June 23, 2014 Workshop Transcript

Conditional Pricing Practices: Economic Analysis & Policy Implications

Federal Trade Commission and U.S. Department of Justice

June 23, 2014

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[START OF WORKSHOP]

ANDREW I. GAVIL: To open today's workshop, it is my very great pleasure to introduce and welcome Assistant Attorney General Bill Baer of the Justice Department's Antitrust Division, who will offer some welcome remarks, to be followed by FTC Commissioner Maureen Ohlhausen. Please join me in welcoming Bill Baer.

[APPLAUSE]

INTRODUCTORY REMARKS

- **William J. Baer, Assistant Attorney General, Antitrust Division, U.S. Department of Justice**
- **Maureen K. Ohlhausen, Commissioner, Federal Trade Commission**

WILLIAM BAER: I am going to take Andy's introduction as that my remarks are "welcome" rather than "welcoming remarks."

I want to welcome you all to this joint workshop, both those of you here in the room and those of you on the webcast. This joint Department of Justice/FTC Conditional Pricing Practices Workshop is a great celebratory event to be able to have this at the new FTC Conference Center. And it is great to share the podium not just with Andy and our next panel, but with Commissioner Ohlhausen.

As many of you know, the FTC and the Department of Justice Antitrust Division have held a series of workshops over the years on significant antitrust policy and enforcement issues. The goal is to illuminate challenging antitrust problems and studying—having these kinds of hearings are integral to our effort to make smart enforcement decisions. Perhaps most importantly, they fulfill that joint commitment the two agencies have to work with the public in identifying issues of significant importance in antitrust policy.

We work hard at both agencies to analyze and understand the difficult questions so each of us can make the right enforcement decisions. When these sorts of recurring problems with broad implications for the economy arise, we think it is very helpful, very productive, to bring the best and the brightest together to discuss the issues. That is why in the last couple of

years we have held workshops on most favored nation clauses and patent assertion entity activities. And that is why we are holding today's Conditional Pricing Practices Workshop.

These practices, including loyalty and bundled pricing, are common throughout the economy. They arise in many forms and across many industries. And there's debate, considerable debate, among lawyers, among economists, and others about the competitive effects and what the right legal analysis is in evaluating them.

Courts that have analyzed loyalty and bundled pricing have generated different and sometimes conflicting tests for finding liability. We are aware, and I think need to continue to be aware, that conditional pricing practices, in many cases, save consumers money. Many of us benefit from some kind of loyalty or bundle pricing in the retail setting. You may have gotten a cup of coffee this morning and used your smartphone app or your frequent buyer card in your pocket to get a free latte. Others take advantage of bundled pricing at fast food restaurants where you can get—you can super-size it, get your fries, your burger, your 74 ounce Coke. Those tend to be cheaper than buying them separately. These are not, as a general matter, the kinds of conditional pricing practices we worry about.

We do have concerns, however, when a monopolist, when a dominant firm uses loyalty or bundled pricing in a way that restricts competition and maintains or enhances a position of market power within a supply chain.

The Division's most recent enforcement action in this area was in 2011 involving United Regional Health Care system of Wichita Falls, Texas. United Regional enjoyed significant market power. It had entered into contracts with insurers that required them to pay significantly higher prices if they contracted with competing hospitals. Because the insurers needed United Regional's business—it was the dominant firm in the area to compete in Wichita Falls. The penalty for contracting with rivals was so severe that almost every insurer in the area entered into exclusive dealing arrangements with United Regional. That, in turn, reinforced the dominant position of United Regional, and it kept prices higher. Our enforcement action ultimately resulted, done jointly with the Texas AG's office, in a consent decree, which prevented United Regional from engaging in these practices going forward.

Now, as I said at the beginning, it is not always easy to draw the line between the pricing practices that injure competition and those that don't. We want to be careful in drawing that line because we don't want to discourage the kinds of legitimate discounts that benefit consumers. And we want to make sure, on a related point, that what we do protects competition and consumers, not necessarily competitors. These are tough issues.

The reason we are having this workshop today is to advance these ideas, to help come up with a view that provides businesses with needed clarity so they can confidently offer discounts that save consumers money, but without running afoul of the FTC or the Department of Justice.

We are honored today to have with us absolutely the best and the brightest economists, academicians, and lawyers who have thought deeply about these issues, have written about these issues, and will share their views and have some informed interaction on the panels today. We are going to hear economic experts talk about their theoretical and empirical views of loyalty and bundled prices.

Later in the afternoon, the lawyers will eventually get into the game and talk about the development of the case law and the legal standards in the area. They will address key U.S. cases: *PeaceHealth*, *LePage's*, and the more recent *Meritor* and *Sanofi* decisions. As many of you are aware, just within the last week or so, in the European Union, the General Court affirmed the *Intel* decision. That reaffirms, I think, the fact that this issue is not unique to the United States. We will have some experienced international practitioners to share their view on bundled conditional pricing issues, how they are playing out in competition fora outside the United States.

I think this is a great program, a great group of panelists. I thank them all for being with us today. And I want to thank the FTC and DOJ staff members who work so hard to make this event possible. Thank you all for coming and watching. With that, I will pass the microphone to Commissioner Ohlhausen.

[APPLAUSE]

MAUREEN OHLHAUSEN: Thank you, Bill, for those insightful remarks. Good morning, everyone, and on behalf of the FTC, welcome to the Joint FTC-DOJ workshop on Conditional Pricing Practices.

I want to thank the staff at each agency who organized this program. I used to do this kind of thing when I was head of OPP and I know how much work is involved in getting us to this point, so I'm very, very grateful.

I also want to thank the many speakers who have assembled here today for contributing their time and expertise. You are working on a very important issue with implications for the common industry practices of loyalty discounting and bundling. As Bill pointed out, treatment of conditional pricing practices under the antitrust laws is a complex and multifaceted issue that has challenged everyone in our bar for decades, and has engendered a variety of opinions and even a circuit split.

I am going to spend a few minutes first previewing today's ambitious agenda, and then I will offer a few guiding principles that, in my view, merit serious consideration in exploring these issues.

So starting with the day ahead. Professors Michael Waldman and Michael Whinston will start the day with an overview of conditional pricing practices. They will lay the foundation for the rest of the day by defining these practices and helping us to understand how to locate them in the broader array of distribution strategies that can raise competitive concerns. They will discuss how those practices can vary; the reasons firms might adopt these practices; and the relevant economic theories, empirical research, and legal tests that might be used to evaluate their competitive effects.

After that, at 9:30 and again at 11:00, we will hear presentations and discussion of the economics of conditional pricing practices. Our panelists will explore the various theories of competitive harm and benefit, including the circumstances under which competitive harm is more likely to occur. They will also discuss the European approach to conditional pricing practices and the EC's recent *Intel* decision, examine the existing empirical evidence of the uses

and effects of conditional pricing practices, and share their views on how best to analyze conditional pricing cases.

After lunch, Matthew Bennett, Ben Klein, Francine Lafontaine, Julie Holland Mortimer, and Michael Waldman will engage in a roundtable discussion of the relevant economics. And that will be moderated by Dan O'Brien and Patrick Greenlee. The roundtable will aim to summarize and synthesize this morning's presentations, as well as identify points of consensus and disagreement in this area.

Following the economics roundtable, Steve Salop will discuss two exclusionary conduct paradigms—predatory pricing and raising rivals' costs—and apply each paradigm to conditional pricing practices to illustrate which paradigm is better able to identify competitive harm. His presentation will help transition the discussion from economics to legal policy questions that have challenged the courts.

Our afternoon panelists will then explore the current legal standards in the United States and Europe, and discuss the advantages and disadvantages of price-cost and other tests for evaluating conditional pricing practices.

To close out the workshop, Debbie Feinstein and Renata Hesse will moderate a discussion among Jonathan Baker, Dan Crane, Scott Hemphill, Fiona Scott Morton, Richard Steuer, and Michael Whinston that will reflect on the full day of presentations to see what lessons have been learned and what future steps might be needed.

Now I'd like to spend a few minutes offering some guiding principles I try to keep in mind as I weigh these types of complex issues. Many of you have heard me speak on these points before, but I think they bear repeating. In shaping competition rules, we should aspire to promote predictability, fairness, and transparency in the law. The best way to accomplish these aims is to develop rules that are empirically grounded in economic efficiency while at the same time administrable by agencies and the courts. The failure to incorporate economic analysis can allow for decision-making based on non-competition policy grounds. On the other hand, failure to acknowledge the need for administrable rules can shut out entire classes of injured parties, undermining the credibility of the law.

Now, Bill already mentioned some of the leading cases in the current circuit split, *Meritor*, *PeaceHealth*, and *LePage's*, and noted the difficulty in drawing a line between procompetitive and anticompetitive behavior. This is a tough problem and not one that I can fully address in these few minutes. But trying to hew to the notions of predictability and fairness and transparency can help the thought process and ultimately may lead us to find the right balance between accuracy and administrability. And perhaps you can all figure out a way to obtain both.

For example, the Ninth Circuit adopted the discount attribution cost test in *PeaceHealth* in part to promote predictability and administrability. The court recognized the endemic nature of bundled discounts in the economy, acknowledged the Supreme Court's historical focus on protecting and competition, not competitors, and decided that the "safer" approach for consumers in the competitive economy was to adopt a price-cost test. But questions linger about whether the difficulties associated with calculating the appropriate measure of cost render this test unworkable, cutting against predictability, transparency, and fairness.

Professor Hovenkamp recently wrote an article critiquing the Areeda-Turner test for predatory pricing in which he argues that it may not have done as much to promote administrability as people had hoped. And this suggests to me that price-cost tests may not necessarily be the panaceas of administrability we thought they were, and I look forward to today's discussions about it from this perspective.

Now, on the other end of the spectrum, as the Antitrust Modernization Commission noted, the Third Circuit's decision in *LePage's* does not require rigorous consideration of economic efficiencies before a finding of liability is made. Instead, the AMC noted that it could be read simply to allow a jury to consider whether the plaintiff was excluded from a market as opposed to whether the plaintiff could offer similar levels of efficiency as the defendants. The AMC concluded that *LePage's* "offers no clear standards by which firms can assess whether their bundled rebates are likely to pass antitrust muster."

So just to conclude, the FTC and the DOJ value your insights and input on these issues. The public comment period will remain open until August 22, and we are actively seeking your

thoughts and observations. Right now, I look forward to hearing the panelists offer a better sense of how to chart a course forward that allows us to give businesses the latitude they need to engage in procompetitive pricing practices while still prohibiting and discouraging harmful anticompetitive behavior.

Importantly, you can help us determine how to make the agencies constructive partners in designing and administering workable rules for industry. And I hope you keep in mind my guiding principles offered today as you think through each proposal or critique: Does this proposal offer market participants predictable guidance for the lawfulness of their behavior? Is it fair to both consumers and industry? Will this proposal increase or decrease enforcement transparency? These questions may help us along the path to finding solutions that promote economic efficiency and consumer welfare.

Finally, underlying everything is the bedrock issue of whether the proposal will make efficient use of government resources or if it would be better to allow the market to find the answer. Although a universally appealing framework seems to have eluded the courts so far, I am sure with the right motivation you will figure it out by close of business today. So Andy, lock the doors. Bathroom breaks will only be awarded to those with the best ideas. Thank you.

[APPLAUSE]

PRESENTATION: OVERVIEW OF THE ECONOMICS OF CONDITIONAL PRICING PRACTICES

- **Michael Waldman, Charles H. Dyson Professor of Management and Professor of Economics, Samuel Curtis Johnson Graduate School of Management, Cornell University**
- **Michael Whinston, Professor of Economics, Sloan Fellows Professor of Management, Department of Economics and Sloan School of Management, Massachusetts Institute of Technology**

MICHAEL WALDMAN: Thank you very much. I'm Mike Waldman and this is Mike Whinston. We are doing a joint talk and so we are going to be switching back and forth. Since we are in a kind of multi-round game, I am going to try to establish a reputation for not taking advantage of Mike, and will try to keep the introductory comments relatively short.

Okay, so what's the outline? The outline is: what are loyalty contracts. And that's what I'm going to start talking about in just a second. Then, Mike is going to talk about single-product loyalty contracts focused mostly on theory. I will then talk about multi-product loyalty contracts, again, focusing mostly on theory. And then Mike is going to end by talking about legal tests. Part of the logic of this outline is I think both of us feel that these contracts are different. There are sort of two categories here that should be understood, and whether you have a single-product loyalty contract or a multi-product loyalty contract in terms of what is going on the market, what are the potential theories, are quite different. And so it is useful to divide the cases in that way.

All right, so what are loyalty contracts? In a standard pricing case, the price that gets charged by Firm I on Product J depends on the quantity that Firm I sells in terms of Product J. In a loyalty contract, particularly where we are referring to referencing rivals, then the price for Firm I and Product J depends not just on the quantity that Firm I sells in terms of Product J, but also depends on other products sold by other firms. Now, the most general case is it depends on the products sold by some other firm than Firm I in terms of the same product that some other firm is selling. But also, potentially, in terms of other products that that firm is selling. The particular cases are given below. So in a single product share-based discount, which is one particular way that referencing rivals can occur, what happens is that the price depends on the share that the customer buys from Firm I of Product J. But you could also have multiple product

share-based discounts where the price that the customer buys from Firm I in terms of Product J doesn't depend just on the share in terms of Product J, but depends on the share of other products that Firm I might be selling. That is the key distinction.

Another special case is exclusive contracts, which is kind of an extreme case of the single product share-based discount, which basically says, "I'm only going to sell to you if you buy everything from me." The focus is, how does this affect market outcomes? How does this affect welfare? We will be talking quite a bit about the theories.

Now, one thing what that we are not going to be talking about is—we decided we only had 40 minutes—so you could think about all-units discounts or nonlinear pricing in general, but we are going to keep our comments just to referencing rivals, the idea that pricing depends on how much the rivals sell of it. In some cases, you could mimic that if there's not very much market uncertainty in terms of demand. You could mimic that without actually referencing rivals, so you want to be a little careful. But we are going to be speaking in terms of contracts that reference rivals, at least implicitly.

Now why has this become an important issue? There's already some discussion of this. Well, it is because there are basically a number of cases that have been decided in the last few years where a different kind of standard has been set. And the cases have been decided in somewhat of an inconsistent fashion, which makes it difficult for buyers to think about what's legal, what's illegal. So I am going to go through very briefly four cases, just to give you a clear sense of what's the issue, and that the courts are actually not deciding this in a very consistent fashion.

Where this started was the *LePage's v. 3M* case, where 3M had high market share in branded tape products. Early on, branded tape products comprised most of the market. But as the market progressed over time, private-label tape products became more important and 3M decided to enter that market.

LePage's was the main producer in the private-label tape market. So what did 3M do? Well, they targeted buyers who were buying private-label tape, which were a lot of LePage's customers. And what they did is they offered discounts across six product categories based on

various category charges across these six product categories. Some of these product categories were categories where LePage's wasn't offering a product, so it was difficult for LePage's to respond with prices across all these products to match what 3M was offering. LePage's alleged that 3M's conduct was exclusionary. The court ruled in favor of LePage's, even though there was no finding that 3M's pricing was below cost. So that was kind of the new change, which was usually it had been—there had been some kind of price-cost test. And that didn't occur in this case.

Then, along comes *Cascade Health Solutions v. PeaceHealth*. They are two providers of hospital care in Lane County in Oregon. McKenzie provided primary and secondary care in its single hospital, while PeaceHealth offered all three—primary, secondary, and tertiary care—across its hospitals. And then PeaceHealth did something similar to what LePage's did, which is it offered significant—well, it was a little bit more specific, but offered significant discounts on tertiary care to insurance companies that purchased all of the hospital services, including primary and secondary solely from PeaceHealth. McKenzie made a claim similar to LePage's that PeaceHealth's conduct was exclusionary. The courts in that case ruled quite differently than in the *LePage's* case. They applied a price-cost test.

Now, both of those cases were multiple-product brand loyalty discounts. The next two cases are single-product or at least they were looked at as single-product. So *ZF Meritor v. Eaton*. Eaton was the leader in heavy-duty truck transmissions and ZF Meritor was a rival seller that had recently introduced a product innovation. In that market there were only four buyers—the manufacturers of heavy-duty trucks. Eaton started offering long-term contracts with a number of different features—rebates that depended on high minimum percentage purchases from Eaton, preferences, required preferences for Eaton products in data book listings, and a clause that required Eaton to price its products lower. ZF Meritor alleged that it was a *de facto* exclusive dealing contract and the court agreed in terms of ZF Meritor's allegation, although they said that ZF Meritor lacked standing because it had exited the market.

The final case is *Eisai v. Sanofi-Aventis*. Again, a single-product case. Sanofi-Aventis was selling Lovenox, which is an anticoagulant drug with a high market share. Eisai had exclusive distribution rights for a competing drug produced by Pfizer, Fragmin. Again, it is the same idea:

Sanofi-Aventis offered a discount if customers purchased at least 90% of its anticoagulant purchases from Sanofi-Aventis, and then the discount fell quite quickly if the market-share fell. Eisai made the same kind of argument as in the previous case that this was exclusive dealing, and in this case, the courts dismissed the case, arguing that it didn't pass a price-cost test. So you can see where the issue is coming from. The courts are in kind of similar cases, sometimes saying a price-cost test applies, sometimes saying that it doesn't.

MICHAEL WHINSTON: Well, we are behind already.

MICHAEL WALDMAN: Oh, sorry.

MICHAEL WHINSTON: No, I'm just kidding. No, you did a great job. Thanks.

