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SHERMAN ACT SECTION 2 JOINT HEARING

UNDERSTANDING SINGLE-FIRM BEHAVIOR:

LOYALTY DISCOUNTS SESSION

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and

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PANELISTS:

Morning Session:

Joseph Kattan

Thomas Lambert

Barry Nalebuff

David Sibley

Afternoon Session:

Daniel A. Crane

Timothy J. Muris

Janusz Ordover

Willard K. Tom

C O N T E N T S

P R O C E E D I N G S

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MR. DEGRABA: Good morning, and welcome to our first panel of the day on loyalty discounts which is part of an ongoing series of public hearings on single-firm conduct jointly sponsored by the Department of Justice Antitrust Division and the Federal Trade Commission.

This series is designed to help advance the development of the law concerning treatment of unilateral conduct under the antitrust laws.

My name is Patrick DeGraba. I'm an economist here at the Federal Trade Commission Bureau of Economics, and I'm one of the moderators for this morning's session.

My co-moderator is David Meyer, Deputy Assistant Attorney General of the U.S. Department of Justice.

Before we start, I need to do a few housekeeping matters.

As a courtesy to the speakers, please turn off your cell phones, Blackberries and all other devices that will beep during the proceedings. Mine's off.

Second, the restrooms are across the hall to the left of the guard desk where you came in. So ask a guard because that description won't help you get there.

The third is in the unlikely event that the building's alarm goes off, please proceed calmly and quickly as instructed. If we must leave the building, exit through the main entrance. After leaving the building, please follow the stream of FTC people that are going to the staging area. They have practiced a number of times and some of them know where they are going.

Also, we request that you not make comments or ask questions during the session. It is a moderated hearing. For the speakers, I'm going to ask you to please speak into the microphones. The sessions are being transcribed and videotaped and the microphones are the means by which the sound is captured.

The transcripts and other materials from the session will be available on the DOJ and the FTC Web sites. And finally, our next hearing will be next Wednesday, December 6th, on misleading and deceptive conduct.

Today's session, loyalty discounts include a host of related contracting practices. The simplest, often referred to as single-product loyalty discounts, involve the seller providing a discount on all units of a good sold to a buyer once that buyer has reached some purchasing threshold.

More complicated practices, often called bundling loyalty discounts, involve the seller offering discounts or rebates when a buyer has reached a purchasing threshold on several possibly unrelated goods.

Such practices have raised antitrust concerns recently, and the appropriate antitrust treatment of such practices is clearly in a state of flux. We are honored to have this morning a distinguished panel of academists, economists, and private practitioners who will discuss the current thinking regarding the treatment of these loyalty discounts.

Our panelists this morning will include Barry Nalebuff, a professor of economics and management at the Yale University; Tom Lambert, an associate professor at the University of Missouri Columbia School of Law; David Sibley, a professor of economics at the University of Texas at Austin; and Joe Kattan, a partner in Gibson, Dunn & Crutcher, LLP in Washington, D.C.

The organization of the panel is as follows. The four panelists will give presentations of approximately 15 to 20 minutes. It will be timed by our staff here in the front row.

We will then take a short break. And after we reconvene, the panelists will have a couple minutes to respond to each other's presentations, and then there will be a moderated discussion. We will end about noon.

David, do you have any comments?

MR. MEYER: Not at this point.

MR. DEGRABA: All right. Let's get on with it.

Our first speaker today is Barry Nalebuff, who is the Milton Steinbach professor of economics and management at the Yale School of Management.

Professor Nalebuff has written extensively on applications of game theory to business strategy and has coauthored the first popular book on game theory, which is used in colleges and business schools throughout the world.

His current academic research focuses on bundling and tying. He has provided expert testimony and seminars on antitrust matters to federal administrative agencies and courts in Australia and Europe and has extensive experience consulting with multinational firms.

Barry.

PROFESSOR NALEBUFF: Thanks. I'm going to be up there and control it?

Greetings, good morning. What I'm going to try and do is give you my overall perspective in terms of the way I think about loyalty discounts and bundling.

And I'm of the view to start with that unlike physics, where one is searching for a brand unification theory, you won't find that here.

I still believe there is nothing so practical as a good theory. In this case it will be multiple theories. The reason is that it is different horses for different courses.

What matters is the nature of the competition. You care about whether the products in the bundle are substitutes with each other, as would be the case of branded and generic tape; where they are complements, such as aircraft engines and avionics; where they are used in some fixed proportions, like in a nail cartridge and a nail; whether or not one is essential to the other, such as Windows and a media player.

Sometimes the goods are neither complements nor substitutes, in the sense of Aspen skiing. Before you go to Aspen, the different mountains are complements. Once you are there, they are substitutes.

Sometimes there is no connection, substitutes or complements between them. For example, different blood tests are all essential but it is not that you use them together.

The goods that are in the bundle might be positively correlated, negatively correlated or not correlated at all.

All of these factors end up changing the motivations and the effects of bundling and you have to consider that when you are trying to understand the effects and what to do about it.

The good news is that we are not in the desert here lost, that in fact in each case where when you understand where you are, we have the tools to analyze it.

In my speed attempt to do 10 propositions in 10 minutes, here we will go. I want you to know these are not bundled. You are free to accept any one of these individually. But there is a discount if you take more than three.

The first point is that often bundled discounts or loyalty discounts lead to negative prices. The reason for that is the discount often goes back to the first unit that you buy. The end result of that is very peculiar prices, things that are hard to justify.

This issue arises both with single and multiproduct rebates. Below, this is an example that is an amalgam of actual prices that I have seen from different cases where things have been normalized and discussed.

But the way it works is your price for the first

31 units was 100. Your price for the 32nd unit was minus 6000. Your price for the next couple units is 100 again. When you get to the 95th unit, your price is about minus 800. And then for units 96 through 100, it is 97.

Now, if you thought about that as sort of a rational way of doing it, you would say what is going on here, does that really make any sense?

Of course the customer should never be in a position of buying fewer than 31 items because in fact the first 32 are free. But then having bought 32, now they are okay until they get to 85 because once you get to 85, 85 through 95 is free.

What that means is if a rival wants to come in and displace the firm entirely, it will not happen because 31 units are free. Moreover, a rival will never be able to sell between 85 and 95 or, in that case, between 5 and 15.

The solution, in my view, to that is to still give out discounts but to give out discounts on incremental volume rather than go back to square 1.

And note, if that's your objective to give people low prices, we have ways of doing that. I'm not preventing the discounts, just trying to make them a way that actually makes some sense.

The second point is that loyalty discounts can actually create no cost predation. And I'm going to give you a quick example of this in terms of numbers.

The reason is that what we do is we inflate the price of A rather than really give a discount. Imagine the normal monopoly price of A is 100 and you can get it at the normal monopoly price if you also buy B at 20.

But if you don't buy the B, then I will raise the price of A to 120. Hence, the effective price of B is zero or certainly below cost in this case.

Now, the key observation is that nobody actually pays the 120 because nobody is foolish enough to only buy A on an a la carte basis. Therefore, since the threat is credible, it doesn't have to be used and it is not costly.

The difference between predation and this type of loyalty discount is that under predation, the firm actually charges below cost, and so customers benefit from those low prices.

Here all that is happening is the firm is threatening to charge a high price if you don't go along. It is like the mugger who says "your money or your life," and when you give him your wallet, he wants credit for actually saving your life. Actually, I don't think that gets to count.

Because there is no need for recoupment, it is easier to implement this. Hence, there is a greater danger of it. Because customers aren't necessarily winning along the way, there is also more reason to be suspicious.

To give you another disguised example of this, the following is a case where an incumbent firm had a market power in three goods, 1, 2 and 3, and they offered prices like you see in column 1.

However, if you were to buy all four of their products, including their competitive fourth product, then you would get the discount, 16, 26, 51, so on percent.

If you added up those discounts, what you discover is that the cost of buying all of the three products on an a la carte basis, which essentially you had to do anyway because they were the only supplier of those three products, ended up being sufficiently high that you were going to save $1-1/2 million by buying the bundle.

The end result of that was it was actually a negative incremental price to go and take the competitive product.

Once again, that is something that is very hard to compete with. That leads to the following proposed test, which is if you have a firm which has market power in A and you are worried about whether or not it is going to extend that to another good, B, look at the price of the A-B bundle versus the price of A alone and ask how much more is the firm charging for A and ask could that firm itself make money selling A at that incremental price or B at that incremental price.

So instead of asking whether or not the rival can make money selling B at that price, is the firm itself apparently making incremental profits or not. If it isn't, then what we have is a case of exclusion, and that exclusion can be achieved without cost.

One of the things that is nice about this test is that we actually don't have to look at actual rivals or hypothetical rivals, we can look at the incumbent firm's own cost structure. The incumbent firm which knows its own cost structure.

Therefore, it is well equipped to discover whether it is passing this test or not. It knows whether it is in the safe harbor or it isn't.

There is an extra element to this test that David Sibley and his co-authors have emphasized, which is did the price of A go up or did the price of A-B, the bundle, go down.

We should be more worried about the case when A alone goes up than when the A-B bundle goes down because, of course, when it is a threat, there is no benefit. Whereas, if the bundle has been discounted, at least customers are getting some value along the way.

One point that I think the courts have really missed about loyalty discounts is that some of the ways that these rebates are paid end up being significantly less competitive than a straight price cut.

So, again, think of a case where the incumbent has market power in A, and B is a substitute. And the two examples I will take you through are Scotch tape and generic tape or Keflin and Kefzol, two cephalosporins, where Keflin was the big money maker and Kefzol was the new product which is the competitive one.

In the cephalosporin market, we had Lily with its monopoly and Keflin, Keflex, Loradine, Kaphacen and facing competition with SmithKline Ancef, which was the exact same compound as Kefzol.

The first thing they tried doing was just discounting Kefzol to match the prices on Ancef. The problem with that was that Kefzol ended up being a substitute for Keflin.

So not only did they have trouble capturing the market against Ancef, as prices starting getting lower, it started eating in on the demand to Keflin.

Then they got wise and said okay, we will give you a rebate on Keflin and the other products if you buy enough of our goods.

Now, note what happens here. The price of Kefzol ends up being high. I'm getting a million dollars back or some fixed amount of money back, but I don't end up discounting Kefzol.

In essence, I'm bribing you to say if you buy all of my goods, I will give you this fixed amount of money. But because Kefzol keeps its price high, that reduces the competition between Kefzol and Keflin, and, hence, customers don't get that benefit.

We also see that by its equivalent it is almost as if Lily says to the customer we will give you 100 units of Kefzol for free on the condition that that's all you use, which of course is something again that rivals would have a hard time matching.

We have the same issue in LePage's. If you are 3M, you don't want to get into a price war with LePage's over generic tape, because the cheaper generic tape gets, the more that will eat into Scotch tape prices.

What you want to do is how can I beat LePage's without discounting my generic tape. Well, if I give them a bribe, a million dollars just to take my goods, even if they are high priced and you can spread out that million dollars over their expected sales, then you can say the overall deal is better for me, Staples, than it is for taking LePage's.

But note the incremental cost of another roll of tape is high. What that means is the price to consumers for that tape is going to be high and there will be less substitution of generic for branded product.

So in that sense, these rebates don't get passed on to consumers and don't threaten the incumbent monopoly.

That's an aspect of these loyalty rebates that I don't think has been appreciated and I think is problematic.

Another area is that loyalty rebates make pricing incredibly hard to understand. If somebody offers 2.93, I know that is cheaper than 2.97. But if somebody says you get 3 percent off A and B if you buy B, is that a good deal or not? Well, it depends on how much A I'm going to buy. And sometimes I know the answer to that and sometimes I don't.

Moreover, if rivals are trying to compete and think about how much they have to undercut to get the business, that means the B rival has to forecast my demand for A, and, generally speaking, they are not very well equipped to do that.

So we have seen cases where people misforecast these demands, end up buying the wrong product or don't get discounts as large as they think.

I have also found that actually analyzing these price things can often take an MBA. And it is not an understatement to say it costs $10,000 to actually figure out what price is the cheapest, and many times that is not worth it for the individual customer to do.

An issue that bothers me about loyalty discounts is that the price a firm charges to a customer shouldn't depend on who else the customer buys from. I have less a problem if the price says if you buy many units, here's the charges. If you buy this many more units this year compared to last year, here's the charge.

I think it is very funny to say to the customer, "oh, and if you buy 10 units from Fred, I'm going to charge you more money" or "if you buy 3 percent of your products from Fred, I'm going to charge you more money."

The price that I charge you should ultimately depend only on what it is that you buy from me, not what it is that you buy from other people.

Now, I realize that the effect may be the same through some volume discounts. But that still leaves many more options in an uncertain environment for a rival to come in than when you literally price based on what you are doing with your rivals.

You will hear many what I will flat out call bogus justifications for bundled discounts. For example, it is often said that customers like bundles and, hence, that's a justification for doing bundling.

Yes, that's true, but it is not a justification for a bundle discount. Because a customer likes it, in theory you could charge more for it. You don't have to offer it as a discount if you are providing something customers like better.

We do the discount for price discrimination. Well, there is no room for price discrimination if A and B are consumed in fixed proportions.

Moreover, the arguments for price discrimination generally rely on having a negative correlation between the two products or no correlation in valuation between the two products.

For example, opera tickets and wrestling tickets you think of as having negative correlation. However, if you look at what's bundled out there, I think you will find that they generally have a positive correlation in value and, hence, don't fit the normal framework that we would expect price discrimination to fall under.

Yes, Virginia, bundling can leverage and protect market power. Here is an example of how that works.

If we have a monopolist whose demand is represented by 10 minus P and the cost is zero, the monopoly price would be 5. Profits would be 5 times 5. Price is 5, quantity is 5.

I'm having the B product be competitive with a cost of one. So the price is one. Demand I'm making just to be one unit.

Chicago School says don't sell A and B together at 6. I do better just to sell A alone at 5, because there are some people who may not want B, even at the competitive price.

What I say is consider the following contract. If you buy my B, I will lower the price of A to 4. But if you don't buy my B, I will raise the price of A to 6.

Well, if you think about the cost of that threat and promise, the customer is going to save at least $2 on A by buying the B product since they are going to be buying at least four units of A.

That means that it is a net savings to them of at least 8, which means they are willing to pay up to 9 in order to get that discount. They will pay 9 on B to get that discount.

Well, the discount doesn't cost the firm very much. And the reason is that discounts my price from 5 to 4 only lowers my profits from 25 to 24. Raising my price from 5 to 6 also only lowers my profits from 25 to 24.

So at a cost to me of only a dollar here, I can do something that will either reward or punish the customer to the tune of 8. And the reason for this is the monopoly is inefficient.

So in essence, what I'm saying to the customer is I'm willing to be a less inefficient monopolist if you play ball with me and do what I'm asking on good B. It doesn't make sense to take out all of your monopoly rents on the monopoly product because that's what leads to dead weight losses.

What I would like to do is some type of lump sum payment and incremental pricing and charge the customer for the right to buy my goods at a reasonable price.

Oftentimes the way we see that happen is the way I charge them for being less of a monopolist is I say you have to buy my other goods at B at inflated prices.

It is also the case that the bundle allows firms with multiple market powers to protect themselves. So if I have market power in A and B and charge 10 for A and 10 for B but only 16 for the two together, there is a $4 discount that any single-firm rival would have to meet in order to undercut me.

Note that my average price is 8. In essence, I get to use that same $4 discount on multiple fronts. So the customer isn't benefitting $4. The customer is only benefitting 2 on each.

Rivals would actually have to go 4 below. That is a special sauce in multigood bundling that makes the incumbent have an advantage over rivals. It is sort of why it works.

It also explains to me why the right test should not be whether or not the overall bundle is above or below cost but whether or not the individual components at the appropriate incremental price is above or below cost.

So the Chicago School story is correct in its limited environment, but it misses most of the interesting cases that we look at when it comes to bundling.

Even where there is one monopoly profit, that monopoly profit can be of different sizes. In particular, bundling can allow price discrimination, such as through metering and some of the examples you have seen, which, therefore, leads to greater profits to the monopolist but less surplus to the consumer.

It is also the case that many of the motivations for bundling are dynamic, that by preventing somebody from getting into the B market, that may be their subsequent entry into the A market which is where I still have market power.

It is also the case that bundling and tying provide potential for no cost for closure, which has the same effect as predatory pricing but at no cost.

I recognize that bundles versus bundles is generally more competitive than individual items versus each other. So what I would like to be able to do is take the advantage of that competition without the harm.

And the way that I do that is the following. I actually take the example from Johnson & Johnson who said, look, U.S. Surgical, you have a full line, we have a full line, Coke and Pepsi, you each have full lines, you can compete against me bundle for bundle.

But if I don't have a full line, I will not count your sales in my 80 percent number or 90 percent number. Whatever target I make, it is only a target for other full-line competitors.

We have come our way through the deserts often through intuition. There are now some tests that I hope you will believe offer more formal approaches.

And I believe -- maybe this is a temptation here -- that the theories of bundling loyalty discounts are now ready for prime time. So I hope you will be able to use them.

Thank you.

(Applause.)

MR. DEGRABA: Thank you.

Our next speaker is Tom Lambert, who is an associate professor at the University of Missouri Columbia School of Law, where he has achieved the university's Gold Chalk Award for excellence in graduate teaching.

Professor Lambert's scholarship focuses on regulatory theory, including antitrust policy and business law. His 2005 Minnesota Law Review article provided one of the first scholarly treatments of the law of bundling discounts.

Tom is a member of the eSapience Center for Competition Policy and is a regular contributor to Truth on the Market, a Weblog devoted to academic commentary on law, business, economics and more.

Tom.

PROFESSOR LAMBERT: Thank you.

It is an honor to be here on such a distinguished panel. I will talk today about bundled discounts entirely. I will not focus on single product loyalty discounts.

A word about the scope of my remarks. I'm a lawyer, not an economist. I'm very concerned with structuring rules in a way that they can be administered by judges and juries and used by antitrust counselors to advice their clients.

My focus is on the law, how we would structure the rules.

I have a three-pronged agenda that's very ambitious for 20 minutes.

Why are bundled discounts troubling, and I will give you the straightforward view the courts have adopted and most of you are familiar with this.

Summarizing and critiquing of the leading evaluative approaches offers an alternative proposal that I think is very administrable.

The problem with bundled discounts the courts have recognized is they may lead to the exclusion of an equally efficient but less diversified rival even if they are above cost.

The classic example of this came in the Ortho Diagnostic case. It is I think a little bit unrealistic, but this is what the court wrote in its opinion and it illustrates the problem, I think.

You can have two manufacturers who sell the same product, manufacturer A and manufacturer B. They both make shampoo. Manufacturer B is the more efficient producer. It can produce shampoo at $1.25 a bottle. Manufacturer A, it costs $1.50 to produce the shampoo.

Manufacturer A, though, is a more diversified rival. It sells conditioner as well as shampoo.

So by bundling its shampoo and conditioner and by offering an above-cost bundled discount -- and what I mean there is that the price, the discounted price of the bundle is in excess of manufacturer A's cost of producing the bundle -- manufacturer A can effectively exclude manufacturer B from the market.

If the separate price of shampoo and conditioner for A is $2 and $4, so that buying them separately you would have to pay $6, and manufacturer A charges a package price of $5, that is still a dollar in excess of its average variable cost of four dollars. Manufacturer B can't compete with that.

In order to sell its shampoo -- and any buyer that buys both shampoo and conditioner will have to pay $4 for the conditioner and will not be willing to pay any more than $1 for the shampoo. Manufacturer B is excluded despite the fact that it is the more efficient producer.

So the fundamental problem the courts have identified is that bundled discounts can lead to the sort of exclusion of equally efficient but less diversified rivals, and that's the case even if the discount is above cost.

All right. I have identified six approaches in the case law and commentary for evaluating the legality of bundled discounts. I want to march through them quickly and explain why I think each is a little bit troubling.

The first and the most sort of laissez-faire is a rule of per se legality. This is the rule that's been advocated most recently by Professor Hovenkamp in his new book, "The Antitrust Enterprise," and also the rule advocated by Demicci in the LePage's case.

It basically says a bundled discount should be per se legal if the discounted price of the bundle exceeds the aggregate cost of the products within the bundle.

The reason for this rule is not that we don't believe that above-cost bundled discounts can ever be anticompetitive. The Ortho Diagnostic example showed how they could lead to the exclusion of a more efficient rival.

Administrability concerns motivate this rule. The idea is that it is simply too difficult to separate the pro-competitive wheat from the anticompetitive chaff and will end up chilling pro-competitive bundled discounting if we don't have the sort of safe harbor, and so the best approach is to have a per se legality rule for above-cost bundled discounts, very much along the lines of the Brook Group rule.

My criticism is -- well, I'm not all that critical. In the long run, this may be the best approach to take. However, I'm not willing to concede that at this point.

I think the search for anticompetitive bundled discounts may be worth the cost, including the cost of deterring some pro-competitive bundled discounts.

It is very easy to imagine instances of anticompetitive exclusion. Professor Nalebuff and Professor Sibley have modeled cases where this could occur. The Ortho Diagnostic example is a good example.

I think there is a fairly easily administrable weeding device that can help us separate pro-competitive from anticompetitive bundled discounts. I will get to that in just a minute.

The second approach is at the other end of the spectrum -- and this is an approach from the raising rivals costs literature. I'm thinking in particular of Will Tom, who will speak this afternoon, and Einer Elhauge, who has discussed this in testimony on hospital group purchasing organizations and also in his Stanford

Law Review article defining better monopolization standards.

This approach says that bundled discounts are discounts are illegal if they unjustifiably usurp so much business from their rivals that their rival's costs are erased.

Now, the $64,000 question here is how do you determine what is unjustifiable. Every discount tends to usurp some business from rivals. And obviously we don't want to ban discounts.

The concern here is that so much business will be usurped from rivals that it will deny rivals economies of scale, make it harder for them to raise capital.

A couple of approaches have been advocated for identifying what are unjustifiable instances of raising rival's cost.

