled to understand leveraged behavior and determine when it is harmful. Most of that debate has centered on what I would call traditional leverage, in which a monopolist in one product tries to leverage its power in a complementary product. You can imagine an ice cream monopolist who bundles and says I will not sell my ice cream unless you buy cones as well. With the more traditional form of leverage, the economic debate concerns whether monopolists can get any profit out of that or cause any harm that. But there is another form of leveraging, and in this form of leveraging, the monopolist is not trying to reach into another market and grab more monopoly profits. The monopolist is trying to protect its original monopoly from the next

generation of products that could serve as substitutes. It is using the power of multiple markets to maintain its original monopoly, and I call this defensive leveraging.

Now, technology markets are ripe for this form of leveraging, among other reasons, because of their tendencies towards network effects. That is, they tend to be industries in which there are advantages in doing what everyone else is doing. Where there are network effects, a monopolist who has the bulk of the customers can use its existing base to project into the market for new technologies that are threatening to erode its original monopoly. So, tech markets are different because of their strong potential for defensive leveraging.

They are also different because of product design challenges, and here, let me offer you a pharma example. A few years ago the FTC brought a successful enforcement case against a pharmaceutical house that sought to tie its dominant drug to a new monitoring product. Now, this monitoring product could have been used just as easily with all the competitors' drugs, but the pharmaceutical company wanted to say we will only sell our monitoring product if you will also buy our version of the drug. The concern was that the pharma

house was trying to use its new monitoring product to protect its power in the drug market as its power started to wane.

Now, if we would not allow a company in these circumstances to tie a drug together with a product that monitors the drug, why would we allow a product designed to do both, that is, to administer the drug and monitor it at the same time? Or from another perspective, should we allow two products to be bio-engineered so that they work only in combination with each other? That is an issue in agri-biotech. If we are not careful in the area of product design, what we are doing is simply inviting parties to design around the patent laws and the antitrust laws, and then the question of whether behavior violates the antitrust laws becomes a scientific question rather than an economic one, the question being, "Is it feasible to combine products technologically?" If so, you have no problem with enforcement agencies. It should not be that our legal decisions turn on questions like that.

There are tremendous challenges in the areas of

offering avenues for avoiding the appearance of tying and bundling simply by manipulating the product. These are wonderful products, and it is so easy to be swayed by how wonderful they look without asking what is happening behind the science. We still have to delineate, even if you are talking about biodesign and product design, what is reasonable and what is not reasonable.

And finally, technology markets are different because of patent groupings. Patents tend to travel in packs. Companies build or acquire portfolios, and they typically engage in defensive patenting; that is, trying to file patents for all of the space surrounding their key patent so nobody else can develop any substitutes to compete. And most importantly, tech products have multiple patents within them, which creates patent-groupings.

Now, patent-groupings can be and often are perfectly procompetitive or they can create opportunities for strategic anticompetitive behavior. The key is, how are we going to find the difference between these?

I talked a little bit about the fact that I think there are differences with technology markets. They operate differently from what we are accustomed to

seeing in traditional markets, and they present interesting challenges for analyzing behavior. While technology markets are different, they are not sacred, and I am very concerned by language in some recent court decisions which suggest that markets that relate to intellectual property should be treated more gently under antitrust laws. It is an eerie throw-back to language in the early 1900s when courts were struggling with the question of whether antitrust laws could even be applied to patents or to other intellectual property rights.

Intellectual property rights are not sacred monopolies. They are not even monopolies at all, at least not in the antitrust sense of the word. They may be downright worthless, and I can discuss some of this in the question period. They are not even an exclusive right, again, not in the way that antitrust thinks about it. There are certainly challenges in understanding these rights, but they need to receive the same reasoned consideration as other types of products. I use the term "reasoned" carefully and also intentionally. It is certainly true, as all of the panelists have pointed out, that we have moved away from a strict per se rule in tying cases, and that we appear poised to move even closer to a rule of reason approach, if not completely

to a rule of reason approach. I am going to jump to a world in which we have moved very close or completely to the rule of reason. I think the important part of this shift will be figuring out how to react when companies that engage in tying behavior claim to have very good, procompetitive reasons for the tie.

How do we analyze what is a legitimate procompetitive reason and what is not? To do this, I want to suggest that we borrow from the experience of regulators at other agencies in different contexts, and I think there is a perfect example from Patent and Trademark Office experience. The PTO requires that parties who want to make certain types of claims must show that those claims are substantial, and credible. I would like to spin out how it works there and how I think it would work here.

A few years back, researchers began fishing out little pieces of genes, not the whole gene, but some little pieces from a soup of genetic material, and they wanted to get a patent on that little piece that they found. Now, in order to get a patent, you have to tell the PTO how you can use the thing that you are patenting. When they fish this little piece out of the genetic soup, researchers had no idea what it was. They did not know what gene it came from, they did not know

whether it promoted disease or whether it helped fight against disease. They just had a little snippet, and they did not have a use for it.

They began to file patents using very general uses. They said, "These little snippets can also be used for fishing out other snippets or for doing research." This is when the PTO developed its test: Specific, substantial and credible. Don't just tell us something general that can be true of any of the category of things that you are talking about. Tell us something specific to what it is that you have found and what it is that you are doing.

I think a test like that, specific, substantial and credible, is the essence of what courts and regulators are going to have to ask about procompetitive defenses offered in tying cases. Don't just give us general reasons that would apply to any tie or that would apply to any tie in your industry. Give us something that is specific to your product and to your tie.

So, in computers, for example, anyone can say it is easier for consumers if you put things together in an operating system. When different applications are together in an operating system, Ma and Pa do not have to worry about loading things together, they do not have

to worry about interoperability. There are always consumer advantages when things are put together in computers, but it cannot be that any tie in the computer industry is always okay. You must tell us something about what it is that you are doing and why we should see this as procompetitive.

If you think outside of computers to products in general, any company can say, "We can control quality better if we control all the parts you use with our equipment or all the pieces that might integrate together. Our customers do not suffer through people finger-pointing about which part is wrong. They only have to call one person when they need a repair." But again, that is true of any combination of things. If you want to claim a procompetitive benefit, I would say tell us something that is specific to your product and to your tie.

I want to point out, again, the reason I am concerned is that there has been a swing in the pendulum. We needed to talk about what was procompetitive about tying in order to move away from the notion that all tying is bad. We want to be careful, once we have talked about ways in which ties can be good, that that does not blind us, and that now all we ever talk about are the good things in tying.