First of all, I just want to say, in looking at my other panelists' slides, I noticed that everybody has a disclaimer. So I should say this doesn't reflect my or our views in the past, the future, or even the present. I should also say we were asked to "set the table." We are going to save our personal views for when we are speaking later.

All right. We are going to first talk about single-product loyalty contracts, where the contract is governing the sale of just the single product. Avoiding issues of bundling and the like. The bottom line is that these contracts are motivated and can come up for many different reasons. They can encourage efficient investments. They can aid in price discrimination. They can extract rents out of future entrants. They can intensify or diminish the intensity of contracting competition, facilitate a reduction in downstream competition, reduce downstream competition by foreclosing access to inputs—that is, raising rivals' cost—and reduce competition by foreclosing access to buyers. So what I am going to try to do in the brief amount of time I have—these are the various reasons that have come up in the literature—and just go through them and hit the main points about what each of these stories is.

We will start with the good.

One thing that these loyalty contracts and exclusives can do is encourage efficient investment. Probably the most well-known story about efficiency is that subjecting a buyer to exclusivity can protect seller investments from free riding. So if a seller, for example, is

advertising and bringing customers into a retailer's store, if that retailer can then switch the customer to a lower-cost product, thereby free-riding on the seller's advertising investments, for example, the seller's incentives to make those investments are going to be reduced. And sometimes, those investments are important. So an exclusive contract can help achieve efficiency.

Another story for investment—so that first story is from Marvel and there's follow-on literature as well. A somewhat different story is that subjecting a buyer to an exclusive contract can affect the investments of the buyer; in particular, it can help get the buyer to focus his investments on the seller. A buyer may have an incentive to invest more broadly, to maintain its bargaining position and options relative to the seller. Sometimes, that is inefficient. An exclusive or a loyalty contract can help with that.

Another story that comes up for exclusives is that they can aid in price discrimination. There are a couple of recent papers, one by Majumdar and Shaffer, and another by Calzolari and Denicolò, that talks about exclusives and loyalty terms arising as screening devices.

The basic idea is that high-demand buyers may find restrictions on using and selling other products more costly than low-demand buyers do. So when you design your pricing scheme, the package that you are intending low-demand buyers to use, you can put an exclusive or a loyalty term on that and make it unattractive to high-demand buyers. Now, that is often going to end up being bad for buyers. That is, if you aid the ability of a seller to price discriminate that can be bad for buyers. On the other hand, it may increase efficiency. For example, it may reduce the tendency of the seller to reduce quantity in the low-demand package, which is often a way that sellers will try to get high-demand buyers not to find choosing the low demand—what's intended for low-demand buyers—to end up finding that attractive.

That last story was about extracting rents out of consumers. A different story is to extract rents out of future entrants. So Aghion-Bolton's original model thought about an incumbent and a buyer as signing a stipulated damage contract, which you can rename in the context of today's session as a disloyalty tax. And you did that to induce a later entrant to price

more aggressively, to lower his price. The idea is that you were basically doing this as a pre-commitment to extract rents out of the future entrant. Now, for a buyer that may actually be good for the buyer because the buyer may share in some of those extracted rents, depending on what the bargaining is with that initial incumbent. On the other hand, it causes an inefficient reduction in the use of a rival's good, of the later entrant's good.

The two stories we talked about of price discrimination and extracting rents out of future rivals, they both imagine the situation where there was a single seller that was pricing strategically. That was using these kind of terms in designing its contract. But you might also ask, and very frequently we run into this in actual cases, it isn't just a single-party seller that's potentially doing this, but there's competition among sellers, all of whom may be doing this, and they are competing for the contract. So you might ask, "well, what effect does having exclusives or more generally loyalty terms have on the intensity of price competition?"

And the answer, I'll go through it, is that it can sometimes increase the intensity of price competition and sometimes it can reduce it. So the simplest setting—and whether it does is going to depend on what other terms firms can use in their contracts.

The simplest kind of setting is to think about a situation with simple linear pricing. There is a paper, an older paper by Mathewson and Winter, which originally looked at this. There's more recent work, which basically does the same thing, by Klein and Murphy, and a comment by Zenger that some of you may be familiar with, that basically says some of the same things.

So to think about this linear pricing setting, think first about a situation where we have symmetric firms. By symmetric, what I mean is the firms may have differentiated products, but they are sort of more or less mirror images of each other in terms of how attractive they are to sets of consumers.

If you have fairly symmetric firms, competition for exclusives will intensify competition. And if you think about the extreme case where the firms are literally symmetric and they're competing for exclusives, in the end they may—if they're symmetric for all buyers, it's going to turn out that they compete price down to cost. They will end up earning no profits at all. Now,

that can make the buyer better off. It depends on whether that reduction in price compensates for the loss of variety.

On the other hand, imagine a situation where the firms are very asymmetric. One firm is dominant. Now in that situation, competition for exclusives not only can lead to an exclusive—that is, a loss of variety—but actually, to an increase in price.

To think about a situation where that would be true, if absent exclusives where both firms are being served, the dominant firm is dominant enough that the surplus the buyer earns from that firm is greater than what the buyer could get in an exclusive with the lesser firm, even at cost, then if you start from a non-exclusive situation, the dominant firm can insist on an exclusive. And when it does, actually the buyer—even if it does that at the same price, the buyer would actually prefer to go with the dominant firm. There's that much surplus to be earned from the dominant firm. In that case, the dominant firm can actually insist on an exclusive and raise the price. An exclusive gives that dominant firm a lot of ability to extract more rents out of the buyers.

Now, that depended on the fact that it was linear pricing. And in particular, that the dominant firm had no—basically, the exclusive was a way for the dominant firm to extract some of the surplus that the buyer was getting that it couldn't extract with a simple linear price. So if you allow non-linear pricing, things change. In particular, the best equilibrium now for the buyer is actually to compete—is to have competition in only in exclusives. That is, whenever there is competition for exclusives, the buyers will be better off. Sometimes you see this, a buyer insisting on an auction between sellers under exclusive terms.

On the other hand, that is going to be an inefficient outcome because one firm that should be in the market is going to be excluded. On the other hand, there are often other equilibria where, for example, the best equilibrium for the firms is going to turn out to be efficient and unaffected by banning exclusives. This may sound a little complicated. The bottom line is, if you have non-linear pricing, exclusives are going to turn out to be—on the one hand, either good for the buyer or neutral for the buyer. On the other hand, inefficient.

Now the last set of papers in this area, there are a couple of papers by—actually, this is Calzolari. It's the same Calzolari, in this case, misspelled. Looks at having non-linear pricing but with unobserved buyer characteristics, which we think is often the case. That you can't perfectly price discriminate. You don't know exactly how much a buyer cares about your product. In that case, what happens is a couple of interesting things. One, you get back to the linear pricing results to a large extent. That is, with symmetry, competition is intensified. The buyer may be better off or not. On the other hand, if you have a dominant firm, the dominant firm, if you start having exclusives, is going to be able to end up extracting a lot of rent—use exclusives to extract rents. The buyer will often be worse off. Moreover, it will often be inefficient.

Now, there's one other interesting thing that comes out of that paper, which is true both in the non-linear with unobserved characteristics and in that linear pricing case, which is share contracts. That is, loyalty contracts that are not exclusives—you start realizing have an effect that's different than just an exclusive. The reason is that if a buyer is subject to both that kind of—is carrying both products, a share contract can end up—essentially meaning that two parties can essentially tax or price the sale of a single good. If Firm A and Firm B are both selling to the buyer and Firm A can essentially tax the sale of Firm B's products, it's like double marginalization. The price will end up being higher than it would otherwise be.

All right, three more stories to go. The next story is facilitating a reduction in downstream competition. This is a little related to kind of the cartel ringmaster story that Krattenmaker and Salop had in their paper. But it shows up more formally in a couple of recent papers. One by Inderst and Shaffer and the other by Asker and Bar-Isaac. The basic idea here is to imagine you have an upstream—in the previous stories that I told, the buyers either were final buyers or they competed—they didn't compete with one another. In many settings, of course, the buyers are downstream firms that are competing with one another.

In that situation, an upstream firm, what it would like to do is to earn its profits is raise the price that downstream firms are buying at and then have them compete a lot in the sale of it. So that downstream firms don't earn many rents, but they limit—basically, the high wholesale price limits downstream competition.

Because otherwise, if you set a low wholesale price and the firms downstream are very competitive, they will dissipate a lot of profit that the vertical structure could earn. You want to raise that wholesale price to limit that downstream competition.

The problem is if you do that and the downstream firms have other sources of supply, they will go to that. The competition will mean that they will start selling other firms' products. What you can do is subject—get the downstream firms to sign exclusives or loyalty contracts that limit their ability to go to other suppliers. That's what happens in these papers. By doing that, by subjecting the downstream firms to those restrictions, you can keep, basically—the upstream firm can end up earning more profit.

Now, sometimes raising that wholesale price—or equivalently, I should have said a moment ago, another thing you can do is limit access to inputs in other ways, not just through a high wholesale price but just restricting quantity that you sell to downstream firms. Sometimes, it is difficult for upstream firms to do that successfully. When that's the case and you want to limit downstream competition, exclusives that prevent the upstream firm from selling to certain downstream firms can be another way to limit competition.

One story I like to tell in this is imagine you have a supermarket and there's a potato chip aisle. You have a dominant potato chip manufacturer and it wants to limit competition among potato chip makers for consumers. Well, if it just tries to buy aisle space by a quantity of aisle space, the problem is the supermarket has lots of other—if it buys a whole aisle, the supermarket could take a little bit away from milk to sell to other potato chip manufacturers. And that may not be very effective at limiting competition. A much more effective way is to use an exclusive or some loyalty share arrangement. If it does that, it can just say, "I'm the only potato chip manufacturer that is going to be in your store. Or, I'm going to get 80% of your aisle space for potato chips." That can be much more effective.

In the literature, stories like that show up; for example, if you take Hart and Tirole's classic paper, it is basically a story like that. That the upstream firm—an exclusive will help the upstream firm limit downstream competition.

It also shows up in some recent empirical work, which I think is quite interesting. One paper by Robin Lee on video games. The relationship between video game manufacturers and console manufacturers, whereby having exclusives where a game is available only on a certain platform, you basically create product differentiation downstream, thereby reducing downstream competition.

Another example is a recent paper by Michael Sinkinson on the iPhone deal between AT&T and Apple, where a similar story shows up.

Okay, last story. The last story is not about reducing competition by foreclosing access to buyers. But rather—by reducing access to inputs. But rather by reducing competition by foreclosing access to buyers.

This shows up in a paper by Rasmusen et al. and some work of mine. There's been follow-on literature to this as well. The basic idea is that loyalty contracts with buyers can deprive a rival of scale and by doing so, reduce the rival's competitiveness.

Now, a key question in this, which comes up from the Chicago School is, "well, why would a buyer be willing to sign such a contract to limit competition that the buyer is enjoying?" The answer in the Rasmusen et al. paper and my paper as well is that externalities exist across buyers. Because, basically, preserving competition is a public good.

The profit to be earned from monopolizing one buyer effectively ends up being what funds the profits to other buyers. In the original papers, there was just one initial incumbent. But work that I've done with Doug Bernheim shows that you can get similar kinds of effects where several firms are competing for a buyer to sign their contract. Finally, those papers have final buyers and there's been some work that talks about situations where downstream buyers, or I should say final buyers or retailers who don't compete with downstream firms that don't compete with one another that are in separate segments or markets. There's also some work looking at that previous literature and asking, "what about if there's downstream competition?" One paper by Fumagalli and Motta ends up showing that exclusion could be harder if the upstream rival only needs access to a single downstream firm to get to the market. Then you basically have to sign everyone up to keep them out. On the other hand, work by

Simpson and Wickelgren ends up showing that it can go the other way in that downstream firms may be relatively unaffected by upstream price increases because they pass them through. And that that competition can actually help you with exclusion. So it can go either way in this regard.

So I guess in summary, just to say there are many different stories. Some are good for consumers and some are bad. The ones that are good for consumers aren't necessarily good for aggregate surplus. There are different effects for aggregate surplus.

The stories differ in who is subject to exclusives—buyers versus sellers. And they differ in the mechanisms, and they differ in what's important in those mechanisms. Sometimes you need long-term contracts, other times not, et cetera.

Let me turn it over to Mike.

MICHAEL WALDMAN: Thank you. Time? How much time we got? Okay, thanks.

I will try to be a quick so Mike has some time to talk about legal tests. In multiple product loyalty contracts, a different issue comes up. This issue, I think, was nicely stated in the paper by Greenlee, Reitman, and Sibley in 2008, which is basically in many circumstances the multi-product loyalty contract can mimic a tie. This slide sort of goes through a simple example. I will just state very briefly, which is I have a monopolized product. I have one monopolized, Product X. The other product—there's a rival. And so what I do is I say, "well, I'm going to set this really high price for X if you don't buy Y from me. I will give you a price discount, which might be the monopoly price, if you do buy Y from me." Basically, if the consumer puts enough weight on having some X, the consumer is going to be forced to buy—it is going to be just like a tie. Given that, what could be driving multiple product loyalty discounts? Well, anything that could be driving tying. There might be some other things, too, although, given that all the things that could be driving tying, my guess is it's also going to capture anything else that you might think about in terms of multi-product loyalty discounts.

So there I've given, I think, a pretty comprehensive list of what could be driving tying. I'm sure there are a few other things, but those are the main ones. It could be efficiency. It could be price discrimination. It could be hold-up theories. It could be extending leveraging

market power. It could be preserving/strengthening market power, and some other strategic motivations. I'll go through these pretty quickly.

Lots of theories about how tying could be improving efficiency. Going back to work in the Chicago School, Evans and Salinger more recently in terms of reduced production and distribution costs. Ben Klein with—I think it's Roy Kenney? Is that right, Ben? Had paper on economizing search and sorting costs. Barry Nalebuff talks about pricing efficiency. And there are others concerning the Cournot effect. And there are other stories about pricing efficiencies concerning bundled loyalty discounts. There's eliminating inefficiencies due to variable proportions. There's a nice paper by Malella and Nahata in 1980. And Dennis Carlton and I sort of apply it to aftermarket pricing in a paper in 2010.

It would seem that in most of those cases, multi-product loyalty discounts could be applied. Although, in terms of reduced production distribution costs, there is an issue of why do you need to reference rivals as opposed to just a quantity discount? Although, I think the Topel and Murphy paper talks about some arguments for why you might want to reference rivals in terms of risk aversion. But in other cases, such as the variable proportions inefficiency, it is clear that you would want to reference rivals. So it's not hard to come up with stories with the efficiencies where you'd want to reference rivals.

Two classic stories about how tying and bundling can lead to price discrimination. There's the Stigler argument concerning negative correlations and values. There are a number of papers, including a paper by Mike Whinston, McAfee, and McMillan showing that the negative correlation values is actually not a necessary condition. And then there's the classic metered sales argument that goes way back. And also a paper by Chen and Ross that applies the metered sales argument to the aftermarket context in more recent papers.

And again, multiple-product loyalty discounts should be consistent, at least with the second rationale, maybe not the first because the first talks about having monopoly in both products, so it is not clear that the first applies. Although my guess is there might be variants of the argument where it would apply.

Hold-up theories—there's a whole literature on aftermarket competition. Many of the theories in the aftermarket competition literature, as I've already mentioned, apply to—are just taking basic tying theories, such as metered sales or a variable proportions argument, and applying it to the aftermarket context. There's a class of theories that apply just more directly to aftermarkets, which is these idea of hold-up. Which is "I buy a product, I'm kind of locked in, and then the firm raises the price on the complementary product." In this particular case, I am not as clear that multi-product loyalty discounts applies just because of the timing issues associated with these hold-up theories.

Now, what's really sort of most interesting is the leveraging extending market power argument. That's what people are concerned about, that the multi-product loyalty discounts are used to extend/leverage market power. That goes back to the Chicago School. The Chicago School argument was, well, there's a single monopoly profit. There are papers by Director and Levi and Bowman, and Posner's book and Bork's book. There's a single monopoly profit and so leveraging or extending market power doesn't make sense because you can get all your profits out of your signal monopoly. Mike Whinston in a classic paper investigates that and shows that it is right sometimes, not right all the time. It is right when the monopoly good is essential. But if it is not essential—for example, you have independent products or if you have some consumers who just want the tied good, then the Chicago School doesn't go through. And Barry Nalebuff and Mike show that in some analyses.

Now, just kind of one plug for one of my own papers with Dennis, which is that would suggest—if that was the end of the story, that would suggest a very clear test or clear idea of when we should worry about leveraging market power, which is, "is the monopoly good essential?" But that turns out that that relies on Mike's analysis being a one-period model. In a one-period model, you can have this basic story of "you have a certain way of pricing the monopolized good and the tied good without tying." And you can show you can do just as well as monopoly profits by pricing the monopoly good at the bundle price minus the marginal cost of the complementary good. It is a really clever and insightful story, but it turns out that if you go to a multi-period setting, which is what Dennis and I do in our paper in 2012, that argument doesn't generalize completely. And so that suggests that the kind of distinguishing when

leveraging market power might make sense or not make sense isn't quite as simple as one might have thought after just looking at Mike's paper.

There are a number of papers that preserving/extending—strengthening existing market power instead of leveraging market power. In Mike's 1990 paper, he also presents an example of that where there is an inferior monopoly product and the tying is used to kind of reduce pricing constraints from that.

Dennis and I have two-period models in which there is potential entry in the monopolized market. What the tying does is it stops entry in the complementary market, then in turn stops entry into the monopolized market down the road. And again, my sense is that the multi-product loyalty to contracts should apply to that.