Will Tom suggests in his article on the Antitrust Law Journal that we adopt a case-by-case test where the courts look to see is this an exclusionary usurpation of the business or a pro-competitive usurpation of the business.

That is difficult because that leaves a lot open to the whims of juries and judges and will likely have a chilling effect on pro-competitive bundled discounts.

Professor Elhauge has suggested an approach where a business-usurping discount is justified only if the discounter's business stealing, business usurpation occurs because the bundling has made the discounter more efficient.

If you are stealing business because your bundling is making you more efficient, then that's okay. But if you are stealing business for any other reason, then that's illegal.

I think this is a troubling approach for several reasons. First, it would prevent price cutting by a monopolist who has reached minimum efficient scale and can't achieve any additional distribution efficiencies by bundling.

That person is not getting any efficiency benefits from the bundling and then would be precluded from cutting prices, which seems bad for consumers.

Secondly, this approach is very difficult to administer. A court would have to figure out what is minimum efficient scale, very difficult for judges and juries to do.

In addition, it has to figure out what discount, what amount of discount is necessary to get the discounter to the point of minimum efficient scale. Any discount beyond that would be excessive discount and under Professor Elhauge's test would be exclusionary.

That is extremely difficult for judges and juries to administer. For that reason, this approach is likely to have a major chilling effect. Discounters discount at their own peril.

The third approach is the approach we sort of see in LePage's. Everyone in this room knows it is very difficult to articulate a rule of law from the LePage's case.

There were some key facts that were very important in the court's analysis there. LePage's was not required to prove that it couldn't match the 3M discount. It was not required to prove it was as efficient a manufacturer as 3M was.

Instead, it just had to show that it was being excluded. And once it showed that, the burden shifted to 3M to justify its behavior.

So if you want to take away a rule from that -- and lots of smart antitrust counselors are trying to do so and advise their clients accordingly -- it would seem to be the following. A bundled discount is presumptively exclusionary if the discounter is bundling products not sold by rivals and is winning business from those rivals.

Now, the discounter may rebut that presumption if it proves a business reasons justification. There is a suggestion in the LePage's case that that justification must show that the bundling saves costs approaching the amount of the discount, very similar to Professor Elhauge's suggestion in the Stanford Law Review.

This I believe is a very troubling rule. First of all, since the plaintiff need not establish its equivalent efficiency, this approach essentially creates a price umbrella for less efficient rivals.

And there is a suggestion in LePage's that's exactly what happened. LePage's expert economist conceded that LePage's was a less efficient manufacturer of tape than 3M and yet LePage's won.

Moreover, since the focus is on product line breadth and not whether an efficient rival is being excluded, this approach will tend to chill bundling, which has a number of pro-competitive benefits which we will talk about in the roundtable discussion. I assume that some of my co-panelists will discuss that issue.

The third approach here -- fourth approach, I guess -- the approach we see in the Ortho Diagnostic decision, in that case, the court reasoned that a bundled discount is illegal if the plaintiff shows either that the bundle is priced below average variable cost, straightforward predatory pricing, or that the plaintiff is at least as efficient a producer of the competitive product but cannot match the discount without pricing below cost on that product.

In other words, you have to show you are an equally efficient rival, and after you show you are an equally efficient rival, you show if you attribute the full amount of the discount to the competitive product, that will result in below-cost pricing by the discounter. You couldn't match that discount.

My criticism of this rule, it is a great rule in theory, but this is a very difficult rule to administer.

The plaintiff, in order to prevail, has to show that it is an equally efficient rival. To do that, it has to establish its own cost and the discounter's cost.

In addition, there are going to be joint costs in here because this is a bundling case. In figuring out the discounter's cost on its competitive product, it has to figure out what percentage of the joint cost it should attribute to that competitive product.

That is an incredibly difficult rule to administer. For that reason, I believe this rule, the rule of law in Ortho Diagnostic, may be underdeterrent, because plaintiffs are going to have a hard time winning these cases.

The next approach is what I'm calling the original antitrust law approach. This is the approach that was advocated in the Areta/Hovenkamp treatise. It was updated this summer. I had to update my presentation.

The original approach advocated by the treatise was focused on trying to fix the administrability problems with the Ortho Diagnostic test.

Rather than asking if the plaintiff itself was an equally efficient rival, the original antitrust law approach said let's ask if a hypothetical equally efficient single-product rival would be excluded by this discount and without adequate business justification.

So essentially we take the Ortho Diagnostic test, we lop off the part where the plaintiff has to show that it is actually an equally efficient rival, and we say if you attributed the entire amount of the bundled discount to the competitive product, would a hypothetical single product be excluded by this discount.

This is definitely an easier to administer test because plaintiffs don't have to prove the defendant's costs where there are joint costs. It is troubling, though, for a couple reasons.

First, it prevents discount cross-subsidization.

Consider a situation where you have a seller that sells products A, B and C. Its cost is $4 each. It sells them separately for $5 each. But it would sell the bundle for $13.50.

Under the antitrust law approach, this would be a presumptively exclusionary discount because a single product seller of A that was equally efficient at a cost of $4 couldn't match this discount because it would have to charge a price of $3.50, a price below its cost.

Now, if you think about an oligopolistic market -- it is not cartelized, but there is a lot of what looks to be tacit collusion -- if you assume the seller that sells A, B and C is selling in that market, it is great that the seller can engage in the sort of complicated pricing.

Professor Nalebuff says it is very difficult to figure out exactly what price is being charged.

That's a fantastic thing in an oligopolistic market. This sort of pricing can disrupt, this sort of bundling can disrupt oligopolistic pricing. In addition, it is a discount for customers. That would seem to be good in itself.

A second problem with the antitrust law approach is there was no requirement that the foreclosed market be capable of monopolization, there was no requirement that there be entry barriers in the foreclosed market that the plaintiff was being excluded from.

The revised antitrust law approach is definitely superior to the original. But I still think it is a little bit troubling.

What Professor Hovenkamp is now saying -- which, by the way, seems to conflict with his book, "The Antitrust Enterprise" -- is that we should analogize bundled discounts to tying and say there is a tie-in if the price is below cost when the entire discount is attributed to the competitive product.

Very importantly, the treatise points out there will not be this tie-in if there is another significant rival that sells all products. In the Johnson & Johnson versus Tyco case or U.S. Surgical case, Johnson & Johnson engaged in this bundling, but there was another significant rival that had the same bundle in place.

Professor Hovenkamp would say that does not constitute a tie. But absent such a significant rival, there would be a tie-in if there was a below-cost price after the discount was attributed to the competitive product.

The treatise then says that after you find time, you should apply a basic rule of reasoned approach, ask whether the foreclosed market is capable of monopolization, ask if a collaborative bundle is probable, ask if there are pro-competitive justifications for the bundling.

This is a definite improvement on the original version. My criticism is why involve tying at all. It seems to me that the reason that we are concerned about tying in cases like this is that it leads to foreclosure.

Why should we focus on the tie rather than focusing directly on the foreclosure issue?

Here is my alternative proposal. The goals of the proposal is we want to condemn bundled discounts that could eliminate competitive rivals and result in price increases. We don't want to condemn other bundled discounts. And we want the rule to be easy to administer.

What I want to structure my rule to show is that the complaining rival has exhausted its competitive options. You are not a competitive rival unless you have done everything you can to stay in business.

The complaining rival must have the ability to match the bundled discounter's efficiency. You are not a competitive rival if you are not as good as the bundler.

We have to show the foreclosed market is capable of monopolization. We don't want to ban discounts in markets that can't be monopolized because there are very low barriers to entry.

Here is a proposed rule. I would have a rule that says that the above-cost discount, and that means that if you add up the cost of all the items in the bundle, they are exceeded by the price of the bundle.

So the above-cost discount is per se legal unless the plaintiff could not match without pricing below cost and, number one, barriers to entry exist in, A, the product market in which the plaintiff doesn't participate, and, B, the market for the competitive product, a collaborative bundle is impracticable, a good-faith supply offer was rejected. That means that the foreclosed firm goes to the bundled discounter and says, hey, let me supply my products to you, you buy my product and bundle it.

And if those are established, then the bundle is considered presumptively exclusionary, but the defendant gets a rebuttal opportunity to show that it rejected this good-faith supply offer because it wasn't attractive, either the price being offered was too high or the quality was insufficient.

Let me explain how this meets all of my goals of protecting competitive rivals. We want to protect competitive rivals and only competitive rivals, and we want to ensure that the market that is being foreclosed is capable of monopolization.

The above-cost discount is per se legal unless the plaintiff could not match without pricing below cost. That requires a complaining plaintiff to lower its price to the level of its marginal cost.

That's what we expect will happen in perfect competition. We should demand that of a complaining rival.

Next, it has to show that barriers to entry exist in a product market in which the plaintiff doesn't participate. An option for a plaintiff that's confronting a bundled discount is to enter the other markets in which it doesn't participate. It needs to show there are some entry barriers that prevent it from being able to do so.

In addition, it has to show barriers to entry into the market for the competitive product. That's required to show the market is in fact capable of monopolization.

Supercompetitive prices could be charged in that market without inviting so much entry that it is impossible to charge those prices.

Next, the plaintiff would have to show that a collaborative bundle is impracticable. It cannot compete with the bundle by entering into agreements with sellers of other products to craft a competing bundle.

These sort of cross-seller bundles are incredibly common. I sent my research assistant to Target, and he found an Olympus digital voice recorded bundled with batteries, Suave body wash bundled with a Schick razor, Colgate White-Plus teeth whitening cream bundled with a camera. Americans are vain.

The prima facie case here is intended to show that the plaintiff has exhausted its competitive options and that the market being foreclosed is capable of monopolization.

Then we have a rebuttal opportunity. The defendant may rebut by showing that the supply offer was not attractive.

The defendant has to show that when the plaintiff came and made the supply offer to me, I didn't accept it because the price it was charging me was higher than my cost. That shows that the plaintiff is in fact a less efficient rival.

If the plaintiff can show its prima facie case and the defendant can't rebut, then we have an exclusion of a competitive rival in a market that is capable of foreclosure or capable of monopolization, and it would seem to me that liability is appropriate.

Otherwise, I would have a rule that these sorts of discounts which are discounts, good to customers, are legal.

Thanks.

(Applause.)

MR. DEGRABA: Our next speaker is David Sibley, who is the John Michael Stuart Centennial professor of economics at the University of Texas at Austin.

Professor Sibley was previously the head of the economics research group at Bell Communications Research and served as a member of the technical staff in economics at Bell Labs.

In 2003 and 2004, David served as a Deputy Assistant Attorney General for economic analysis in the Antitrust Division.

Professor Sibley has carried out extensive research in the area of industrial organization, microeconomic theory and regulation, and his publications have appeared in numerous leading economics journals. He has consulted extensively for various firms and agencies, both in the United States and abroad, on antitrust and regulatory matters.

David.

PROFESSOR SIBLEY: Thank you.

The title of my talk, what have we learned since LePage's about bundled discounts, I guess is sort of inspired by the feeling of knowing not what to say at the Antitrust Division when the parties representing both sides of LePage's came to convince us either to support a take cert brief or not.

There was not a whole lot the economists had to say. Greg Warden was on the right track when he said "what do the prices do?"

It turned out you couldn't tell from the evidence in the record. I take LePage's as kind of a baseline as sort of very useful knowledge.

What have we done since then? Well, there has been some progress. We understand now I think better the effects of bundled discounts on both foreclosure and customer welfare.

I mentioned foreclosure and customer welfare separately here because, as we will see, it is possible to have a bundled discount which increases customer welfare and yet excludes equally efficient rivals.

I expect that to be the case from the way bundled discounts can be structured. I will also talk about tests to determine if a bundled discount is anticompetitive.

This would be in the spirit of the Ortho test with its explication of extension by Barry Nalebuff or tests whether customer welfare rises or falls. The reference here would be what I was aware of without having to go to any trouble to look up more, Wrightman, Sibley and Roy Nalebuff.

The tests here I guess were designed originally, both to try to see whether we could figure out whether bundled discounts are good or bad but also with a view toward the same type of goal that Tom Lambert had, administrability here.

We wanted simple tests that didn't require you to calculate complicated things or use data that you are not likely to be able to get in practice. The result is we have tests that will work sometimes but not all the time.

To start, I will take a very simple set-up which is actually I think probably the set-up behind some of the slides here.

A is a monopoly market served by a firm we will call Firm 1. B is a competitive market. It might not be perfectly competitive. I think for the next five minutes or so I will assume it is perfectly competitive. But it doesn't have to be.

Firm 1 is a seller in the B market too. I think for the purpose of the rest of the slide, I want to assume a couple things, one, that the B market is perfectly competitive and some B customers will buy B only and some will buy A only.

A couple of preliminary observations. Starting from independent pricing, a bundled discount or a BD can raise both profits and customer welfare. That doesn't mean that it will actually happen by a profit-maximizing profit discounter, but it is capable of happening.

We should keep that in mind. The logic is really as follows. Let's suppose we have a preexisting time that we can observe where Firm 1 is engaged in independent pricing and it is a monopolist in market A.

We will assume that if it hasn't anticipated the onset of the regulatory rule I will be talking about, that the price it charged to the A market was probably a monopoly price.

As Barry was saying, if the monopoly price is -- if the price charged by firm one in the A market really was the profit-maximizing monopoly price, then it is always possible to have a slight discount on the price of A, which will have an insignificant effect on profits that Firm 1 generates in market A.

In Barry's example, it was a $1 increase in profits. From a customer welfare standpoint, that is not an insignificant increase in customer welfare.

That allows the firm, Firm 1, to bundle that slightly lower price of A with a price of B that's above marginal costs and still get A and B consumers to select the bundle in preference to buying any A at all or paying a bundled price for it and getting B at a marginal cost.

In that situation, the A/B consumers are better off. They can all select the bundle that will make them better off.

B-only consumers are nowhere better and no worse off than before. They are getting B at marginal cost from all the other perfect competitors out there.

If the bundled discount in doing this has an out-of-bundled price no higher than the previous monopoly price under independent pricing, then we know that consumers' options within the bundle are no worse than before.

In fact, we have designed the bundle to attract them away from independent pricing of A and marginal cost of B. So they are better too.

So starting from independent pricing, which would be the marginal cost of B for everyone, including Firm 1, and the profit-maximizing monopoly price of A by Firm 1, we can always construct a bundled discount which raises customer welfare and also raises profits for Firm 1.

Now, this has an interesting effect here. There is implicit in this the foreclosure result.

Since the A and B customers are better off taking the bundle, even at a price of B that is slightly above marginal cost, this means that a B-only seller, one of those perfect competitors, can't appeal to these folks without charging below-market costs. Equally efficient providers are foreclosed and, yet, consumer welfare has gone up.

Clearly I have contrived this example to make a point. But it is a point that I suspect in practice comes up often enough to make it interesting.

It at least points out when we are talking about bundled discounts, we should not equate foreclosing equally efficient firms with lowering consumer welfare. In my example, consumer welfare is higher. The single-line producers of B would just sell to B-only consumers.

Okay. Another point that is implicit to what Barry said which I should have mentioned a moment ago, we are going to assume here that under independent pricing, the Firm 1, the monopolist in the market for A, has not been able to extract all consumer surplus in the market for A.

In principle, the firm might do this by a perfect two-part tariff, for example. In practice, I think neither Barry nor I think this is a big deal. If it were, we would see lots more two-part tariffs with a lot fewer loyalty discounts than we do.

If consumers' demands have some uncertainty and consumers know more about what their demands are, then you will not have a two-part tariff anyway, and you would find that would still be of some use.

So far we are talking again about a monopolist in the market for A and everyone inside is a perfect competitor in B.

Had I taken more time on this particular slide, I would have had a third bullet point which contrasts what you might expect Firm 1 to actually do with the possibility of raising both consumer welfare and profits.

In practice, you wouldn't expect the firm to be interested in raising consumer welfare. So profit maximizing in a very simple setting where B is perfectly competitive and products are not differentiated and the only thing consumers care about is price, in that setting profit-maximizing behavior by Firm 1 is to raise the out-of-bundled price of A a great deal.

The only point of the out-of-bundled price is to essentially stampede consumers into buying product. In fact, you would give them very bad out-of-bundle alternatives, $10 trillion an ounce or whatever it might be.

Of course, they could buy B at marginal cost from competitors. This puts consumers of A and B in a much worse position.

So in that setting, the effect of profit-maximizing bundling would not be to raise consumer welfare. It would be to increase profits and lower consumer welfare.

Let's not lose sight of the fact that if the out-of-bundled price of A is no higher than the preexisting monopoly price of A under independent pricing, we have the result which has the interesting effect, as I said a moment ago, of excluding sellers in B market from selling to consumers that buy A and B.

What I will do next is to change the story and the market for B a little bit. What I talked about so far I suspect people in the audience have heard before from me, from what I have heard. It is on the paper on SSRN for a while. My coauthors and I have labored to extend the results and have had some progress.

The story I will tell next, suppose that the market for B is not perfectly competitive. It has two firms, one of which is Firm 1. They produce differentiated products.

So yes, there are substitutes but not perfect substitutes. Consumers have tastes which are some will prefirm firm 2's version of B and some prefer Firm 1's version. You have a distribution of tastes in the market for B.

Some consumers want only B, but there is also a population of A and B consumers. If you look at those folks, the ones who want A, we will assume the same distribution of taste as regard to B. So there are some A/B consumers who really like Firm 1's flavor of B but some who really like Firm 2's.

In this setting, the world changes a fair amount. Let me talk you through things before I go to the bullet point here.

Firm 1 now has a much more interesting role for the out-of-bundled price of A than it had a moment ago when I assumed that the B market was perfectly competitive and all sellers in B produced a homogeneous product.

In this case, Firm 1 realizes there are folks out there wanting to buy my monopoly product which really want to buy B from the other guy.

The tools at my disposal if I'm Firm 1 are I will have out-of-bundled prices for A and B and bundled prices for A and B.

I also know there are some A consumers who also prefer my version of B. How hard do I want to try to retain consumers that want to buy A but really want to buy firm 2's version of B?

If I am going to keep those folks, I might have to really discount the price of the bundle a lot. If I do that, then I'm passing up profits that I could make on A and B consumers that like my version of B.

So maybe I won't do it. Maybe it is better not to try so hard. I will simply concede A/B consumers that prefer firm 2's version of B to Firm 2.

Now, I still would like to make some money off them. I would like them to continue to buy A from me.

So my out-of-bundled price for A in this setting, although it is a high price, is no longer set at some infinite level that is designed solely to stampede people into buying the bundle. It is low enough so that A/B consumers that like Firm 2's version of B are still going to buy some A product.

So the stand-alone price of A, the out-of-bundle price of A in this setting has a price discrimination goal as well as incentive to buy the bundle. It is a more complicated world.

Now, look at the first bundle here. Compared to independent pricing, consumer welfare can go up or down assuming that Firm 2 does not exit the B market. In this bullet, when I say consumer welfare can go up or down, I mean in the aggregate. I don't necessarily mean every single consumer.

Now, Firm 1 -- why would that work? Firm 1 -- there's sort of an interesting effect here. Firm 2 has a tougher job with bundling than under independent pricing because it has to convince consumers to buy B from it at the expense of them having to pay a higher price for A.

Under independent pricing, it didn't have this problem. In this set-up here, Firm 2 lowers its price of B because it is now competing, trying to pull people out of the bundle from Firm 1, which it didn't have to do under independent pricing.

Firm 1's best response to that is to set an a la carte price for B which is lower as well so B-only consumers are better off in this setting here.

If you look at the people buying the bundle, it is not clear whether they are individually better off or not. Usually some are worse off.

In that setting, B-only consumers are always better off. A and B consumers may be, may not be. Aggregate consumer welfare can go up or down.

There is an interesting permutation of this for either entry deterrents, if that's how you want to think about this, or driving firms to another market.

Since Firm 2 always sets a lower price of B because it has to work harder to capture consumers because they will be tempted to buy B to get a lower price of A, it always charges a lower price, its cash flow is lower. Depending on the costs it may have, it may in fact exit the market.

Look at this from another way. Imagine that Firm 2 has not yet entered the market but it is thinking about doing that and asking itself what would happen if I did enter the market.

Well, the story I have gone through here depends on a result which is in the paper that Firm 1's best response to entry by Firm 2 is always to bundle.

Firm 2, if it hasn't entered yet, knows if it does, Firm 1 will respond by bundling. Therefore, if there is some cost of entry specific to the active entry that Firm 2 had to incur, they may be deterred from entering, somewhat like the one in the tying literature, the paper by Mike Winston.

But there is a difference. You recall that

Mike's entry deterrence result depends on the equivalent of Firm 1 giving a precommitment to a time, meaning if an entry were to occur, it has to precommit to the tie.

There is no precommitment requirement because bundling is what Firm 1 will want to do anyway, the best response. So it is possible to induce Firm 2 to exit even without the precommitment assumption of Winston and others in the tying literature.

For a long time in this more complicated set-up, I didn't think we were going to get any sort of fact pattern that would tell us we had a safe harbor here the way we did in the previous story that I just told.

My coauthor, David Wrightman, actually came up with one. A sufficient condition in this set-up for consumer welfare to be higher under bundling than under independent pricing, assuming Firm 2 does not exit, is the following.

If the a la carte price of A or the out-of-bundled price of A is no higher than it would be under independent pricing and if Firm 2's price for B falls, then whatever happens with the bundle, we can infer consumer welfare has to have gone up, even though the price of B in the bundle may be a little higher.

So if we have this fact pattern, we can conclude not only that overall consumer welfare is higher but in fact every single consumer is better off.

A couple of remarks here. I talked about two kinds of safe harbor tests here. The previous result or model were the B markets perfectly competitive, and we compare the a la carte price of A under bundling to the monopoly price of A and we have a result.

And in this case we do the same thing. We can only do that if there is a preexisting independent pricing regime followed by an onset of bundling.

And in practice you may not find such a clean set-up. Perhaps bundling began in 1932 or something like that. However, in a litigation setting, the chances are reasonably good that you will run up against this set-up.

Typically what happens is firms compete, and one of them will start bundling, and then there is an antitrust complaint. Typically there is a before and after if things make it to the litigation stage.