Let me give you an example of something that I think would qualify as a specific, procompetitive defense for a tie. There was a pharmaceutical house that recently received a lot of criticism when it sought regulatory approval to combine its existing cholesterol drug, that was losing market share, with a new blockbuster heart drug and to sell them only as a single pill formation. They had a product that was losing market share, and they were going to combine it with a new kind of blockbuster as the only way consumers were going to be able to get it. The company only agreed to sell the two separately after a lot of public criticism.

Imagine, instead, that the company's drug is about to be pulled from the market for dangerous side effects. You can fill in the name of a number of recent drugs that have gotten into trouble. Now, suppose the company sought regulatory approval to produce only a combined pill including another substance that would mitigate the dangerous side effects. That is a legitimate and specific procompetitive benefit for bundling a product. In other words, tell me something about your product and your tie that helps us understand why this is a good thing that you are doing.

I suggested asking whether the claim is specific, substantial and credible, and in evaluating

credibility, I would borrow a page from another agency, the SEC. The SEC looks very closely at stock transactions that occurred right before big news. They find these highly suspect. In the same vein, I believe we should look at the market timing of a company's decision to tie in order to test the credibility of its claims of procompetitive benefits.

For example, I would be very wary when a company seems to find all kinds of procompetitive reasons for tying just before the patent on its blockbuster drug is about to expire or just when a fundamental market shift is taking place. Under those circumstances, one might have reason to doubt the sincerity of the company's procompetitive fervor.

In short, what I want to say today is that markets related to high-tech and biotech present significant pressures and opportunities for anticompetitive behavior. We should be aware of those as we move forward in the new sets of tests. The challenge for law makers and for regulators is to be as intellectually creative as the emerging markets themselves in order to preserve competition without hampering the innovation that we have come to expect in technology, both000 cm0ctiect in

(Applause.)

MR. SALINGER: Our final speaker today before we begin our round table discussion is Robert Willig,

organization, the relationships between government and business and domestic and international microeconomic policy. He has served as a consultant and advisor for the FTC and DOJ on antitrust policy, for OE CD, the Inter-American Development Bank, and the World Bank on global trade, competition, regulatory and privatization policy, and for governments of several nations on microeconomic reforms, and so with no further introduction, Bobby.

DR. WILLIG: I am going to tie my conception of my time slot to that which we have already experienced from some of the previous speakers, not the last one, but particularly the first one. Nice, long, lazy, but hopefully very illuminating.

I have been asked to speak today, challenging subject, and that is not only to make it unanimous, I, too, am against per se treatment of tying under the antitrust laws. I, too, think there is no business or economic or indeed any logical justification for such a treatment by the courts. I, too, would have the agencies articulate that at every possible forum, including the high courts of the land. Okay, let's get down to the hard work.

To really advance that position -- I am not sure how courts actually work, Don is obviously all over

thoughts about tying, and then, after a few minutes, specialize down to the subject of tying through technological design. In general, we all know that there is a problem, a challenge, in issues of monopolization, because the very same practices that have the potential to harm competition in the antitrust sense, frequently those very same practices also may be very good for consumers and, indeed, be an intrinsic part of competition, even though perhaps, like other forms of competition, if the succeeding firm undoes the market presence of the losers, then, in fact, competition can be weakened by the very process of competition, at least in the short run. So, we have this conflict between good and bad practices or practices that can be good or bad depending upon their setting, and so we have a tough decision process and theheir

particularly vulnerable in its underlying incentives. It is really distressingly easy to stultify the incentives for innovation by misuse of antitrust or by any other form, a policy that tends to strip off some of the rewards to victory, because innovation is so intrinsically risky as an economic activity, so we need to be really careful with innovation generally.

Big picture, how do we go about assessing monopolization? This is writ very large, but I would say there are two basic phases. The first involves asking the question whether the challenged practice has actually harmed competition, or on the come, is there a dangerous probability that it will? That, of course, is easy to say. It is not so easy to analyze, and lots and lots and lots of mistakes are made in judicial settings, and plaintiffs are crazy in terms of their allegations frequently.

This involves causality. It involves understanding what is competition. It is not just market share, it is not just the number of competitors involved in a marketplace, it is something more subtle than that. We, in this room, probably all understand this very well. I need not preach to you on the subject. I will just post it up there as the first of the two phases.

The second phase is, well, perhaps the challenged practice has, indeed, harmed competition. Things like that happen. Some competitors are more efficient than others, and they exercise their efficiency in the marketplace. They win, they knock out their less efficient rivals or rivals with less efficient products, and now there is only a few or even one left in that relevant market, at least for a while. What should we do about that? Has the practice been monopolizing or has it been successfully competitive? What is the framework for that inquiry?

I list here five different articulations which are part of what Mark characterized as the blazing wars of Section 2 turf today, various articulations to me. For present purposes, I think they are all close enough.

Is the practice part of competition? I like to put it that way. As DOJ says, does the practice make economic sense? The difference between those two -- I have parsed Greg Werden's writings, and it is tough to find them, but his writing is very smart. I am sure there is a difference, but for present purposes...

Is there a sound business rationale? Courts used to say that. Is that really any different? Grinnell, is the harm to competition willful? Well, I am a little nervous about that language, because

sometimes it is viewed as a directive for a psychological study of subjective intent, reading of locker room type business documents and trying to infer psychology from them, but as long as we understand willfulness to be revealed only by careful economic analysis, then I think that, too, is a nearly equivalent articulation.

And then my personal favorite, whether there is sacrifice of profit, turns out to be a very nuanced way to say it as well. Lots of issues srwj1tst.,pInpack 6 ar

impelled, really strongly forced, to buy the tying good, the one that purportedly has this levering power, and thus, the tied good, because of the tie, by market power that surrounds either the tying good itself or the system, the combination of the tied good along with the tying good. Are the market forces so strong that, indeed, consumers are pushed very hard into that behavior? Because if not, where is the tie? It is just consumers making a choice. So, that is the first leg, at least to an economist, this economist, for labeling whether or not the tie has the potential of harming competition.

That is not enough, though. Consumers can be impelled to buy the system whether or not there is a resulting harm to the ability of rivals in some relevant market to compete in view of the fact that consumers are being pushed to buy the tying and the tied good together. So, does the unavailability of the tied sales, that unavailability created by the tie, is that harmful to rivals' ability to compete, and are those rivals so precious and so unreplaceable to competition in some relevant market that competition is truly harmed as a result?

That question can go either way, but I think it is the right question, and I have seen a lot of cases

In a more particular way, we have a challenged tie. Would that challenged tie be profitable without taking into account this harm to competition and its impact on monopoly power that has been found in the first phase? We have found, say, that tying has harmed competition. Would the tie have been profitable for the perpetrator even without that extra monopoly power? I think that is a good organizing question before moving on.