Other strategic motivations—it could be product differentiation. Choi and Stefanadis have a nice paper concerning not having monopoly in either product but using the tie to increase the probability of monopoly going forward. Dennis Carlton, Joshua Gans, and I have a paper on the ability of tying to shift rents. And again, we think those should apply.

One quick comment is—and Mike pointed this out to me last week—one issue that comes up in the kind of leveraging—in some of these strategic rationales is the ability of commit. My sense is that in the multi-product loyalty discount because the tying is occurring, if it is tying, through the pricing itself, commitment is not as large an issue. But that hasn't really been worked out in detail and that would be a nice thing to work through.

The next step? My sense is that there isn't that much theory here on the multi-product loyalty discounts. It would be nice to see a little more theory to flesh out some of the similarities and differences between tying. I think they would be useful.

There's some empirical work on tying, nice papers by Crawford and Yurukoglu and Ho, Ho, and Mortimer. But again, there's not that much there. The studies do focus on a narrow set of industries, which might not be the most important set of industries from the antitrust perspective. And there's very little or almost no research on multi-product loyalty contracts themselves as opposed to empirical research on tying.

One question which arises, which is—if it is playing the role of a tie, why do we see multi-product royalty discounts rather than tying? And maybe—and I asked this last week in a phone call. And Patrick [Greenlee] said, "well, maybe what it is, is that the courts have a different way of dealing with the two issues and it's easier to pass court attention if you use a multi-product loyalty contract." There you go.

MICHAEL WHINSTON: Thanks. We're on time.

So I should just relate it to Mike's last slide. I should say because of the time, I skipped over a slide about empirical work on the single-product contracts. So the one thing I should say about that, there isn't—kind of like the tying multi-product case, there's not a lot of literature on it, empirical work. Especially empirical work that you really want to bank on. But I think one of the things that is really quite interesting and exciting right now is that there's starting to be a set of more recent work on these kind of practices. Mike mentioned some on the multi-product front, but I had mentioned at one point in my comments papers by Robin Lee and Michael Sinkinson, young empirical scholars in industrial organization are starting to work on these issues in a quite interesting way.

Okay, let me just turn to legal tests. I think there are a couple of key concerns that really drive one's thinking about what policy should be. One, of course, is preventing anticompetitive actions that reduce consumer—and I put a question mark there—welfare. I put the question mark because we often say we are interested in consumer welfare, but in some of the models there are different outcomes for consumers and society as a whole. And there's a question about how to think about that and what the objective is and how we resolve those differences.

The second issue, which I think is a very important issue as well, is reducing frivolous litigation. That's costly. It's good for economic consultants sometimes, but not for anyone else—almost, or lawyers, I guess. And deters pro-competitive behaviors, which is probably a more important thing—competition, which we think works well. We don't want to dampen that and hurt that wonderful process.

So there are two main—as Mike's review of the recent legal cases indicates—there are really two different approaches that courts and others have taken and discussed. One is what

you might regard as a very fact-specific rule of reason investigation of likely harms and benefits of a practice. A different approach is applying the price-cost test. And I don't mean from a legal standpoint to say the price-cost test isn't part of rule of reason. We could call it part of rule of reason. But the people who describe the price-cost test and use it are thinking of it as a safe harbor screen that's going to be very determinative of many, many cases. Basically, the argument for it often is an analogy with predatory pricing. So I think it is useful to think, as we go through the day, of the arguments that people give for predatory price—for using price-cost test in predatory pricing. And ask ourselves whether those common justifications for price-cost tests for predation apply here.

So I've listed them here. I have listed them in quotes because they are things people say and I don't necessarily even want to endorse them as things I would endorse for using the rule for predatory pricing. But we can just list them here and discuss them as the day goes on.

The first is the need to reduce frivolous litigation. So if we have some screen that does that, that may be a useful thing.

The second is firms may need a bright line. Commissioner Ohlhausen was referring to both of these in her comments.

Third, you might say that firms—it is said that firms rarely have reasons to price below marginal cost. That may be an argument for actually condemning firms if price is below cost, not as a safe harbor. But the second piece of this relates to the safe harbor, which is that it is hard to identify above marginal cost predation. It would be difficult when price is above marginal cost to say whether the firm is sacrificing profits in the short run to exclude an entrant.

Another argument that is often given is to say that when price is above marginal cost, forcing a higher price sacrifices short-run efficiency for a speculative long-run gain. This is what is often referred to as the "bird in the hand" argument. We should grab that bird in the hand and not let go.

Another argument that's often given, and this phrase often comes up in discussions, is if price is above marginal cost, an equally efficient competitor can make sales. So I think actually

even in the predatory pricing area, there's a real reason for asking ourselves why that is a compelling argument. But let me leave that aside for now and just—we can leave that out there.

Another argument that you could give, which is related and I think a little more general is to say, if price is above marginal cost, a firm whose presence is efficient can make sales. By "make sales," I mean "profitable sales." So I should qualify this a little bit. What I mean by this is, if price is above marginal cost, a firm that should be in the market for efficiency standpoints, if that pricing was fixed and the firm could perfectly price discriminate, it could come in and make profitable sales and be profitable.

So there are a variety of reasons. We can ask ourselves as the day goes on whether we think those or some other arguments apply to using a price-cost test for loyalty contracts.

At the same time, I think it is important for us to ask what a structured rule of reason might look like. So for example, one question you might ask yourself is, "are there some theories of possible harm that we don't think the law should investigate?" For example, the fact that loyalty contracts may help with price discrimination. It may be that that could harm consumers, but maybe we don't want to entertain that as a valid argument in court. We could also ask what the elements or burdens are for establishing harms and procompetitive effects. And should there be safe harbors other than price-cost tests?

I think those are all of our comments.

[APPLAUSE]

PRESENTATIONS AND DISCUSSION: THE ECONOMICS OF CONDITIONAL PRICING PRACTICES

Presenters:

- **Michael A. Salinger, Jacqueline J. and Arthur S. Bahr Professor in Management, School of Management, Boston University**
- **Abraham L. Wickelgren, Bernard J. Ward Centennial Professor, University of Texas Law School**
- **Timothy J. Brennan, Professor of Public Policy and Economics, University of Maryland, Baltimore County**
- **Benjamin Klein, Professor of Economics, University of California, Los Angeles**

Discussants:

- **Francine Lafontaine, William Davidson Professor of Business Economics and Public Policy, Stephen M. Ross School of Business, University of Michigan**
- **Randal Heeb, Partner, Bates White**

Moderators:

- **Patrick DeGraba, Economist, Bureau of Economics, Federal Trade Commission**
- **Patrick Greenlee, Economist, Economic Analysis Group, Antitrust Division, U.S. Department of Justice**

MICHAEL SALINGER: I'm going to talk about loyalty discounts by a dominant producer threatened by partial entry. What I mean by partial entry is that there's an entrant—or it doesn't have to be a new firm but a small firm—that can compete for part of a dominant firm's market but not all of it. As you can tell from the first word of the title, I am going to conclude that this can be done in an anticompetitive way.

The pricing schemes I have in mind—or that I'm analyzing—are simple. The regular price is $10—at least that is for small customers. So say, if you buy less than 100 units, you pay $10. But you're a big customer, if you buy 100 units or more, then you pay $9.

So that looks like a pretty standard quantity discount to virtually everyone. Except that if you found your way to this room, you probably recognize that there's actually something quite unusual about that. Which is that if you buy 99 units, you pay $990. If you buy 100 units, you pay $900. You buy more and you pay less.

Whether or not we think that's anticompetitive, I think we can agree that that's puzzling. When the organizers of this conference contacted me several months ago, they asked

for help in learning what's being taught in business schools about these practices, and whether in business schools we are teaching people how to do this. I consulted with my marketing colleagues at BU, and they assure me that they are not teaching our students to do this.

[LAUGHTER]

There are a lot of business school professors here, and I would be curious to learn whether at other business schools they are teaching their students how to realize the value that they've created—or to exploit their market power, depending on your perspective—better than we are. But the business students are learning the Lerner Rule, they are learning to segment the market. To charge more where the elasticity of demand is less.

Business students are learning about the use of bundling as a price discrimination technique, and they know the Stigler Model and the advances of it leading up to Mike's work with his co-authors. But they're not learning this as far as I can tell.

So it's puzzling. But is it anticompetitive? And if it is anticompetitive, is it like any of our standard forms of anticompetitive behavior? Is it predatory pricing? We've already had a discussion of that; it sort of looks like it. Because—at least on the margin—if you are paying less to buy more, then the pricing is negative. Is it exclusive dealing? Is it tying? And, more generally, if it is anticompetitive, in broad terms, we have two classes of anticompetitive behavior. One is exclusionary behavior, and the other is behavior that facilitates coordinated pricing. So which is it?

By the end of this, I am going to answer that.

To be a little more specific about the setting, I have an incumbent monopolist. There's competition from an entrant that can compete for a part, but not all of its market.

The first time I started thinking about this it was many years ago and it was a case that involved pharmaceuticals. There was a pharmaceutical that had multiple uses. There was an entrant that had FDA approval for its drug for one of the uses, but not all of the uses. So the incumbent still had a protected monopoly for a lot of the uses, but there was competition in this one use.

In my model there's some differentiation within the competitive segment so that if you had competition—just in the competitive segment, and the prices were the same—some people would buy the entrant's product, some people would buy the competitor's product, and there would be some premium they would be willing to pay.

Since time is short, for the purposes of this presentation I am going to focus on a numerical example. In the numerical example, the customers get a value of $100 from the incumbent's product. So think of $100 as being the monopoly price.

The competitive segment is 20% of the market. And in the competitive segment, half of the customers prefer the entrant's product while half prefer the incumbent's. There is, as I said, there is some differentiation.

And so there's a parameter in the model that measures the intensity of the differentiation. There are some customers who are willing to pay as much as $20 for their preferred product over the product they don't prefer. And the relationship is linear within that segment.

And what I do is I compare three broad classes of pricing strategy. One is simple pricing where the incumbent just has to charge a constant price per unit. The other is two classes of pricing strategies where the incumbent is able to focus its competitive pricing on the competitive segment.

The model was originally set up to understand all-units discounts, but it does apply to bundle discounts. So which of these strategies that focuses the price cuts depends on whether you are looking at an all units context or a bundled context. So one is that you do segment pricing—and this might make more sense in the bundled context where you just lower the price, the good where you face competition—or the other kind of strategy is to offer a discount on incremental purchases once you reach a certain threshold. And then I am going to compare that to loyalty discounts where once you reach a threshold, you get a discount. Not just on the incremental purchases, but on all purchases. With simple pricing, the result is that the incumbent charges $100, which is the monopoly price, and the entrant charges $80, which allows it to get the entire competitive segment. And the reason for this is that if the incumbent

has to lower its price to everybody to compete in the competitive segment, then it is too expensive for it to compete in the competitive segment. So it just cedes the competitive segment to the entrant and exploits its monopoly where it still has a monopoly. So, obviously, it depends on the parameter values, but the result reminds me a little bit of the results that Mike Winston and Dick Cavis got years ago, about what happens when drugs go off patent and they increase their price, they don't lower their price. And basically they are saying, "look there's a part of the market we are just not going to compete for, but there is still a high value part that we can get."

What happens when you have these pricing schemes that are targeted at the competitive segment? Well, with segment pricing, the monopolist can charge a different price in the monopoly segment. In the competitive segment it charges—so of course in the monopolized segment it charges a monopoly price of $100, and in the competitive segment it charges $30. The entrant charges $25.

There's a technical aside here for the economists in the room that—for reasons that we could get into offline—the incumbent moves first in the pricing game. What you end up with is an average price of $85.40. So I should have said that the simple pricing, you end up with an average price of $96. With this pricing, the price continues to be $100 in the monopoly segment, but it becomes quite competitive in the competitive segment.

Now what happens when you have discounted marginal prices? Well, there are a variety of ways that this can happen, but think of the threshold being the monopolist segment. The incumbent actually raises the price to $101.25—up to 80%—but then charges $20 after that. The entrant charges $20 as well, and you get an average price of $85.

I should say that in this model it is certainty. It doesn't matter whether these thresholds are stated as an absolute quantity or as a market share, but I think as a practical matter, it matters quite a bit. If you find yourself stating it as a market share, then it is acting as a tax on the entrant's sales, and that strikes me as being problematic.

The lesson from these two forms of pricing practices, where you focus the competition on the competitive segment, is that consumers benefit from this. You get more competitive

pricing. You can imagine someone alleging, “boy, if you focus the price cuts on the competitive segment that that’s exclusionary in some way.” But it seems to me that actually that’s what we mean by competition and that’s the sort of pricing that should be encouraged.

So what happens with loyalty discounts? Well with loyalty discounts, the discounted price—in this numerical example, is $94.72—and the threshold at which it applies is 90.4%, and the entrant actually charges more than $94.72. The entrant charges $95.69. But you get an average price of about $95. You should compare that with the two pricing schemes before where the average price was about $85.

There are two things to notice about this. One is that the entrant’s share is approximately the efficient share. With different parameters, sometimes the entrant gets more than the efficient share. So the problem here isn’t excluding the entrant when it’s really efficient to allow the entrant in. The problem is that the price is high. So why does it work? The reason it works is that the all-units discount confronts the entrant with a very stark choice between taking its allocated share, at what might be a high price, or, if it wants more than its allocated share, it needs to cut its price quite dramatically.

If the incumbent recognizes that it can create this choice for the entrant—it can design the entry scheme—so it leaves just enough share for the entrant that it can anticipate that the entrant will take the share and take the high price, and then in anticipation of the high price that the entrant will charge, the incumbent can also charge a high price.

Really, what’s going on here is that the pricing scheme destroys competition at the margin and results in less aggressive pricing.

So back to the question, is this anticompetitive? Yes, this is anticompetitive. What category of anticompetitive behavior is it? Is it predatory pricing? No. This is not about charging low prices, this is about charging high prices.

Is it exclusive dealing? Well, no. Actually the way this mechanism works is not by having exclusive dealing. The way the mechanism works is that you leave part of the market for the entrant.

Is it tying? Well. in the bundle discount interpretation of the model, I would agree that it is a form of tying. But I very much liked Mike Waldman's presentation when he said, look there are lots of theories of tying and some of them are good, and some of them are bad. So to say that it is tying from an economic standpoint, it is being not helpful. And from a legal standpoint—given that the Supreme Court hasn't overturned the per se rule—it strikes me as being harmful since presumably—I would hope we would have general agreement in the room—that the per se rule doesn't make any sense.

More generally, is it exclusionary or collusive? In the first instance, it is collusive, but I would say that—Tim Muris and Susan Creighton some years ago had an article about cheap exclusion, and you might interpret this as a cheaper form of exclusion than the alternative pricing schemes. So I was going say, it's not really Section 1 or Section 2. It strikes me as being a good use of the gap filling use of Section 5.

PATRICK DEGRABA: Thank you very much.

[APPLAUSE]

PATRICK DEGRABA: Our next speaker is Abe Wickelgren.

ABRAHAM WICKELGREN: I am going to talk a little bit about loyalty discounts here. First, this is based on joint work with Einer in our paper, "Robust Exclusion and Market Division Through Loyalty Discounts."

First, just a brief overview. And that is that I think a key principle here in thinking about loyalty discounts—or conditional pricing practices more generally—is that there really isn't a general principle. I think there certainly—Mike and Mike talked about this earlier—there are plausible reasons for conditional pricing to be procompetitive. It can reduce cost, it can promote complementary investments.

There're also plausible models where conditional pricing is potentially anticompetitive. Einer and I have one that I will talk about in a little bit more detail.

There are others, and hopefully there will be more of them. In any particular situation, one model or more models may potentially fit one particular case or they may not. Basically, I

think there is really no substitute for taking the various theories that are available, looking at the particular cases or the particular industry, and trying to decide if one of these models fits. You can't really say across the board that there's some real simple test or simple way to determine whether a particular loyalty discount is likely to be procompetitive or anticompetitive.

All right, so to talk about our models. We have it divided into two different types of loyalty discounts. We have loyalty discounts with buyer commitment. Here, buyers who commit to loyalty to one supplier—we think of it as an incumbent who is present in the market initially—get a discount off a list price, which is the price for those buyers who do not agree to this loyalty. Here the incumbent is committing to a discount. It's not committing to a list price in the first stage, but the results are robust to allowing the incumbent to also commit to a list price as well. Or a maximum list price, which then it could later reduce.

We also talk about loyalty discounts without buyer commitment. Here, the incumbent is offering some buyers a loyalty discount. Buyers get to decide later—after seeing what the prices of an incumbent and a potential entrant are—whether they want to fulfill the loyalty commitment and get the discounted price or not.

Some common features of both models. We've got an incumbent and an entrant. Simple model, constant marginal cost, there are no economies of scale. The entrant may have some cost advantage here. We've got end buyers—multiple buyers—here with independent demands. So here we are not thinking about buyers that compete with each other.

In the first period—it looks like we have some font incompatibilities here—"I" offers—the incumbent offers—a loyalty discount. That box is supposed to be a theta, but we can just think of it as a box today. Box is the fraction of buyers that are covered by the loyalty discounts.

In between period one and period two, the entrant decides whether to enter the market or not. Since there is no fixed cost of entry here, the entrant is only not going to enter if there are no buyers available.

In period two, the firms name their prices. Again, this fraction that have agreed to the loyalty commitments can buy from the incumbent on some discount off the incumbent's list price for all the other buyers. And then buyers make their purchase decisions in period three.