Let me contrast this with the doability of Barry's test. Barry's test does not have the problem of needing to find a before and after situation.

It basically lists as attributes the discounts to the competitive line and asks if an equally efficient competitor could undercut that. We could use that in principal using data from the firms if we didn't have any reason to think that was a strange point in time to consider.

The advantage of -- Barry has a safe harbor, and it's really oriented towards saying when do we exclude competitors. That doesn't necessarily mean consumer welfare is lower if in fact this test has failed.

Okay. To sum up, then, in the right circumstances, at least, it seems possible that simply by looking at pricing patterns in order to prepare out-of-bundled prices so the monopoly must carry them to the preexisting prices or by allocating discounts to the competitive line, we do have some safe harbor tests at this point, most of which weren't around or at least weren't understood by us at the time of LePage's.

Okay, thank you.

(Applause.)

MR. DEGRABA: Our last presenter for the morning is Joe Kattan.

He has asked that I waive the reading of his bio and simply say he is a partner at Gibson, Dunn & Crutcher in Washington, D.C.

MR. KATTAN: Thank you. I will also waive the use of PowerPoint, the pervasiveness of which may be testament to the bundling of the Microsoft Office Suite.

I'm a lawyer, too, and I'm going to look at things from the perspective of the lawyer. And I want to start out with a fairly obvious proposition which is that both bundling and loyalty discounts involve price cutting.

This is an area which U.S. law has tread very carefully, and for a good reason. The cost of error in this area, as we all know, is deterring firms from engaging in aggressive price cutting, which the courts have been loathe to do, viewing such deterrents as antithetical to the goals of antitrust.

Justice Breyer back when he was in the First Circuit captured this idea in the Barry Wright case, where he said, "The consequence of a mistake here is not to force a firm to undergo a legitimate business activity that it wishes to pursue. Rather, it is to penalize appropriate competitive price cuts, perhaps the most desirable activity from an antitrust perspective that can take place in a concentrated industry where prices typically exceed costs."

This has been the foundation of U.S. antitrust policy in the price arena. We have obviously seen that in a number of Supreme Court cases in the predatory pricing area, where the Supreme Court said that cutting prices to increase business is the very essence of competition.

Although this policy has its underpinnings in the predatory pricing area, at least from a narrow legal perspective, it is important to note that the Supreme Court has made it clear that this policy has a broader applicability.

This point was made in the Arco versus USA Petroleum case which involved, as you all know, maximum RPM, where the court said in the context of pricing practices, only predatory pricing has the requisite anticompetitive effect.

The reason for that it said was that low prices benefit consumers regardless of how those prices are set, and so long as they are above predatory levels, they do not threaten competition.

We have adhered to this principle regardless of the type of antitrust claim involved.

So at least from the legal perspective, we have to start from the standpoint that discounting practices, regardless of their form, can only violate the law when they result in some form of predatory pricing.

Obviously there are economic models that attempt to show how various discounting practices can harm consumers, sometimes even when price exceeds cost.

But the courts have stubbornly clung to this bright-line standard. And the reason for that is that courts have been loathe to sacrifice the immediate benefits of a price cut for the much more speculative possibility that some future harm to competition might be avoided if we curb the ability of firms to discount, at least in the absence of more tractable and, more importantly, more general economic models that can predict harm.

Essentially what the courts have said, we like the bird in the hand, the immediate price cut, much more than the birds in the bush, which is the possibility that at some point down the line we may have a more competitive market and lower prices.

This obviously embodies assumptions about the efficiency of progressive price cutting and about the cost of false positives.

Regarding efficiencies, the courts are assuming that price cuts that remain above cost enhanced both consumer and total welfare. And with regard to the cost of false positives, what the courts are saying is we are worried very much about inhibiting price cutting that we view is the essence of competition.

There are clearly several worries that the court's fixation with false positives has made them insensitive to the possibility of false negatives.

The basic critique is that anticompetitive pricing conduct involving mixed bundling, involving loyalty, is likely to be more pervasive and more permanent than predatory pricing, so that the risk of underdeterrents is greater than in the predatory pricing area where this policy has its roots.

The reason for this, and I think we have heard some of it today, is that while predatory pricing often requires a large profit sacrifice, uncertain possibility of recoupment, which leads to the predation approach not being tried very often, anticompetitive bundling or loyalty rebates could -- and I want to underscore "could" -- entail in profit sacrifice or alternatively enable instant recoupment.

For that reason they are more likely to occur. For that reason, they are also more likely to be durable, which is to say it can go on for a long time.

To me, the absence of a profit sacrifice would also suggest, at least in the realm of pricing and what we are talking about here is pricing -- not talking about blowing up a competitor's factory or lying to a standard-setting body -- is that an equally efficient competitor would be able to match the discounts as a general proposition.

We have heard about some exceptions and that to the extent that the rivals are excluded, they are being excluded on the basis of superior efficiency.

In addition, I think we have to take into account the pervasiveness of bundling, the pervasiveness of discounts that have a retroactive feature, which is to say you hit a threshold and the discount applies to it for marginal units.

Volume discounts are fundamentally structured that way. Buy a hundred units and you get 10 percent off is a fairly common form of doing business.

The pervasiveness of these types of practices throughout the economy, the prevalence of their use by firms that don't have market power and have no hope of excluding competitors would suggest or at least caution that there is a good possibility that the efficiency explanation for these practices is the dominant one.

Now, there are models that show that equally efficient competitors can be excluded even without a sacrifice of profits.

But I think the issue with these models is that they don't necessarily show consumer welfare being reduced by the discount. In fact, I think some of the models depend on consumer welfare being enhanced. I guess we are really in the dark about this area of the law.

Some of these models depend on consumers actually being better off with the bundled price offered. What we see is that both producer surplus and consumer welfare is better off.

So what this shows is that there are circumstances in which bundled pricing can harm competitors, even efficient competitors, but they don't necessarily harm consumer welfare.

Another question is whether these models at this point are sufficiently general to support changing the current legal regime.

Professor Hovenkamp argues that they are not, that they cannot support a legal standard. What he says is that the economic modeling showing that certain discounts can be anticompetitive tend to be highly complex, often making unrealistic assumptions.

The result is proposed legal standards that make impossible informational demands on the courts.

A more benign way of looking at this is the early models that have questioned the conventional thinking and basically challenged the Chicago view have worked with stylized assumptions to knock down at least the universality of the received wisdom and more work needs to be done before we know whether the results can be generalized enough to support a rule of law, whether basically what we have are some interesting footnotes that show that the current legal regime can lead to false negatives under some severe assumptions.

To base a rule of law on the economic models, we have to have general models on which we can base clear, predictable and administrable rules. Models that show that anticompetitive results could happen are not good enough to prescribe rules of law.

What we need are models that identify the particular circumstances in which aggressive pricing is likely to be anticompetitive and do so in a way that can be reliably administered within the constraints of legal factfinding.

The challenge is to have rules that capture the circumstances in which discounts harm competition, rules that do not discourage price cutting and do not serve as an instrument for strategic behavior by rivals to attack discounting by more efficient competitors, rules that offer sufficient guidance to business executives to enable them to respond and can be administered within the constraints of legality.

We need rules that are general, sufficiently general to have application beyond a narrow range of stylized assumptions, do not lead to incidents of false positives, are capable of application by business executives, capable of implementation with the types of evidence that are available to us in the litigation setting rather than some idealized laboratory setting.

The virtue of the cost-based test as a starting point or as an initial screen for analyzing pricing practices -- and that would include bundling and include loyalty discounts -- is that it does all of the above.

It is highly general in distinguishing between discounting to reflect a seller's superior efficiency in price cutting that has the potential to drive out an equally efficient competitor.

It avoids false positives by limiting liability to cases in which it is economically rational to incur a profit sacrifice in the hope of subsequent recoupment, following exclusion of a rival from a market.

It also sets a very understandable guideline for business executives, what they need to understand is their own cost, the cost of producing the goods that they make. They don't need to understand what the cost of their rivals are. They don't need to have a more detailed understanding regarding the consequences of their business conduct on market performance.

The test is administrable, because determining average variable cost, which has been the measure of costs used by the courts in most cases, which almost always is going to be a good proxy for avoidable cost, presents a relatively tractable problem, even though it is a fairly complicated one, as anyone who has been involved in any kind of cost analysis will tell you. It leads to predictable results.

One cannot overemphasize the importance of generality, predictability and consistency. Unclear or open-ended rules can have some serious negative effects because in and of themselves they can deter firms from engaging in discounting.

In fact, predictability is the reason why the predatory pricing test is a test that's grounded in a price-cost comparison rather than being a true profit sacrifice test.

A true profit sacrifice test would condemn failing to maximize short-term profits. It would condemn failing to recover the opportunity cost associated with particular pricing behavior. And the reason we don't do that is that a rule like that would make pricing decisions by firms with large market shares basically a roll of the dice.

So we have a clear rule that omits, I think, false negatives but one that is administrable and enables firms to base pricing decisions on an objective measure that is easy to follow.

Now, what does all this mean in the context of the practices that we are talking about here? What would a plaintiff have to show in challenging a multiproduct discounting?

The first thing a plaintiff has to show is it cannot offer the multiproduct bundle either on its own or in cooperation with other firms. If the plaintiff can match the entire bundle alone or cooperatively, the bundle is incapable of excluding, at least by virtue of being a bundle, other than on the basis of superior efficiency.

It can obviously ask whether the price of the entire bundle exceeds the cost of the entire bundle. But the bundling doesn't give the bundling firm a lever over its rival because we don't have the asymmetry of the ability of the rival to match a component of the bundle.

To the extent that an equally efficient competitor cannot match an offer because consumers are better off with a bundle than from a la carte purchases, any exclusion that might occur, and we have heard that it might occur based on perhaps differentiated demand for the products included in the bundle, may show harm to a competitor, but they would not show harm to consumers.

The same principle I think would apply, as

Professor Hovenkamp has argued, to single-product discounts if the price charged by the defendant is above cost.

That should be the end of the story. If the plaintiffs can show that it can't match the bundle either alone or cooperatively, then I think the Ortho test is probably today the best means that we have for identifying whether harm to competition may occur, if allocating the discount to the competitive product yields an above-cost price that is no more exclusionary than having the bundling firm price the competitive product on that stand-alone basis.

If the bundling firm flunks that test, then we need to look at a couple of other things. One is has the price been extended to a sufficient share of the market to result in exclusion, because unlike the classic predatory pricing situation, where the predatory price is extended across the entire market and every unit is sold below cost, mixed bundling discounts may be extended on a selective basis.

Critics of bundling cite this as evidence that the strategy is less costly than predatory pricing. By the same token, it also tells us the strategy is less likely to exclude.

It is also tempting for plaintiffs to focus on what happens at the margin, at some point which is near the threshold that triggers the discount.

To use an example from the Concord Boat case, in that case a defendant offered a graduated discount. The first level was 1 percent if a consumer bought 60 percent of its requirements from Brunswick.

Now, obviously, if you look at this from the standpoint of a hypothetical consumer who otherwise would buy 59 percent of its requirements from Brunswick, then you could say the last 1 percent is being given away for free and that is surely below cost. And that observation is as irrelevant as it is true.

To compete for just 10 percent of a buyer's requirement, an equally efficient competitor would have only had to extend a 6 percent discount to match the Brunswick offer in that case. And obviously an equally efficient competitor can match the offer to compete for the entire amount of the business, in which case its discount doesn't need to be any larger than the Brunswick discount.

It has to match the discount dollar for dollar, which is a 1 percent discount.

I think it is also important to take the duration of arrangements into account. Supporters of an interventionist approach assume that bundling loyalty discounts can go on forever because of the absence of a profit sacrifice.

In a litigation setting, this is an empirical question. We know in the exclusive dealing arena, the law presumes that arrangements of a year or less are presumptively legal.

Where we are talking about an arrangement that does not require exclusivity but simply offers an economic incentive to buy more from the seller, the same presumption should be applicable here.

Finally, I would say the plaintiff has to show real rather than conjectured harm. This means exclusion of the plaintiff that results in harm to consumers. We have seen in too many cases -- Ortho being one of them, but there are many others -- the spectacle of a plaintiff that is actually doing well in the marketplace, claiming that a rival's pricing practices are making it hard for it to compete, that it would have done better.

"I would have done better" shouldn't be the basis for a monopolization. The basis for a monopolization case ought to be exclusion.

Again, there are models that attempt to rebut the Chicago thesis. Maybe down the road they would call for a reevaluation of the law, but I think at this point they are too ambiguous in terms of impact on consumer welfare and too limited in their assumptions to support a change in the legal regime.

Thank you.

(Applause.)

MR. DEGRABA: We are at the break portion of our morning festivities. It looks like we should get back here in about 10 minutes.

We will reconvene. It is 11:00 now. So 11:10.

(Recess.)

MR. DEGRABA: Welcome back. We will continue for about 50 more minutes.

This is the sort of the moderated discussion part of our day, where we will present a number of propositions up here on the slides.

These propositions are not meant to represent necessarily the views of the Commission. They are simply statements made to generate some discussion.

But before we move to the propositions, I want to go through each of the presenters and ask if any of the presenters want to respond to anything any of the other presenters said.

So we will start in the same order that we did.

So we will ask Barry. Is there anything you want to say in response to something someone else said?

PROFESSOR NALEBUFF: I guess I was a little disappointed in the lack of response in terms of the presentation we had from Mr. Kattan in the sense of I think it is manifestly the case that bundled discounts do not mean lower prices, and that's actually a distinguishing feature of them.

The example I gave you, historical prices that had always been charged for these goods that you saw sort of 1, 2 and 3, suddenly the firm says if you don't buy all of my goods, now this competitor, I will raise them substantially.

In fact, the evidence would suggest that I'm going to raise them above what would be the monopoly level.

It is really a case of if you don't give me your wallet, I'm going to shoot you. To say that is now good for the consumers because they have the absence of being shot and calling that a discount strikes me as just a perversion of what's really going on here.

The fact is that when you do predatory pricing, you actually buy the stuff cheaply. But when you see a bundle, quote, "discount," it is not required that the customer actually was ever paying that high price. It is only that they weren't being threatened to be charged that high price.

That is a fundamental distinction which has to be recognized, and it is one of the reasons why we want to treat these things differently.

It is also, of course, central to David Sibley's perspective of when we see the price being raised for the single product by the absence of the bundle, that really should set off alarm bells.

In terms of Tom's presentation, just one thing to observe is there are times when the purpose of the exclusion is not to raise the price in the B market.

And in particular, there are cases I have seen where firms would never be able to raise the price of B, would always be competitive, but nonetheless, equally or more efficient B firms were excluded because that was going to be the platform for them to come into the A market and, therefore, attack monopoly, because it would be establishing sales force, establishing manufacturing in that territory.

So one has to look not just at the potential of the B market to be monopolized but what is the purpose of the exclusion here.

MR. DEGRABA: I will give Joe a chance to respond to the statement that bundled discounts don't always mean lower prices.

Joe, do you want to respond to that at all?

MR. KATTAN: It is certainly an empirical proposition that can be tested, whether bundled prices or unbundled prices represent an increase in the price vis-a-vis the price levels that prevail in the absence of the bundle.

I have not seen evidence suggesting that that's the pervasive way in which we encounter bundled discounts.

Now, is it theoretically possible to set up a construct that says here is what a seller can do, it can jack up the prices on an unbundled basis and offer a discount that simply takes you back to where you would have been in the absence of the bundle.

Yes, that is obviously arithmetically plausible. But the question is how common is that empirically and whether that is something that in the context of litigation also lends itself to the kind of proof that we have in the litigation setting, particularly when you have changes in quality, performance, product attributes that may take place over the same period of time.

MR. DEGRABA: Thank you.

And Tom Lambert, do you want to respond to the exclusion doesn't always mean an increase in the price in the B market?

PROFESSOR LAMBERT: Sure. May I bundle my response?

MR. DEGRABA: Is somebody controlling the volume on this thing? Let's continue.

PROFESSOR LAMBERT: I will bundle my response to Barry, along with my comments.

Joe began by quoting the Barry Wright case, and I believe that that is absolutely spot on in this context. So I will quote a bit from that.

Then Judge Breyer writes, "Unlike economics laws, an administrative system, the effects of which depend on the content of rules and precedents only as they are applied by judges and juries in courts and by lawyers advising their clients."

And here is the key part. "Rules that seek to embody every economic complexity and qualification may well, through the vagaries of administration, prove counterproductive, undercutting the very economic ends they seek to serve."

So my response to Barry's two points, one is the point that he makes in response to Joe, that you could have these phony discounts where you have jacked up the price and then said "hey, we are giving you a discount," and he seems to think those are very pervasive, it seems to me that most of the bundled discounts I see are not like that at all.

McDonald's, go to McDonald's.

PROFESSOR NALEBUFF: They are not the ones the antitrust cases are about.

PROFESSOR LAMBERT: Correct, but they are the ones that are affected if we adopt a rule of law that is designed to deal with .0001 percent of bundling cases. That to me is troubling and it's exactly what Judge Breyer is talking about in Barry White.

Sometimes we have to sacrifice the last 1 percent to protect the 99 percent.

It also seems to me that we could deal with those cases by -- the legal rule I propose presumes the legality of above-cost bundled discounts.

It seems to me that it would be possible -- and I think Joe mentioned this in his talk -- to identify a phony discount. If you see a price jack and then a discount, well, that's not really a discount.

So we could withhold the presumption of legality for that type of bundled discount.

And then I guess I would make the same point with respect to Barry's argument that sometimes bundling is done not to charge supercompetitive prices in the B market, foreclose competitors and get monopoly power in that market but instead to monopolize the A market.

That very well may be the case, and this is incredibly casual empiricism, but my guess is that doesn't happen enough to justify writing a law, a rule that is so complex that it chills the procompetitive bundled discounting.

I am very much motivated by this idea that we have to make these theories workable as laws, understandable, administrable by juries and judges and useful to counselors who are advising their clients.

MR. DEGRABA: Thank you.

David, do you have any comments on anybody's presentations?

PROFESSOR SIBLEY: Yes. This is more in the nature of something I meant to say but forgot rather than a comment.

One thing that motivated some of the original work that Greenlee and Wrightman and I did on bundled discounts was try to figure out as nonlawyers what branch of antitrust law was it appropriate to use in analyzing these.

We concluded predatory pricing wasn't the right branch. For a while we thought that tying was. The reason for that is if the B market is perfectly competitive and the A market is a monopoly, the only function of the bundle discounts is to set an out-of-bundled price of the monopoly product so high that consumers are faced with a choice of buying at high bundled prices or buying the competitive product and buying none of the monopoly product at all.

That is really equivalent to a tie.

The version of the model which involved two firms offering differentiated products tells us that no, there is lots more going on with bundled discounts than simply being equivalent to a tie.

The out-of-bundled price on my third slide wasn't in place simply to force people to face the option of buying the B market at a competitive price but no A or buy the bundle at outrageous prices.

It actually played a price discrimination role and people buy at that price. That suggests to me that if there is a general legal theory of bundled discounts to be had, it is not predatory pricing and it is not always going to be the same as tying either.

It is going to be something else, and I don't know what it is.

I would like to comment on something that both Joe and Tom said about sort of requirements that the plaintiff would have to meet in a bundled discount case in order to prevail.

One of them was that the plaintiff would need to show that it is impossible, either alone or with someone else, to assemble a bundle that would match the bundle being offered by the defendant in such a case. I think that rule has a lot of appeal to it.

There is one big caveat. Of the many things we have learned about bundled pricing from Barry, one of them is that the more symmetrical firms are, the more you would expect head-to-head competition to be very severe.

If in fact a firm were able to match the items in another firm's bundle, the result of that might simply be low-profit dog-eat-dog competition bundle versus bundle.

Knowing that to be the likely result, the firm might not incur the cost of assembling that bundle in the first place.

So it could well be that you could ask a plaintiff why haven't you assembled a counterpart to the defendant's bundle, and it seems perfectly possible, and the plaintiff would say yes, it is perfectly possible, it is just it would be unprofitable for me to do it because all I'm doing then is bundling myself into a price war and it is not worth the cost of doing it.

So I have a choice, either get into a price war which isn't going to make any money or stay where I am now and be excluded.

Although I think it is an appealing rule, you could probably anticipate a come-back like that.

I do want to quibble some with the notion that the existing models are simply too complicated or too data intensive to say anything useful. Before I do, let me make it clear I'm sure there are fact situations in which that charge would be true.

But the test that Barry has advocated which is sort of the refinement of the Ortho test, I don't think it is any more complicated to implement that test to do a lot of things that we do in antitrust cases.

I don't view that as having any incremental complication or data requirements over and above things we engage in any way.

Secondly, if you have a situation that is analogous to what Greenlee and Wrightman and I looked at, where there is a before and an after independent pricing of model discount, really a test for consumer welfare would simply be to say are the out-of-bundle options that consumers face after the bundle discounts are put into effect better or worse or the same as prior to the bundling.

If the out-of-bundled price for A is no higher than the previous price of A and if prices in the B market are either the same are have gone down, then we can infer that whether people take the bundle or not, they can't be worse off and they are probably better off than they were before.

That is not a complicated test. It does involve some work, sure. It is a lot less complicated than a number of things I have had to do in antitrust cases.

MR. DEGRABA: Thank you, Dave.

Joe, do you have any comments on anything that was said here?

MR. KATTAN: Certainly.

I am wondering whether the second model that David talked about is one that has antitrust significance.

It certainly shows that a firm that's facing differentiated demand in the second product market can raise its profits by bundling not necessarily for the purpose of excluding the second firm but simply in order to extract more surplus.

But that usually does not fit within the paradigm of antitrust cases. It is simply charging a higher price of its consumers.

PROFESSOR SIBLEY: I would agree that if there is no foreclosure effect, I probably wouldn't worry about it.

Some of the -- the model does suggest there can very well be, that the institution of bundling by Firm 1 puts the other firm in a situation where it has to charge lower prices than it has before, and this can make it viable.

MR. DEGRABA: Thank you.

We now move on to the propositions. Can I have slide 2 up there, please.