So, let's move on. Here we are now finally in the setting of tying via technology, via product design, and let me paint what for me is the toughest scenario. It is the most interesting scenario, where we actually do have a plausible allegation of exclusion through the technological tie. So, we have got a new product design that has been launched, and it technologically ties two components together of a system, of a duo, that could conceivably otherwise be open without the technological tie.

If there are two pills tied together chemically, that is a great example. It is the old local phone system and long distance when the Bell System was in charge before antitrust. It is a much more lurid example of Microsoft. Imagine if Windows had little explosive devices where if you tried to plug NetScap

into it, the computer would fry. I mean, some alleged that was the case, but usually they forgot to do some sequencing keypunches that allow it to happen, depending on which side of Microsoft you are on, but that would have been a much more telling example of a technological tie.

How about the iPod, which are said to be technologically tied to iTunes, through the protocol in which the music is encoded and now the video as well? That is certainly a technological tie, or at least it is alleged to be in some sense.

In the good old days, remember mainframe computers? They had their plugs changed, allegedly, so only IBM peripherals could plug into the mainframes. That was surely a technological tie. To say nothing of the radios in GM cars and so on.

Okay, so as a result of this product design, the two components, one of which at least has real potentially competitive marketplace forces bearing on it, these two components are tied because of the product design. So, what could possibly be anticompetitive about that?

Well, suppose that they are rivals for at least one of those components. There is NetScape as a browser, there are other web sites where you can go to

get music, but that music does not go into the iPod. There are other places to go for pills that have some of the same therapeutic functions, not exactly the same, but surely substitutes. So, these rivals of the other competitive entrants into this marketplace are shut out of the system by the technological tie.

Now, there are two lead theories of how that might create market power. The sellers of these other potentially competitive components have a much reduced ability to sell in the bad story. They lose economies of scale, they lose the impetus for R&D, and so they have a harder time competing for other applications of those same kinds of components.

One of the applications is the kind that is subject to the tie, but there are non-coincident markets, not implicated directly by the tie, in which the NetScape alike has been competitively harmed by the inability of NetScape to be appealing to those who are running Windows in the Microsoft story.

The other version of that story is that there is the potential for harm to competition in the market for the bottleneck, for the tying good. In Microsoft, the story, the DOJ economist's story anyway, as I understood it, was that with NetScape together with Java could form a competitive threat to Windows itself, so that to

preserve the power over the bottleneck, Microsoft is said to have needed to weaken its potential rival in the potentially competitive browser market to preserve its power in the market in which it has much of a bottleneck. So, there is a competitive threat at both levels which might be mitigated, protecting monopoly power, by the technological harm.

Well, that is the bad story, but on the other hand, we are talking about product design. We are talking about innovation, and, of course, we might well have a welfare-increasing innovation in our hands, and how are we to sort out whether the innovation is largely welfare-enhancing as an innovation or whether, instead, it is just a ruse, it is just a business tactic to preserve or create monopoly power?

I have got a theorem or two for you. It is set in this picture. This picture has a long heritage in my life, but I need not go into that. My introduction was embarrassing enough about dates and years. A1 is the bottleneck that belongs to firm 1. It is the lever off of which the tying might go. A2 is the component that serves the ancillary function, the browser as it were, made by the same firm. So, firm A has a 1 and a 2.

B2 is the other firm's substitute for the product which is here tied. It is NetScape, it is the

other browser. NetScape could work with Windows, if you take Windows to be A1, so the horizontal line between them shows that they interoperate. They both feed into the systems market, which is what consumers want. They want systems. They want combinations of the operating system and the browser.

Meanwhile, C1 is lurking up there in the right, that is Java. When Java works together with NetScape it has the potential for actually performing the same functionality or maybe a degraded version, as would Windows with Explorer or Windows and NetScape. So, that is the story without the tie. Everybody interoperates, there may be some degradation of function, there are pricing issues, but that is the world without the technological tie.

Now, in the bottom part of the picture, along comes a new version of the operating system, A1 prime, a new version of the browser, A2 prime, they work together, but you know what, there are no APIs at all. There is no way that your NetScape can interoperate with them. There is a true technological tie here depicted on the picture. As the bottleneck holder moves from the upper system to the lower one, it implements the perfect technological tie, thereby shutting out B2.

The bad stories are that B2 has to go out of

business, it is so weakened by the inability to sell, and so if it had any other uses, like on servers, forget it, it is going to have to leave the entire space, it loses the economies of scale and scope, and then Java, C1, has got no partner to play with, so it evolves in an entirely different direction. It is no longer a candidate for the central part of a desktop operating system. It also goes off into server land, and the new Windows survives as the undisputed champion, delivered into that throne by the technological tie. So, it is the same story, but now it is on this picture, where we can start putting symbols for pricing and costs and things like that.

I need to define a thought for you, the compensatory price. Just imagine that the open design bottleneck persisted even when the new system came out. The new system comes out. It is technologically tied, but imagine that the old open design system is still out there. This is just a mental exercise. Imagine it is still out there, and it is made available to consumers as well as to competitors at a compensatory price. If it is just out there and priced at an infinitely high level, it is not really a competitive force.

Some court might rule that it had to be given away, but that would not be a marketplace solution. A

compensatory price, by definition, puts the same profit margin on the use of the open access bottleneck, the same profit margin as the new system earns. The new system is the one with the tie. So, your perpetrator comes out with a tie, charges a lot for it, and that margin is now built into a compensatory price for the old open design system.

The theorem is that when the open design bottleneck system is still available in the market at this high compensatory price that builds in the same profit margin, then the technological tie, the new system's introduction, eliminates the competitors if and only if the new closed system is actually socially superior to the open one, and here I wrote, "Ex-post, the R&D costs," the next slide -- and I am running out of patience and so are you for this -- the next slide will also talk about the R&D costs and reach essentially the same result.

So, what does this say? This says that if you had a world where the open design system were still there, priced in the same high-priced way as the new system, then the marketplace would work, that the competitors would be knocked out if and only if they deserved to be knocked out on grounds of true total social welfare, that the new system is worth the R&D

costs, it has improved functionality, it has better costs perhaps or some balance of all of those elements, sufficient to make it better for true social welfare as economists measure it than the old system, so that this innovation is not just a hokey thing designed just to knock out the competitors under the ruse of somehow coming out with something new.

It is not newness for its own sake, it is not

technological tie and the competitors are knocked out, the theorem would say, you really should not be coming down on that kind of innovation, because according to the theorem, that is good innovation, as proven by the continued availability of the old system at a fair price.