When we think about the buyer commitment case, first thing we have to do is think about what is going to happen after the entrant enters, and there is this fraction box that can only buy from the incumbent. If this fraction is large, we will get a pure strategy equilibrium. In this equilibrium, essentially both firms charge their monopoly prices. The buyers who have not agreed will buy from the entrant at the entrant's somewhat lower monopoly price because the entrant has potentially a cost advantage here. The buyers who are committed, buy from the incumbent. When I say both firms charge their monopoly prices, what I mean by the incumbent's monopoly price, is it offers the monopoly price plus the loyalty discount whatever that is for as its list price, and the price that the buyers who actually get the discount, is effectively its monopoly price.

If this fraction of covered buyers is smaller, we don't get a pure strategy equilibrium. In this case, you can think about if the entrant were to price high and the incumbent knew that, the incumbent would undercut that in order to capture the entire market. On the other hand, if the entrant's price is low, the incumbent wants to charge its monopoly price and just serve the committed buyers. But in that case, the entrant wished it charged a higher price too, because they could have sold to the free buyers at a higher price.

What drives the results in the model are the important characteristics of this mixed strategy equilibrium. In this equilibrium, both are going to charge their monopoly prices sometimes, and the rest of the time they are going to charge some price between the incumbent's marginal cost and the entrant's monopoly price. The key property of this is that the average price that buyers are going to pay—either from the incumbent or the entrant—is going to be higher, the higher the fraction of buyers who have committed to receive this loyalty discount and buy from the incumbent.

This is critical because this is what creates the externality that makes it profitable for the incumbent to offer these contracts even though it may be broadly inefficient. That is, that when

one buyer commits to the loyalty discount, this raises the average price that all the other buyers are going to pay. So a greater fraction of committed buyers essentially creates more market segmentation and leads to less aggressive competition. And that generates this negative externality and makes it so that it's possible—even though there is dead weight loss created for the incumbent—to get buyers to agree to this. Because some of the cost that buyers are creating is externalized onto other buyers.

So the main results we get here, if we have enough buyers and the entrant's cost advantage isn't too big, then we can show that at least one buyer is always going to agree. There is no equilibrium here where all buyers reject this offer of the loyalty discount. As a result, prices are always going to be above the competitive level.

In addition, there always will exist an equilibrium in which all buyers commit and the entrant is entirely excluded. We cannot rule out—when we keep the model fully general, that maybe some intermediate level of buyers will commit—but there's also an equilibrium where everyone commits. In order to try and get a little bit more purchase on what we mean by many buyers and how big the cost advantage can be, we used some linear demand simulations. Here what we show is, if the cost advantage isn't too big, "many buyers" can mean only three.

In addition, in the linear demand case at least, although we cannot generally theoretically rule out some intermediate equilibrium, we never find it. Exclusion here, is the principal competitive problem. Whenever it is possible for the incumbent to get one buyer to commit, it is always optimal for the incumbent to get all buyers to commit to the loyalty discount and the entrant is effectively completely excluded from the market. That's the buyer commitment case.

Then we also have set up another model where there is no buyer commitment. Again, we need to think about what is going to happen after entry when some fraction of the buyers have this loyalty discount option. Here, we never get a pure strategy equilibrium. As you will notice, this model has somewhat similar features to Michael's model, in that we are going to get market segmentation here. Not because of any fixed characteristics of the products, but because of the way the incumbent offers the loyalty discount.

If we have some fraction of buyers that are covered by the loyalty discount, we can think, “well, if the entrant knew exactly what the incumbent’s discounted prices—the prices for buyers that are covered by the loyalty discount—it is either going to want to charge a price that is just below that so that it can sell to the entire market, or it is going to want to charge its monopoly price and only sell to those buyers who do not get the loyalty discount.” Here, we show that the loyalty discount that the incumbent wants to offer is always large enough so that the buyers who do not get the loyalty discount, their price is always going to exceed the entrant’s monopoly price.

In either case, the incumbent is going to want to change its price. It is not going to want the entrant to take the whole market. Also, and if the entrant is charging its monopoly price, the incumbent is going to want to charge its monopoly price.

So again, we get a mixed-strategy equilibrium. We can think about this as—in some ways that the simultaneous case of Michael’s case where the incumbent price is first—and you see that while the specifics are a little bit different, the general flavor of the results is similar.

Both the incumbent and the entrant are going to randomize their prices over some interval between the incumbent’s marginal cost and the entrant’s monopoly price. The entrant is always going to sell to the buyers who don’t have access to the loyalty discount. As I said, the large discount here is always going to be optimal. And the incumbent is usually—but not always, because it is a mixed-strategy equilibrium—going to sell to covered buyers.

Here, we have a different key property from the last one. Now we have more covered buyers—it is actually going to reduce the average prices. Competition here is over the covered buyers. More covered buyers means there’s more reason to compete aggressively. We are going to get more covered buyers the smaller the entrant’s cost advantage.

Less than—here, because the entrant has a cost advantage—we are always going to get less than half the buyers that are covered. If the incumbent had a cost advantage, we might see more than half the buyers covered by the loyalty discount. Because if any buyers are covered, all buyers are better off covered, it is not going to be difficult for the entrant to—or for the incumbent, rather—to get people to accept this loyalty discount option. And again, prices are

always elevated above the competitive levels. So here, unlike in the case with buyer commitment, the principal competitive problem is not exclusion; it is more collusion and market segmentation.

As I said, the important thing about models such as these is to think carefully about what are the important conditions for when these models might apply. In the buyer commitment case, obviously, we need some form of buyer commitment. In addition, for both of these models, there has to be just one entrant or at least some form of limited competition among entrants. If we had a couple of different entrants who were competing through [INAUDIBLE] style competition, that's going to push the entrant's prices down to cost, which is going to prevent this buyer commitment device from elevating the price to free buyers, and therefore elevating the price to committed buyers as well.

We don't have competition for loyalty discounts in the model. I think if we did, it would be different. But I don't think it necessarily eliminates the consumer harm. We might get some ex ante competition that's passed on a lot of the benefits—of the profit benefits—but I think you still end up with the dead weight loss from elevated prices.

For the no buyer commitment case, again, we need either one entrant or some form of limited competition among the entrants. In addition, it is important here in this model that the entrant cannot price discriminate. The uncovered buyers in some way need to be able to masquerade as covered buyers so it is at least somewhat costly for the entrant to be able to tell who is covered and who isn't. Therefore, the entrant ends up offering the same price to covered and uncovered buyers. Otherwise, the entrant can just compete for covered buyers without losing its profits from uncovered buyers, and that is going to defeat the point of this loyalty discount for the incumbent.

Just to wrap up, the role of models like these is to identify some potential mechanisms for anticompetitive effect—clearly identify what the important conditions are for those effects, and then the agencies can determine, in the particular cases, if conditions like this exist in any given case. So that these anticompetitive mechanisms are plausible.

As I said, I think we are going to need many such models because the cases are varied. And, of course, finding that anticompetitive mechanism isn't the whole story. We always have to consider potential offsetting efficiency benefits as well.

PATRICK DEGRABA: Okay, thank you, Abe.

[APPLAUSE]

PATRICK DEGRABA: Our next speaker is Tim Brennan. Tim?

TIMOTHY BRENNAN: Thanks. The slide looks a little unfamiliar here. I see—there we go. Okay.

First, I just want to thank everybody for inviting me. It is a real honor to be included. I also should say in the fine print there, I am currently the chief economist of the Federal Communications Commission. So not only does the usual disclaimer apply, but I have little doubt that it applies in this particular case.

I am going to try to be very brief to leave more time for other people here. So first, just a moment of background. I have been thinking about this issue on and off for quite some time, beginning with thinking about Steve's raising rivals' costs. And thinking about that if you are going to raise someone's cost, you have to raise the price of an input. That seems like a truism.

Which leads me to think about what is going on in these input markets, or more generally compliment markets. Then in 2003, I was a part-time staff assistant to Luke Froeb when he was Director of the Bureau of Economics here, and he asked me to think about these bundle discount cases. I noticed that the buyers in these cases weren't end users, but they were competing intermediate good providers. Which again brings up this question of, "do these things as devices suppress competition among them?" That is basically what I have been thinking about here.

And a perspective from this that I will come back to, is that one of the things here—unlike some of the models—is that the buyers here, and sometimes the signers of these contracts or agreements—they may not be explicit contracts—I don't think of them as being

victims. I think of them as being participants and that can change a lot of how one thinks about this.

Just very quickly a few pictures to illustrate what is going on. Pat Greenlee told me the reason I was invited to this was I was the one economist he could find who thought that LePage's might have had a case. But since I don't know the facts, I will—

[LAUGHTER]

—I never know the facts about anything so that's not a particular impediment here, but I will go with it. But you could put Intel or AMD or whatever your particular favorite story is here. So imagine that this practice is exclusive dealing, loyalty rebates, bundle discounts—there are differences as Mike and Mike pointed out earlier, but they are kind of cousins too in a lot of ways, so I am not going to focus on the differences particularly, especially because of limited time.

The way I think of these things is basically as a sequence. The first one of these wouldn't bother me. I may be somewhat unusual in that, but at least as an operating principle, if it is just a purely vertical thing, one-to-one, I don't really care. We still don't care, except for some very specific story. Where it gets interesting is if it starts to get spread out across the complement market.

Here, the stalwarts of tape. And where you begin to think about it is, at what point does this become sufficiently broad that we begin to wonder whether the rivals are now going to have to pay more for—in this case, retailing services, basically—for this to be a problem? The way I look at it is to ask whether the people who participate in these contracts essentially, are they so big that if they merged—at least merged for these purposes—would we care?

You think of the Fumigalli story basically as saying—that if what I call retailer four there—if they could expand arbitrarily, then there would be no exclusionary effect. But they also would say, "well you wouldn't care about the merger of the first three retailers there because they couldn't raise price, because the other guy could expand." And the idea that one could look at these things as being somewhat merger-like is also something I will come back to.

But if one is looking for a safe harbor or screen or something like that, that's a place where I would take a look.

So essentially, my view of these things is to basically think about these things as if these things were mergers. Now that's the first question. It is not the last one.

So let me take a couple of slides to go through some of the questions that should occur to one if one thinks about this. Again, this is the start of the story, it is not the end.

First, what happened to all the fancy theory here?

Well, if these people—if the buyers, the signers of these contracts—are not people who have to in some sense be cajoled into it because it is making them more soft, then I am not sure there is a mystery here besides the Coase Theorem. They'll figure it out. Not that there aren't models—some of them produced by people in this room—but I am not sure that one needs a whole lot for it.

What about price-cost tests? Now whether they are relevant anywhere—and I saw Aaron come in, so I figure I would raise that question and not get into it—but the issue basically here is I don't view this as a predatory theory, but I view it as being something like a merger story. Which means I don't really care about what the price-cost margin is. I care about whether or not a compliment market was tied up. The metaphor that occurs to me, it is kind of like a bunch of cops looking at the dead body on the pavement and arguing about how much the murderer paid for the gun. Who cares? It is the dead body you are worried about.

Next, what happened to the Chicago School here? Well, the harm is the elimination of competition in a compliment market. Now, if the upstream market is already monopolized, then, arguably, at the margin there is not a lot of—it is a lot harder to tell a story that this particular practice matters.

It matters more if the perpetrator—3M in the story—wouldn't have had a monopoly. Just to take an old example, it always struck me in the *Microsoft* case that they spent all this time saying, "well, gee, because of scale economies, application lock in, and network

externalities, Microsoft in the 1990s had the most impenetrable monopoly known to humanity." Okay, if that is true, who cares about browsers?

You want to know that, in some sense, the practice matters. And it is going to matter more, in some sense, the less secure the prior monopoly is.

So what about prior dominance? It basically weakens the marginal effect of these things—even a little guy or a new entrant could do it.

What about competition to exclude—you've heard about some reference to that already, and I've been asked about that before. And that could happen, but I think it has been alluded to already. The harm is still there. It is just that more of the rents are going to get transferred to the buyers. Ralph Winter gave a talk along those lines here just a week or two ago. And again, it does not really change the story, which is whether or not a compliment market has been tied up. Whether there was competition to tie it up does not seem to matter a great deal if that is the story.

Now, a tough question here is, "well, how much is enough?" Just because you tie up something, well how much have you tied it up? How much does it cost somebody to get around it?

Now I don't have time to go into this here. And thinking about this before, if this was strictly exclusive dealing, then it basically becomes essentially like the efficient component pricing rule. It excludes inefficient—less efficient—entrants, but it would not exclude more efficient ones. That strikes me as too strict. I have never quite understood this obsession with people have to be equally efficient entrants. Less efficient entrants can provide competitive benefits. There is nothing sort of—why one singles those out doesn't quite make sense to me. If someone were to pass a law banning entry by inefficient entrants would we think that was a good idea? So I don't understand. I don't quite understand that as a policy issue. Again, unless one is concerned about shilling or an over-deterrence effect, which I am not as worried about here as some others.

Which gets to the last point. What about efficiencies? I totally agree that there are efficiencies out there. I think one of the coolest things about learning about this stuff has been

learning the Chicago vertical efficiency stories. I think they are cool and I think that they are great and I think that they are right. So you've got a balancing act. We are not unfamiliar with balancing acts. We have to do it with mergers. That is part of the reason, as Joe has pointed out, in some sense, why you let little ones go, but you don't let big ones go. At some point you cross a line. So maybe the issue here, is think about crossing a line.

One of the peculiar things about this area of the law is that it is all or nothing. Either we ban the practice or we allow the practice. How about saying, "Okay, 3M, you can do it with one retailer. You can do it with two retailers. But you can't do it with all the retailers." And then seeing what happens. We do those kinds of balancing things all the time. Whether they are easy or not, I don't really know. But that's one way of incorporating efficiencies into this.

As long as we insist upon this being all or nothing, then it is going to be a problem.

The last thing I want to mention here is—there are undoubtedly other questions here. In the interest of time, I am going to blow by those. And I will take advantage of the fact that there is no time allowed for questions from the floor, which will protect me even more.

But I will add as a kind of—I'm just about done—I will add as a concluding remark, that to take the phrasing that's come up earlier, the phrasing outside the U.S. that, as long as we think of these things as abuse of dominance rather than abuse creating dominance, we are going to have a hard time getting these stories straight. So, with that I will turn it over. Thank you very much.

[APPLAUSE]

PATRICK DEGRABA: Our next speaker is Ben Klein. Ben?

BENJAMIN KLEIN: Thank you. I'm also happy to be here. Even though I am on L.A. time.

[LAUGHTER]

I am going to talk about the economics of alternative legal standards for loyalty discounts. In particular, I am going to have to go a lot faster than is optimal—what was that?

TIMOTHY BRENNAN: I yield you my time.

BENJAMIN KLEIN: Okay, did you hear that? What does economics tell us about whether we should be using a predatory pricing or an exclusive dealing standard for loyalty discounts? People have discussed this *ZF Meritor v. Eaton* case in the Third Circuit, which proposed the criterion. I am going to try to do some economic analysis of the criterion that they proposed, but their rule was that the predatory pricing principals—including the price-cost tests—would control if the case presented solely a challenge to Eaton's pricing practices. However, the court noted that Easton's contracts included preferential product listing in the truck manufacturers' data books. All four—as you know, this has to do with heavy-duty truck transmissions that are sold to four major truck manufacturers and all four of these contracts had that the Eaton transmission was the standard model and it was the lowest price offering. Two of the four contracts had a form of exclusivity. In addition, the contract had the right to terminate the supply agreement if the truck manufacturer did not meet the contractually specified share. In two of the four contracts, actually—and the court thought that that meant the buyers thought they were at risk of not having an assured supply if they didn't meet the minimum quantities. One company actually did not meet the contractual quantity and they just lost the loyalty discount. But they were not terminated.

The court concludes that because of these contract characteristics, quote, "Price itself was not the clearly predominant mechanism of exclusion and therefore exclusive dealing, not predatory pricing, was the applicable antitrust standard."

It is weird that I can see the whole audience looking this way. But, Mike, nobody's looking at me, so I can't tell if you are up to it.

But, anyway, the first decision to apply the *Meritor* principle, *Eisai*—and *Eisai* had to do with Sanofi drugs. These are drugs that treat blood clotting and they were selling them to hospitals through GPOs. The New Jersey District Court in 2014 just recently concluded that price discounts were the predominant mechanism of exclusion. The court therefore used the predatory pricing *Brooke Group* standard of price lists and incremental costs as a necessary condition for liability and granted summary judgment for Sanofi.

So how does the court determine that price is the predominant mechanism of exclusion rather than non-price things in the *Meritor* case? The court says, "well, the non-price elements of the Eaton contract were not present in the Sanofi contracts." However, the Sanofi contracts actually included non-price restrictions. They included formulary and promotional requirements, where the non-Sanofi products could not have greater availability and there were restrictions placed on Sanofi's rival's promotional programs. Basically, the rivals could not have a preferred position in a hospital's formulary.

Interpreting the distinction in *Meritor* and *Eisai* regarding whether price discounts are the quote, "predominant mechanism of exclusion," requires an understanding of the essential economics of loyalty contracts. As you know, there are very, very complicated models. But, I think this fundamental distinction is disconnected with the fundamental economics. In particular, loyalty contracts, including contracts that include both a minimum distribution requirement in addition to sales share requirements, are commonly used as part of the competitive process in cases where there is no possibility of exclusion.

I have two main points. One—I'm hiding in that last bullet—one is that distribution restrictions in these minimum sales share terms are complements. They are different aspects of what the transactors are contracting over. And two, that in contrast to most of what you are going to hear today, there is a common procompetitive motivation for loyalty contracts.