We have assembled a set of propositions that we will read and ask anyone who would like to comment on them to comment. Some of them have actually been covered at least in some part in some of the talks, but we will go through these anyway.

The first proposition is single-product discounts should be per se lawful if the overall price for all units exceeds cost.

Is there anyone that disagrees with that proposition?

PROFESSOR NALEBUFF: And, again, if it turns out that somebody could replace another firm 100 percent, sure, no problem.

But the Concord Boat case is a great one where in fact there is evidence that they had a monopoly for some share of the market based on installed base.

So it wasn't realistic. Maybe you could get 20 percent or maybe 50 percent of the market, but you weren't going to get 100.

The chart that I showed you was also from other cases like that. Do we think that rivals should always have to do 100 percent replacement? That's a pretty strong test for a firm that's not yet proven itself.

It may well be that incumbent buyers want to only take 10 percent chance, 10 percent of their supply before they decide to go whole hog in this.

So you have to ask do these discounts that go back to volume 1 really provide an opportunity for somebody to come in at a reasonable scale or not. If the answer is no, then I think we have a problem.

MR. DEGRABA: Anyone else?

PROFESSOR SIBLEY: Let me comment on what Barry said.

Barry, if the proposition were rephrased in the following way, would you have a problem with it? Single-product discounts are lawful if sellers, each seller in the market can serve 100 percent of each buyer's needs. In other words, each seller can bid for all of each consumer's business. Then there shouldn't be a problem, should there?

PROFESSOR NALEBUFF: They may have the capacity to do it. It turns out it may well be the buyers are unwilling to have a sole source, or they may be unwilling -- the incumbent supplier might have a monopoly over 40 percent, in which case the fact that I could supply 100 percent and undercut them isn't really relevant.

MR. DEGRABA: David, would your proposition be a problem if there was a significant amount of product differentiation amongst the competitors so that a particular consumer may not be willing to switch 100 percent out of supplier A into supplier B?

PROFESSOR SIBLEY: Yes, I might have a problem then because the buyer then is faced with competition really only for all his business and the buyer might not want that. Knowing that, one firm might end up with a lot of that buyer's business, charging a higher price.

Really I guess it is only if everything inside is as homogeneous as you would like and sellers are all perfectly positioned to serve each buyer and there is none of the stuff Barry was talking about, then it should be okay without further ado.

MR. MEYER: Is there some increment of the volume where it would be relevant to you that the price is above cost?

In other words, if there is an installed base, if you leave that out of it and ask about the contestable units, would it be relevant if as to those

units the price is above cost overall?
PROFESSOR NALEBUFF: You have to ask is there some normal, sensible way that a firm could come into this.
If you can say the picture I first showed you, a firm could only come in for below 5 percent of the market in some sensible way, in some area between 30 percent and 50 percent.
That didn't strike me as a normal thing. The other point is what's wrong with having significant discounts on incremental units rather than going back to 01? You could achieve very similar objectives. We are not stopping firms from cutting prices.
So I think in general, firms aren't going to offer negative prices under that scheme, but they may offer low prices over longer ranges. That strikes me as pro consumer. Since I have another way of achieving price discounting that doesn't have that exclusionary effect, why not use it?
MR. KATTAN: I think the same logic would apply to simple volume discounts, say if you buy 100 units, I will give you 5 percent off. That has exactly the same effect as something that may be more individually tailored.
If you look at Concord Boat, you can see that

the rivals there didn't have to compete for very much business in order to -- unless you assume that 6 percent discount would have forced them to be below cost. They wouldn't have to compete for very much business to be able to recover their cost and compete against the discount.

I think the other issue is how do you determine which is the inframarginal business that you are going to say this is not contestable, it is sacrosanct, it belongs to the monopolist and they are really competing only the following units which are incremental units to which we would allocate the costs. I think that gets to be incredibly complicated because in most cases it is not going to be clear what is inframarginal and what's marginal.

PROFESSOR NALEBUFF: The solution is to ask for an equally efficient firm, the monopolist itself, what units could it compete for. You can see what range it is.

If it turns out the discount is small enough, as it may have been in Concord Boat, so that a large range of entry is possible, I'm not worried about it. It is an empirical question.

You can say 1 percent doesn't work, 5 percent does, up to 30 percent does, but you can't go beyond that. Okay. So show what the range is based on what these discounts create.

PROFESSOR SIBLEY: Let me point out, really supportive of Barry's feeling, that this really isn't all that undoable. There has been a fairly recent -- I know that antitrust or patent was used, but in a case I was involved in in which we had discounts like this.

You can calculate which units have negative prices associated with them and what level of entry you would need to achieve if you were a new entrant and wanted to cover costs. The prices do look bizarre, just like Barry's picture, but it is really not that hard.

PROFESSOR LAMBERT: Can you do it ex ante if you are the business planning to give a loyalty discount?

PROFESSOR SIBLEY: Ex ante, the picture is actually somewhat easier. Right? It is one thing to think about an incumbent being there and there are a lot of reasons why incumbents are hard to unseat. Perhaps you are dealing with a loyalty discount scheme, which makes it tougher.

Ex ante, we could all be competing with loyalty discount schemes.

PROFESSOR NALEBUFF: If you can't do it ex ante, because it is so damn hard. If you as a seller can't figure out what it is, the buyer will probably have trouble, the rival would have trouble.

I would hope that a firm who is setting a price could actually figure out what its profits are at different levels.

MR. KATTAN: I think the reason the firm offering the discount can't do it ex ante is it doesn't know the scale at which the entrant is able to enter, which is something known to the entrant, the firm offering the discount.

I think part of what we need to do here is to make sure that the test that we apply is one that is based on information which is available to the firm that's offering the discount and doesn't depend on things that are outside of ability to know or control.

MR. DEGRABA: Thank you. We will move on to the next slide, slide number 3.

We have heard about this a little bit. The LePage's decision's vagueness is likely to chill pricing behavior that enhances consumer welfare.

I will ask sort of a two-part question, one to the lawyers and one to the economists.

The one I want to ask the lawyers is so what counsel are you giving to your clients, if at all, if you have run into this problem or what other counsel have you heard other attorneys giving to their clients?

For the economists, have there been any other empirical studies or any other data in the market that might suggest there's a problem? Anyone?

PROFESSOR LAMBERT: I'll start.

I think the answer -- the proposition is correct. And if you want empirical evidence, it is not very rigorous, but go to Google and enter "client alert LePage's," and you will end up with pages of client alerts from law firms saying "warning, this practice is potentially troubling, be very, very careful," blah, blah, blah.

It is likely, I believe, that that means there is a chilling effect.

In terms of counsel to clients, I would say give bundled discounts at your own risk, be very, very careful before you do it, and you might want to think about whether your rivals could compete with those discounts, even if your discounted price is above your cost.

Another piece of advice that I would give is something that Barry mentioned, I think -- maybe not -- and this is based on the Johnson & Johnson versus Applied Medical case.

PROFESSOR NALEBUFF: I mentioned it.

PROFESSOR LAMBERT: I knew you did but I wasn't sure if it was in private conversation.

In the Johnson & Johnson versus Applied Medical case, Johnson & Johnson was giving bundled discounts primarily to compete against an equally diversified rival, U.S. Surgical, a small, less diversified rival, Applied Medical, and several others who couldn't compete because they didn't sell the full product line.

And after receiving complaints, Johnson & Johnson responded by carving out the purchases of those smaller rivals. And nonetheless, Johnson & Johnson got sued by Applied Medical even after this act of generosity.

The judge granted summary judgment in favor of Johnson & Johnson on the basis of those carve-out purchases. So this does seem to be a way that a company can protect itself.

MR. KATTAN: I certainly agree that the vagueness of LePage's is problematic.

I think one of the things that is not clear from LePage's -- and when I have talked to people who have been associated with the case, I have gotten different answers on this -- is whether 3M simply showed that the price of the total bundle exceeded cost or whether it actually passed the Ortho test.

People who have studied the record tell me that they don't think that 3M passed the Ortho test. That still creates a problem for us because the burden of proof normally would be allocated to the plaintiff to show that the Ortho test wasn't met.

But to the extent that this is a case where the discounts allocated to the competitive products resulted in a below-cost price, it may be less exceptional than we think it is and we just need to wait and see how the law develops in this area.

MR. DEGRABA: Joe, could you articulate what the Ortho test is for anybody in the audience who doesn't know.

MR. KATTAN: It says that we will allocate the discount in a multiproduct bundle discount to the competitive product.

So the example would have been the shampoo and conditioner example that I think Tom used in his presentation.

In this case, the question was whether allocating the discount to the generic transparent tape would have resulted in an above-cost or below-cost price. I gather that the record is silent on that issue.

So it may be simply -- what the case may come down to, then, is really who bears the burden of proof in showing whether the Ortho test has been satisfied as opposed to some of the broader readings that have been given to the case as basically setting a formless and vacuous test for exclusion and a Section 29 test.

MR. DEGRABA: Thank you.

You want to say something, David?

PROFESSOR SIBLEY: I don't know whether LePage's has had a chilling effect or not because to answer that question, I would have to know all the firms that have thought about doing loyalty or bundled discounts but have chosen not to.

I will simply observe that there are antitrust cases going on now or recently concluded which, if you believe the plaintiffs in those cases, involve firms that have been engaging in bundled discounts in time periods subsequent to LePage's.

It may have chilled such activities in some senses, but it certainly hasn't stopped them.

MR. DEGRABA: We will move on to the next slide, please.

PROFESSOR NALEBUFF: One more comment.

One should also take the perspective that the vast majority of bundled discounts that we see out there, whether it be the Happy Meal at McDonald's and the like, wouldn't come close to the test we are describing here in terms of leading to incremental products being below cost.

Those in my view are just red herrings in terms of thinking about the type of bundled prices that you would see. They are not affected by LePage's and they are just not relevant for any discussions we have here.

MR. DEGRABA: Okay. Our next proposition is a bundled rebate or discount can exclude an equally efficient single-product competitor, even if the postdiscount price of the bundle as a whole is above cost.

We have talked about that at some length here. There is actually kind of two off-shoot questions I want to talk about.

The first is what happens if we instead of looking at existing competitors in the market, what if we were to also consider entry deterrents. How would entry deterrents be considered in this proposition?

PROFESSOR NALEBUFF: I have written on that. In the paper in the quarterly Journal of Economics, the challenge is that same rebate gets to be used in multiple dimensions, and, therefore, it makes it less profitable for somebody to come in.

It is also rational that a firm would want to do that rebate and do that bundling in the face of competition.

It is also the case that it limits the potential market of a rival to consumers who like that entrant's product and don't like the A product and therefore can shrink the potential market available to an entrant.

Bundling is one of the most effective tools to prevent entry that we know, I think.

PROFESSOR SIBLEY: Let me follow along with what Barry is saying.

In the last line of my talk, when I had the two firms offering differentiated product, it is not only the case that it is possible to exclude an equally efficient B competitor in that set-up where the overall price of the bundle exceeds the cost of the bundle.

In fact, the individual prices would all be higher than costs as well. In no sense are you pricing below cost, and, yet, you can exclude an equally efficient competitor.

MR. KATTAN: I think the question is whether in these models that show that an equally efficient competitor can be excluded, consumers are better off or worse off.

At least as I read the exclusionary bundling paper by Professor Nalebuff, in one of the examples he gave with the A and B products with one of his propositions today actually showed that both consumer welfare and producer surplus go up.

So total welfare goes up, consumer welfare goes up, and yet an equally efficient competitor gets excluded.

And the question is do we want an antitrust policy that says that we are going to punish firms for conduct that actually raises consumer welfare.

PROFESSOR SIBLEY: I think we are not to punish firms for conduct that raises consumer welfare.

The sort of policies at least the economists at the table have been talking about are not policies which are finely designed enough so they attempt to root out consumer welfare reducing activities, consumer welfare increasing activities, but simply to construct safe harbors. That is, if the following is true, then consumers are not harmed.

It does not mean that if the following is not true, they are benefitted necessarily or are harmed.

But at least the safe harbor test we have been talking about I think are on sound ground there.

By the way, you asked earlier about examples of what Barry was talking about in terms of bundled discounts just involving sort of fictitious discounts.

Barry went through a pharmaceutical example.

Who are the firms in that one, the Keflin and the rest of it?

PROFESSOR NALEBUFF: That was SmithKline and Lily.

PROFESSOR SIBLEY: That's a case where the discount was in some sense fictitious.

What the defendant did there was to raise the out of bundled price 3 percent and give them a 3 percent discount on the bundle. That was pretty close to what you have heard us talking about.

MR. KATTAN: My recollection is that that case could be addressed by application of the Ortho test.

PROFESSOR SIBLEY: It was addressed by the application of the Ortho test. The point is simply it isn't just a figment of economists' imagination that these things could happen. They did in that case.

MR. KATTAN: What you are citing is a 25-year old case. If that's the only example we can come up with in 25 years, I'm not persuaded that it is pervasive.

The question is, do we need a test that is more stringent than the Ortho test, or is the Ortho test adequate to address the kind of concerns that have been articulated through these models?

PROFESSOR SIBLEY: It depends on what your concerns are. The Ortho test is a test designed to see whether a single-line firm can undercut a bundle.

You can say if you want to call that a test of anticompetitiveness, that's what it does. It gives a sort of safe harbor.

The sorts of things that Greenlee Wrightman and I talk about were not tests for that, does consumer surplus go up or down, when can we be assured it only goes up. There are circumstances under which it is an easy test to do.

PROFESSOR NALEBUFF: The one place where Joe and I do agree is what I proposed is really a modification of the Ortho test.

There are some parts of the test that are missing. For example, it turns out the right time to apply the test is not ex post. It is ex ante. It is when the consumer is trying to decide who to buy from.

Therefore, you have to use the anticipated volumes, not the ex post volumes, which can often be a challenge here. You also have to use the incremental cost as opposed to thinking about what I'm selling, the bundles or just selling things individually.

Subject to correcting for what expectation should be and how you measure costs, actually I think it is the way to go.

MR. DEGRABA: Let me skip ahead here to slide number 7 because it is a related question.

The proposition here is loyalty discounts, either single product or bundles, should never be condemned without applying some kind of price-cost test.

Do you agree or disagree? Or kind of agree?

PROFESSOR SIBLEY: It kind of depends. If what Barry and I call the B market is perfectly competitive and the demand for A and B are independent and all that sort of thing, then in that case you can say whether consumer welfare has gone up or down or stayed the same.

Simply by comparing the out of bundled price to the prebundled price, to the independent pricing level of the monopoly good, you don't need to know anything about costs.

MR. DEGRABA: Outside of the nice, clean test on prices, is there any other conditions under which you would condemn a bundled discount without a price-cost test? Is this essentially a price-cost issue?

PROFESSOR NALEBUFF: I have this general matter and issue where my price depends on what it is that you buy from other people as a general statement, as opposed to the price I charge you depends on what you buy from me.

So that to me -- it is of the form I will charge you one price if you buy from David and another price if you buy from Joe.

I think that is problematic, as opposed to my pricing depends on what you buy from me.

PROFESSOR SIBLEY: If I was going to use that as a test, if I'm a bad guy and I want to charge you more if you buy from Fred as opposed to me, can't I always mimic an anonymous-looking thing just by appropriate choice of quantity discount with grade points which happen to exclude Fred?

PROFESSOR NALEBUFF: You can try and do that. It is much more difficult to do it. I didn't claim excluding that is going to be perfect. When you do it directly, it is problematic and I shouldn't -- we should know how.

MR. MEYER: If we grant you an exception for the moment for discounts specifically or rebates specifically keyed to purchases from identified competitors, leave that off the table, is there some kind of price-cost test safe harbor that you would acknowledge is appropriate here?

PROFESSOR NALEBUFF: That first one is basically a statement of my price to you depends on the market share I get. My market share test is ultimately a test that you don't buy from somebody else.

Those things are very common. They are not exceptional out there.

MR. MEYER: You wouldn't limit your exception to specifically identified purchasers? You would say if there is anything that is keyed to how much the consumer is buying?

PROFESSOR NALEBUFF: Not volume. Percent. Ultimately --

MR. MEYER: If you have an estimate of the customers' total needs, don't you also have an estimate of their share?

PROFESSOR NALEBUFF: I have an estimate. The price will depend on what they buy, an absolute amount, not punishing them for buying something from another firm.

MR. KATTAN: If you buy 800 units from me, you get a 5 percent discount, that's okay, even if I say to him if you buy 600 units from me, you get a 5 percent discount?

PROFESSOR NALEBUFF: I'm much happier with that than saying i will take away your discount if you buy anything from David.

MR. MEYER: Defining this exception to mean market share discounts, where do you end up after that?

PROFESSOR NALEBUFF: I think if you pass the modified Ortho test, if you would like, so that the incremental price, based on expected volumes and such, is above the incremental average variable cost, you are fine. And you are using your own cost in doing that test. Because you could offer a competing B product by itself without any difficulty.

MR. MEYER: Is there congruence, David, between that statement and the situation you were describing of the conditions where an increase in the out of bundled price for A goes up or doesn't go up?

PROFESSOR SIBLEY: I guess in some sense. I would want to think about that more. Simply saying buy from Fred, pay a lot for A.

PROFESSOR NALEBUFF: I thought the question was something else. I thought we all agreed on that safe harbor, by the way, in terms of if the incremental price for B compared in the A/B bundle story is sufficiently high, then it actually isn't below the actual variable cost to B, for the firm selling it, I think we all believe you are in no danger.

The question is what about if that test isn't passed.

PROFESSOR SIBLEY: If it isn't passed, then it is hard to tell. It is not a simple test. At least I personally don't have anything ready for primetime on that.

MR. DEGRABA: Let's go back to slide number 5. It says a loyalty discount that allows a competitor to operate profitably at some scale can never be harmful to consumers.

Basically what we want to know here is is the sort of antitrust objections to loyalty discounts strictly one of driving competitors out of the market or can there be serious harm to consumers simply by shrinking, if you will, some competitors' output.

PROFESSOR LAMBERT: I would say, just as a factual matter, sure, there can be harm to competitors and to consumers by shrinking the rivals' output through a discount.

The problem is, beating a dead horse here, we have to come up with a way to write a rule that implements that notion, and that requires us to know something about minimum efficient scale, which is almost impossible to know.

So while I would concede that it is possible to harm rivals and harm consumers by reducing the rival's scale by usurping so much business from them with your loyalty discount, nonetheless we should have this Hovenkamp legality rule if the discounted price is above cost.

It could be met by equally efficient rivals. The discounting practice might actually affect rivals' efficiency by diminishing their scale.

But I can't think as a lawyer of a way to design a rule that doesn't have a chilling effect if we are having to focus on what is minimum efficient scale and what amount of a discount is permissible before you usurp so much business that you prevent someone from achieving minimum efficient scale. I think that is too hard to administer.

MR. MEYER: What if you instead define the defense, which is if the plaintiff is continuing to operate profitably in the market for B, even if it is at much lower volume than it had or market share than it had, then the plaintiff's claim fails?

PROFESSOR LAMBERT: I would certainly have that defense. I would say that if a plaintiff can match the discount --

MR. MEYER: He may not have been able to match the discount for all the customers to which it was operating but still operating in the market for B is my question.

PROFESSOR LAMBERT: Yes, I would give that defense.

MR. KATTAN: That is exactly what happened in the Ortho case.

PROFESSOR SIBLEY: I think people who know the facts of LePage's better than I may tell me I'm all wrong here.

As I recall, LePage's didn't claim it was going out of business. It just had a lower market share and it wasn't making as much money as it was before.

If this rule were applied to LePage's, I guess it would have been over in favor of 3M. Let me speculate as well. I don't know if this is true, and I haven't thought about it before this second.

Even if we accept that a rival can only compete profitably for a subset of consumers, maybe based on some peculiar behavior scale of economies, something like that, nonetheless, if the other firm, the one that is not the rival in this case is pricing some other set of consumers very high, it may be possible for the rival, even though it can't serve the entire set of consumers, to sort of skip around between subsets that it does in fact serve and keep prices down that way.

PROFESSOR NALEBUFF: It seems to me that this can still be a problem. And actually we saw a recent case against Briggs and Stratton here in the lawn mower industry, where some of the rivals were making some money and others were actually losing so much that they were exiting the business.

The view was that if the type of loyalty payments had been different, those rivals would have been at 20 percent of the market, they would have been at 50 percent and the competition would have been much more vigorous in that industry, that the customers would have been able to have a whole collection of different companies to buy from, that there would have been a lot more innovation going on here.

So, if you are able to keep your rivals at 10 and 15 percent, they may choose not to invest in this business, not to try and expand it. And I think there can be tremendous harm in the long run here.

MR. DEGRABA: Anyone else?

Okay. Thank you.

I have time for one more before we break for lunch. We will move to slide 8, which reads "In a loyalty discount case, intent is relevant to proving monopolization."

Do you agree or disagree? That comes from LePage's, by the way.

MR. KATTAN: The question is intent to do what? Every firm intends to take business away from its rivals. When I discount, I'm hoping that by offering the discount, I'm going to get more business for myself and that my rivals are going to get less business.

That intent certainly shouldn't have any bearing on the outcome of the case. You can assume that it did in every case.

MR. MEYER: What if the intent were the converse or the flip side of that, which is intent to achieve some business justification, if you will -- I'm not interested in what those might be -- evidence that there wasn't a desire to exclude rivals or that that wasn't the dominant driving factor in the business's behavior?

MR. KATTAN: I think that presents a more complicated question. I think if you have a test that focuses on objective factors, did I price below or above cost, if I priced below cost, did that exclude competitors, that you probably would not need to go through things like that.

PROFESSOR NALEBUFF: I think this actually gets to some of what Tom was asking about, which is is this market ultimately monopolizeable, and I would extend that to is there something else that you could achieve, maybe not monopolize B but A.

It is harder to understand why firms would be engaged in this type of exclusion if there was no ultimate benefit for them. I also share the view that trying to either look for evidence of intent one way or the other is sufficiently manipulable or hideable that I'm worried about playing that game.

You would have the advantage the first time it is being done in that people aren't aware of it. So you can have a lot of bad evidence.