Now, oftentimes the old system cannot or will not be left in place, although this kind of raises the question of why not, and maybe if this were part of the antitrust standard, that would be an impetus for companies to take some pains to keep the old systems alive. Maybe not. It does tell us, though, what the right standard is for this economic framework. If the open system is not preserved, we still have a mental standard, a but-for test, which is well adapted to technological tying for assessing whether we should condemn or smile upon the win in the marketplace by the new system.

That standard is whether the competitors would still be going down, still be losing, if, in the but-for world, they would not be successful, and here the but-for world is the continued availability of the open design system, the alternative, at this fairly high compensatory price that builds in the full profit margin earned by the new system, that if you want to know

whether or not we have an offense here or not, ask yourself the question, would the competitors have been beat anyway even if they had access to an open design version at a compensatory price?

This question was not asked in Microsoft. It is not asked in Microsoft today in Europe. I do not know what the answer would be, I am not a partisan in those debates, but the theorems say that is the right question to ask. That is a good standard. Just like marginal cost is a good standard for Areeda-Turner, this is a good standard when it comes to technological tying in the role of exclusion accomplished through that kind of a tie.

There are a bunch of caveats. The first caveat is, how do you know whether the R&D costs that were expected at the time of the decision by the technological tyer, how do you know what those really were? If they were very low, then that makes the system look better in terms of the standard. If they were expected to be higher than the skies, then it goes the other way. Part of what the fact-finder needs to do is assess the expected R&D costs as we get deep into this phase of the antitrust analysis. Obviously a tough task for the fact-finder.

How can the fact-finder do this but-for test?

Well, at least it is an organized test, the theorem tells you what to look for, but this is not necessarily an easy job for a judge and a jury in an antitrust court, to do this kind of but-for test. If you do not have this kind of a structured standard, how is the fact-finder going to in some other way decide whether the new system is really good or not? Talk about keeping science out of the antitrust case, this is science and consumer preference rolled together. How good is the innovation? I would not trust a judge to make that answer without an economic framework.

On the economic side, the theorems, which I think are really very powerful, they are in a very oversimplified setting, as usual, but maybe even more than normal. This setting, in which these theorems are proved, is a setting in which there are no other issues whatsoever for social welfare besides the ones that the theorems focus on, namely, the possibility of monopolization through the technological tie. All other economic imperfections have been ruled out by the design of the abstract marketplace. And we know from common sense and from economics that in marketplaces where innovation is important, there are typically all kinds of other things that can go wrong, ambiguous externalities, inappropriability of benefits of

innovation on the one side of the ledger and negative externalities conveyed by the innovator on others who are competing with the innovator in the market, lost profits to other market participants.

On the one hand, you get too little innovation because of inappropriability issues, or you get too much innovation because of negative profit externalities, and in most economic models, the ones that I teach in my classes, it is thoroughly ambiguous whether innovation comes out just right even without antitrust issues, and all of those kinds of complications must be ruled out to get these neat results that our theorems get. Which way that biases the answer is decades away from my students and yours being able to figure out, and maybe never is the right answer. I mean, in a model you can figure it out, but how the model corresponds to reality is far beyond the state of the art.

So, what did we learn from all of this other than the fact that you are very kind and patient? One additional lesson is that as a matter of economic logic, technological tying is real. It is a real possibility on the blackboard, in the journals, and there they may be very genuine, even strong incentives to do technological tying for anticompetitive reasons, but also for a long list of procompetitive reasons, the same

kinds of reasons we heard about from earlier panelists, as well as a host of other ones arising just because it is innovation, and so, yeah, you cannot just say, oh, it does not happen or it cannot happen as a matter of logic. It can happen, it may happen, and on the other hand, technological tying may be a very, very good thing in many settings.

The second point, which is newer and I really hope that you believe a little bit, is that there are logical and intuitive tests and, indeed, standards for analysis that would allow us to assess product design for monopolization by a tie-in. This is the kind of test that I was just talking about, the but-for being open standard with compensatory pricing. These are not easy to apply. They do organize the mind, but they are hard to apply empirically, especially in a litigation setting, and so great humility is certainly called for in this area.

Well, if we combine humility, due humility, with how delicate and important innovation really is, we reach the same policy bottom line that everybody else has reached, certainly no per se treatment, my goodness, but even more so in the world of rule of reason, we need to protect innovation as a process from being stultified by litigation with very, very strict and very demanding

hurdles in front of litigation which must impose a tough discipline on the use of antitrust in this area, both by private parties and by the agencies, and that goes largely, I think, to the first part of the test, that there really has to be demonstrated harm to competition in a relevant market through the technological tie. It has got to be causal, and taking that part of the test very seriously alone would knock down most of the cases that I have been exposed to.

So, that is my plea, and I thank you.

(Applause.)

MR. SALINGER: Well, we are now going to give each of the panelists a chance to respond to the others. I do not know how long Professor Feldman is going to be with us, but since there seems to be perhaps some disagreement between you and Bobby on your --

DR. WILLIG: You think?

MR. SALINGER: -- on your take on how to deal with technologically advanced markets, maybe we will start with you.

PROFESSOR FELDMAN: Well, let me start with, again, what we agree on, which is that we knock out per se, and I would not disagree about the importance of the harm to competition element. I begin by assuming that we are in something like a rule of reason setting in

fair amount of agreement here. I think technological ties can be useful. I am wary of them, and I think we have to be careful of them in certain settings that already look anticompetitive to begin with.

DR. WILLIG: How could I disagree?

We agree on the logical possibility of technological tying. We agree on the importance of

of the attorneys on the panel to see whether they have heard enough agreement that they feel confident they can go into court with good arguments about how to distinguish procompetitive from anticompetitive ties.

MR. RUSSELL: I would like to jump in with a question for Professor Feldman about this concept of specificity when it is applied to the procompetitive explanation, and I may have misunderstood what you were saying, but if I were a lawyer on the other side, the way I would characterize your position is the fact that a particular kind of efficiency is seen so often in so many products and is so powerful, which is the natural inference I draw from the fact that it is seen so often in so many products, for that reason, you are completely disregarding it.

PROFESSOR FELDMAN: I understand your concern about that, and maybe I can frame it again by looking at the point at which this inquiry comes up. We are already at a point where we have a monopolized tying product. We already are at a point where we have established that there is harm to competition. Now we are looking at the reasons for that, and I think that the concerns you have can be taken care of in the first two.

What I am concerned about is when we get to this

including competition for the market and ultimately having a monopoly and having a monopoly despite what you said, Robin, that we actually do not want to have its power eroded, at least so long as it is efficient.

The second thing I get confused about and do not really understand is this sequence where we talk about harm to competition and then say, "Oh, gee, then let's take a look and see whether there are efficiency benefits that offset that harm to competition." I mean, it seems to me that ultimately the inquiry is whether there is a harm to long-run consumer welfare, and I do not really understand the unbundling of the efficiency explanation for the practice and this term "harm to competition."