Let me outline the non-exclusionary economic motivation for loyalty discounts. Figure one is just to illustrate that it's common. In the real world, every firm has a negatively-sloped demand curve. What I have drawn here in figure one is, this is individual demand by a particular buyer—like a truck manufacturer or a hospital—for either the Eaton transmission or hospital's demand for the Sanofi drugs.

In the real world, every demand for every product is negatively-sloped. It is pervasive—except for the wheat farmers of the "economic theory principles" class that you have.

I always tell people I have a negative demand for my product and I have no market power.

STEVEN SALOP [from the audience]: You're the only one that can come up with stories like this.

[LAUGHTER]

BENJAMIN KLEIN: Right, well, you help me. The usual thing is that because there is a negatively sloped demand, and you have a single linear price here—the price is set at P1, the quality is Q1—and the normal thing here is that there's unrealized gain from trade. There's a gap between the price and the marginal cost. Sometimes the marginal cost is extremely low like in a drug. Therefore, trans-actors have an economic incentive to have some contractual solution to this. And figure two, I've illustrated one of them as a contingent loyalty contract that creates these mutual gains from trade. I've represented this in a way where it is a first-unit price discount. So the price goes from P1 to PD if you can see it. (I don't know what the big picture looks like.) If the buyer commits to buy QC units—and the interesting thing about this is that this illustrates that the contract is conditional because the point D, which is the contract point, is off the demand curve. Off the single-price demand curve. Which doesn't mean the buyer is forced, but it does mean that it is conditional—that this contract is conditional.

And number two, that there is also a buyer incentive to try to shave the contract. If the price was just lowered to PD, all they would buy is D. The economic analysis of this contingent contract that is entered into by the buyers and sellers here involves two fundamental economic questions. What are Eaton and Sanofi purchasing from the buyers of their products? And how are Eaton and Sanofi paying the buyers for what they are purchasing?

The answer to question one is that Eaton and Sanofi are contracting for buyer's services that have the effect of shifting sales. The way we should understand these contracts—and all the ones that I've seen—these buyers are supplying sales-shifting services; they are increasing their demand for the seller's product at the expense of a rival very directly. It is not this thing with going to the fast food restaurant and getting a discount if you get the 10th meal. That is not what these things are about. And it is not somehow trying to increase the aggregate quantity of sales, "buy a six-pack or something like that."

These products, as Tim said, they are an input—they are a very small fraction of the total product of hospital services. We are not talking about somehow increasing the aggregate amount of blood clotting drugs or anything like that. Or trucks.

What we are talking about is writing a contract. Buying more of our stuff and less of the rival's stuff, and that is why I call it "sales-shifting services." Buyers have the ability to shift sales between suppliers by acting as the purchasing agent for their loyal customers, thereby internalizing individual consumer purchase decisions. There are a number of models. But Klein and Murphy, we discuss how because consumers are somewhat loyal to a buyer, when the buyer chooses—the buyer as acting as the agent—can get them a lower price at reduced variety by either having an exclusive or, what is more commonly the case, it is often efficient for these buyers' sales shifting services to involve partial rather than full exclusivity to take account of customers with strong preferences. So there are some consumers that have very strong preferences, where the price discount is worth less than the decrease in variety. And the contract usually is in this thing of a partial-exclusive. If it was a full-exclusive, then it would be a lot easier. We know it is exclusive dealing. We would know how to do the economics. We would know how to do the law.

But the fact that it is partial creates these contract specification problems that I will talk about, where you need these other terms in the contract. But that's the answer to question one. That's what people are entering these contracts to do.

The answer to question two is how are they paying for it? They are compensating buyers for providing these sales shifting services in many different ways with price discounts, rebates, upfront payments—but the key is that the payment is contingent and not the particular form of payment. But it is basically, you can think of all of these as price discounts.

The court—*Meritor* and *Eisai* in their decisions—distinguishing between the contractual arrangements that involve the price discounts and those that involve these non-price terms, such as preferred product display restrictions, those decisions are confusing the two questions.

The form in which the buyer's sales-shifting services are contractually specified, which may include either or often both minimum purchase quantities and preferred distribution

provisions, that's question one: what is being purchased? Question two, the form in which the seller pays for it—and as I said, all of them involve some form of prices discount.

PATRICK DEGRABA: Unfortunately, you are out of time. You have one minute to wrap up.

BENJAMIN KLEIN: No.

[LAUGHTER]

PATRICK DEGRABA: Yes, unfortunately.

BENJAMIN KLEIN: Okay, how am I going to do this?

Okay. The key determinants of how you specify the contract relates to how easy it is to specify and monitor the sales. First, I talk about, "can you just specify the services directly?" Like saying you are going to give somebody eye-level shelf space, which will shift a certain fraction of the sales. That does not really work for these types of cases. And then you also can have—I tell you why it doesn't work. I assume you can get this online and study it very closely at your convenience—and then you could just specify the quantity. Go to that figure and say "I am going to have that person buy Q2. If they buy QC, I will give them the prices discount PD."

But you really cannot contract on that because there is randomness in the real world. One of the things you do to standardize is use a sale share—rather than a sales level—to standardize across different size buyers and changing market conditions. And we will talk about, in the panel, I am certain, about contracts that reference rivals. But here, this is just one of the ways you can contractually specify it. But, even when you do that, there's all this remaining variability.

PATRICK DEGRABA: Unfortunately, you are out of time.

BENJAMIN KLEIN: Let me just—

PATRICK DEGRABA: We must wrap up here and move on. In the remaining 10 or 12 minutes we have, we have two discussants that we will hear from. Thank you very much, Ben.

[APPLAUSE]

PATRICK DEGRABA: And our first of two discussions is Francine Lafontaine. Francine?

FRANCINE LAFONTAINE: Well let me start by thanking again the organizers and the panelists for very stimulating and interesting discussion of different ways to think about these complex pricing practices. I say "complex pricing practices" in part because economists do tend to focus on prices. And the court has obviously focused on prices in determining, to some extent, which are the likely effects or the conditions criteria that should apply to some of these practices.

Since I am an empirical person that spends time with contracts, I am going to begin by saying that when you look at these complex pricing practices—just like Professor Klein has just illustrated and also Mike Whinston talked about a little bit before—there are typically, they are embedded in what is a fairly complex contractual relationship. Even beyond that, it is not all in the contract. I am just going to add to the complexity. Already things are very complicated. We have a lot of moving parts, a lot of different ways that we can try and classify these contracts or these practices. We have talked about whether the rivals are referenced or not. We have talked about whether there is a single product or many products.

But on top of that, there are all these other conditions that come in these contracts, including promotional requirements, distribution, highlights of some sort, placement, and other things like that. In fact, this reminds me of a paper—I just want to mention a paper by Pauline Ippolito a long time ago which was very descriptive but allowed us to learn. It is a paper in 1991—allowed us to see the connection even across different vertical restraints. So beyond the traditional ones. Exclusive dealing, along with exclusive territories, along with resale price maintenance, and other things like that. As I said, they can even be implicit, these kind of constraints.

So there's this nice paper by Ralph Winter, who has been mentioned with a co-author, and they discussed briefly in the paper the *Nielsen* case in Canada. Where the exclusivity, the courts ruled against the exclusivity, and it was removed, but at the end of the day, the relationships did not change. They remained exclusive—even once the courts banned the contract.

I guess my main point is that we need to do a lot to try to understand how the combination of practices works together. How some of them are complimentary to one another, also how some of them are alternatives to each other. So I am back to also Michael Whinston's point a little bit before, Matthewson and Winter had talked to us about how these things interact and can generate outcomes as a group.

Let me add to that, and Matthewson and Winter's paper is a good way to get into that, one of the things that they were discussing is how the combination of restraints can lead to something that is very similar to vertical integration at the end of the day. Well, in a lot of the settings that we are talking about—at least many that I am familiar with—for example, a firm's decisions to use independent dealers versus using internal sales forces, or a firm's decisions to franchise or not which I've spent some time on—they actually can change that margin of vertical integration to a fairly large extent in a pretty clear way. Just like if we make certain practices more subject to legal oversight, the firms might change to other practices that do similar things.

We also need to think about the fact that they might work on that other margin, which means less independent dealers and less other kinds of businesses. And the drawback of that is obviously they were choosing these independent dealers and other things for a reason. And we are having them move toward something that is a little bit less efficient than what they were choosing, by revealed preferences they were doing the other type before. I am just adding complexity because when you look at these contracts, they are very complicated. I am just going to leave it at that and then let my co-discussant complete the discussion.

RANDAL HEEB: Thank you, and thank you to all of the panelists. I also benefited in addition to hearing the discussion too, a couple of very interesting phone calls discussing all these issues. What comes through all of this is this is a very complicated realm.

There are many, many different mechanisms, many papers, that shine a light on different things that are happening. The Michaels, Whinston and Waldman, told us the taxonomy of many of these mechanisms. But I want to try to get a little bit of a simpler mechanism to focus on the question of what, as antitrust enforcers—or people who are

thinking about antitrust enforcement—we could get fewer special cases than all of the complete taxonomy, but enough cases that we can actually apply the right mechanisms to the right models.

I would lend my voice to the chorus maybe with the exception of Ben here, that thinks that the mechanism and the analysis need to be synced so that if the mechanism of exclusion that is alleged is a particular economic mechanism, that the examination would have to follow that. I am not sure you disagree with that, I imagined from our earlier conversation that you were going to give a conclusion that maybe the price-cost test would span a wider set of issues then I would maybe advocate.

BENJAMIN KLEIN: Well, that is a—well, I'm certain I'm going to be in trouble if I say anything.

[LAUGHTER]

RANDAL HEEB: I won't put words in your mouth. So let me propose a taxonomy that is just a little bit broader then price-cost test or exclusive dealing, but far less broad than the different examples that Michael and Michael set out for us earlier.

Obviously, one is predation And we know when it happens in both in a single-product simple case and also when we use an attributed bundling test. We can examine the same mechanism in a lot of more complicated situations.

One thing that has come up in a lot of recent papers, including the first two, are mechanisms that essentially invite collusion or soften competition. And that is interesting because it leads to a different conclusion about who is complaining. And, in particular, we might not have the rival standing up complaining and inviting antitrust scrutiny. I think that opens some interesting questions. Do we want the agencies exploring exclusive arrangements where there isn't a rival complaining that competition is being reduced? Does that open the door to too much scrutiny or are we getting the right level? I am not sure what the right answer is.

The other mechanisms—and I am going to name six, those were two—the next two are those mechanisms that are in essence the procompetitive mechanisms: the competition for the market and the solving a contracting problem that leads to more efficiency. And then the last two mechanisms that I think are in play—and these are not exclusive, even though maybe taxonomy implies that they should be—the two anticompetitive concerns with respect to exclusive dealing mechanisms. I think, broadly speaking, can be thought of as the simultaneous mechanisms. The ones that demonstrate that you could have exclusion and extraction in the same period, possibly from the same groups of consumers. These are the bundling stories most familiar.

The ones that I think are more common and maybe more of a concern are those in which the mechanism of potential harm is that the rival is hindered from becoming a better competitor in the future. I think that that is the way to see the *Eaton* case. That is the way to see the *AMD* case. Even though, in both of those instances, arguments were made that would be consistent with the simultaneous exclusion and extraction story. I think what is really going on, is that in *Eaton's* case, ZF Meritor had a dramatically better product that was more expensive, that didn't have customer buy-in, that Eaton itself probably recognized was eventually going to be the technology of the future. And the question was, would ZF Meritor be allowed to have enough customer interaction to obtain buy-in? To build up customer loyalty, to work their way through some production issues, build the scale? And we usually use scale as shorthand for this, and I think it is the least important of all of the different mechanisms, the customer buy-in, the experience that allows the company to build up the quality of the product, is probably much more important. And that means that the competitive harm is in the future. And so I think we need to pay a lot of attention to that and not be distracted or confused by easier to understand simultaneous mechanisms. Because dynamic models are hard, and, as we know, dynamic models can lead to all sorts of different conclusions. There is a tendency to form our intuition with the static models, but if what is really going on is the dynamic story, we are going to miss the point.

So, as I like to think about it, those six areas, if we could focus and get some different conclusions as to what our antitrust focus should be in those cases. With respect to predation, I think a price-cost test makes a lot of sense, and it is the mechanism for the right situation.

For collusion, I think it is really interesting that there is so much research recently on this topic. I really think the question there is one of, "do we open up the door through which a lot of exploration of procompetitive contracting could be exposed antitrust scrutiny?"

But I think that most of the action at least—I spend all my time in cases that are actually litigated, that means that there actually is a complaining party—and overwhelmingly the debate there is the question between solving the contract problems. When we see a restrictive practice that references rivals, is it one that is done in order to solve a contracting externality and therefore it is procompetitive, or is it one designed to increase the monopolist's sales by weakening the rival in the future in order to preserve market power? I think the tension between those two is really where most of the action is.

FRANCINE LAFONTAINE: Randy and I had agreed that I would get just a couple of minutes at the end, so we pretty much did that, okay?

BENJAMIN KLEIN: Collusion.

FRANCINE LAFONTAINE: Sorry? Yes collusion. So I will have just one last point quickly that I would like to make. And that is, I mean it is quite obvious already from the discussion that Mike and Mike gave us earlier, that there are a lot of different mechanisms at play that can be explaining some of these practices. This summary that you gave into taxonomy is quite useful in that.

What that means, though, when there are so many different ways to think about something, is that we do need more empirical evidence. I will have a chance, along with Julie, to talk a little bit more about empirical evidence later. The bottom line is going to be that we have fairly little. There are lots of reasons for that, but I am not going to get into that right now.

But I am going to suggest instead that from the connection between theory and empirics, what we need is a clearer sense from the theories as to what to look for in terms of

kinds of markets, set-ups, where we should expect certain mechanisms to be a bigger part of the story than other mechanisms. So, taxonomy of mechanisms and potentially types of markets, would help foster—at least in my mind—the connection between theory and empirics for the future. So that is my last point about that.

PATRICK DEGRABA: Okay, thank you.

[SHORT BREAK]

PRESENTATIONS AND DISCUSSION: THE ECONOMICS OF CONDITIONAL PRICING PRACTICES, CONTINUED

Presenters:

- **Julie Holland Mortimer, Associate Professor of Economics, Boston College, Faculty Research Fellow, National Bureau of Economic Research**
- **Kusum Ailawadi, Charles Jordan 1911 TU'12 Professor of Marketing, Tuck School of Business, Dartmouth College**
- **Joseph Farrell, Professor of Economics, Affiliated Professor, Haas School of Business, University of California, Berkeley**
- **Miguel de la Mano, Head of Economic Analysis of Financial Markets, European Commission**

Discussants:

- **C. Scott Hemphill, Professor of Law, Columbia Law School**
- **Matthew Bennett, Vice President, Charles River Associates, London**

Moderators:

- **Matthew C. Mandelberg, Attorney, Legal Policy Section, Antitrust Division, U.S. Department of Justice**
- **Michael G. Vita, Deputy Director for Research and Management, Bureau of Economics, Federal Trade Commission**

MATTHEW MANDELBERG: Welcome to today's discussion of the economics of conditional pricing practices. My name is Matthew Mandelberg. And I'm joined here by my fellow moderator, Michael Vita.

We have a multifaceted panel. And I'm excited to introduce the individuals to my right. Our presenters on this panel are Julie Holland Mortimer, Kusum Ailawadi, Joseph Farrell, and Miguel de la Mano. And our discussants for this session's presentations are Matthew Bennett and Scott Hemphill. Without further ado, Julie.

JULIE MORTIMER: OK. All right. See if that works. It's on? OK. So thank you very much for including me in the panel.

And I'm going to talk a little bit about some recent empirical evidence on full-line forcing contracts and all-units discounts. But let me start first by saying that I'm a little bit of a black sheep in my focus on empirical work. Francine will join me later this afternoon. But I want to start with a pitch for the importance of empirical work.

So as we've heard from many speakers already this morning, there's been a lot of thoughtful and insightful theoretical work on the potential impacts of these types of conditional pricing practices. We may think in some cases that these contracts are entirely good or entirely bad. But in cases where we think we might have both efficiency and anti-competitive effects, the question of adjudication often comes down to empirical work. So the potential efficiency gains may be offset by anti competitive effects, such as foreclosure.

Now there are a number of challenges in doing empirical work in this particular area. And there are huge gaps in this literature. So a very important challenge is that the data are proprietary. So even in cases that are not being litigated, these are highly proprietary contracts between firms. So it can be very difficult to get information on the nature of the contracts.

We often are also faced with a lack of exogenous variation in prices and choice sets. And that can make demand estimation difficult. We've also got downstream retailers who are, as a general rule, engaging in other activities that affect the demand for the downstream good. And those activities are going to be taken endogenously. They may be very hard to measure. Even if you can measure them, they may be hard to model. And then finally, the last major challenge is that every contract and every industry is going to be different. And those differences may be very important for understanding the welfare effects of the arrangements.

So I'm going to talk about two things. I'm going to focus on the first one. And I'll flip through the slides very quickly on the second point. So the two studies are a recent study on all-units discounting in the confections industry that I've recently been working on with Chris Conlon at Columbia. And the second study is a study of full-line forcing, which is an older study from the home video industry.

These contracts are used—as I'll discuss—in very different ways in their respective industries. But both of them fall under, I would say, three boxes that Mike Waldman and Mike Whinston identified for us this morning. So these are both going to be multi-product contracts, or settings. They're both going to be settings in which retail competition is quite limited.