And, of course, people say things that they don't really mean in ways when they get into court that can often not sound as good as sometimes they really did mean it to.

MR. DEGRABA: Okay. Given that it is 12:00, I will thank the panelists for all of their insight.

(Applause.)

MR. DEGRABA: We will reconvene at 1:30 after a tasty lunch.

(Whereupon, at 12:00 p.m., the hearing was recessed, to be reconvened at 1:30 p.m. this same day.)

AFTERNOON SESSION (1:30 p.m.)

MR. MEYER: Let's get started.

Welcome to the second of today's sessions on loyalty discounts. My name is David Meyer. I'm the Deputy Assistant Attorney General at the Antitrust Division. I will be monitoring this afternoon's session with the help of Patrick DeGraba, who is at the Bureau of Economics at the FTC.

The Department and the FTC are sponsoring jointly this series of public hearings on single-firm contracting to help advance the development of the law concerning the treatment of unilateral conduct under the antitrust laws.

Transcripts and other materials from prior sessions are available on the DOJ and FTC Web sites, and in due course, hopefully soon, the transcripts of presentations from today's sessions will also be posted.

Our next hearing will be December 6th -- that's next Wednesday -- addressing misleading and deceptive conduct.

Today's session concerns the law and economics of loyalty discounts.

Bundled discounts or rebates involving two or more products have been a hot topic in antitrust forums for some time, particularly since the LePage's decision of several years ago.

In addition to bundled discounts, today's panelists are also addressing single-product loyalty discounts, sometimes referred to as first-unit discounts, by which a seller provides a discount on all units sold once certain targets are reached, not just the discount on the incremental units sold above or beyond the set targets.

Our morning panel offered many interesting comments and observations about loyalty discounts of both sorts, and we look forward to learning more from this afternoon's panelists.

This afternoon's speakers are, starting with Tim Muris, a George Mason University Foundation professor of law. He is of counsel at O'Melveny & Myers and, as perhaps all of you know, a former chairman of the FTC.

He also has the distinction of having headed both the FTC's Bureau of Competition and the FTC's Bureau of Consumer Protection.

PROFESSOR MURIS: Not at the same time.

MR. MEYER: That may be debatable.

Our second panelist is Daniel Crane, who is an associate professor at law at the Yeshiva University Benjamin N. Cardozo School of Law.

Our third panelist will be Janusz Ordover, who is professor of economics at NYU and a former Deputy Attorney General in the Antitrust Division.

And, finally, Will Tom, who is a partner at Morgan, Lewis & Bockius and a former deputy director of the FTC's Bureau of Competition.

More detailed bios are available out front. So I will not bore you with all of the accomplishments of all of these esteemed panelists.

The organization of the panel will be as follows. Each of the four panelists will deliver a presentation, approximately 15 to 20 minutes. We will then take a short break.

When we return, we will start with each panelist having an opportunity to take a few minutes to respond or comment on the presentations made by the other panelists, at which point after hopefully only 10 or 12 minutes, we will turn to a moderated discussion among the panelists and with the panelists.

Unfortunately, I will not be able to take comments or questions from the audience. We plan to end around 4:00, but if the discussion is lively and entertaining, we don't have any necessary hard and fast end time.

The doors will be locked. So don't worry about that. Before we start, I need to cover a few housekeeping matters.

First, as a courtesy to everyone and given the way the electronic system works here, I would ask you all to turn off your cell phones and Blackberries or at least turn them off of transmit so they don't cause a problem with interference.

Second, as you may know, restrooms are all the way across the hall past the elevators where you came in this morning.

Third, and this is a required safety announcement here at the FTC, if the building's alarms go off, move calmly and quickly but act in the manner in which you are instructed to. You will be exiting through the main entrance if necessary. Presumably there will be a lot of FTC folks who know what they are doing. Just follow them.

With that, I would like to introduce and welcome Tim Muris.

PROFESSOR MURIS: Thank you very much for the very kind introduction.

In the long time since I left law school -- and I think I look younger than my actual age -- I have had a lot of jobs and six of them in the federal government. With apologies to my many friends at the Antitrust Division, four of them were at the FTC Commission, which

I guess makes me an FTC guy. But I have had a deep fondness and respect for both agencies.

I'm going to talk today a lot about some experimental economic work. Let me put it in an overall framework.

I do want to disclose that I was retained by the United States Telecom Association, the views in the paper, and I will express views that are my own as well.

And this slide presents a framework that we all know, I believe, which is the basic economic framework about not just economics but about what a legal system needs to do.

A legal system needs to be efficient, needs to minimize some of the error costs and indirect costs, and I believe we all know a lot about both of those. We all know about type I, type II, and the direct costs makes livings for lots of us.

The history of Section 2 is one that ought to give us -- which I have written and many people have written on -- one that ought to give us great pause. It has largely been a history of mistakes, not exclusively.

As someone who launched the most aggressive use of Section 2 of any enforcement head since the '70s, I hope the pattern and history of mistakes doesn't continue.

There obviously have been some good cases, I believe, along the way. But as Hovenkamp says in the second bullet, the scope and meaning of exclusionary behavior remains, indeed, very poorly defined.

There's a few key cases in the bundling world and in the broader world. Brooke Group clearly wanted to minimize the type I error, recognized the high type I costs, rejected the theoretical possibility of harm as a sufficient basis for liability and focused on market realities.

Probably the most important thing about Brooke Group is Brooke Group is about having a bright-line test that is administrable for judges, juries and parties.

I think my good friend Greg Warden phrased it best, that it is a recognition that we don't want to contemplate making mistakes in this area. I don't know if I quoted Greg exactly, but I think I paraphrased in the spirit.

Concord Boat is another important decision. It doesn't address bundling but single-product market share discounts in a manner that is consistent with the varied cost approach of Brooke Group.

The discounts were above cost. They are ordinary business practices often used in competitive markets. They are not unlawful exclusive dealing.

The bottom line, it was not a Section 2 violation.

Then we come to LePage's. And whatever one thinks of potential problems with bundled discounts, I think it is hard to find supporters of the standardless LePage's opinion.

It is an opinion that did not exercise caution, a very poorly articulated theory of harm and an incomplete record.

If you believe, which is usually a good thing to do, to take the opinion at face value, the jury could find a dominant firm liable under Section 2 based on the possibility that bundled rebates, regardless of their effect on consumer welfare, could exclude an equally efficient competitor.

The point is that when you apply the standard-free approach of LePage's to Section 2 liability, you are going to likely have high error costs from false positives.

We know, and particularly because we live in a world where bundles are everywhere, bundles can reduce transaction costs in both the purchasing and selling side of the market, they can serve as an alternative traditional advertising, and they can be used, and a very important part of the literature, they can be used by companies to give retailers strong incentives to promote and sell their products and services, which is an efficient and important vertical control function.

As an example, one can think of bundling. The consumers of telecom products and services demand bundles. And we live in a world increasingly where the competition of the future is between the traditional so-called wireline companies and the cable companies selling consumers bundled products, video, data, voice, and now the cable companies are even offering wireless.

That's just one of -- we could go forever on examples of bundling.

Now, the economic literature on exclusionary bundling indeed shows that bundling can exclude competitors. And from that it is possible that anticompetitive harm could exist. They certainly don't show that such harm is likely.

These models contain many restrictive assumptions. They don't consider efficiencies from bundling, and they have not been tested for robustness or empirical application to the real world.

They simply don't show whether the potential for anticompetitive harm outweighs the benefits from bundling.

Now, there have been lots of suggested theories, and one of the ones that would be a vast improvement over LePage's but I still think has problems is the idea of excluding a hypothetically equally efficient competitor.

This in itself focuses by itself -- I believe Professor Hovenkamp has supported this but now in a much narrower version than he originally did.

By itself this focuses on harm to competitors, not competition, and the bundled discount would exclude -- using this test, would exclude a bundled discount that could help consumers.

My basic problem with the test can be summarized in one simple sentence, which is all else equal, how can a firm that offers you less of what you want be equally efficient with a firm that offers you more?

And I think the government in its 3M brief had a sentence alluding to the fact that, indeed, the whole concept of equally efficient might be a difficult proposition here.

This is an example. I won't go through the arithmetic because I do want to get to the experimental economics. This is an example that Professor Hovenkamp uses, and it's an example clearly where bundling increases consumer welfare.

Yet, you can see that the alleged equally efficient competitor is excluded.

Let me move to what I in my ways believe is a significant contribution to moving the ball forward on the issue of bundled discounts, and that is work that was done by Vernon Smith and his colleagues at the Interdisciplinary Center for Economic Sciences at George Mason, where I teach, so-called ICES.

Vernon is one of the fathers of experimental economics, and for that work he received the 2002 Nobel Prize in economics.

Experimental economics uses laboratory subjects to test the validity of economic theories.

One of the many good things about experimental economics is in numerous settings, experimental economics has been shown to be consistent with the way the real world works.

One of the most interesting things -- experimental economics is sometimes criticized because they use college students. I have watched the economists compete with the students. And the college students have nothing in mind but making money in these experiments, and the economists are often trying to think of some theory. And the college students invariably kill them.

And I participated in these experiments myself.

My colleague at George Mason, Bruce Kobiashi, can remember going down many a time for beer money, to pick up a little money. But you had to be good at the experiments.

What ICES did was they conducted an experimental evaluation of various theories of anticompetitive bundling using a baseline case and then variations on the case.

The variations included changes in the correlation of reservation values. I don't know if Professor Nalebuff and Sidley talked about that this morning, but the relationship of the reservation values is extremely important in this literature, the existence of efficiencies from bundling and the introduction of a fringe competitor to the monopolist.

What you have is an A market with a monopolist. 100 percent of the literature assumes 100 percent that also sells in the B market. And in the experiments, the B market was served by up to three sellers of only B.

The baseline experiment tested cases in which bundling by the monopolist was first prohibited and then permitted. There are lots of details about this that are available in the paper.

The baseline results showed that despite no efficiencies and despite a setting under which you would think that bundling could be problematic, consumer welfare still increased, although it wasn't statistically significant.

And then when you added efficiencies, that is, transaction costs, savings or the assumption of perfect correlation and demand, the welfare-increasing effects of bundling rose.

Here are again the details that are in the paper, and the slides are available, and obviously we have given you a set of the slides.

What was measured was consumer surplus, total surplus and the number of competitors. And then the variations were the transaction cost savings, the negative correlation.

The Stigler paper on black booking, which was one of the first papers here, had as opposed to perfect positive correlation, perfect negative correlation, which was a situation that allowed price discriminations.

Under each of these, sometimes it was statistically significant and sometimes it wasn't, but there were not welfare losses. And only when bundling was efficient did statistically significant exclusion occur, which is interesting.

Now, what happened is after these -- I consulted throughout this experimental process. We were hoping that what we would find is under these very simple conditions here, you have anticompetitive effects of bundling which these models had predicted, and then we would tweak them some and see what happened.

Since we couldn't find anticompetitive bundling effects, what we decided to do was modify the demand conditions to make exclusionary bundling more profitable.

The reservation value for the B good was raised to greatly exceed the reservation value for the A good for a lot of consumers, which meant there was more to get out there.

Under the modified demand conditions, the bundled discounts can exclude competitors in the B market. And, indeed, welfare did fall, but it was very little and it wasn't statistically significant.

Look at the conditions that had to occur. There were extreme assumptions regarding the demand in the B market. There was perfect positive correlation between the A and B market demand.

There was no fringe seller in the market, and there were entry and exit frictions in the sense that if you entered, you had to stay for some periods, and if you exited, you had to stay out for some periods.

And here are the results. You can see there was a big drop in the number of competitors. And there was actually a drop in surplus, both consumer and total, but very small and not statistically significant.

Now, then the results of the experiments were changed to add -- one of the nice things about experiments, you can hold a lot equal and make a lot of variations, to add a fringe seller, with the fringe seller having a small fraction of the capacity of the market.

With the fringe seller, the total surplus increased, and also they tested the effects of removing those entry and exit frictions that I talked about. Those alone reversed the negative welfare results that were shown in table 2.

And here in table 3 are the results, showing the various effects of what I just described.

Let me briefly say what a lot of this means, and I do hope to do this under my 20 minutes.

We have the various tests. The hypothetically equally efficient competitor test, for reasons I stated before, it is overinclusive, and it would condemn bundled discounts that increased welfare.

The de facto tying test requires knowledge of the hypothetical monopoly price in the absence of bundling, which is a price generally not easily ascertained, to say the least.

If deviations from perfect competition in the B market or other alternatives are considered, this further complicates the test.

I don't know what Professor Sidley talked about this morning, but in the second paper he did, he showed that his results of anticompetitiveness depended on perfect competition in the B market.

And, of course, perfect competition in the B market is not -- perfect competition anywhere is not something we find much of in the real world.

Based on the experiments, the conditions under which this de facto tying will emerge are very limited. And, of course, we already have rules about tying.

I think that the most appropriate test would be a modified Brooke Group test, which would be based on the bundled price exceeding the bundled cost. It would minimize the cost of false positives, and it would be administrable.

And in that sense, in the absence of evidence that the cost of false negatives from anticompetitive exclusionary bundling is large, I submit that we should use the modified Brooke test.

So just a few points in conclusion.

I believe and I think that Barry Wright's case, as Professor Crane and others have stated, Professor Lambert, who was here this morning -- clearly the federal courts have ruled on single-product pricing behavior.

But that is not true for bundled discounts. LePage's is standard free and it has spread beyond the Third Circuit. Read Pease Health, a Ninth Circuit District Court case which is discussed in the paper.

Given the history of Section 2 and given that we are dealing with price application of Section 2 to any exclusionary conduct, particularly this one, we should follow a cautious approach that is consistent with that applied to the single-product pricing in order to minimize the sum of error and direct costs.

And the courts and those subject to potential liability would benefit from guidance that reduces the uncertainty that LePage's has created and stems the general application of the Third Circuit's flawed approach.

I'm hoping that these hearings, among many other good things they will do, will accomplish that result.

Thank you very much.

(Applause.)

MR. MEYER: Our next speaker is Daniel Crane, who, as I said, is an associate professor of law at the Cordozo School of Law. He is also counsel at Paul, Weiss, Rifkind, Wharton & Garrison.

PROFESSOR CRANE: It is my pleasure to be here today. I'm going to speak primarily about bundled discounts, the LePage's issue, and I'm afraid I will repeat some of what was said this morning, but hopefully to good effect.

I should disclose I am been involved and continue to be involved in some cases as a lawyer in which bundled discounts are at issue, though, of course, the views I present today are my own.

I will not use any slides. We can just listen, I hope.

At the outset, let me stress that the rule that I'm going to defend as a safe harbor, the Ortho test, or perhaps the Ortho test with some modification, is not a rule that is perfect.

It is not a rule that will achieve a state of affairs where all discounts that are harmful to consumers will be said to be illegal and all that are pro-competitive will be lawful.

But what I think is important as a lawyer, of course, now as an economist, is to articulate practicable, workable rules for the courts. This is particularly important for private litigation.

At the end of my remarks, I will talk about how I would welcome a perhaps different approach in injunctive cases brought by the government than in private litigation. Because of some features of private litigation, I am quite confident that the LePage's test is doing far more harm than good.

Let me sort of set forth four background conditions against which I will defend the Ortho test as a safe harbor in litigation.

The first background condition which has been addressed already today is that bundled discounting is pervasive and has many pro-competitive or competitively neutral reasons.

When a practice is widespread and usually competitively neutral or pro-competitive, courts should be particularly concerned about condemning instances of that conduct without very strong proof of anticompetitive consequences because of the dangers of false positives.

Just to give an example about how widespread and pervasive bundled discounting is, when I was working on my article for the Emory Law Journal about bundled discounting, I looked at my e-mail, and lo and behold, I got an e-mail from the ABA antitrust section advertising

"Market Power Handbook" and "Econometrics," two separate books, for a package price which is a 12 percent bundled discount off of the retail price of the two individually.

I ran into Dan Rubinfeld a short while later, who is the editor of one of the books, and I promptly served on him a complaint for monopolizing the economics and antitrust literature market.

Of course, bundled discounting happens in all sorts of places where there can be no suspicion of anticompetitive conduct.

That doesn't mean that cases like that will be litigated, but what it shows you is when you have a pervasive practice, there are often likely to be good explanations for it, which should make us particularly reluctant to condemn instances where there might be anticompetitive consequences without very strong reasons to do so.

A second background condition is that bundled discounts in commercial contexts are often driven by buyers rather than sellers. Significantly, many of the recent bundled discount cases to be litigated did not involve sales to end consumers but to retailers or manufacturers acquiring components or other large oligopsony or monopsony buyers.

Large diversified buyers often leverage their buying power across multiple product lines to exact a bundled discount from the manufacturer. And, of course, these buyers have a strong incentive not to demand discounts when doing so would weaken competition in the markets that supply them.

So my own view is that bundled discounting, often driven by buyers in these cases, the incentives of the buyers themselves are much better at controlling competition than litigation is.

This morning Barry Nalebuff said that oftentimes in bundled discounting cases, one of the problems with bundled discounts is that they sort of conceal what the real price is, it is hard to know what the real price is, it can cost up to $10,000 for a buyer to really compare apples to apples unbundled versus bundled.

When we are talking about buyers like Wal-Mart or GPOs and the medical devices cases, AMD, Intel, Broadcomm, Qualcomm, Information Resources versus A.C. Nielsen, many of these litigated cases involve very, very large sophisticated buyers.

So even if it is true that sometimes comparing apples to apples is difficult, if you look at the cases litigated today, it seems to me that is simply not an objection.

A third background condition is that I believe that courts need rules and not merely open-ended standards, particularly in sensitive areas of price competition and Section 2.

I have a forthcoming article in the Washington and Lee Law Review about the rules and standards debate as applied to antitrust law where I argue in favor of bright-line rules to immunize defendants from lawsuits in cases involving particularly private litigation and unilateral practices.

Committing economic policy to juries in cases like LePage's is a really miserable way to run a legal system.

A fourth and related background condition is that a growing literature -- including my co-panelist, Janusz Ordover, has written in this area -- shows that firms can strategically misuse antitrust law to prevent pro-competitive behavior by their rivals.

As I will discuss in a few minutes, I believe that many of the recent bundled discounting cases involve frustrated competitors seeking to deny commercial advantage to a more diversified rival, not firms that are in any real danger of being excluded from the market.

Well, with these background conditions as considerations, let me say a word about why it is not sufficient to analogize bundled discounting to tying or exclusive dealing, as some cases like LePage's have suggested.

In a tying case the consumer is required to take the tied product if he wants the tying product as well. In a bundled discount case, the consumer always has the choice to buy simply the tying product.

Of course, it is possible that the discount is so large that it would be economically irrational for the consumer who wants both products to buy just the tying product and then purchase the tied product separately from the plaintiff or a smaller, less diversified firm.

But that would only be the case if the plaintiff was unable to offer a discount that would make the consumer indifferent on whether it accepted the defendant's package discount or bought the two items a la carte. Of course, that's a question that tying analysis lacks the tools to answer.

Similarly, an exclusive dealing analysis focuses on whether the defendant's contractual practices foreclose a substantial share of the relevant market to rivals.

But foreclosure is, again, an empty concept unless it means that rivals cannot compete for the business.

To put it another way, if a rival would be able to profitably match the defendant's bundled discount, what we have is ordinary price competition and not foreclosure.

The problem with using exclusive dealing analysis to assess bundled discounts is that exclusive dealing analysis begins with the assumption that whatever contracts are covered by the relevant contracts are foreclosed to rivals, a fact which is not even in evidence yet in bundled discounting cases.

So either a tying analogy or a bundled discount analysis, without first looking at sort of economics of the discount, is really putting the cart before the horse.

Let me now turn to the rule for bundled discounts that I will defend as a safe harbor. Janusz tells me he created this on the back of a napkin. So we will leave it to him to give you a history of this.

The rule traces back at least to the Ortho decision. It was adopted in some litigated cases, including Information Resources versus Dun & Bradstreet, a Southern District of New York case, and I believe is reflected in Professor Hovenkamp's 2006 supplement to the antitrust treatise.

A plaintiff challenging a seller's bundled discounts as predatory must show as a minimum requirement that the bundled discounts resulted in at least one product in the package being sold at less than cost after reallocation of the discounts on other products in the package to the predatory product.

Another way of saying this is that the bundled discount is not unlawful unless the effective price of the product in the competitive market is below cost, taking into account the discounts on noncompetitive products that the consumer would forego by buying the two products individually instead of in the package.

In my Emory Law Journal article, I propose a number of additional showings the plaintiff would have to make. I won't discuss those here, in the interest of time.

I want to defend the sort of core concept underlying this analysis which is an analogy of two predatory pricing, although with some modifications for bundled discounts, which is what I think the LePage's court says should not be done, we should not analogize to predatory pricing. I argue we should, although it may take some qualification of the rules.

The basic argument is based on the Brooke Group standard itself. Under Brooke Group, a single-product discount is per se lawful unless it results in pricing below an appropriate measure of cost.

I will put aside what the appropriate measure of cost should be and assume we know what it is in a particular circuit. Let's call it X.

What that means is that a defendant would have an unqualified right to offer a discount on the good Y so long as the price continued to exceed X.

Now, suppose the defendant offers a bundled discount on goods Y and Z and that the plaintiff sells only Y. The plaintiff cannot offer a discount on Z. But by reducing the price of Y, it can make up for the discounts that consumers would forego by continuing to buy the goods unbundled.

So long as the effective price for the single-product firm is not below X, it is no more disadvantaged than if the defendant had offered the same above-cost prices through a single-product discount on Y.

Since a single-product discount resulting in a price above X would be per se lawful, a multiproduct discount resulting in effective price above X should also be lawful per se.

Let me sort of answer some arguments against this logic that I have seen discussed in economics literature, actually moreover in litigation briefs, which are probably not a good source of economic reasoning, but nonetheless, let me discuss a few things.

One sort of very common argument is that where a single-product predation is expensive and risky because it involves sustaining losses for an indefinite period of time to drive out or discipline rivals, the multiproduct predator sustains no losses from the bundled discount because it can cross-subsidize the discount in the competitive market with discounts off the prices in the monopoly product.