I mean, if I think about markets, I would think that the whole issue of why one engages in a technological tie or any other kind of tying practice has to be sort of an integrated aspect of the whole discussion of whether there is "harm to competition," s3of there is "harm to competition,"

DR. WILLIG: Yes, indeed.

MR. EVANS: But it does seem to lead to a relatively unstructured rule of reason inquiry, and I really do think, as I think many of the speakers have pointed out, that we need to start with a position on where we are in terms of priors concerning where the timing is bad and error cost and so forth, and we need to start with that, and maybe you disagree that -- that anticompetitive tying is uncommon, in which case you can state that as a prior and go forward, but it seems to me you need to start with a position before we can really get into conversations on who ought to bear the purpose and stuff like that.

So, I do not see how at the end of the day we can impose the burden of proof on a defendant for establishing efficiencies, as Don says, for a practice that we know is presumptively efficient. It does not make any sense to me.

MR. SALINGER: Michael, David in his talk talked about how he was largely agreeing with you. Is there complete agreement among the economists or is there more of a wedge there than just --

DR. WILLIG: Not anymore.

DR. WALDMAN: Well, listening to David's response, I basically agree with almost everything he

said. I agree that if I am thinking -- I do not think the right thing to think about is harm to competition. I think the right thing to think about is social welfare. There are lots of examples that one could come -- sort of formal models that one can show where thinking about tying as eliminating competition is actually social welfare improving.

So, if you wind up focusing too much on the harm to competition, you will wind up allowing or eliminating tying when, in fact, you really would not want that, because in some sense there is sort of a larger competition ex ante or something else which says that the competitive process, thought of more generally, that particular submarket where you are not allowing competition is actually a good thing rather than a bad thing.

Also, you know, I am not sure David exactly specified this, but, you know, so I think consistent with what he is saying, you know, when I think about kind of how do I judge these cases, I want to say let's think about the different theories in some of these situations you can automatically almost rule out as saying, well, that looks okay, it is efficiency or it is price discrimination, and at least as a first blush, and I do not do court cases, but I would have thought that

a little leeway in the joints and have the rule of reason apply, which is in some sense less of a burden on the plaintiff, or is it going to be a category of ties where we think intervention potentially carries such high costs, and for some that is product design, I think there are some arguments there that would require more of a showing from the plaintiff to go forward, maybe a profit sacrifice, maybe something else, and, indeed, taking that to an extreme, might there be categories of tie-ins where you really have a safe harbor absent a very strong showing for the plaintiff? That seems to me the type of thinking that needs to occur.

MR. SALINGER: Okay, well, now that we have found some daylight within us, as we organize these hearings, we have tried to see whether or not there are agreements on various propositions and disagreements on various propositions, and we have a set of these for the panelists to comment on, so I will turn the mike over to June to lead us in that discussion.

MS. LEE: Before I start, let me give Bobby a chance to respond to some of the comments.

DR. WILLIG: Oh, thank you.

Well, first of all, I was only invited to comment on Robin, and I had no problem with Robin, but these other folks, I just... .

MS. LEE: Please.

DR. WILLIG: Well, first of all, I do not know if we can go off the record here or expunge the record, but if the Supreme Court ever heard the things that have been said in the last ten minutes, there is no way we are going to get off the per se standard. I mean, if all these learned people cannot figure out rule of reason or even what harm to competition is, then I think we are going to be stuck with the per se test for another generation. So, can we go into private session so the Justices cannot hear us? I am just kidding, of course. I think we actually know a lot more than the last ten minutes has suggested.

Well, let me pose to Michael and David and I guess Mark, too -- and, Robin, you are free of this mistake, I would say --

PROFESSOR FELDMAN: It is the only one I am free of.

DR. WILLIG: No, that is okay.

The hard case, I agree with all of us who have said that price discrimination ought to be very, very presumptively innocent for a wide variety of deep economic reasons as well as just commonplace observations that the most competitive of industries are full of instances of price discrimination, at least one

of us has written that it is parador superior (ph) to have price discrimination and so forth. Price discrimination is basically a good thing. There are counter-examples, but we do not know how to spot them. So, we certainly ought to be allowing business the freedom to do price discrimination. And we all understand that a very important function of lots of

with those cases? Do we say the jury or the judge ought to weigh the pluses and the minus and be a meter of consumer welfare? Is the innovation permitted and motivated by the price discrimination? Together with the benefits of price discrimination, together -- sufficiently a plus that the harm to consumers in the longer run from the loss of these important competitors does not outweigh it? Do we have a consumer welfare meter? Do we know how to do that? Do we trust ourselves, no less judges and juries, to do that? That is one possibility, quote, "the consumer welfare standard," Mark.

The other possibility is that we say, look, there is a legitimate rationale, namely, the price discrimination and the innovation. Yeah, you cannot make an omelet without breaking eggs, competition has losers, successful products do raise some legitimate monopoly power for a while, and we have got to let the

DR. WILLIG: No, just the first paragraph and the like. A hundred pages of footnotes, Mark, I cannot do it.

MR. POPOFSKY: And none of them cited you, I think we have pointed out.

DR. WILLIG: That was the point.

MR. POPOFSKY: Nothing from 25 years ago. I think to try to answer your question, Bobby -- since you put the pitch right over the plate, let me see if I can hit it over second base.

As the hypothetical in my article implied, which is close to yours, there is a very sympathetic case there that the Microsoft Court of Appeals vague rule of reason standard is the last thing you want courts and juries to be doing in a case like that in some vague way, and the way Professor Salop somewhat suggests in his articles, reckoning up the social costs today against the social benefits tomorrow, you take that logic to the extreme, you would have courts regulating significant aspects of the economy. That cannot be what the rule of reason is all about.

So, in devising the right legal rule -- and I am not sure what it is, to be honest, to answer your precise hypothetical -- you want to perhaps take into account what would be the detrimental impact of

innovation on intervention, and that might mean you structure the rule of reason differently, it might mean you go to the profit sacrifice test, but you certainly do not want what you painted as the boogeyman of juries just saying, what is the net contribution to social welfare of this conduct? That cannot be what we are doing.

DR. WILLIG: We can quote you on that?

MR. POPOFSKY: Oh, yeah. It is on the record now.

DR. WILLIG: Okay.

PROFESSOR FELDMAN: May I point out what is one other point of agreement among the panelists. In addition to the notion that per se is not the way to go, an open-ended rule of reason also is not where we should go. There must be some type of structure in the rule of reason for the benefit of all the parties involved. Are

stifling competition and therefore are unreasonable per se. I do not think anyone on the panel agrees with this, but please correct me if I am wrong.