So softening downstream competition is not dealing with strong retail competition. Downstream is not going to be a real focus. And neither of these contracts are going to

reference rivals. Although, as I'll discuss in the case of the all-units discounts, there may be issues in this downstream that make that redundant.

So the bottom line conclusions from both studies are that the welfare effects are going to depend very importantly on how substitutable these products are. So demand estimation is going to be very important. And retail features in these settings may again also play into the way that the contracts are written.

We find in both cases that the all-units discounts and the full-line forcing contracts induce both efficiency gains and partial foreclosure. So there's evidence for both features from the contracts. On balance, the welfare effects of both of them are positive, but the mechanisms are quite different.

So I'm going to talk first primarily about the all-units discounts arrangements and confections. So there are two slides, just to give you a sense—just to make things very concrete what these contracts look like. So I downloaded these from a presentation a couple of years old that's online. You can download them as well.

This was a presentation that Mars made to a vending association. So the title of the slide is The Only Candy You Need To Stock in Your Machine. So this is particularly the vending channel. And they show some of their key products. And then these are the terms of the contract taken from the same slide deck.

So the 2010 Vend Operator Program gold rebate level. So you need to continuously stock six items. That's a reduction from seven items in the previous year. They tell you the items. And they tell you what your quantity threshold is. So the quantity threshold is 90% of your last year's sales in the same quarter.

Now one important note here is that most vending machines have seven, possibly eight, coils that are the correct size for holding candy bars. You need different size coils. You can't substitute between a candy bar and a bag of chips. They'll fall out. OK.

So I'll tell you about what they look like. OK. So here's the empirical approach for studying these contracts. And I should say neither of the contracts that I'm talking about today were litigated or would fall under the headings of the cases that were discussed earlier. OK.

So the empirical approach is we have detailed data from a single retailer. We've got his wholesale prices, the rebate payments, and importantly—very nicely—we were also able to run a field experiment with the vending operator in which we endogenously changed the product assortment in his machines by removing some of the key Mars products.

So this has a couple of really nice advantages. It makes it much easier for us to estimate demand because we get variation in consumer choice sets that we don't usually get to observe. Usually those flagship products are always available. And it also helps us to identify things about retail effort downstream. So it sort of exactly mimics the impact of very low retailer effort by pulling out those products endogenously.

Now there are two ways that our retailer can qualify for this rebate. And the rebate is important to him. It's a large rebate compared to his overall operating margins. It's a material impact. So he can either provide a high level of effort restocking the Mars products. So that's an efficiency effect. An economist would call that an efficiency effect. That would promote additional sales of Mars products and make him more likely to get the rebate.

And the other thing he can do is he could stock Mars products at a relatively higher rate and competing products at a relatively low rate. And we see evidence of both of these things going on. And the second one is what we would refer to it as a partial foreclosure effect.

One thing to note is that we actually observe for competing products by Mars' upstream competitors that are not estimated to be close substitutes. We actually find very high stocking rates for those products. So the important elements of the study are going to be a model of demand. Again, this substitutablity is really crucial.

We've got a dynamic model of endogenous retail efforts in which the retailer will restock all products. So this is a relatively simple laboratory for looking at retail effort. And even so, his decision requires a great deal of thought because he's taking it endogenously. The most

important feature of the retail effort is whether or not it is substitutable or complementary across upstream firms.

So in other words, when the Mars rebate terms induced levels of effort that downstream, that are higher, does that help the upstream competitors, like Hershey and Nestle? Or does it harm them? So that's something we can estimate. And we estimate that the upstream competitors are harmed by that greater level of effort downstream. Consumers like it. So consumers benefit from it.

The main results are the following. Just looking at the field experiment, in the absence of any all-units discount, Mars bears about 90% of the cost of a stock out. So if Snickers is no longer available in the machine, 90% of that cost falls on Mars. Once we have counted for the rebate, it's about 50/50 shared between the retailer and Mars. And so, again, this need to align incentives between the upstream and downstream firms, it's going to be an important motivation for the contract.

We find that competing products are highly substitutable. Candy bars are very easily substituted. On the basis of the structural model, we find that the retailer effort in the absence of the AUD is lower than what Mars would like. A dominant firm here. With the AUD, the Mars retailer restocks. Sorry—the danger of having these printed out in front of me.

With the AUD, the Mars retail bilateral partnership actually restocks too often. And that's because of the fact that this effort is substitutable across the upstream firms. OK. So from the perspective of the industry, from the perspective of social surplus, we would actually be better off letting Snickers run out once in a while because these other products—Reese's Peanut Butter Cups or Hershey's bars—are very substitutable. And so from the point of view of industry, we actually get too much effort downstream as a result of that contract.

At the current wholesale prices, we find an overall positive effect on social welfare of the AUD, though. And that comes from the fact that consumers still benefit from having their first choice products available. And the substitutablity of products means that this partial foreclosure does little harm to consumers.

However, the AUD does not achieve the socially efficient outcome. So the best product assortment is not the product assortment that is possible to achieve with the all-unit discount. We get too many Mars products being stocked and too few products stocked by competitors. And too much effort spent in restocking the products.

So I will say, just very briefly, a couple of words about vertical bundling contracts. This uses the home video industry. And I thought about not covering this at all because this is not an industry that, of course, is an active industry for us anymore. But I want to say just two points about it for a couple of reasons.

First of all, the types of contracts that were adopted by video retailers back in the day—this is from 2002—are the exact contracts that we see used almost 100% in the new markets for streaming services, where the downstream provider now is the cable company. So these revenue sharing types of contracts that include vertical bundling are the norm now for that entire market. So this study looked at this vertical bundling in which there was a full-line force. So you would get preferential contract terms, but only if you agreed to carry the full line of products that a studio released in a particular year.

Now a couple of key differences between this setting and the confections setting, products are much less substitutable here. And interestingly, the full-line forcing contracts, while they are used by about half of the major studios, they are not used by the studios that have the most dominant product line at the time.

So this is an industry in which—perhaps we can think about it in Mike Whinston's terminology—there's more symmetry between the upstream firms. And in this case it comes to some degree by the fact that dominants could be fleeting. These content markets you have constant churn of new content. And your dominance really depends on how good your last movie is.

The full-line forcing was actually used to a positive effect by that second tier of studios. Not the ones with the most dominant portfolio during our time period, but the ones with a strong portfolio that would not necessarily have been taken by all downstream firms. We find

that market coverage and efficiency effects outweigh leverage effects. There are small leverage effects in this case, but they are outweighed by the efficiency and market coverage effects.

So finally, in conclusion, again I want to just point out these are a couple of studies in which focus on multi-product cases that don't reference rivals and settings for which retail competition is not a crucial feature. The other industries in other settings are going to differ, but I think the theme that's going to be important here is that it's going to be really important to understand the details of each industry and each contact in order to understand their potential welfare effects. OK. Thanks.

MATTHEW MANDELBERG: Thank you, Julie. Our next speaker will be Professor Kusum Ailawadi. Thank you.

KUSUM AILAWADI: Thank you. So if Julie thinks she was the black sheep here, then I don't know what to call myself because I'm an even blacker sheep, in more ways than one.

But I'm here to talk to you about the perspective from marketing. I'm a professor and an empirical researcher in marketing. And I want to take my 15 minutes to tell you a little about the empirical work in marketing that provides a perspective for why suppliers do what they do, for the different kinds of conditional promotions they offer, and what are the various things that they're trying to balance in designing those kinds of promotions. I'll build on my own research, as well as other people's, as I go.

And I'm going to try not to even use the words efficiency, welfare enhancing, anti-competitive. I just want to lay out what the perspectives are of these firms as they do this kind of work. So I'll say this in four slides.

I'll tell you first what are some of the goals that our research shows marketers are trying to achieve by designing various kinds of conditional promotions. I'll talk to you about the different kinds of costs that they try to minimize and control as they do this. And then I want to give you a sense from our empirical work, all the different types of conditions, and the different types of funds that I use. The allowances come in very different ways, shapes, and forms. And then in the last few minutes, if I can pull that together and say something about the implications for what we're discussing here.

So let me start with putting a little bit of flesh on the bones of what are very commonly used words in all of the economic theoretical models, many of which we've heard referenced to today. Influencing price and influencing effort. Influencing price is a big deal. Influencing effort depends on what kind of effort. And that's a big deal for manufacturers as well.

So one of the things, Julie, in your paper, which was perhaps not as central, but actually it's fairly important, is that you find that the margins on the secondary products are actually higher for the retailer than for the main leading product. That's one strong empirical generalization in the literature in marketing.

And by the way, all of my discussion is going to be in the context of a supplier selling to some channel member—wholesaler, retailer, whoever—and then the retailer selling on to end customers. So I'll just call them retailers, but they could very well be distributors, wholesalers. And the end customer could be a business-to-business customer or an individual end consumer.

So the influencing of channel price, it's just as important for a supplier to manage, to make sure that the price for the product is not too high, as it is for them to make sure that the price for the product is not too low. When you look at the consumer packaged goods industry, particularly companies are really very interested in making sure that the promotions that they give to the retailers get passed through to the end consumer—so they're working very hard to try and make sure that they put conditions for performance up, so that the retail price actually gets competitive for the consumer in comparison to their competitors.

In other cases manufacturers have to worry much more about making sure that the retailers don't compete away all their margins, so that they no longer are really be able to, or willing to, provide the kinds of services that would be needed to sustain the business. So you think about—I'm trying to think of examples that have already come up, but let me not try to integrate too much off the cuff.

But the point is that in some cases you're looking to see—so we have the traditional double marginalization issue. And on the other extreme, we have the issue of loss leaders, which can go wrong and then become bait-and-switch, which we of course also as regulators frown upon. So those are things that the companies have to manage.

When it comes to effort, there are just such a variety of efforts. There's the kind of shelf space, merchandising, promotional pass-through, and features and displays that Francine was talking about in the earlier session. But there is also—especially in the B2B market—there is investment in training of your personnel. There's investment in learning the kinds of skills—so for example, research on a company like Cisco.

Cisco actually moved from volume discounts to value discounts because they wanted to try and make sure that the retailers that sold their products would invest in the type of training and learning and certification that Cisco needed. On the other hand, there are also companies, for example, we've just been talking about the *Intel* case. But companies like Intel and AMD sell through distributors like Arrow Electronics. And the kinds of systems that they set in places where Arrow Electronics has to go back to Intel or AMD or Honeywell or whoever and say, this is a contract that we are bidding for, and this is what the customer needs.

And Intel will then take a discount off of the list price that they provide to these electronics distributors, depending upon what price Arrow is going to charge to the end customer, what kinds of services Arrow is going to provide the end customers, and whether the type of end customer that Arrow is trying to bid for is what the company—what Intel might consider a desirable customer, a high lifetime value type of customer. So there are all of these different types of effort. Restocking is one of them. But there all these different kinds of efforts.

And once you know that you want to try and invest in these efforts, and you want the retailer to invest in these efforts, then, of course, free-riding becomes a big issue that you want to control for. There is this notion of matching supply and demand. And, again, the flesh and the bones of that is manufacturers invest a lot in building their brand, in the investments that they make in building an end consumer pull.

And they have a certain share of preference that they have from customers, where if everything were equal in terms of availability, what would the customer choose? And they want to make sure that the share of space that they get on the shelf and the share of market that they get in the market is in consonance with the share of preference that they get. So

they're looking for ways for retailers to provide the effort for their products that would allow them to equate the share of preference to the share of market and so on.

One other big thing—and this is somewhat ironic, and it links to what Ben Klein was saying earlier—is that companies also have goals to try and observe Robinson-Patman. They are required to not provide different kinds of discounts to different retailers.

And one of the things that something like a market share discount does is it says whether you're a small retailer or a large retailer, if I give you a volume discount then unless I really fine tune those volume discounts for every individual retailer—which makes contracting and monitoring very hard. It's much easier to actually provide some sort of a market share discount so that both small and large dealers or retailers are equally able to make use of them.

Also ironically, in cases where demand is very certain and you can forecast it very well, really a discount that does not refer at all to the competition, just a volume discount, can very well do exactly the same thing as what market share loyalty discounts do, because really you can tweak your volume to figure out what level of loyalty you want.

And the contrasting area when there is actually a lot of uncertainty in demand, that's when you really need, for efficiency reasons—and I'm breaking my own rule and using the word here—that's when you really need, for efficiency reasons, something like a loyalty discount because then you are unable to figure out exactly what the demand is going to be in the future.

Many, many other reasons here, and I'm going to skip past some of them, just so that I can take you to some of the costs that these companies have to try and figure out how to manage. There is obviously the actual cost of the discount or the allowances that they're providing to their retailers.

But one of you said earlier that buyers—in my case retailers and wholesalers—are not victims. They are partners. They are working with manufacturers together to come up with solutions and pricing and partnership promotion programs that can sustain the relationship and sustain the brand and both firms in the long term. But in the process of this, as companies come up with promotional programs, retailers come up with ways to try and be opportunistic about them. So we have examples. There used to be simple off-invoice discounts. And then

retailers built warehouses to forward buy and put product in their warehouses that they could then sell at full prices later or divert products.

So with all of this process, the point is to what Francine was saying earlier, these programs are not built in a day. They are tweaked or they're developed over time.

The multiple things that are put into the contract are often put for good reason to achieve certain kinds of goals and to minimize many different kinds of cost. And one cost is to make sure that you don't run afoul of antitrust. Monitoring costs are extremely expensive to figure out when you put a contract in place. So anything you can do to reduce those monitoring costs is really helpful.

I'm not going through each of these. I just want to point out some important ones, especially given that time is clicking. So many different types of funds. These are not just end of year and end of quarter rebates. These are not just off-invoice discounts.

The discounts, as I said, can be customer specific. They can obviously be product line specific. They can be service specific. But there also cooperative advertising allowances, which are fixed amounts. They are not variable costs that are related to individual units sold. There are slotting allowances. There are swell allowances, which, again, are not related to individual units sold. There are market development funds, which companies provide more or less of, depending on what prices and what services the retailer is offering. There is the type of training and certification and sales material that a company like Cisco and Intel, et cetera, provide to the distributors. These are such a variety of different types of funds.

Even if we think about the price cost kind of argument, it's very, very hard to figure out what those prices and what those costs are. And this is just in the context of promotions and prices. I'm not even touching the place where you focus a lot of your attention and what actually the costs of manufacturing and all of that stuff is. The types of conditions of course vary, and I've talked about several of these, and I know our focus here is on these particular loyalty types of discounts, but I just want to point out that there are these several kinds of discounts and you have to think about which ones achieve which goals at which costs the best. I'm going to go back to my first slide, which I skipped past in the beginning and just to highlight

a couple examples. So there the notion of what kinds of markets—certain kinds certain patterns exist and they both are really important.

I have a bullet there that says light bulbs, spices, eye glasses, athletic accessories. I just want to spend a moment on that. There are some product categories that the consumer doesn't care so much about what brand it is, or how many brands that are available to them. When they think of variety in those product categories, they're thinking of the variety of in spices, and the McCormick case notwithstanding. The number of different types of sea salts, and the paprikas, and the smoked paprikas and so on, and if retailers going to carry over 100 or 200 SKUs, it really becomes extremely inefficient to carry those in multiple brands.

And so it makes a lot of sense, actually, for a retailer to have only a few, only one maybe, or only a few brands because they have to really satisfy the consumers' need for variety in these other ways, not brands. When the consumer comes in to get a pair of eye glasses, some glasses maybe a different story. The focus is much more on do I have the right style, do you have the right colors, you have the right shape to work on the face. My point is that the consumer is looking for variety in many different ways and variety means different things in different product categories. And in some product categories, the variety the consumer really values has to come at the expense of multiple brands. So just wanted to point that out. I talked to you about the Cisco and other cases.

Let me just spend the last couple minutes on the implications here. So these promotional programs are not easy to design. They're not easy to implement. The companies are always struggling to balance the goals against the cost. They are fine tuned over time. Companies, from work that I've done where I've looked at the promotional pass through that the retailer provides to the promotional funds that manufacturers give them. That's where I gave you the whole list of 20 or 25 different types of funds that manufacturers provide. The retailers don't even have a good sense of what they have in total. They don't have a good sense of how much the promotion is costing them. So these things really are complicated, even for them, let alone for us, as we look at them from the outside as empirical researchers.

Many different kinds of funding and many different kinds of non-funding costs also mean that, really, look at assessing prices above or below cost, does not seem to be a practical thing for many of these kinds of these contracts. But also note that many times the distinction between incrementally and all unit discounts may not be very clear, because as I said, lot of the funds don't come linked to particular units sold. I talked about the consumers of value variety more than brands, and I will say at the end that a lot of times suppliers can get loyalty from their channel members without market share discounts. So let's not only think of market share discounts as being anticompetitive. As I pointed out earlier, there are many cases where pure volume discounts achieve exactly the same purpose that a market share discount would. And the companies don't call them market share discounts because they know that they would come under more scrutiny if they call them that. But they still achieve the same purpose.

You can get loyalty also by asking for certain amounts of displays, features, merchandising. You can get loyalty by asking the retailer to invest in the skills to sell your product, a la the Cisco/Arrow type of thing I told you. So many different ways to get loyalty even if it is not actually called a loyalty discount. And that's something we should keep in mind. That last slide just to summon references to empirical papers that I drew from. Thank you.

MICHAEL VITA: Our next speaker is Professor Joe Farrell.

JOSEPH FARRELL: Thank you. So this is a complicated topic, a big sprawling topic. And I'm going to try to focus a bit and not say everything. Can we have my slides? OK. Here we go. So in particular, I'm going to talk about ways in which certain kinds of conditional pricing can lead to harms that are more like collusive harms than exclusionary harms, and they can actually lead at the same time to exclusionary harms. There's nothing contradictory about the idea that you have both things happening at once. But I think, at least for me, it's helpful to start by focusing on the collusive aspects and that leads into one particular way of thinking about the exclusionary aspects.