Of course, the diversified firm that uses a multiproduct discount to exclude rivals is also sacrificing profits with the hopes of long-term recoupment.

A discount of one dollar off the monopoly product for the purpose of subsidizing the campaign of exclusion in the competitive product is economically identical to a single-product firm taking a dollar out of a bank and subsidizing single-product predation.

Unless there is rate regulation over the products and the bundled discount is somehow being used to fool rate regulators, this cross-subsidization story doesn't really hold up.

This morning Professor Nalebuff argued that loyalty discounts can create noncost predation by threatening to inflate the monopoly price. In his model, the monopolist says I'm going to jack up the monopoly price of the monopoly product unless you take my bundled discount.

Of course, as Professor Nalebuff recognized, this only works if the threat to jack up the monopoly price is credible.

Of course, the reason that the defendant has not charged a price higher than the current price, the current monopoly price is that any further price increase would by definition be unprofitable because there would be substitution to other products.

So the buyer has its own very credible threat, which is if you jack up the price even further, I will substitute to other products. By definition, the profit-maximizing price being charged already is one which will become less profitable to the seller if he jacks up his price even further.

Although I'm not saying it could not happen, it is certainly the case that the threat I will raise my price where the defendant is already charging the profit-maximizing price gives rise to another threat by the buyer, which is in that case I will substitute to something else.

A second argument that is sometimes made is that bundled discounts, unlike single-product below-cost pricing, can go on indefinitely. If that is true, it is because there is no sacrifice in profits and no need of future recoupment.

That suggests to me that the reason that the diversified firm is able to offer the bundled discount indefinitely is that there are legitimate business reasons for doing so that do not depend on the exclusion of competitors.

Of course, competitors can be excluded from the market by any number of strategies, but those should typically not be of concern under the antitrust laws if they reflect reasons that have legitimate business justifications. That is to say, business justifications that make the practice profitable, even assuming continued competition.

A third and final criticism I will just touch on briefly is sort of really a criticism of the equally efficient competitor hypothesis in the Ortho case.

Under the Ortho formulation, the plaintiff would have to show that it is as efficient a producer as the defendant in at least the competitive product.

This has been criticized on the grounds that what if the plaintiff is a new entrant, it is trying to achieve economies of scale, it is the defendant's very practices that prevent it from reaching economies of scale, so how can a defendant say that he should have been equally efficient in order to sue.

For present purposes, I don't want to take a position on this, although I do think the equally efficient competitor hypothesis is probably correct. I would be happy with a test that simply required some price-revenue comparison, because that would at least, different than LePage's, force the focus back on to whether the plaintiff really had options or simply whether the defendant's discounts were exclusionary in the market.

I think even that would be a substantial improvement on sort of the open-ended standardless approach of the LePage's case.

Let me conclude my remarks, then, by arguing for the need for bright-line rules in unilateral exclusionary practices cases, particularly in private actions for damages.

As I noted at the outset, it is not difficult for law professors and lawyers and economists to create sort of armchair assumptions about markets that show exclusionary practices in various forms.

Nonetheless, adoption of bright-line rules is necessary to prevent strategic misuse of antitrust law by rivals.

Many of the cases brought in recent years are not cases brought by very small firms that are on the margins of the market. These are cases brought by very dominant, large firms with very substantial market shares, with a good bit of profitability and a recent history of success in the market.

One has to ask if the exclusion story doesn't seem to be strong on its face, what's really going on here.

The answer may very well be, although I can't prove what any individual plaintiff intends, that there is simply an effort being made to prevent more diversified firms from using their diversification as a competitive tool.

Now, it is one thing to say that we will commit these issues to juries, as LePage's did, but of course jury trial is extremely rare.

The statistics from the U.S. courts administrative offices show that there are approximately nine civil antitrust cases a year out of about 860 that are terminated. So less than 1 percent of all private antitrust cases will end up before a jury.

LePage's is the exceedingly rare case. What happens is that all the cases either are dismissed on summary judgment or a motion to dismiss or they have to settle, they have to settle because defendants simply cannot take the risk of going to trial.

So what happens, then, is unless the courts are given good, solid, antitrust rules that can serve as screening devices on a motion for summary judgment or a motion to dismiss, the only question becomes how big is the price tag, the settlement that the defendant has to pay to avoid the trial.

I think this is sort of a culture that LePage's has encouraged. Courts often interpret the LePage's standard as really a commitment of these issues to juries, although we haven't had lots of jury trials. In some cases it is because defendants have had to pay to get out of them.

Let me conclude by saying though I think rules are necessary as screening devices for private litigation, I'm actually more sympathetic to experimentation by the government with different theories of exclusionary conduct.

I think one of the unfortunate things that has happened in unilateral cases is that these same rules that have been designed to protect against abusive litigation by private plaintiffs have been applied wholesale to government cases, and I think a good example of this is the U.S. versus American Airlines predatory pricing case, where the court simply used sort of off-the-rack rules that were really not sort of designed to prevent against abusive private litigation but didn't take into account the differences that occur when a government sues.

So while most of my comments have been very skeptical about bundled discounting cases and supportive of strong rules to weed out these cases early on in the litigation, except the most meritorious cases, I do think the government, whether FTC or DOJ, as plaintiff should be given more latitude.

Thank you.

(Applause.)

MR. MEYER: Our next speaker is Janusz Ordover, who needs no introduction. He is professor of economics at NYU, as I mentioned, former deputy Assistant Attorney General of the Antitrust Division and a frequent participant in antitrust debates of all sorts.

PROFESSOR ORDOVER: Thank you very much, David, for the kind words. As I say, I always need an introduction just to keep my name in front of the public, like Coca-Cola and Pepsi or Marlboros, maybe.

My topic today is loyalty rebates. I frequently do something which is inappropriate which is create way too many slides. I have not deviated from my strategy here either.

What I do have is way too many slides. Plus, I have also asked the organizers to post two of my papers which deal with the issue of loyalty rebates and which are in order to show the economists' schizophrenia are quite adversarial to each other.

I mean that one tries to demonstrate circumstances in which loyalty rebates, back to first unit type discounts, are potentially anticompetitive, and we actually demonstrate how they can be so. And the other paper in which the same kind of loyalty rebates turn out to be powerfully procompetitive.

I have spanned the universe of possible outcomes. The big challenge is to try to figure out how to marry these two approaches. It is at this marriage level that the huge challenges to economic modeling are likely to come about. I will come back to these papers, of course, in a very short minute.

There is no point to running you through the usual introductions, as you have been here this morning, many of you.

We also already talked about what the loyalty rebates entail.

The main point that I wanted to make, other than the fact that we don't know yet enough about their economic effects in the wide variety of settings, the point that I really think is worthwhile keeping in mind is we both need more empirics, more technical research, and also I think a lot of bright-line rules, because I believe strongly that absent bright-line rules, we are going to create mischief on both sides.

Remember, there are two types of errors. We always forget that.

The point that is I think worthwhile is the interesting aspect of these loyalty rebates that really comes to play as the driver behind the variety of outcomes from models of these settings. And really the loyalty rebates create complex links in the product space between the supplier and the consumer.

These links could be across volume, across time or across products. Because of these links, because of these externalities that come about as a result of the loyalty rebates or bundled rebates, different manifestations, the typical analyses that we have are difficult to carry out.

Normally we do not think very easily in terms of mathematical modeling or empirics in which there are these kind of versions of almost network-like effects.

In this case, the network-like effects are much more concentrated as between the pair of transactors and spilling into the outside world in which the third parties are being affected one way or the other by the internal contractual arrangement between the seller and the buyer.

It is quite true, as I have seen in litigation myself, that often it is the actual buyer that is requiring or asking for or demanding the creation of those kinds of links.

Of course, I missed here Professor Einer Elhauge, who would have talked about these kinds of links extensively in the context of GPO purchasing practices, which are being litigated as we speak.

I also have to fess up that I have an interest in the outcome of these litigations.

In any case, it is the nature of these links that creates complexity for economic modeling of the sort that I think is illustrated in some kind of examples that have been put forth.

This is the Hovenkamp example that Tim Muris already took apart. So I don't want to waste my time on that because this example actually proves nothing. It proves nothing because it is not embedded in any known economic model of anything.

I second Professor Muris's point that learning from stripped down examples is a dangerous thing to do, that we really have to rely on the complete and deep understanding of the circumstances in which the practice takes place and understand fully and well all the economic forces that act upon the practice, the transacting parties as well as on the third parties and, in particular, on consumers ultimately, ultimately consumers.

A simple example that people have often used showing that it excludes an equally efficient competitor is, okay, so what, is there any problem with exclusion of this equally efficient competitor, assuming -- again, I agree here with the previous speaker -- that what it means to be an equally efficient competitor is subject to debate.

Indeed, some of you may be as old as I am. Although -- do I look younger or older than you? We will debate that later.

What I'm trying to say is that when the issue of that kind of an equally efficient competitor came out way back in the Turner treatise days, in the context of multiproduct firms predating against single-product firms, Professor Areta said -- I think it in a letter to

Will Dommel commenting on the Ordover paper efforts -- saying there is absolutely no reason to give a multiproduct firm a leg up in competition against the single-product firms because there is no reason why should we take into account these deep potential links on the demand side or on the supply side or the cost side and the cross-elastic side in terms of lowering the benchmark price against which the rival ought to compete.

Now, that was Professor Areta probably now 20 -- maybe 18, 19 years ago. I think our thinking has deeply changed.

We do understand a lot of complex relationships in terms of the efficiencies that are involved, whether it is on the cost side, gains from a multiproduct production, whether it is on the savings side, the bundling effects from offering a wide variety of products in order to minimize efficiency, inefficiency of transacting and so on, coupled again with the Barry Nalebuff point, which is now very fashionable at MIT and at Harvard, when economists talk about so-called shrouding. You know what the hell it means, is it some kind of religious ceremony? No.

It involves marketing practices precisely of the sort that make it very hard for a consumer to figure out what the price is. Is shrouding good or is it bad? We don't know. It depends on the model and the facts.

The facts are the driver of our analysis when properly slotted into some well-understood economic theory.

So what I want to do is to give you a quick run through the two papers with Greg, who threatened to be here but I don't see him, thank God. Otherwise, he would take me to task for misrepresenting our research.

The research in fact can be misrepresented or represented in a variety of ways. It goes back to something that happened to me and Steve Salaw in connection with our paper on vertical issues where Steve viewed that as a theorem, proof that vertical relationships could be anticompetitive. I viewed it as a proof that circumstances under which vertical relationships could be anticompetitive is actually difficult to implement.

We had the same paper, and the two authors agreed to stay neutral on the subject. The same paper can been seen from a variety of perspectives.

What it is that Greg Schaefer and I have tried to do, and we are hard at work at probably a few more versions of these kind of analyses, is to construct economic scenarios which I think are plausible as opposed to two-by-two examples that do not reside in any well known market setting -- other than Ortho -- in which these types of loyalty rebates which is what I want to talk about or back to first-unit discounts do emerge as equilibrium offers.

Remember that much of the problems we had with examples is it is never tested whether or not what is happening in the example is an equilibrium or not. If it is, what is the gain that underlies the example.

Greg and I have specified two sets of cases in which these kind of loyalty rebates as equilibrium offers. One is the one in which -- the first one is the one in which exclusionary loyalty rebate does come about.

This is a model, a very stripped down model. Let me take you quickly through it. The papers are posted. Probably incomprehensible for the lawyers in the audience, but maybe not.

The setting is straightforward. It is stripped down. We have two competitors, one of which is, quote, unquote, "dominant" in the following simple sense, that is, it is capable of producing output for the whole market. Whereas, the other, the rival, the smaller competitor, the entrant can only produce one unit of output.

From a social welfare standpoint, ideally we would like one unit to be sold by each. And the reason for that is there a heterogeneity of preferences. The consumers who would like to buy in the marketplace, they like the incumbent's product and some other people like the challenger's product.

In an equilibrium, we would like to see people being optimally served, which takes me back to the question of what do I mean by an equally efficient competitor.

In the model that we have constructed, each firm has the same marginal cost of production, but their products are not equal. So they are equally efficient on the cost side, but they have heterogeneous offerings, which is an environment where economics is not entirely clear, what do we mean by an equally efficient competitor.

When I am selling A and you are selling B, and they are not perfect substitutes for each other, it is a bit of a challenge to give a crisp and clear definition.

In that model, there are some assumptions that actually have to be made in order to create a circumstance whereby an equilibrium exclusionary offer arises, i.e., an offer that denies consumers the ability to purchase the product they would like to get.

Again, this goes back to my misspent youth with Shaffer and Salaw. You can argue amongst yourselves -- I will be happy to chip in later on -- whether the conditions that we have specified are necessary, are they sufficient and more or less are they realistic, because the usefulness of the model stems, at least in my view, from modeling circumstances that are not so off the wall as to give no guidance to anything. But the conditions we have specified I think are of interest.

For example, in the paper we have the assumption that the incumbent can supply all of the market but the entrant can supply only at most one unit. Whether it is one unit versus two or two versus five is not necessarily an issue. But it is the foundation of the differential that exists.

The second assumption that I think is important is that the model has two periods involved. Remember I told you about the links that are being created through these exclusionary, potentially exclusionary offers.

Here the link is intertemporal. That is, through time. And it is that fact in the model that actually is another of the key drivers.

In period two, the buyer becomes locked in to the seller or the sellers from whom it purchased in period one.

What does that mean? In a normal economic model, it would mean people would beat their brains out to get the second period profits and would give them all up in the first period.

Remember the Supreme Court profound economic analysis in ITS v. Kodak on that subject.

So, no restriction on feasible sale of contracting. However, the entrant faces a financing constraint, a cap on how much it can borrow against its potential period two lock-in gains in period one.

Now the question comes in whether you are the believer in the old fashioned finance literature or more inclined to the new old fashioned financial literature in which the financing constraints are in fact a fact of life for a variety of reasons. And I refer you to Turro's new brilliant finance textbook.

The second aspect of this whole thing is that the entrant cannot commit to its second period price in period one. How realistic is it? I don't know. It depends on the setting.

So there are two key assumptions or three that limit the capacity of the entrant. The inability to pay for all of the first period battle, either with borrowed money or with the second period money, whether these are realistic, that depends on the particular circumstance.

And I believe that there are settings like that in which these conditions are likely to be satisfied.

In such an equilibrium, such as we do have equilibria in which the entrant gets no sales, the incumbent makes the sales despite the fact that he is going after or she is going after or it is going after the marginal unit which is less valued to consumers being supplied by the incumbent firm versus the challenger.

Now, again, this goes against the grain of the Chicago -- perfectly on time -- against the Chicago view of life, which is why would anybody pay to gain sales against somebody who can offer those same sales more efficiently?

And the answer is well, there are these intertemporal links. These kind of relationships do change the analytics. Moreover, and here is why these constraints that we have talked about are key.

Moreover, how much you have to pay in order to steal or to grab or to sell that second unit is clearly tied to how much the rival, the entrant can pay to keep it for itself.

If the price is low because the rival can only offer the buyer a penny but you would be happy to offer two pennies to something that would lead you to three cents gain tomorrow, you are going to do that.

The Chicago view is again somewhat too simplistic in terms of the underlying economics. I'm not saying as a matter of empirics it is flawed, but as a matter of underlying economics, we all know we are not Chicagoans anymore. I believe that's the right place to be, out of Chicago, leaving Chicago yet again.

It is a slide. To switch direction completely, Shaffer and I with his graduate students have come up with another model in which in fact the efficiency of the first-unit discount rebate comes out in a very stripped down equilibrium as well.

In that model, there is no competition. There is only a supplier that has a monopoly, and he is facing two states of the world of which one is the high demand and the other one is the low demand.

As you all know, obviously, from your microeconomics textbooks, in such a world the seller would like to create incentive to sell as much as possible in the high-demand state.

But the buyer may not want to reveal whether it is a high-demand state or not. You have this asymmetry of information.

If there is an asymmetry of information, you have to implement some kind of sophisticated pricing, which we see everywhere. It is that sophisticated pricing that in fact is the explanation why we see these kind of schedules in real life.

Now, in our model, we have a typical self-selection equilibrium that comes about. The benefit from the loyalty rebate is clearly going to accrue to the seller, not to the buyer, because the loyalty rebate gives greater power to price discrimination.

We don't know whether price discrimination is a good thing or a bad thing as a general economic proposition. In our model, we would say, look, if the driver behind the loyalty rebate is to incentivize the downstream, these buyers or a buyer could be either in the high state or the low state, and that should be enough to stop somebody trying to condemn the particular loyalty rebate as being potentially anticompetitive.

So you can see that is the theorem right here. If you compared this diagram relative to the prior diagrams, you can see where the difference comes from.

As I said, the basic insight of that paper is that loyalty rebates permit more efficient price discrimination than simple two-part tariffs because of the nondifferentiability of the outlay schedule of the self-selection point chosen by the high-demand buyer.

Price discrimination is not always welfare enhancing, but we don't believe there should be public policy prohibitions for reasons to discourage the use of loyalty rebates for such purposes.

Here I will stop, given that you have my slides. Here are the references for those of you who are interested. Greg will be happy to send you our papers if you ask for them.

Thank you very much. And I hope I was not way too confusing.

(Applause.)

MR. MEYER: Thank you very much.

Our final panelist is Will Tom, a partner at Morgan, Lewis & Bockius here in Washington.

As I mentioned earlier, Will has also been the deputy director at the FTC's Bureau of Competition.

MR. TOM: Thank you very much, David.

I will make up for Janusz's too many slides by having none at all.

I am also going to free ride on all the previous panelists, both this morning's and this afternoon's, by assuming that you have heard all their presentations, you are now up to speed on all that they have said.

So I will not rehash any of the previous discussions or points that were made, which may lead some of you to wonder whether there is anything more left to be said after all of the education that you have gotten.

I do think that one of the things that comes out pretty clearly in hearing the lawyers and the economists and listening for some of the differences between what they are doing here is that the lawyers are looking for rules that you can apply in real litigation situations and a state of imperfect information.

We have had a lot of talk about the precise contours of those rules and what models can guide us in formulating what those rules are.

At least for us simple-minded lawyers, the attraction of the incremental revenue versus incremental cost or Ortho standard or whatever you want to call it is that it is simple enough for us to understand, and it can actually provide some guidance. It provides guidance on which most lawyers for a fairly wide spectrum of so-called Chicago School or post-Chicago School adherents can agree on.

But it obviously provides that guidance only when the incremental costs and the incremental revenues are known.

And it seems to me that the interesting problems in actually deciding the cases is how the case should be decided in the large number of cases where it is not known or where that is the very subject of the litigation, with the two sides arguing for different factual inferences.

One of the things that struck me in hearing the lawyers talk, particularly this morning, is that there wasn't a lot of mention of the legal framework and the legal doctrines by which these kinds of rules were introduced in the first place, particularly in the predatory pricing scenario.

The question for the factfinder in these rule-of -reason kinds of cases is simply in a Section 1 kind of case, a vertical case where you have a contract and therefore you can bring it under Section 1, does the anticompetitive harm exceed the procompetitive benefit.

In the Section 2 case, it is, "was the defendant able to apply or maintain monopoly power as a result of the conduct or did it dangerously threaten to do so?"

And the way the rules and the economics come into play is in helping the court decide what kinds of inferences are permissible from the evidence, or in the words of a famous case from way back in the '60s or '70s -- I guess I'm showing my age -- if a frog be found in the party punch bowl, one can infer the presence of a mischievous guest, but not the presence of spontaneous generation.

That is the role of economics or that has been the role of economics. That's how it has guided us in the question of what inferences are possible, what inferences are reasonable, from the facts that are given.

So suppose, to take a hypothetical or a paraphrase of a hypothetical that was used within the Supreme Court in the last couple days, suppose you had board of directors' minutes that said we are adopting this practice even though it will be costly, even though it is not going to earn us any profits because it will cut off our rivals' air supply and ensure we will not have serious competition for a generation.

In the absence of proof by the plaintiff that the Ortho test is failed, can defendant get summary judgment, or does plaintiff get to a jury, having presented that evidence?

Well, I guess those of us who still remember the law school side of the house -- and I realize that all of us antitrust lawyers have slowly gravitated over the years to being economists that simply haven't studied enough to get a degree have to ask, what is the legal framework, what is the legal system, how does the law control what the role of the district judge is or what the role of the jury is, what the role of the Court of Appeals is?

You would think that that case goes to the jury, at least unless defendant can prove that this could not possibly have caused the acquisition or maintenance of monopoly power.

Now, it may be that people write documents all the time, as someone earlier said, that they don't mean or they are just deluded, and there may be a defendant who can prove that. A lot of the real questions in these areas devolve into questions of burden of proof.

When you get to the question of when is the legal system confident enough to take those kinds of questions away from the factfinder and to impose rules that say this case cannot go to the jury, we will decide it as a matter of law that such an outcome is right, you are really looking for the kind of confidence that we have in the predatory pricing area.

I think Tim started out his presentation with a little bit of a refresher course on decision theory, which I think is very apt, that we are all trying to minimize the administrative costs plus the costs of error, and having sensible administrable rules to do that is a very valuable thing to do.

But at the end of the day, the question is in order to have a basis for applying that kind of rule, do we have the kind of confidence that the cost of the false positives in this kind of setting is going to so swamp the cost of the false negatives that we should simply say no, this kind of inference is not permissible.

And I think, to borrow again from things that I'm sure Tim Muris and others have said, one of the virtues of the market is that it tends to be self-correcting; whereas, misguided government intervention tends not to be self-correcting, but, rather, is persistent for a long time.

I think we should be cautious in this area as well in applying per se rules that essentially cut off the debate and end up not being self-correcting, because, of course, if these instances of loyalty rebates are per se lawful, unless plaintiff meets the burden of proving something that is very difficult for plaintiffs to prove, then those cases will never be brought and you will not have the opportunity for the development and refinement of those legal rules.