Okay, so let me flip this question a little bit. Does anyone on the panel think that tying should be per se legal?

(No response.)

Okay. Then let me just -- backing down from that a little bit, are there any tying arrangements that are always or nearly always procompetitive and thus appropriate candidates for a safe harbor?

Bobby and some others discussed a little bit that tying for price discrimination reasons should not be illegal.

MR. EVANS: But then he backed away from that.

MS. LEE: Yes, so --

DR. WILLIG: Yeah, because I think typically it is hard to separate.

MS. LEE: Right.

DR. WILLIG: -- the enabling of price discrimination from the exclusion. I penciled on my notepad that tying arrangements are nearly always procompetitive where there are ample choices available to consumers among alternatives, both at the level of the tying good and at the level of the entire system of

tying tied to the tied good, i.e., if there are other operating systems and browsers or other MP3 players and MP3 formats, if there are system alternatives available in ample supply, then within that framework, I think we should have per se legality.

MS. LEE: Okay. Does anyone else have categories for which they would say that tying should be per se legal? Don?

MR. RUSSELL: I just want to ask a follow-up question for Bobby. When you say there are alternatives, are you saying there is no market power or is that different?

DR. WILLIG: No, ample, ample alternatives.

MR. RUSSELL: But is it basically a market power test that you are advocating there?

DR. WILLIG: Well, we gave up perfect competition a long time ago, but, you know, workably competitive set of alternatives, if you will.

MR. POPOFSKY: No power of antitrust concern, Bobby?

DR. WILLIG: No?

MR. POPOFSKY: Power of antitrust concern?

DR. WILLIG: That is in the eye of the beholder, Mark, yeah.

MS. LEE: David, did you have a comment?

MR. EVANS: Yeah, well, I think what we have just -- I think what Bobby just said is that where there is not significant market power, that ought to be per se legal. I think that the debate in question, I think this is one of the questions you ask later, is what exactly does that mean?

I am not exactly sure what the answer to that is from the state of the theory and empirical evidence at

are procompetitive. Does everyone agree with that?

PROFESSOR FELDMAN: I would not agree that most ties are procompetitive. I would not fall into that, certainly not -- not in the industries or areas that I have talked about. I certainly believe that there are many procompetitive thatm.80000 .muld not fall into that,

both technological and contractual, in our economy that do impel purchasers to buy two products together are procompetitive. So, it is not just antitrust, and it is -- it does not comment on whether the tie is artificial or not, which some of this discussion has suggested, just empirically, looking out at all arrangements, both technological, things just put together, and contractual, that impel, not force, but do result in purchasers actually buying two products together, that in that domain we are apt to see procompetitive effects rather than anticompetitive ones.

DR. WALDMAN: I would certainly agree with that.

MR. RUSSELL: Yes.

MR. EVANS: Yes.

MS. LEE: Robin?

PROFESSOR FELDMAN: I'm afraid I will stay as the stick in the mud here. I can follow all of that language with all of the caveats we put in place as we discuss it. I can imagine that language taken out of context in which suddenly the conclusion becomes that tying is always procompetitive. Then, if tying is a good thing, what are the antitrust agencies doing looking at tying at all? That is the pendulum swing that I am very worried about.

So, when the economists are all here placing

often have very unique characteristics that make them very different from other arrangements, even at the same time that you could look at some aspects of them and say they are very similar. So, I think that is a very fuzzy concept for me at least.

MS. LEE: Mike Waldman, do you have anything?

DR. WALDMAN: Well, I think it is evidence, but I think it is not definitive evidence, so it is one thing that you could weigh in terms of trying to make a decision as to whether it is procompetitive or anticompetitive.

DR. WILLIG: I think it is useful evidence, but it needs to be probed for all the elements that might or might not make the two circumstances the same or different.

MS. LEE: Okay, let's move on to the next one.

The time has come to abandon the per se label and refocus the inquiry on the adverse economic effects, and the potential economic benefits, that the tie may have.

And everyone I believe agrees with this, but please let me know if you do not.

(No response.)

MS. LEE: Okay, I am going to take that as agreement.

and something that we need to use and need to use better.

I would also, though, like to make a pitch, which some may disagree with, that it is sometimes equally useful to look at intent, not in a sense of, well, they wanted to take customers away from a competitor, which I think is completely meaningless in antitrust terms, but more in the situation, as an example that Robin has given, if you look at the timing when a tie was first introduced, if you look at the documents within the company explaining why they were adopting the tie at that point in time, I think that will often give you a very useful indicator whether they are doing this for beneficial reasons or whether they are doing it for anticompetitive reasons.

MS. LEE: What about the situation in which we do not have a preexisting theory that nicely fits the facts? Do we have the economic tools necessary to determine whether or not a given situation is pro or anticompetitive?

DR. WILLIG: Oh, we could make up new theories at the drop of a hat. It is putting them to the facts that is trickier.

PROFESSOR FELDMAN: I do not know whether this is where the question is going, but there are some

suggestions in the legal literature that we have to take hands off approach because economics is not clear enough or does not give us tools that we can apply in the judicial setting. In other words, we should be doing

dissenting in Kodak, a tying case in part, back in 1993, where he said practices normal or ubiquitous in competitive markets can take on an exclusionary hue when practiced by a monopolist, and that comment has always

undoubtedly be clients that would come to you who probably do have market power, who probably are trying to force customers to take two distinct products, and I think that the answer to your question -- that Bobby will forgive me for stating this out loud -- we do not have those answers today because we have been living under this bizarre per se rule of law for so many years.

So, in terms of the legal answer to that question, I think at this point it is very hard to say other than the very general concept of the rule of reason that is out there and the kinds of factors that you would look at in any rule of reason case, but over time, quite likely, I think refinements of that will bet over

DR. WILLIG: Right, it is not an element of it. It may cause it indirectly, but it is not -- yes.

MR. EVANS: Putting aside my previous qualification that I do not think you have adequately addressed on harm to competition, yes, I agree with that.

MS. LEE: Anyone else?

DR. WILLIG: Well, don't be silent, members of the panel. Let's all agree on this.

MS. LEE: Mike, do you have anything to say?

DR. WALDMAN: Despite my setting antitrust policy back ten years, I still think that harm to competition is not the right way to think about it, so I am a little fuzzy on an answer to which I do not think is a relevant question.