So, the elevator version, because I have a feeling I might not get to the end of even the few slides that I have. Bilateral vertical restraints, and conditional pricing in particular, can profitably harm competition in ways that are more like collusion than exclusion. So what do I

mean by that? Well, they're not exclusion in the sense that no rivals need exit. There need be no disadvantaging through loss of economies of scale or efficient scale. So those are sort of relatively crisp ways in which it's not exclusion in the classical sense. Doesn't have to be exclusion in the classical sense. It's collusion- like in the sense that there is a mechanism of potentially mutually raising each other's costs, or more precisely, raising the costs of direct buyers buying from your rival. And it leads to price elevation, and is potentially profitable for all parties, except for final consumers. So, I'm going to talk about that.

And then there are some challenges to those potential harms or potential anticompetitive schemes that are isomorphic to the challenges that are faced by simple horizontal cartels. And I take two lessons from that. One is that the analogy or a similarity to collusion is more than skin deep. And the other is that, as with simple horizontal cartels, many industries will not face these problems. Thank goodness. Most industries will not have these problems, at least severely. But sometimes you will. So the challenges , although they sound perhaps severe, are sometimes overcome.

So thinking about a framework, and I realize I didn't include a framework slide, I'm going to talk about what in the literature is sometimes called the quadrilateral framework, where you have a dominant firm, M, manufacturer. And one or more rivals, R. And then downstream you have distributors whom I'm going to generically call D. And then downstream from them, you have final consumers. And it is important, for the mechanisms—and I'm going to talk about—that the direct buyers, the D's, are not final buyers, and they compete with each other to sell downstream.

So in that environment, if you start with a moderately effective competition between M and R and moderately effective competition among the D's, the end prices to consumers are going to be below the integrated monopoly levels. And in order to raise industry profits, a broadly speaking necessary and sufficient thing for the industry to do is to raise prices to final consumers. So how do you do that?

Well, if the D's are moderately competitive, then the obvious and perhaps only way to do that is to raise marginal costs of expansion of total output for each of the D's, or most the

D's. And how in turn do you do that, without M and the R's directly, horizontally colluding? Well, one way you could do that potentially, is if you can get enough of D's to sign contracts. And you got to do something to get them to sign these contracts. Let's say if you have a contract between M and one of the D's, it says the D agrees that the more it buys from the rival, R, the more it will pay. And perhaps you have a mirror image contract on the other side, or perhaps you rely on the dominant firm's incentive to price high anyway.

So I'm going to talk a bit about some of the challenges to that kind of generically collusive anticompetitive scheme faces, and argue that those challenges, although they're significant and real, and probably prevent this sort of thing happening in a bunch of cases where it might otherwise happen, they're not insuperable. OK, the question, how can a contract between M and D raise D's marginal cost of expanding output overall, or of expanding output of R's product above our supply price? OK. Well, the answer is it can do that in various ways that I'll talk about in a moment, if it constrains or charges for purchases from R, it has to be a contract that references rivals. And since we have both Steve and Fiona sitting in the front row here, I will say this is what I call RRC or raising rivals costs via CRR, contracts that reference rivals.

OK. So examples. One example is you could just limit the quantity that D is going to buy from D, excuse me, from R. Exclusive dealing is the extreme case, but there's no need to go to the extreme. Basically what that does is it says if you have that contract in place, and can then limit the quantity that it sells via D, and that inherently limits the total quantity that D sells.

Another set of ways to do this involve paying M more when D buys more units from R. So a few examples of that. The famous Microsoft per processor pricing where Microsoft asked OEM's to pay Microsoft for copies of Windows that essentially they were not using. So if the OEM wanted to expand output not using Windows as the operating system, it still had to pay Microsoft. And therefore it had to pay more for that. In the telecom literature and some other places, we talk about access charges, efficient component pricing role damages based on breach of an exclusive dealing contract. All of those have the feature that in the end D pays M more when it sells more units of R's product.

And finally, as has been mentioned, market share pricing, not quantity discounts, can have this effect. So and then another example which was mentioned in the Eaton context earlier, is you can constrain D's relative sales, so that M then is in a position to control D's total sales by controlling it's sales of M's product. You can constrain these relative sales by constraining its relative pricing, or some aspects of its promotion activity downstream.

So one of the challenges that the Chicago school and others have posed to this. I think of them as three challenges. One is commitment. So if you think about M negotiating these arrangements with D's sequentially, what happens when you come to the last D. Basically, when you come to the last D, there's an incentive to chisel or undercut the extent to which you've implemented these arrangements with the other D's. Not always, but often. So there's a challenge of commitment if you like, there.

There's challenge of pass through, because each of these D's is agreeing to something that it wouldn't otherwise choose, and you have to offer an inducement to the D do that. And because the whole spirit of the scheme is to raise D's marginal cost of expanding output, if you're not careful, the inducement which plausibly might have to be bigger when D is a bigger distributor, is going to become a cut in marginal price. And that of course, undoes the whole scheme.

And finally there's a risk of hold out due to the positive contract externality on non-participants, to use Segal’s terminology, which basically is each D, if it doesn't sign this deal, is better off the more other deals do, because it's a competition softening agreement, and that can potentially chew up a lot of the mutual gains.

And then very quickly, what I want to say about that is these are real challenges. But they can potentially be met. Commitment is a self discipline issue. Sometimes people are self disciplined. Monopolists sometimes manage to charge high prices, even when they sell through multiple retailers. So there's something going on there that isn't captured in the simultaneous agreement passive conjectures model. Pass through, I think, can be a real issue. But again, I think there are ways to encourage the distributors not to pass on the discounts in any way. The

pass through is likely to be a long run effect. So in the short run at least, that may not be as much of an issue.

I want to say a little bit more about the holdout, because that strikes me as, in some ways, the most interesting of these objections. First of all, the positive contracting externality, as Segal showed, does hinder the formation of a web of agreements that implement the profit inducing scheme. And that can mean that even though it's mutually profitable, it's not an equilibrium to do it. Or it's not a profitable equilibrium to do it. But it doesn't have to mean that.

And actually a little calculation that Carl Shapiro and I did in the appendix to our 2008 Weak Patents article, showed that if you have strategic complements among the D's, so differentiated product pricing competition, for example, then at least for a small tax on sales, you can convince the D's to accept that and still have money left over. Even if you're such a sucker at negotiating, that you allow people to engage in this hold out type thinking. And obviously, the first line answer is don't be such a sucker in negotiations. You don't have to do that.

It's also worth pointing out that if M's products are must have in the rigorous sense, not a loose sense, but in the rigorous sense, that the alternative for each D to getting M's products is to exit the market, then there is no positive contracting externality on non-participants. So this issue doesn't arise. Tougher negotiation—I just mentioned that—in another cartel context, drug cartels, people use the Spanish phrase plata o plomo. We'll share the silver with you, but if you ask for too much, then you're apt to get lead instead.

All right, well, analogy from horizontal collusion, as I predicted, I'm running short on time. Well, you have the same concerns. There is a pass through in the sense of the ratchet effect. The more you sell today, the higher the cartel allocation you're likely to get in the future, doesn't always work that way. But it's a possibility. The commitment issue, which comes in the form of bilaterally, each buyer and each seller would undermine the high prices. And there is a positive contracting externality among sellers agreeing to charge the high price.

And so the bottom line on this is you see essentially the same issues coming up in simple horizontal cartel. Those obviously make running a simple horizontal cartel challenging. And it is challenging, but it sometimes succeeds. And that's even though we have the Department of Justice listening in with its wiretaps, and so on. Which of course, is not happening if you're signing these bilateral vertical contracts that are not, as I understand it, apt to be treated as criminally or per se illegal.

So exclusion focus test. Well, it's not all about exclusion. So even if we had a good test for exclusion, it wouldn't really be on point. I don't think I need to say much more about that. Other than it's bizarre to me that antitrust, which is sort of supposed to be about protecting against high prices, that we have this corner of antitrust where a lot of people say, don't worry about this unless the prices are low. We should raise our eyebrows at that. It's conceivable it ends up being the good policy, but I don't think it is. And I think we should start out skeptical.

All right, conclusion. Instead of going through those points, let me say a couple of different things. What do we do, given the complexity of this topic? One thing, one response to complexity is paralysis. Another response to complexity is let's try to pick out a modest number of principles that we can hold relatively firmly to, with some flexibility and openness to exceptions and so on. And to my way of thinking, dominant firms finding a way to tax purchases from their rivals is a pretty good principle. We should be against it, and we should be fairly strongly against it.

The Department of Justice 2008 report, subsequently withdrawn, said when we see the potential for efficiencies and the potential for anticompetitive effects, we should step back unless the anticompetitive effects clearly are disproportionate and bigger. I would go the other way around. It seems to me we should try to preserve openness to competition unless the efficiencies are clearly bigger and outweigh the anticompetitive effects.

Finally, loyalty discount versus quantity discount. It seems to me those are actually importantly different. And they're different because competitive response can take two forms. One is purely substituting for an incumbent's product. And on that, a quantity discount can replicate a loyalty discount. The other is expanding output or topping up relative to an anti-

competitively reduced output. And for that, they're totally different. Quantity discount does not increase D's cost of expansion. A market share discount, or some of the other things I was talking about does. They are very different from that point of view. If we think expanding output is important, then they're very different.

MICHAEL VITA: Thank you, Joe. Our next speaker is Miguel de la Mano.

MIGUEL DE LA MANO: Thank you, Michael. It's a pleasure to be here. And I'd like to thank the FTC and the DOJ for the invitation to come and speak with this group of distinguished economists.

I've assumed I was asked to come in order to provide a sort of state of play of enforcement with respect to conditional pricing practices in the EU. I was happy to accept learning that the *Intel* judgment would come just a couple weeks before this event. And then certainly everything would be cleared up after it. So all I'll have to do is come here and come and summarize it. Had I known better, probably I wouldn't be here today.

The economic analysis, nonetheless, is instrumental in designing coherent, predictable, and administrable legal rules. Rules that enhance social and consumer welfare. Many argue that in Europe at least, competition enforcement of Article 102 is in disarray. That the EC courts dogmatically and obstinately favor a form-based approach. And that the EU Commission timidly promises to assess competitive effects and expose the guidance, but instinctively and self-servingly falls back to the comfort zone of a form-based assessment in its case practice. This rather schizophrenic state of affairs which results in legal uncertainty. People claim if not confusion, at best, poor enforcement, at worst, chilling the very conduct that competition policy is designed to protect.

Now exhibit one of this view is the venerable 40 year old EU case law concerning, no less, conditional pricing practices, which have been discussed here today. Formerly known in the context of EU case law as loyalty discounts for fidelity rebates, but recently re-baptized in the *Intel* judgment by the general court as exclusivity rebates. I do not share this view. I do not share the view that commission enforcement of Article 102 is broken, or that the recent *Intel* judgment has hammered the last nail in the coffin of an effects based approach in Europe. Or

that the commission guidance paper on enforcement priorities in the use of dominant cases is now dead letter.

Or for that matter, and most importantly for the rest of my presentation today, that it's irresponsible, harmful, and wrong, as a matter of economic theory, to invoke a rebuttable presumption of illegality for certain practices by dominant firms, including certain categories of conditional pricing schemes.

Now, a rebuttable presumption of illegality, roughly translated in EU legalese, as a restriction by object, serves the single purpose of dispensing the enforcement authorities and in Europe, there are not just one. There are many of them across member states. When applicable, of the administrative burden of assessing the full set of economic circumstances surrounding the allegedly dominant firm's allegedly abusive conduct, before the enforcement agency submits a statement of objections to the allegedly dominant company.

Now, from the standpoint of US competition enforcement, I'm sure the use of such illegality presumptions, despite what Joe just said, may seem egregiously unfair, per what's dominant firms, punitive even, and ironically abusive. And yet the statement of objection is a comprehensive document laying down all the legal arguments and the supporting factual and economic evidence, allowing the allegedly dominant firm to defend and justify its conduct and, indeed, rebut any presumption of illegality. To this effect, the defendant can even advance doubt on its dominance, in which case, whatever the conduct, it is legal.

Attempt at monopolization in Europe—I'm sure everyone knows—doesn't fall under conditional rules. Is not covered. Moreover, the defendant has privileged and comprehensive access to all the information the commission itself has used to build its case. Now this administrative system of enforcement is far from perfect, arguably. It has flaws, less related to design, probably, at least in my view, than and more to the implementation. But one can hardly argue it leads to systematic over enforcement, even if some individual cases may have greater merit than others. In this context, it is not surprising that all actors, commission, defendants, complainants, and EU courts struggle to strike the right balance between the use of bright line rules and rule of reason.

So allow me to lay my cards on the table at the outset. The general consensus, which I share without hesitation, among practitioners, and academic economists is that rebates and all sorts of conditional practices, conditional pricing practices, are generally nearly always assigned a vigorous price competition. Moreover, I also firmly believe that an effects-based approach is substantially superior to a form-based approach, flat out. And yet, I feel no cognitive dissonance in accepting that shifting certain burdens of proof or persuasion to the dominant firm is justifiable, if and only if, economic theory persuasively shows that the practice in question likely harms consumers and there are no obvious, significant, and inextricably linked efficiencies or justifications for such conduct. Again, not too far from Joe on this one.

Now, the EU Commission's guidance paper in fact puts forward a single abuse test that determines whether conduct is prima facie abusive. The test relies on the costs of different anti-competitive foreclosure and applies. I'll buy it as a prioritization tool, to all exclusionary abuses. Anti-competitive foreclosure is defined as foreclosure having an adverse impact on consumer welfare, whether in the form of high price levels that would otherwise prevailed, or some other form such as limiting quality, or abusing consumer choice. The concept of anti-competitive foreclosure simply gives precise operational meaning to the idea, which is also well established in EU case law, that even dominant firms are entitled to compete on the merits, and to expand or strengthen the dominant position of that increase, is welfare. Consumer welfare.

Also, the concept of anti-competitive foreclosure underpins the policy statement to which everyone subscribes, that—even the courts—that Article 102 is not intended to protect competitors but consumers, whether directly or indirectly by safeguarding the competitive process. And it is in this context, with this background, that I shall tell you a little bit about what is the commission's approach towards conditional pricing practices, and pricing practices more generally.

Now, in explaining the concept of anti-competitive foreclosure as it applies to price based conduct, the guidance paper of the commission states that it will normally intervene where the conduct is capable of hampering competition from competitors that are as efficient

as the dominant company. Now, in the case of predatory pricing, this AEC test, as efficient competitor test, is implemented primarily via price cost test.

Specifically, the commission normally only considers pricing below long run average incremental cost as capable of foreclosing, an as efficient competitor. This AC test, in case or standard price predation serves as a sort of weak safe harbor. But below cost pricing alone does not constitute a sufficient condition for establishing predatory conduct. It's not the commission's guidance paper.

In addition to showing profit sacrifice and exclusion of these as efficient competitor rivals, the commission needs also to establish consumer harm in line with the cost of anti-competitive foreclosure. And in practice this is typically done by proving the likelihood of recoupment. So again, not far away from the approach towards price predation here in the US.

Now, regarding conditional rebates, the commission proposes to calculate the so-called effective price. That is the price that a rival has to match to win the contestable portion of a customer's demand, and to evaluate whether this price excludes an as efficient competitor. A similar analysis will be applied to multi-product rebates by comparing incremental price with the incremental costs of each of the bundled products.

Guidance paper does not refer to the as efficient competitor principle in the context of non-price based abuses, such as exclusive dealing, tying, bundling, and refusal to supply. However, in margin squeeze cases, which are characterized as a variation of refusal to supply, the guidance paper states that one should assess whether an as efficient competitor would be able to trade profitably on a lasting basis.

Now, we've heard many critiques of the as efficient competitor test, even applied to price based conduct, especially when implemented through price cost tests. The most fundamental critique, at least to me, of the as efficient competitor test is that in fact economic efficiency, as well as consumer welfare, in some circumstances, can benefit also from the existence of less efficient competitors.

Either in a static sense, by the restraint that inefficient rivals, or relatively inefficient rivals exert on the dominant firm’s pricing, or in a dynamic sense, where new rivals have the

potential, but they need the time, to reach sufficient efficiency. The guidance paper acknowledges this, and it makes allowances for taking a more dynamic approach in its enforcement of pricing conduct which exceptional circumstances so require.

Now, applying the AC test, the as efficient competitor test, the non-price abuses is obviously much less straightforward than the application to price based conduct. For example, when exclusive dealing forecloses an as efficient competitor from a particular customer, it can in principle be evaluated with similar methods as for condition rebates. That is, by calculating effective prices and evaluating whether an as efficient competitor could match them. But in practice, this may be difficult, since there's actually no way, generally, of knowing what the counterfactual, the non-exclusive price, would have been. This is not absurd.

Absent unusual evidence, there is consequently no direct administrably workable extension of the price cost approach to these non-price practices, even though in principle they can be considered to have price based equivalence.

This helps explaining the reluctance of our general court, the EU general court, to require an AC analysis, particularly a counterintuitive one, in all cases of exclusionary conduct. As for refusal to supply, it is often in practice possible to, at least to some extent, also evaluate whether refusal has the potential to exclude an as efficient competitor.

However, the as efficient competitor principle is perhaps less relevant to the fundamental economic problem at hand, namely that of balancing firms' investment incentives with the potential for effective competitive pressure. Allow me now briefly to zoom in on conditional rebates. Discounts, obviously, are a form of price competition generally to be encouraged.