So I think I am much more comfortable with presumptions and with rules of thumb that can be overcome in the particular case. And in this connection, I am somewhat taken by Dan Crane's suggestion that the legal standards might be different purely in injunctive cases from the treble damage situation.

I do think that to a large extent in antitrust laws, our view of the substantive legal rules are shaped by the institutional setting in which those rules are developed, and properly so, because that tells you what the cost of the false positives are, at least to some extent.

In a setting where you don't have treble damages, where the relief is purely prospective, you can perhaps afford to experiment a little bit more or to be somewhat more precise in the way you apply complex legal rules or complex economic theories.

Here I am not going to please the Department of Justice representatives or any of my former colleagues at the Department of Justice. Because of the different institutional settings that apply to those two agencies, it is much easier for the Federal Trade Commission to do that sort of thing than for the Department of Justice.

I have long found the portion of the Areeda-Turner treatise that talks about applying a lower substantive standard in Department of Justice injunctive proceedings somewhat problematic because they are applying the same statute that is applied in private cases, and to some extent the court doesn't have the freedom to write different rules for the two different sides, unlike Section 5, which is entirely different.

Indeed, if you go back and look at the legislative history of the Federal Trade Commission Act, it seems to be one of the very purposes for which the Commission is created is to explore some of the cutting edges, if you will, of the law and allow this expert body to define prospective rules of the game in a way that doesn't punish companies for past conduct that they did not have reason to believe was unlawful.

I think given how much there is to talk about among the panelists and how late it is in the day, I think I will stop there and leave as much time as possible for any discussion.

Thank you.

(Applause.)

MR. MEYER: Thanks very much. I think we will take about 10 minutes as our break. It looks like it is about quarter to three.

If we could all be back here in five minutes to the hour, that would be great.

(Recess.)

MR. MEYER: We are ready.

We will start, as I said, with an opportunity for each of the panelists to comment on or reply to or question the others about their remarks.

Just to shake things up a bit, I'm going to suggest that we alter the order and start with Dan.

PROFESSOR CRANE: Sure. I guess I would like to respond to one thing that Will said, which was the hypothetical memo to the board of directors about the reasons for a discount and how it could be exclusionary of rivals.

The problem I would have with a legal standard that focused on the intent of the defendant is that usually it will not be a memo to the board of directors but an e-mail to some third-tier manager that has some inflammatory war metaphors for its metaphor about crushing a competitor. And it won't be just one, it will be three or four or five or six of these strung together from millions of documents. You will always find these in someone's files.

Although the memo to the board of directors might be better evidence, in private litigation, if we even raise intent as a consideration, it is those third and fourth-tier manager e-mails that will become the evidence that get to the people in the jury, even though those e-mails really tell us very little about the true efficiency consequences of the bundled discount program.

I agree with Richard Posner that intent evidence is evidence of anticompetitive conduct only two people who sort of are foolishly taken by sort of aggressive language. And juries certainly can be influenced by that.

I think in the Brooke Group case, the post-jury or post-trial interview showed the jurors had no understanding about oligopoly, the average variable cost test, but they were highly influenced by Brown and Williamson's war documents. To me, that is not a good standard.

MR. MEYER: Thanks very much.

Janusz, any thoughts?

PROFESSOR ORDOVER: I think that we are all pretty much in agreement on a lot of aspects of how to approach these kind of business practices.

My only question would be actually to Tim Muris, whether or not we really have that much faith in experimental economics to create the edifice of a big chunk of antitrust laws, what it is that well-incentivized graduates, undergraduates or even faculty of the law school can do in these games.

I historically have been rather skeptical of experimental economics. In this case, I think my skepticism is probably heightened by virtue of the fact that the kind of environments in which litigation actually takes place, the market settings in which the actual litigations take place are very hard, I think, to reproduce in the pure experimental setting.

I'm not saying there is no insight to be gained. I'm trying to figure out whether or not this is enough to say that we should allow X or that we should disallow Z. I would say it is not.

It may be an interesting angle to look at matters through the prism of these experiments. But I would hate to have someone go to court and say that Professor Vernon Smith, how much I admire his work over the years, has shown that the experimental setting with three firms, a bunch of graduates, X, Y, and Z cannot happen, therefore the case should be dismissed.

I don't know whether you would go there. But I would say that one shouldn't even try to go there. That's my strongest reaction.

As to the Ortho test, of course I find it rather attractive. The problem in that setting again, the test was somewhat limited as to the broad application, because it did involve again a very specific set of relationships.

There was only one buyer, Red Cross, which needed a whole panoply and did specify a whole panoply of red blood tests that it needed, and it commanded the two offerors to give them bundled and unbundled pricing.

Where the issue arose, where I really fell down flat on my face, was because we had no cost data for anybody to be able to apply any of these scratchings on the napkin that I have generated as a foundation for this whole analysis.

But again -- so now the question does arise whether what the court did there and how they looked at the allocation of margins and so on would be directly translatable into other circumstances.

So from an intellectual standpoint, the source of that test is of course the so-called compensatory pricing test that Bobby and I have invented since 1980.

I'm sort of asking myself those questions because I see the possibility for the application. But I also understand the limited setting in which the test actually had its traction may not have the kind of traction that we would need in other contexts.

MR. MEYER: Thanks, Janusz.

When DOJ develops and opens its museum on loyalty discounts, it will ask you to donate that napkin.

PROFESSOR ORDOVER: I think it is part of the record. Mr. Weinstein, whoever was the lawyer for the other side, actually he attached it to my deposition. It should be someplace. I think I have it.

MR. MEYER: We will leave no stone unturned.

Since you have now posed two questions for Tim, one that you just asked him about, experimental economics, and the earlier one about age and looks, Tim, you can respond now.

PROFESSOR MURIS: We will leave the second one to a market test.

Let me make four points. You will probably hear me either way. The first is just a point I repeatedly make to the world, which is that when people say Chicago, they are talking Posner and Bork, who don't even -- Posner and Bork are the most extremely differentiated on mergers. But Posner and Bork had certain views that were not the views of a so-called Chicago economist.

I don't consider myself a Chicago economist. I like what is called the new institutional economics.

As a matter of fact, what is called Chicago economics before 1960 invented and dismissed as empirically irrelevant raising rivals' costs, variable proportions as an explanation for why tying is anticompetitive and why, RPM could be anticompetitive in certain circumstances, all this by 1960.

Posner and Bork came along, particularly in the vertical practices, with what I think was a restrictive and extreme view.

On experimental economics, there are some economists who are concerned about experimental economics. I think there is enormous validity to experimental economics in the sense that basic theoretical propositions of economics are verified in the lab.

The beauty of the experiments is that one can take Janusz's paper, which I obviously haven't studied and deals with a different problem than was modeled in the bundling, you could take that paper and you could run it in the lab and run various differences and see what happened.

In this world, for better or worse, experimental economics is the one-eyed man in the kingdom of the blind.

We are dealing with almost complete ignorance about the empirical effects of bundling. We are taking a ubiquitous practice in nonmarket power settings and saying in market power settings there are problems here based on an extreme set of assumptions.

My third comment is about bright-line rules, which Will was talking about. Even -- I guess this will turn out to be a point that Janusz may want to talk about as well.

Even in Brooke Group, which appears to be a very bright-line rule, courts are pushing it. Janusz testified for Northwest in the Spirit -- is that --

PROFESSOR ORDOVER: Yes, I did successfully the first time around.

PROFESSOR MURIS: Right, right.

The point is that the Sixth Circuit, Brooke Group or no Brooke Group, was pushing the envelope there.

And I think what we ought to do is look at the world as we know it, and the world as we know it is a world in which LePage's has caused lots of damage. We have highly theoretical evidence of problems without real world evidence.

Of course, the experiments were designed to push and test and find exclusionary bundling and didn't. But someone can go run modifications if they want, which leads me to my fourth point, which is the Ortho test.

The Ortho test, as they say, Parker, is obviously much better than the standard LePage's world. The problem is that it is so easy for -- one of many problems with Ortho besides the fact that it would condemn efficient practices is that it is so easy to turn the safe harbor into the test.

I assume Professor Crane would reject that. Professor Hovenkamp rejects that. But it would be very easy to cross over that line.

When you are shifting presumptions makes a difference. One of the interesting things on the Twombley argument Monday was Justice Stephens through the course of the argument, it appeared -- who knows exactly, obviously -- it occurred to him that if he allowed the complaint, from his questioning, if you allowed the complaint, there was going to be some fact that was going to survive a motion for summary judgment.

As a practical matter, maybe you did want to scream at the complaint level. I wrote an amicus brief, along with some other people at O'Melveny, supporting the petitioners in Twombley. So I obviously have a dog in that hunt.

Recognizing these real world practical considerations, as Will and others have said, is absolutely essential.

MR. MEYER: Thanks.

Will, your final opportunity.

MR. TOM: Let me just respond to Dan Crane's last remark by repeating something that Joe Kattan said this morning, and that is "intent to do what?"

I think there is a danger in a lot of these areas in using broad classifications to stand for a whole bunch of disparate things, and that applies to evidence as well as it does to some of the economic issues we have been discussing here today.

I think most courts nowadays confronted only with the intent evidence that says "let's crush our competitors" would say that that is insufficient evidence to go to the factfinder.

Whether you should then sweep into that every other piece of evidence that you find in an internal company document I'm highly dubious about.

MR. MEYER: Okay. With those comments, I think we will turn now to the propositions.

In these hearings, we have been using propositions merely as a starting point for discussion and not necessarily as a set of propositions that reflect the agencies' views either for enforcement or otherwise.

If we go to slide 3, we will start with this. I think perhaps we might have something like agreement, but I will ask.

The proposition is the LePage's decision's vagueness is likely to chill pricing behavior that enhances consumer welfare. Agree or disagree?

PROFESSOR ORDOVER: I agree.

MR. MEYER: We all agree?

PROFESSOR CRANE: I do agree. And from a client-counseling perspective, I have been on a number of calls in cases where someone is not a defendant but simply trying to figure out what they can do and what they can't do.

Without being too specific, for attorney-client privilege reasons, if you have any moderate degree of risk aversion, you can guess what the answer is.

It is oftentimes the case that you probably wouldn't get sued, but you don't want to be the person who gives the advice that we could bring in the smart economist and convince the court to dismiss the case on summary judgment.

You tell them you don't want to invite litigation at all and it is always better to try to unbundle a discount than to face the prospect of litigation.

MR. MEYER: I certainly understand the need to mask the specific facts. But are the situations that you are describing ones where, at least in the mind of the company involved, there is a clear pro-competitive motivation or rationale for wanting to structure a discount program and they are asking can we do this without fear of litigation or is it where they have the structure and they are being asked is this going to pose problems?

PROFESSOR CRANE: It really varies. Even what a pro-competitive justification is I'm not always clear on.

There are certainly cases where clients are asking. Sometimes these bundled discounts are customer driven, and large diversified buyers are putting pressure on sellers to give them a concession for buying, and that is simply responding to pressure from the client.

Sometimes there is a question simply about using as a competitive advantage, not to necessarily exclude a rival, but because you think you can increase your market share through a discount that takes advantage of your diversification.

I think certainly I tell the client if the discount is one that looks like it is going to really harm the competitor to the point of extinction, obviously you shouldn't do it. Even far short of that, clients often think about this as a competitive strategy.

PROFESSOR ORDOVER: Would the answer differ in the following two settings?

One, there are bundled discounts but we have something called mixed bundling. In other words, you offer a bundle, there is a good price, like the one that ABA offered for two volumes of writings, but there is also a stand-alone price.

Because of the not total disattractiveness of the stand-alone prices, people can avail themselves of buying one of the volumes and then buying a substitute product somewhere else. But there are recognizable efficiencies from bundling.

Does one get protected under any of these LePage's standards or their progeny from the challenge if you do indeed offer mixed bundling and you also demonstrate that people are buying at the stand-alone price?

PROFESSOR MURIS: That's an important point. I think the hypothesis of the attack with LePage's is you don't have a de facto time. It is calling it mixed bundling.

MR. MEYER: Is the problem with LePage's from the perspective of its vagueness and potential to chill behavior, which I think we all agree to, is the problem the lack of a safe harbor, the lack of a concrete cast or the focus on the impact on rivals or something else or all of the above?

PROFESSOR CRANE: I think it is the lack of a concrete test. Even though we had the Ortho standard, it would be sometimes hard in a client-counseling situation to anticipate how that would come out in practice.

I think most bundled discounts would clearly meet the Ortho safe harbor. And it is not even a question of most cases.

What I think that would do is change the culture of this issue in the courts, where you could tell a client that only in really sort of egregious cases of bundled discounting that has a clearly exclusionary effect on single-product rivals will a court condemn it.

That will certainly change your willingness to say go ahead and do it.

MR. MEYER: Let's turn to proposition 6.

This problem situation is as follows: Because lower prices immediately benefit consumers, we should be extremely careful not to adopt legal rules that can result in false positives, that is, condemn legitimate price cutting.

Do we agree or disagree with that proposition?

MR. TOM: I think the disagreement here will be more on whether this proposition is one that is relevant to the loyalty discount kind of setting rather than agreement or disagreement with the proposition itself.

I think we all agree that in general we like lower prices to consumers as long as it is not an exercise of monopoly power. You will not get a lot of disagreement on that.

MR. MEYER: Is your question, Will, whether in certain situations the loyalty rebates that are being offered to particular customers actually result in the overall prices paid by them being higher rather than lower in the short term, or is this a long-term versus short-term problem you are identifying?

MR. TOM: Even in the short term, there are issues of what would the stand-alone prices have been, absent allowing it.

MR. MEYER: Have we seen any cases where the prices in the short term were higher?

MR. TOM: There was one mentioned this morning.

PROFESSOR CRANE: The SmithKline case this morning.

The discussion this morning was that in SmithKline, the offer was a 3 percent increase accompanied by a bundled discount to buying the package, which would suggest there was the possibility that even in the short run, the defendant was not sacrificing profits immediately by taking market share from single-product rivals.

MR. MEYER: Fine. Going back to the beginning here and with Will's amendment, if the bundled discount or loyalty discount results in lower prices in the short term, we all agree that care should be taken to avoid chilling such conduct?

PROFESSOR MURIS: I agree. Let me add, I wasn't here this morning, but I assume that Professor Nalebuff was probably the most aggressive on behalf of his various rules.

If you look at Tim Brennan's comment on his paper, it shows that in the equilibria, consumers are better off in the short run virtually all the time.

That's the nature of excluding, what it means. So the theory is really a long-run theory. It is not a theory in the model. But that is really the theory. And that's I think a very strong reason to agree with the proposition that we need to be very careful.

PROFESSOR ORDOVER: I think to emphasize what Tim said, I agree 100 percent. And that is in order to close the model of these adverse effects, you really have to have the second stage or the third stage and when something bad actually does happen from a price discount, unless you can show that, you don't have a leg to stand on in the rest of the case.

It could be a complicated set of issues to be addressed, these intertemporal linkages, the R&D incentives. But if the marketplace is not of the sort that it is susceptible to exclusionary conduct over a long haul, then I think we should really be very protective of price cutting.

I think where the problem comes in is much of the literature on loyalty rebates, as summarized in much of Professor Elhauge's writings, actually show this concept -- sort of like the rug carpet dealership or the vitamin store where you always get 20 percent off. They don't say what the benchmark over which you are discounting is.

There is that issue. The equilibria in many of these games, the discount is off of what appears to be a super-monopoly price, and then really it boils down to another point Tim made very importantly earlier today, which is to say is that a credible threat for the incumbent firm to say if you don't buy it from me, I will charge you monopoly price plus 15 percent on top of that.

Again, that is a complicated analytical issue, whether or not this is a credible threat or not. It really much depends on how you view this monopolist power to guide the transactions.

After all, you can say the same thing to a monopolist who says, "look, I'm charging you $10 for the widget." You say "hell with you, I'm not paying $10." He says, "okay, okay, I will charge you 9." Then the whole thing begins to unravel.

Every monopolist issue is that of credibility. I think as Carlos pointed out, when the monopolist cannot stick credibly to his threat, the monopolist competing against himself will drag the price down to his marginal cost.

We have the same question here. How credible is the super-monopoly price as a way to enforce an equilibrium in which everybody is paying close to monopoly price, which is what the outcome is in the naked exclusion model.

That's the story of that basic model which Elhauge finds very attractive.

MR. TOM: For a clarification point, aren't most of these models that are based on a super monopoly price for the monopolized good and a discounted price for the competitive good ones in which commitment is not necessary because the purchaser of the bundle does not face a price increase? That is, the excess of the monopoly price on good A is no greater than the discount on the competitive price.

PROFESSOR ORDOVER: You end up in equilibrium with something close to the monopoly price. In the naked exclusion model, you end up with an equilibrium where everybody is getting a penny off the dollar price.

That is again supported by what some people may consider not credible threats of how the firm will behave out of equilibrium.

That is the same problem in all of these models potentially, actually, other than the Ordover-Shaffer model in which the equilibrium is supported by credible contracts.

I'm talking about game theory stuff. I don't know whether it makes any difference to anybody here. If you are trying to be serious about it, you try to model it seriously. It is very difficult because it does require this credibility.

MR. TOM: The credibility issue is that you will still give the discount on the below marginal cost on the competitive product even if he doesn't buy the monopoly product?

PROFESSOR ORDOVER: Right. Or if somebody refused to transact with you, that you will not revise the market off.

MR. MEYER: Didn't you mean the other way around? If you don't buy the competitive product, the monopolist will still charge just the monopoly price, not the super-monopoly price.

PROFESSOR MURIS: Right. A couple points.

On FTC.gov, you can find in terms of naked exclusion the originator of the concept, Michael Winston -- unfortunately, this was a workshop we had that turned out to be on September 11, 2001, which was a pretty crazy day.

Anyway, the economists, they all stayed and talked. And he said he didn't have a clue whether this has any empirical significance or not, which I think is an honest position.

In terms of the super-monopoly price, the de facto time is the special case here. The reason the Nalebuff thing is so important if it had empirical significance is it is above-cost exclusion with mixed bundling.

One of the interesting results of the experiments that I did talk about is mixed bundling still occurs a lot, virtually under every setting. Mixed bundling again being where they are selling the stand-alone as well as the bundle offering and selling it.

And a further point of interest of the experiments and in terms of -- remember, when you talk about exclusionary behavior, we are all agreeing the point is on welfare, not on excluding competitors.

When ICES tweaked their model to try to really push and show that bundling decreased welfare, they did show big-time exclusion. But they showed very small reductions in welfare, not statistically significant, even under very extreme assumptions.

MR. MEYER: Let's go to proposition number 5, if we could.

PROFESSOR MURIS: I think he is trying to confuse us.

PROFESSOR ORDOVER: Like Lenin, two steps forward, one step back.

MR. MEYER: I think the comments that Janusz and Tim made may be a good segue to this proposition, and that is a loyalty discount that allows a competitor to operate profitably at some scale can never be harmful to consumers.

Anyone want to take that one on?

PROFESSOR ORDOVER: I think that to use such things as "never," even in the proposition --

MR. MEYER: How about taking it on as usually can't?

PROFESSOR ORDOVER: I think we just don't know. I think if the competitor can operate profitably, then there has to be a showing to condemn the practice that somehow that scale which it can operate is so sufficiently constricted as to render basically the competitor, the rival marginally profitable, much less constraining of the market outcome than in a less constricted equilibrium.

So the question is that of the benchmark, really. The consumers benefit from having competition.

If the scale is sufficiently large, the competitor cannot be profitable and exert competitive pressure. Then I would say that's good enough. If the competitor is completely marginalized, it is one of the few competitors that can exert any kind of competitive pressure, I believe that possibly could be a circumstance that may require some remedial intervention.

MR. MEYER: Others?

PROFESSOR MURIS: Let me preface this by saying all of my comments reflect this basic framework of the efficient legal system.

George Stigler once wrote a piece where he just numbered the comments, the first one, of course, being a Chicagoist, this is just a coast theorem.

Everything I'm saying is in the context of efficient legal rules. Here the models that people are positing are models of complete exclusion. If we have quote partial exclusion, Janusz is absolutely right; I'm sure you can conjure up a situation where that is bad.

As a practical matter we ought to be cautious if the exclusion is partial in terms of false positives.

PROFESSOR ORDOVER: I agree. The European Union's white paper, pink paper, whichever color they use on anticompetitive conduct has some complicated rule dealing with something called the suction test and the loyalty rebates.

I tried to figure out what it means empirically, how to apply it. It strikes me as a rather difficult undertaking.

If the competitor can operate profitably, the burden shifts drastically against the complaining rivals to show that something else could have happened but for this conduct that truly would benefit welfare.

I would apply a very strict test to what it is that can be shown or should be shown. It was a minimum showing in such a circumstance from the competitor.

MR. TOM: In fact, you are looking for the rival's marginal cost to be raised in such a way that the perpetrator can raise prices.

MR. MEYER: In the spirit of jumping around, I think we will go to slide 8.

We have already heard a little bit of debate about this in the earlier dialogue, but to state this proposition. In a loyalty discount case "intent is relevant to proving monopolization." Quoting from LePage's.

I will start this, conscious of the prior comments, by first asking whether if you have intent -- maybe we can all agree on this. If the evidence is simply that the defendant intended to cause harm to his rivals, to drive its rivals out of business, to raise their costs, to steal sales from them, is that ever enough to get to a jury?

PROFESSOR CRANE: Just to repeat what I said before, part of the problem is I don't know what a corporation's intent is.

A corporation is a fictional person. Will's suggestion that we can't simply lump all intent in the same category maybe is right in theory.

When you get to actual litigation, if the legal standard is framed as an intent-oriented standard or one where intent is a relevant proposition, how do we separate out the different kinds of intent and at what stage in the litigation?

Is this a role for the court in summary judgment to sort of talk about different kinds of intent and sort of sort them out as a screening device?

I think that would get rather difficult to do. Again, it would also create a predictability problem.

In most cases, the objective economic evidence will be available for something like the Ortho test, and it really should not be necessary to go to intent.

MR. MEYER: Any other reactions to the first question?

MR. TOM: To your specific question, certainly I think everyone would agree on 1 and 3. I'm not sure that everyone would agree that a demonstration that your plan was to raise your rival's cost would necessarily get a free pass.