MR. EVANS: And in terms of -- since Michael just teed that up, I did not take that as my mandate in answering your question, but since you have teed up, you know, the use of the merger guidelines framework for thinking about harm to competition, I do not actually think for Section 2 that is how the courts do or should think about things. I mean, we allow monopolies, we allow them to do things that raise prices, we want them to do all sorts of things, and I am not sure that I would want to import a merger guidelines framework into

Section 2, but --

DR. WILLIG: Well, we allow harm to competition. The question is, do we know it when we see it?

MR. EVANS: Yeah, that is the question.

DR. WILLIG: That is the question.

MS. LEE: That is indeed the question.

MR. EVANS: Yep.

MS. LEE: Can we skip to page 9, Brandon?

Antitrust law should treat ties where the tied product is used in variable proportions and ties where the tied product is used in fixed proportions with the tying product differently.

Should the law make such a distinction? So, essentially when we are talking about tied products used in variable proportions, talking about instances such as metering, such as the issue in Independent Ink, examples of fixed proportions tying include Jefferson Parish and Microsoft.

Mark, do you have any thoughts on this?

MR. POPOFSKY: You know, I think we are still at a point where, you know, one could argue there is no reason for differentiating under either the rule of reason or the applicable Section 2 test between them, but plaintiff is going to need a story of that magic thing called harm to competition. It does not seem to

me that whether the story makes sense is something that is cognizable, something that really sheds light on what is going to happen with the practice depends on what type of tie it is.

As Bobby suggested, at the outset, you can imagine stories of variable proportion ties, where there is some anticompetitive aspect to it, and certainly you can imagine fixed proportion ties which are competitively benign.

MS. LEE: Robin, I know you have to go shortly. Do you have any comments?

PROFESSOR FELDMAN: I do not have anything to add to what Mark said.

MS. LEE: Michael?

DR. WALDMAN: I mean, I think there is a distinction in the sense that the set of theories that apply are different, and so one has to be careful in that sense. So, from a -- the variable proportions case, there is the efficiency issues concerning monopoly, something to competition, trying to use tying to avoid these inefficiencies, on the other hand, there is price discrimination arguments, and that is only going to apply in the variable proportions case, not the fixed proportions case.

So, as long as there is a clear understanding

that these two different types lead into different theories, and so you want to be sort of focusing on the relevant theory, then I think that is really the issue in terms of thinking about those two different types.

DR. WILLIG: Yeah, I would much rather, if we are going to try to endorse the proposition, substitute for variable proportions the idea of price discrimination as a cause and motivation of the tie. Think about the radio, the prototypical radio in the automobile case. There is only one radio. You would be crazy to have two radios.

But on the other hand, you could have a radio and CD player and MP3 player and super base speakers, or just the very simple stripped-down radio, with or without satellite. That is still economically variable proportions, but would the law recognize it if that were the phrase that we were to go with? So, I think the idea of price discrimination as a concomitant of the tie would be the right way to structure this sort of proposition.

MR. SALINGER: If I can push you on that one, I think there is general agreement that the metering type of tying is often about price discrimination, but if you take the car and the radio example, that while the price discrimination might explain bundling, typically the

opportunities for price discrimination are greatest with mixed bundling, which would not be tying from a legal standpoint, and so you would -- if you observe tying, then at least if you are not careful about it, you might use the Ordover Willig type of test to say, look, therefore, go on your profit opportunity, it must be anticompetitive.

DR. WILLIG: You are saying an important part of the whole stratagem would be offering the car without anything, a hole in the dashboard, at all, that would make it even more effective to price discriminate.

MR. SALINGER: That is right.

DR. WILLIG: Well, that is a possibility, but I think it is arguable whether that is actually true or not.

MR. SALINGER: Well, Mike, do you disagree that in general the price discrimination argument pushes towards mixed bundling as distinct from tying?

DR. WALDMAN: I think that is right, but I am not -- I would have to go back and think about it some more. That is my best memory, but that is not something I reviewed right beforehand.

MS. LEE: Let's go to the next proposition. Antitrust law should treat contractual ties and technological ties differently.

PROFESSOR FELDMAN: Well, since I am about to head out the door, and I have already commented on this, let me just add one thought. I think there is a real problem in doing that given the state of technology in many of our industries. You drive behavior towards technological ties, you just encourage people to change their products in order to avoid enforcement. So, you distort choices, and you are not effectively catching the behavior that you want to catch. So, I think it is a problem for that reason. There are product design issues you have to deal with when you are talking about technological ties, but I would be very wary of something that says we focus only on contractual ties and not technological ties.

And as my last comment, I would like to point to the early 1900s. Treating contractual ties and technological ties differently is so close to the theory that the courts started out with, that is, antitrust enforcement only applies to contractually based behaviors and not to behaviors that are intellectual property based. That was such a disaster because suddenly everybody organized their affairs so that the anticompetitive behavior revolved around patents. Eventually the courts and Congress had to respond to that. I think we would be tempting the same kind of

behavioral changes now, a hundred years later.

Thank you for having me. I am so sorry that I have to leave, but I do need to get back to California, and I appreciate being included in this panel.

MS. LEE: Thank you for coming.

David, I under --

MR. EVANS: Yeah, so three quick comments. If you adopted the kind of structured rule of reason approach that I suggested with a high hurdle for plaintiffs, then no, I would not make technological ties different from contractual ties. I would have the same high standard for both of them. So, that is point number one.

Point number two, if you told me that the -- that it was going to be an unstructured rule of reason analysis but I had the possibility of making a distinction between technological ties and contractual ties, then yes, I think my prior would be that technological ties are even more likely to be anticompetitive and more likely to lead to errors than contractual ties, so then I would make a distinction.

But third, and this would be my caveat to that, I have not looked at these cases for a long -- for a while, but my impression of the technological tying cases is that you basically have courts that really do

see only bad. And the cases where it has basically been mixed, the defendant has won. And whether or not the legal rule is going to be a profit sacrifice, a structured rule of reason, I think that is really telling as a descriptive matter of when those ties get condemned.

MR. RUSSELL: My view is that what Mark just described is almost inevitable, because I think judges feel quite comfortable in saying we will not let you enforce this contract. They feel extraordinarily uncomfortable in saying you should have designed a product that would -- they feel perfectly qualified to do one and completely unqualified to do the other, and I think the difference that is perceived by most courts and judges is not so great in reality as what they are perceiving, but I think inevitably they will perceive that, and they will treat them differently, whether they articulate a formal rule for doing so or not.

MS. LEE: Bobby?

DR. WILLIG: Thank you.

I think at bottom the intellectual framework for judging both can be the same, but I think the facts will inevitably come in somewhat differently, because in part, along with a technological tie comes a product design decision which is far more apt to have an

efficiency rationale or excuse attached to it as opposed to lawyers saying, oh, I just had to write the contract that way, and inevitably there is more efficiencies that the court has to deal with, and I think that is part of what Mark was just saying.

Also, from the point of view of social policy, I think there is more at stake, because I do think innovation is more delicate or more vulnerable to suppressing it than we are to a suppression of the writing of complex tying contracts, and so it is right to give more respect to the implementation of the tie through product design.

But I do want to say that the right intellectual framework will give us the ability to avoid the abuse of the respect given to innovation, the false product design. It may be a little bit new, but still the main point is to exclude. In the situation like that, the test that I have suggested, and I think we are all pretty much on the same page with trying to uncover that kind of innovation, that we should proceed right to a

Exclusive dealing is a rule of reason offense, requiring a plaintiff to show that the defendant has significant market power, the exclusivity arrangement serves to deny market access to one or more significant

DR. WILLIG: -- the part that says the exclusivity arrangement serves to deny market access to one or more significant rivals. As long as the second part of that sentence is really treated very seriously and endemically, then I am feeling somewhat comfortable about it, but just denying market access itself does not strike me as anticompetitive or as creating harm to competition, but if it does, then -- excuse the phrase, gentlemen -- but there is harm to competition, if as a result of the denial of access competition is harmed, the sign of that is output is lower and/or price is higher, and so we are definitely in the framework of having found that there is a problem.

We are still, then, looking at the next step, which is to decide whether the process is essentially a competitive one or is it an anticompetitive one. So, we are not done. But I guess that is what Hovenkamp has in mind here.

MS. LEE: Don, do you have any reaction to the statement?

MR. RUSSELL: I agree with the statement.

MS. LEE: Okay. Anyone else?

(No response.)

MS. LEE: Okay.

MR. SALINGER: I mean, just to follow up a

little bit, I mean, what the statement seems to be saying is that tying should be treated comparably to exclusive dealing. One might argue that exclusive dealing is a more problematic practice from an antitrust standpoint. So, is there agreement here that tying is at least as problematic a practice as exclusive dealing?

DR. WILLIG: No.

MR. EVANS: No.

DR. WALDMAN: I do not necessarily see it that way. It is a question of is the evidence there, is the price going to be higher, is the output going to be lower? So, it could be the case that it is less problematic because it is less likely to cause the price to go up and supply to go down, but that the test is still the same. So, I think you want to be a little careful in terms of kind of that sort of analogy, the way you are flushing out the analogy.

MR. POPOFSKY: One further comment on that, Michael. In all these vertical restraint cases, these labels, exclusive dealing, tying, bundled discounts, they are all imperfect ways of describing what Barry Nalebuff has described as a unitary phenomena where you are just changing it slightly. So, I think we want to be a little careful in saying one is inherently more problematic than another, one is more benign than the

is just this stuff out there and we just need to look at competitive effects and that is what we should do, I think that is problematic because that kind of puts us back into this rule of reason stew where, you know, everything just goes into it, and we think that juries will come out with the best result.

So, I think we actually do need to pay attention to the kinds of practices, make some progress with the economics, come up with some priors and some understanding of what the rules should be, recognizing that Mark is right, that there is going to be some substitution if we have different standards in different

concluding. Anyone? Bobby, you do not want the last word?

DR. WILLIG: Oh, I would like the last word. I am still worried about the Hovenkamp --

MR. EVANS: Could I suggest you not go first if you want the last word?

DR. WILLIG: Oh, I see what you mean. I would like to hear your reaction.

It does sound in the Hovenkamp proposition like there is an engagement of a consumer welfare meter. It reminds me of the situation which is simpler but still maybe imponderable to us, a competitor innovates, is very successful, the innovation knocks out competitors, so a year later, the competitors are gone because they have been beat by the innovator, whereupon the monopolist really has the monopoly position, at least for a while, until the next generation of competitors come along.

We honor the process. We like innovation. If we compare consumer welfare before the innovation to consumer welfare a year later, after the competitors are gone, it could be that prices are up and output is down, although that happened through a process that we basically honor and we expect another few years will go by and the world will be a better place. That is a very

real sort of scenario, I think, and I think applying the consumer welfare meter to that situation would be telling us wrongly that innovation is destructive.

I am kind of worried that when we are talking about Section 2 and all of these kinds of practices, exclusive dealing and/or tying, that the Hovenkamp formulation would be condemning the process, and I think in a way that would be unfortunate for antitrust.

What do you think?

MR. POPOFSKY: Well, I am going to go next, because one of the great things about hiring Bobby as an expert, which I have, is I can go after him and not give him the last word.

DR. WILLIG: Redirect, recross?

MR. POPOFSKY: Your concern is well founded, Bobby, why don't courts condemn monopoly pricing? After all, a court could argue we are better off having lower prices today even if it deters innovation tomorrow. There are in the law safe harbors. There are in the law ways of structuring the analysis, whether it is structured rule of reason, Ordover-Willig or other things, that will filter out, at least in my view, the most troubling scenarios, such as designing the better mousetrap being found anticompetitive, something we should not have done, and the challenge is to really, in

a particularized way, as David Evans was suggesting, to figure out what those are.

DR. WILLIG: Well, let's do it.

MR. POPOFSKY: The next panel.

DR. WILLIG: Oh.

MS. LEE: Anyone else? Yes?

DR. WALDMAN: I actually want to go back to something David was saying I think similar to what I have said, which is in terms of the case, I think what is very important is not to just have an existence group that some smart economist sat somewhere and came up with a theory that this sort of matches on the surface. I think that really, given the prevalence of efficient tying, I think you really want to make sure that the facts of the case fit the theory. Otherwise, you are likely to make lots of mistakes, and I think that when you go to a rule of reason approach, that is really something that needs to be emphasized.

MR. EVANS: I will just make one sort of technical comment, which probably is not a good way to end my discussion, but we have kind of gone back and forth in the discussion between consumer welfare and total welfare, and probably for this area and lots of other areas in Section 2, I mean, it really makes a difference whether you are talking about consumer

welfare or total welfare, and it also makes a difference in whether you are talking to economists, because, Michael, you are probably in a better position to tell me whether this is true or not, but my sense is that almost all the theories talked about social welfare, and the courts talk about consumer welfare, and the connection between the social welfare results and the theory and the consumer welfare results that the courts presumably care about are not quite as tight as we might like them.

So, maybe another panel someday, another topic ought to be should there be a total welfare standard instead of a consumer welfare standard? It would make it easier for the economists.

MS. LEE: Please join me in thanking our panelists for their presentations and our discussion.

(Applause.)

(Whereupon, at 12:56 p.m., the hearing was concluded.)

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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: 11/21/2006

SUSANNE BERGLING, RMR-CLR

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