PROFESSOR ORDOVER: Competition is about killing your rival, really, or diminishing its capability as far as you can do that.

The real question is is it done in a way that is conducive to consumer welfare or done in a way that harms it for horizons we are comfortable to deal with, whether you can sort it out efficiently without running into these other problems or without having the current rival abusing the system.

I think one should not view intent as really a bunch of nasty e-mails. One should look to intent as a manifestation of business practice that has a likelihood of harming competition.

From my perspective, when I teach my kids about competition, they say what do you do when you run experiments at NYU, yes, you try to vanquish your rival, but try to do it in such a way that is conducive to welfare. Let them figure out what that means. That's the true story.

MR. TOM: Is that the jury instruction?

MR. MEYER: What if instead of being evidence of 1 and 3, as the shorthand we will use, and I think what that means, if I'm recalling my own comment, is evidence of a desire to kill the rival or eliminate the rival or steal sales from the rival, instead of that you had documents or testimony that constituted a very detailed analysis of the reasons why the business wanted to engage in this practice of structuring the discounts in the way they were structured that had appeared on its face to have nothing to do with hurting the rival or excluding the rival.

Would that be probative in some way?

MR. TOM: It seems like it would be probative of an efficiency justification or lack of competitive effect, if I'm understanding your question right.

PROFESSOR ORDOVER: It could be probative of the fact that the practice makes sense, that the competitive practice irrespective potentially of how it affects the competitive marketplace, if that's your question.

PROFESSOR MURIS: Under Brooke Group, since I'm arguing for modified Brooke Group, you have this price-cost safe harbor. If you fail that, you need to show the entity competitive effect. There are obviously places where the law makes intent relevant, including Norr Pennington, for example, especially in the so-called pattern case because of the nature of the First Amendment protection.

But here I think you need -- this is one of your other propositions, if I'm jumping the gun. I think you do need price-cost benchmarks to start with.

PROFESSOR CRANE: Intent is certainly relevant in an attempt-to-monopolize case, because intent is a specific intent crime and the Supreme Court has made clear that intent is relevant.

But intent in a case like Spectrum Sports would only come in in addition to a showing of exclusionary conduct.

As to that element, a legal defense might concern LePage's in that it seems to make intent part of that element of the offence, which is anticompetitive or exclusionary conduct, which seems to suggest that even if you have weak evidence, sort of economic evidence of exclusionary conduct, that intent can make up for the weakness in that showing, which I think should not be right.

MR. MEYER: What are your thoughts on this question? Can good intent save you even if it turns out that you were wrong?

For example, there are detailed analyses that all the prices are going to be above cost, no matter how you measure them incrementally or in the aggregate, and it turns out there was a math error. How does that case come out?

PROFESSOR CRANE: That's the historical accident standard, where you monopolize completely by mistake. I will use that on my antitrust exam. It is a hypothetical case.

I don't think the defendant should have a defense that we had benign intent. But, of course, pro-competitive justifications as the explanation for the conduct could be like the defendant's intent. I think, of course, that's always permissible.

PROFESSOR ORDOVER: Especially in certain areas of business conduct, for example, R&D, research, it may turn out it is more costly than you planned or more successful than you thought it was going to be.

When you have business activities with

themselves, random outcomes hard to predict, it is key that one should not hang somebody for a circumstance that is one of the possible many outcomes, most of which or at least ex ante believe that you are going to be acting in a pro competitive manner.

If you embark on an R&D program which may cause some problems for your competitors but it turns out you are now going to be spending 10 percent more, somebody said if you knew you were going to spend 10 percent more, now you are killing us.

It is the sort of ex ante nature of the calculation that is the right way to look at it.

MR. MEYER: Janusz, you promised one step back. We will go back to slide 7.

PROFESSOR ORDOVER: I'm no Lenin.

MR. MEYER: Loyalty discounts, either single product or bundled, should never be condemned without applying some kind of price-cost test.

Tim, I think you said you agree with that.

PROFESSOR MURIS: Sure, for the reasons of administrability and an efficient operation of the legal system.

PROFESSOR CRANE: I would add in addition to what Tim said also just for the purpose of disciplining litigation.

The problem with sort of open-ended standards that don't contain sort of concrete legal rules is that the district courts tend to interpret these as invitations to punt issues downstream to juries, and that then leads to forced settlement because people are risk averse and don't want to go to trial.

Part of this is not simply from business planning purposes. It is also to give a more disciplined structure to motions to dismiss, and for summary judgment that allows very serious screening of cases so that only the very most meritorious cases ever make it to a jury.

MR. TOM: I'm not sure if this one is right or not. The reason I say that is that what you are essentially saying is the application, the passing or failing of a price-cost test is part of plaintiff's burden of proof and that without meeting that burden, the plaintiff should fail.

Maybe that's right. Maybe we know enough about these price-cost tests and we know enough about the ability to prove this that it should be part of plaintiff's burden.

On the other hand, if you take my board of directors hypothetical, if you will, maybe one should say, well, the ultimate question under the law as it has been handed down to us is is this conduct on that pro-competitive or anticompetitive.

Plaintiff has come forward with some evidence. If defendant is able to rebut it by application of the price-cost tests, then we will accept that as a trump. But it is not part of plaintiff's prima facie case.

I don't know which one is right. Maybe the economists on the panel or others can give us all some empirical basis for knowing which is more likely to lead to better results.

MR. MEYER: It sounds like your alternative approach as you have described it would mean there is no safe harbor that a business can rely upon but, rather, that cases would go to summary judgment, past summary judgment to the jury if there is any evidence from which a jury could reasonably find --

MR. TOM: No, I don't think that's quite right, because, of course, if it is a trump, if the price cost is a trump, it is defendant's trump, of course the state of the record on summary judgment may be such that there is no question of material fact in dispute as to that trump. Then it doesn't go to the jury.

It is really -- I think that the difference is not whether these cases automatically go to the jury. The difference is who has to come up with this evidence and which way do these cases get decided under a state of uncertainty as to the price-cost test.

Or another way of putting it is is our knowledge of the price-cost test so superior to any other knowledge that we can bring to bear on the ultimate question of competitive effect that we should make it part of the prima facie case.

MR. MEYER: Let me flip the question around a little bit and ask let's say it were an affirmative defense so that at summary judgment the defendant could prevail if it demonstrated there was no dispute that prices were above cost.

Is it a different answer in that case or you still want to allow more of what I will call an open-ended inquiry into that.

MR. TOM: If defendant can show that, that's pretty convincing.

MR. MEYER: Janusz, any thoughts?

PROFESSOR ORDOVER: As an economist, I'm very fond of tests that are clear-cut and also try to compare some sort of price to some sort of cost.

But I think a price versus cost test is a very ambiguous standard because we already have heard today that there could be average price, average cost, there could be marginal price vis-a-vis opportunity cost, which is what the Ortho cost was, where the marginal price was the incremental revenue under tests that Ortho could have provided against Abbott. And the question was which of the allocation of the costs ought to be brought into the particular calculation.

So there is nothing wrong with price versus cost tests. The question is is it the right test in each and every case that involves possibly anticompetitive conduct.

As an economist, I really don't know. If I were to be advising petitioners, I would say let's try to come up with as clear rules as we can. We ought to be comfortable with understanding the meaning of the price and the meaning of the cost in the test, comfortable with advocating the correct price and the correct cost.

MR. MEYER: Is there a clear rule you would be comfortable with, Janusz, as to a particular price and a particular cost as a safe harbor for these kind of loyalty discounts?

PROFESSOR ORDOVER: In the Ortho test, I thought the rule, which was already my prior work and which is consistent with much of the telecommunications regulatory practice, where it came from, the efficient component pricing rule, which is the progeny for all of this, I thought was a good rule. And I would like to see that be applied if possible.

But there could be circumstances in which one can try to argue that it is not the right one, that a better calculation would be to look at the average cost versus average price of some sort.

I think that in, for example, U.S. versus American Airlines, I thought that the relevant test would be applied to profitability of the route, because the contestable object there was the route or a large portion of the route, as opposed to marginal flight, which was not what the gain was all about.

I don't have a hard and fast rule, and I would like to be able to argue for some degree of flexibility, in part because different circumstances may call for a different version of this thing called the price-cost test.

MR. MEYER: Is there any rule that you would say a monopolist or a firm --

PROFESSOR ORDOVER: Let me come back next year.

MR. MEYER: -- could take comfort in as a safe harbor?

Is there some minimum least common denominator in your various approaches so that you would be comfortable with a rule that said these situations will never be the source of Section 2 liability?

PROFESSOR ORDOVER: I don't think that I'm that smart or that obnoxious to have such a vision.

Again, as I said, I said something along these lines in the Ortho test. I thought that was not a bad test.

I also think in different settings, much broader increments of output ought to be the test. I think it has to be looked at in the specifics of a particular case as much as possible.

MR. MEYER: Tim?

PROFESSOR MURIS: I think then-Judge Breyer said we just have to remind ourselves, in Barry Wright, "unlike economics, law is an administrative system, the effects of which depend on the content of rules and precedents only as they are applied by judges and juries in courts and by lawyers advising their clients" in this pricing area.

We get ourselves away from price-cost benchmarks and we are lost, I think.

That's what the world was like when predatory pricing cases were brought at the drop of a hat.

I sat in a Commission conference room in 1975 and 1976 when the coffee case was debated, and it was a case that everyone in this room would now regard as nuts but was seriously being pursued as any of the above.

And what happened there was when Proctor & Gamble was relieved from a Commission order that prevented it from expanding that was the condition of purchasing Folger's, it immediately marched into the east into General Foods' territory.

General Foods, panic faced with the Proctor & Gamble of the 1960s, 1970s, created horrendous documents, and the FTC wanted to bring the case and they voted repeatedly not to bring it, and the staff kept bringing it back until they voted to bring it.

Again, it was a manifestation of lots of things, but there were lots of predatory pricing litigation, lots of uncertainty. And it was ended by Brooke Group, and I think purposely so.

Even now we still have fighting at the edges. It was ended by a test that will have some mistakes, but I think it is essential.

PROFESSOR ORDOVER: I want to comment on this. I think as you so beautifully said, the thing that makes me be less sure than I generally try to be of myself is that the source of that price quote status was a notion that in a perfectly competitive environment, the firm would not go below marginal cost. That's what it was. That was the foundation.

The problem that we have is in many of these cases that we are dealing with, all of them do not take place in perfectly competitive environments.

Because they don't take place in perfectly competitive environments, the question then becomes what lessons can we learn out of a perfectly competitive model that would illuminate the competitive effects of these interactions in markets which are by definition or by experience two or three standard deviations from the perfectly competitive ones.

I really want to make sure that we don't get ourselves entangled in this price-cost test as being an economic foundation of anything. But I am perfectly happy to view those as being the right things to look at given the administrability and the clear-cut statement that one can make to the firm that is trying to compete hard in the marketplace.

PROFESSOR MURIS: Perfect competition exists nowhere. I would agree with that.

My favorite example is the hot dog vendors out there on the street. When they rise their price, they don't lose all of their sales. That means they have a downward-sloping demand curve, period.

That is because of transaction costs and various things, not because of market power. Even Areta and Turner in the article admitted that firms for lots of reasons would price below something that looked like marginal cost for their average variable cost proxy.

I obviously accept that and understand, as you said, that administrability is a key part of the equation.

MR. MEYER: I will jump to proposition 2, which is an extension from the prior proposition. Maybe we will make progress if you will move backwards.

This is a quote from Herb Hovenkamp's recent paper.

"Single-product discounts should be per se lawful if the overall price for all units exceeds cost."

Janusz, why don't we start with you.

PROFESSOR ORDOVER: I was paying attention to something else.

MR. MEYER: Talking about various price-cost tests and situations where you thought a broader calculation of price cost -- is this one?

PROFESSOR ORDOVER: I think, again, it much depends on the circumstances. I think that if the average price is above cost, then again there is a burden-shifting exercise saying, well, there are these discontinuities or jumps in the loyalty schedule and they have potentially serious competitive effects.

Is there a reason why we should not look at the average price versus average cost as being the right indication of how competition will play itself out?

It could be that in some particular settings, comparing the two averages may just be inadequate in trying to really sort out all the potential competitive effects. But I would try to do that through the burden kind of shifting as opposed to per se blanket rule.

In particular, in Ortho it was quite clear that Abbott was going to get an average return on all of its five tests that were way above its total average cost across these five tests. There was still a potential competitive issue.

MR. MEYER: This statement is limited by its terms to a single-product situation.

PROFESSOR ORDOVER: Wait a second. If you believe in the competitive equilibrium model, every good is a single different thing.

We shouldn't get all hung up on this just because I called something -- there is something to be said about the uniformity of widgets versus not.

But what about airline flights? Is flight 05 the same product as flight 07? How should we look at it?

We have to try to think a little bit more broadly as opposed to saying this is a bundled rebate and therefore two different products as opposed to the single product and, therefore, the 17th widget is the same thing as the 15th widget. That is all true.

In particular circumstances, the 17th widget gets a certain kind of weight in how the equilibrium outcome looks that you have to try to pay attention to.

In my opinion, we should not hide behind just the differences in the product names but in the economic circumstance that is driving it.

PROFESSOR CRANE: To the extent this is directed at the Concord Boat situation as opposed to the LePage's situation, it is correct. One can imagine circumstances where single product loyalty discounts or volume discounts, market share discounts could have anticompetitive consequences.

The same sort of discipline that one needs in litigation for bundled discounts also applies in cases, in fact, applies arguably even more in cases involving a discount on a single product.

I think this actually is a law today in Brooke Group quite clearly and it is appropriately law.

MR. TOM: Let me just take exception to that.

I actually find what you just said a little bit surprising in light of the fact that you were defending an incremental revenue, incremental cost test in the multiproduct situation. And I think Janusz is completely right, that it can be very difficult to distinguish single product from multiproduct situations as a theoretical matter.

So in terms of appropriate safe harbors, the ones that we have mostly had on the table today have been either incremental revenue, incremental cost or average revenue, average cost, which I think Professor Muris was advocating.

I think this proposition can only be justified on the administrability and cost of false positives and false negatives kind of argument because there are certainly plenty of possibility proofs that show that you can have anticompetitive effects in this situation even with overall price exceeding overall cost.

So the piece that I'm not hearing -- and maybe Hovenkamp lays it out in this article, and I haven't had the opportunity to read it -- is how do we know, what do we know about the prevalence of false positives or the prevalence of false negatives and the cost of false positives and the cost of false negatives?

Is this situation such that you would advocate an average cost, average revenue rule rather than an incremental cost and incremental revenue rule?

MR. MEYER: For the benefit of all of us, the average revenue/average cost rule is what you are saying --

MR. TOM: What I read this proposition to say, yes.

MR. MEYER: Divide total units by total dollars.

PROFESSOR MURIS: Let Dan respond.

PROFESSOR CRANE: I wasn't trying to defend any particular measure of cost, whether it is variable cost or average total cost.

I was simply suggesting that you should use a cost-based test in all cases involving single-product discounts.

Again, even in a classic predatory pricing case, what the appropriate measure of cost should be is something that there is a lot of debate over.

Without defending any particular cost test, though, I think that the proposition is correct, that is to say, whatever the appropriate measure of cost is, if that cost is recouped on the overall sale to a client, then the discount that created the overall sale should be legal.

PROFESSOR MURIS: Perhaps Professor Hovenkamp had some idea of long run here. It doesn't matter. If you are going to apply these tests, in the short run real world, you will have to separate out the variable costs, I would think.

You can have differences in different industries and how you define costs. And the airline case raises lots of complex problems, I agree. But I don't think I read this to say that we are talking averages total cost versus average total revenue.

MR. TOM: Sorry for being less than clear. I wasn't really addressing what kind of cost is appropriate in the Brooke Group kind of situation.

What I was addressing was the kinds of tests that have been applied in the writings on Concord Boat.

Do you look at the incremental sales that were induced by the loyalty program and look at the revenues from those incremental sales and compare it to the incremental cost or do you apply a Brooke Group test that says you take all of the sales, all of the revenues and compare it to all of the costs for all of the sales.

That's all I was saying. Frankly, I don't know which is the right test. I think if finding out what the facts were cost free and error free, then I would think this is clearly the wrong test.

PROFESSOR ORDOVER: If you take the Concord Boat stylized example in which the challenger can go profitably after a particular dealership in the view of the loyalty schedule that applies to the dealership, obviously there is nothing to debate anymore, right?

If indeed it is profitable to serve that by virtue of the fact that what the incumbent is charging is sufficiently above cost, whatever the right measure is, then you would think the effective or efficient challenger should be able to squeak under it somehow and capture the sale, which is why these price-cost tests make some economic sense.

But, again, the issue is what it is that can be challenged and how much of an obstacle it is if you are required to challenge just the margin.

MR. MEYER: If you all have a few more minutes, I would like to ask one further question, taking us out of the realm of safe harbors.

Assume that whatever safe harbor is out there is not applicable, and we are now asking the question should the court condemn a particular loyalty discount program.

What sorts of business justifications or efficiencies should the defendant be entitled to bring forward to escape liability?

And, for example, perhaps it is obvious that if there is a particular efficiency associated with incenting a bundle, that that ought to be clearly cognizable, but what about simply the lower prices that are being paid by consumers in the short run or gains in share that the firm realizes by making its bundle more attractive to those consumers. Reactions?

MR. TOM: I'm not sure how we quite leapfrogged from the safe harbor to the efficiency justification. It seems to me we have skipped the anticompetitive step in between.

You can fail the price-cost test, but you would still want some sensible explanation of how this gives the defendant power over price, how prices go up as a result. And if price doesn't go up or indeed goes down, then I think you never get to those efficiencies.

MR. MEYER: Assume a plaintiff is coming forward and arguing that you are going to be excluding your only competitor by pricing this way, that you won't have any competition because a competitor cannot match the bundled price or the program. Assume that.

MR. TOM: Then you may get into a debate I don't like to get into about consumer welfare versus total welfare, which is a little too theological for my taste or at least for my knowledge.

So I will leave that to more expert folks.

MR. MEYER: What justifications can a firm offer for successfully excluding its rival using some kind of pricing program like this?

PROFESSOR CRANE: I think obviously there are plenty of pro-competitive reasons, like it costs less to sell the bundle. Those are obvious ones.

The real question would come up if the plaintiff met whatever its prima facie case was and then the defendant was put to the burden of responding through some sort of explanation for why they offer the discount package. And things like price discrimination would come up.

To the extent that mixed bundling is explicable because it is device for price discrimination, how should that cut? Price discrimination could be good for output. It can increase output. It can reduce output. Very hard to show sort of which way that cuts.

So to me, any explanation that the defendant could offer that's accepted as the true explanation that is not an exclusionary explanation should be legitimate.

MR. MEYER: That sounds like a no economic sense test.

PROFESSOR ORDOVER: It is a good one.

PROFESSOR CRANE: It is a pretty good one. We have some support on the panel for it.

I think the sacrifice test or no economic sense test is difficult as a starting point. When it comes to defenses, it makes some sense, I think.

MR. MEYER: Other reactions?

MR. TOM: Let me just pose a question on that last one.

I said I didn't want to get into the total welfare versus consumer welfare. But I want to know if that's the question you are posing.

You are hypothesizing that the result of this conduct is that prices to consumers go up. That is, whatever the efficiency justification, it doesn't lower the monopolist cost sufficiently that the price actually goes down. Am I correct in understanding that?

MR. MEYER: That's a good question. I wasn't being nearly so theological.

MR. TOM: Go ahead.

PROFESSOR MURIS: There are lots of them, and I prefaced them at the beginning and in the paper, specific efficiency justifications one can think of to stick with bundling.

We need to step back and realize we are in a world where bundling is everywhere in very competitive markets. That in itself is an enormous empirical proposition of the efficiency benefits of bundling.

PROFESSOR ORDOVER: I think that is undisputable. In fact, it is the case with many of these kinds of loyalty rebates as well.

You go to Starbucks. You used to get your 10th cup of coffee free if you bought nine. Then you have a big discontinuity.

MR. MEYER: No one else can sell you that 10th cup, right?

PROFESSOR ORDOVER: It makes you drink the 10th cup and get jittery.

There are some good reasons for stimulating demand, especially when you have a world in which the marginal cost is really low and you want to drive demand. It is a very powerful driver.

When you have asymmetric information between the buyer and the seller or in many of these environments that people talk about, the GPO is insisting on discounts that are not volume driven but share driven in part on this theory that the differently situated hospitals are to be equally treated. And just because you are a small hospital, you can only buy 10 units of X, and if you are the big one, you can buy 100 units. You should not be somehow disadvantaged because of that because you are under the umbrella of the GPO.

Some people say that is silly or what. There are -- if you go back to the case that was not quite fully litigated, Virgin British Airways case which pitted Schmazi against Bernheim, two pillars of antitrust and higher economics.

There was a lot of discussion as to the usefulness of these various mechanisms as drivers of volume of sales at the travel agency level, which is where much of the action was.

Rewinding the Areta paper by ten years, we will learn a lot of what the economics was at that time.

Schmazi had a large number of defenses that he put forth why share-driven contracts were in fact efficient or optimal in some cases, and Bernheim took a somewhat different legal, working for Virgin.

It is a case which we have not cited here, but it has a lot of levity in economics.

MR. MEYER: We could go on forever here, but we won't.

I want to thank everyone on the panel for an excellent discussion. Thank you all for attending.

The next session will be next week, December 6th, I think, on misrepresentation and deceptive practices.

Thank you all for coming.

(Whereupon, at 4:08 p.m., the hearing was concluded.)

C E R T I F I C A T I O N   O F   R E P O R T E R

DOCKET/FILE NUMBER: P062106

CASE TITLE: SECTION 2 HEARING

DATE: NOVEMBER 29, 2006

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: 12/18/2006

BRENDA SMONSKEY

C E R T I F I C A T I O N   O F   P R O O F R E A D E R

I HEREBY CERTIFY that I proofread the transcript for accuracy in spelling, hyphenation, punctuation and format.

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