The essential business justification for rebates is simple. Selling more at prices which increase profits. But in most instances, customers have a significantly higher willingness to pay for the first units they purchase from a firm than for subsequent units. A higher elasticity of demand for incremental units implies that the commercial pressure a manufacturer faces becomes larger and larger the more units it tries to sell to a customer.

Thus a firm, in fact, may be reluctant to offer a lower price on all sales, simply because to do so would lower profits. Instead, firms feel the competitive pressure of the rivals most intensely for contestable units. That is for those portions of the demand for which customers consider switching between different suppliers. Where lower prices can be targeted on these incremental units, this allows the supplier to sell more without harming the revenues on all of the other non-contestable units that are also being sold.

Usually this is entirely consistent with effective competition. No doubt, especially firms need to cover the fixed cost. So even rebates apply to incremental units beyond a certain share of the buyer's requirements are pro-competitive in normal circumstances. You probably could all agree to that.

Things become a little bit more complicated, arguably much more problematic, when achieving scale is an important determinant of competitive success. Either because demand exhibits network effects, or because supply exhibits economies of scale and scope. In such instances, firms that already control a huge part of the market may then be tempted to foreclose rivals from achieving minimum efficiency scale permanently to hamper their ability to compete.

Here, conditional rebates that induce a pivotal buyer or a sufficient number of buyers to purchase all or nearly all of their contestable requirements from the dominant firm will tend to restrict, either completely or partially, the ability and the incentive of rival suppliers to acquire such a minimum viable scale. This allows a dominant firm, in turn, to charge higher prices to some or even all the buyers.

Buyers may seek to coordinate their purchases to avoid this externality they impose on each other, and facilitate retaining alternative supplier. But when the incumbent contracts sequentially, or discriminates across buyers, buyers may have a strong incentive to accept exclusivity inducing rebates. Hence the dominant firm can increase prices to buyers relative to the state of the world where the rival achieves this minimum efficiency scale.

Now, in that case, even in some buyers rejecting common offers and accept the lower price from the entrant, the incumbent will find contractual or technical means to commit to

lower its price to firms to remain exclusive. And ultimately this results in high downstream prices, also for consumers.

So, to conclude, the intuition that's formalized in economic literature and repeatedly is very robust. More generally, the risk to competitive foreclosures, exclusivity inducing contracts is highest where four conditions are met. The dominant firm controls an exceptionally high share of the market. Rivals can only realistically compete for part of a customer's demands on account of this must-have non-contestable nature of a dominant’s company brand.

The dominant firm uses contractual arrangements with strong exclusionary potential, such as exclusive dealing or rebates that induce exclusivity. And demand or supply factor economies exist in the industry, which are very significant. So, in these cases, a thorough dominance assessment and a thorough exclusivity assessment may recently justify to ensure these conditions are met.

Such situations establishing a presumption for illegality should not be necessarily considered to be mad. Allow me now just to conclude in one minute with a remark on the *Intel* judgment, which in fact, that's exactly this. Establish a rebuttal presumption for conditional pricing practices that lead to exclusivity.

Hardcore Chicago school acolytes tend to regard all rebates as fundamentally pro-competitive. And so they have received this judgment of the EU General Court as hopelessly reactionary, as dogmatic. The court is arguably immune, deaf, even, to the overwhelming consensus that anti-trust enforcement should protect consumers, not competitors.

They say the court had pressed the reset button and warped us all back to a world where enforcement is purely form-based, and all economic analysis since the '70s can and should be erased, including, ironically, all post-Chicago models.

This view is understandable, but in my view is incorrect, certainly incomplete. All that the court has done is try to categorize rebates as either presumptively illegal, presumptively legal, or falling somewhere in between. And that in between is effectively a rule of reason, or so-called effects based analysis, or restriction by effect that the commission then would need to

do. Now, I cannot foresee what are the limits between these restrictions by object and effect will settle in the future, or how long it will take to converge, but I'm certain of one thing.

The length of commission decisions, even in specific to rebate cases, will not shrink very much, nor will the general court content itself with one pitch judgments, if only because after *Intel*, innocent firms accused of abusing a dominant position by granting exclusivity rebates now know that if they want the general court to overturn the commission's finding of an infringement, they better claim and explain pro-competitive justifications for their conduct. Something should be said, Intel never did. Thanks for your attention.

MICHAEL VITA: Thank you, Miguel. We'll now turn to our discussants, Matthew Bennett and Scott Hemphill. Scott?

SCOTT HEMPHILL: So it's a pleasure to be here. This is a really important topic, and just a terrific group of lawyers and economists that the agencies have collected here. I think part of my role is to help enable or midwife the transition from economics in the morning to law in the afternoon.

So, I want to try to take a few of the economic interventions and cash them out, or at least connect them. Probably not cash them out, connect them with the design of legal policy. So just to sort of start out with the empirical presentations, I think far from being the black sheep, I think this work is at the heart of our enterprise, going forward. I think actually, this is a view shared by the theorists. I mean, just to take a very limited sample of theorists named Michael that we've heard from already.

I think there is unanimity, or least near unanimity that this is a really important topic. Or an important way forward. Let me just mention three things that I'd like to know about this vast and—it sounds like—ever expanding world of conditional discounting practices.

First, I think of as kind of the Brooke Group question, in a way, which is a given practice, let's take one of them—purchase share discounts, or maybe we call them loyalty discounts, or maybe we call them market share discounts, this individual practice, is it rarely tried as an anti competitive tactic? Is it rarely successful? That's the language in Brooke Group on which the skepticism about predatory pricing is in part premised.

So is it something we need to worry about a lot? I think I understand from Klein's presentation earlier, no, this is part of the everyday competitive practice. I read to the contrary in Randy Heeb's terrific book chapter with Doug Bernheim actually to the contrary, this is pretty rare and pretty troubling when it happens. There might be an answer to this question. I'd be really interested to know.

Now, this and the other things I'm going to mention, that's not necessarily fancy econometrics elegantly identified. It's more trying to look across the economy and just try to make a sense, get a sense of which of these things are rare, and which of these are common, partly with a view to figuring out where we should especially be focusing our analytical resources.

The second, to the extent that we have multiple practices clustering at the same time, we've heard a reference to that from Francine, we saw some examples already. How often does this happen? What does it mean? We have some case law, for example, that suggests, well, if you have, for example, a market share discount accompanied by other stuff, you can just look at the other stuff.

If a market share discount is always accompanied by other stuff, do we need to talk about market share discounting at all? We can continue to go back and forth about how to think about it, but if we're always going to think of these as de facto exclusive dealing, that would be—or focus on the formalized exclusive dealing, that would be really helpful to know.

The third, to what degree—this is the mix of theory and empirics I think—to what degree are these instruments substitutes in practice? If you tell them, don't go do a market share discount, if they can easily instead shift to a volume discount, then we might regard that as good news, or extremely troubling news, depending on our priors, right?

You could read that as a cause for hope, or possibly as a counsel for futility. So moving from the empirics to Joe's theoretical intervention, now, my initial instinct was although you described that as a focus, and I agree that it is—I mean, it's a particular perspective and model, it does open up the territory, I think, even further. I think a lot of what we heard earlier in the

morning was focused on exclusionary. Not entirely. Professor Salinger's, I think, has some strong echoes with Joe's.

When I teach this stuff, I start with Whinston, Bernheim, Segal. I don't tell it to them that way. But I think of it as a kind of share breaking story. Maybe I get into negative contacting externalities, but it maps pretty cleanly to at least the way the 3M case thought of itself. It helps me talk about Microsoft a little bit. It helps me talk a bit about some of the cases we've seen.

When we start moving from exclusion to collusion, it's less clear to me what some of the mapping the case law is, which is not itself a wrap, right? It may just be that we haven't been looking in the right places. But it also makes me wonder what are going to be the kind of things to look for. Like, what are the sort of—are there distinctive indicators for this kind of behavior that we should be particularly seeking out?

And then finally, and I promise not to take—I hope—am I not quite half of our collective time? So not quite half—I just want to make sure I'm not absorbing our entire collective discussion here. So I think there's not much risk post *Intel* that we're going to see single page responses, for those who have worked their way through the *Intel* decision. Brevity seems to be far from their mind.

So three brief points. One, the foreclosure focus sounds about right to me, although it does throw overboard a lot of other stuff that we might care about. And I get that it's not the only thing that people are going to look for, but the more things we have on our list, the less seriously we can take this idea of a focus.

Second, the focus on dominant firms that were both in your remarks and in some of the commission's work seems to me too limited. I think multiple firms can engage in parallel exclusion. I think that's consistent with Article 102, it's consistent with at least some of what the commission has said about 102.

I mean, if you imagine taking Intel, or some other dominant firm, breaking it in half and then asking them to engage in the same practices, I don't think we would then say, oh, well,

neither firm has a dominant share, therefore we're going to let them go. So I think we need to be paying attention. I'm gonna add another thing to the table, to non-dominant firms as well.

And then finally, I take the point about equally efficient competitors, I know we're going to hear a lot more about that in the afternoon. I just want to sort of reinforce the concern that you've anticipated about less efficient firms, of being both a little hard to identify sometimes, given the dynamic piece, and feel worthy of thinking about, to the extent that they exert competitive pressure.

I think I just add the commonplace observations. Price cost tests are what follows from that perspective. I mean, depending on what you call a price cost test. A lot of these boil down to price cost tests. Those are pretty hard to apply, too. And bringing in the sort of negative contacting externality piece of this can mean that exclusions can get pretty cheap.

And so I think in that environment, kind of all bets are off. The proliferation of models we've already heard today suggest that almost anything can happen, and I think some of those put pressure on the viability of a price cost test as a way of evaluating the conduct.

MATTHEW BENNETT: Thank you. Thank you very much for inviting me. Much appreciated. I wanted to make a few comments about the presentation we've just heard. One of the things I thought was interesting is there are these kind of different theories behind why we see these retrospective rebates, or bundle discounts, et cetera.

And you have your kind of efficiency theories, you have your coordinated theories, which we've heard quite a lot about as well this morning, and you have your more traditional, if you like, exclusionary theories. And I thought Julie's piece was really nice because it showed that actually these efficiency stories and the exclusionary stories can kind of overlap.

And that's what makes this thing so difficult, is that you can have these efficiencies and exclusionary concerns simultaneously. So the vending machine example, I thought, was a nice one. One of the things I thought was quite interesting in that was that if you looked at who, rather the top selling candy bars, Mars had the top six selling candy bars, and their retrospective rebate applied, although their bundle discount applied to those six candy bars.

So it wasn't as if it was applying to kind of eight candy bars, and it was trying to extend it across to the seven or eight slots that were there. It was actually targeted at the six. And you can think of there being kind of a simple efficiency rationale, which Julie explained, which is, you know, for some reason, even though those six are the most popular candy bars, they're not stocking them fast enough, or restocking them fast enough.

And this gives a good rationale for the bundle discounts, et cetera, to say if you stock these faster, we'll give you a discount. But that may simultaneously have an exclusionary effect. And I thought it was quite interesting there that Julie was basically saying, fine, it may have an exclusionary effect, it may have an efficiency amount. Well, what does it actually have in reality?

And the difficulty there is how do we tackle those in kind of case law, or in reality, given that they have both of these effects simultaneously? Because I don't think very often we're going to have nice data sets where we have a great little control as well, where we can see what's happened when they've not had these rebates, and what's happened when they have had these rebates.

So coming up with solutions is going to be quite difficult. Another point that seems to have struck me was that it makes a big difference whether the firms that are imposing these rebates are symmetric versus non-symmetric, or rather, the position of these firms is symmetric versus non-symmetric. And we heard in the morning that when they are symmetric, then you're much more likely to get kind of competition, if you like, on bundles.

And so you get these kind of vertically integrated silos that are competing across the bundle, rather than having one that is leveraging into another. And again, I thought Julie's presentation in movies might be a good example of that, because what we had was basically four firms that were already must haves, and they were already competing across the bundle.

And then you got another five firms that's are competing, if you like, on the full line forcing. And then you have to ask the question of, well, is that likely to be problematic or not? If they're all competing on the bundle, is that going to be a problem? One of the things I thought

that was also interesting was thinking about how do we measure the effects of these type of practices?

And it seems like the coverage of the downstream market is really important, both for the coordinated and the exclusionary practices. So essentially, one of the things that you could think about is, without this coverage, without kind of an extensive coverage downstream, then you're unlikely to be able to get coordinated effects to raise rivals' costs, or you're unlikely to be able to foreclose, because people are going to have ways of selling and continuing to be in the market.

The other thing I wanted to ask about, well, we're talking about not using a price cost test here, and some people are saying that the price cost tests are all a bit complicated. But if you're trying to think about exclusion, then one of the questions I have is, well, what do you think about in order to determine whether there is collusion? Whether it's going to be likely to exclude.

Because you would have thought that one of the key elements is: could an entrant continue to serve the downstream? Could it continue to supply? And when you start thinking about could that entrant continue to serve the downstream, then you're kind of saying, well, what is the price that it has to be able to charge? What are its costs? And you kind of get pushed into a price cost test.

And so I think one of the questions I have is: if you're trying to determine whether there's an effect of exclusion, then what should you consider if you're not considering a price cost test? And then finally on the coordinated effects, one of the things I was struck was this is not really a theory of harm that we've considered much in Europe.

Most of cases in Europe really center around this exclusionary theory of harm, and therefore one of the questions I had on this coordinated theory of harm was to what extent is there a compatibility problem?

So, in other words, if you're trying to do some sort of scissors pricing, which is what I think Joe was kind of referring to, where you price your monopoly product higher, and discount

in order to create incentives for people to take it, then if you have independent demand for that monopoly product, then surely there is some sort of sacrifice there.

Because now you have a price which is above monopoly cost for your one product, and the people who only wanted that assured brace, if you like, are no longer going to be consuming it at the right level. And so there seems to be some sort of sacrifice going there, which might also be another issue that needs to be considered.

And then finally, just on the object and the *Intel* case, I mean, I agree fully with Miguel that you do need to have a look at the effects. I'm slightly more worried and apprehensive about the *Intel* case than Miguel might be, in particular because it seems like we now have a ruling which is basically dominant plus retrospective rebate equals we presume that you're anti-competitive.

And my concern is that presume that you're anti-competitive in Europe generally means it is anti-competitive, because it's practically impossible to rebut that presumption. And it's interesting because there was a case in the UK when I was at the Office of Fair Trading, called IDEXX , where we actually said yes, it is retrospective. Yes, they probably are dominant. But no, we don't think there's any effect.

Because in that case, the impact, if you like, on the market, was relatively minuscule. The amount they could foreclose was relatively minuscule, and therefore we didn't see there being an issue. And my concern is that you see cases might not get any smaller, but in the various different member cases, that's when they might start being tempted towards a much more simplified version. Thank you.

MICHAEL VITA: Thanks to our discussants, and to our panelists for a really great set of presentations. We're now going to break for lunch, and we will reconvene at 1:15 for our roundtable discussion on the economics of conditional pricing practices.

[LUNCH BREAK]

ROUNDTABLE DISCUSSION: THE ECONOMICS OF CONDITIONAL PRICING PRACTICES

Participants:

- **Matthew Bennett, Vice President, Charles River Associates, London**
- **Benjamin Klein, Professor of Economics, University of California, Los Angeles**
- **Francine Lafontaine, William Davidson Professor of Business Economics and Public Policy, Stephen M. Ross School of Business, University of Michigan**
- **Julie Holland Mortimer, Associate Professor of Economics, Boston College, Faculty Research Fellow, National Bureau of Economic Research**
- **Michael Waldman, Charles H. Dyson Professor of Management and Professor of Economics, Samuel Curtis Johnson Graduate School of Management, Cornell University**

Moderators:

- **Patrick Greenlee, Economist, Economist Analysis Group, Antitrust Division, U.S. Department of Justice**
- **Daniel P. O'Brien, Senior Economic Policy Advisor, Bureau of Economics, Federal Trade Commission**

DANIEL O'BRIEN: All right. Wow, did we hear some complicated economics this morning. And now, right after lunch, it's our job to kind of try to synthesize some of this into what it means for how we deal with loyalty discounts. So we're going to do the best we can. And we'll see what happens.

So this conference is about departures from linear pricing, departures from simple per-unit pricing. When are they anti-competitive and how can we sort this out? So this morning's sessions pointed to three main types of departures from simple per-unit pricing. We talked about all-units discounts or retroactive rebates, the discounts that have the cliff that one of the Mikes, Michael Salinger, talked about. These are discontinuous tariffs.

We talked about prices that depend on rival's quantities. Mike and Mike gave a thorough discussion of that. And then we talked about bundling. Mike and Mike also covered that. And these three types of departures from linear pricing are not mutually exclusive.

So here's the thing—these issues tend to arise in intermediate markets where firms have market power. Those are the contexts which we're dealing with in most antitrust cases. So they have market power in the sense that they have downward-sloping demand. Ben said everyone has downward-sloping demand so they have market power.

So it's well known that linear prices are inefficient in such markets when the firms are complements. And this came up in various ways in the discussions. So we're faced with the following—in determining whether departures from linear pricing are good things or bad things, there are two propositions that we have to deal with that are difficult.

We know there are motivations for departures from linear pricing that have nothing to do with anticompetitive effects. Those motivations exist. And, moreover, the use of whatever departures from linear pricing is chosen in those environments, holding constant or holding aside competitive spillovers, are probably good things. So against this backdrop, I'd like to just jump right into one of the strategies that was discussed this morning as a way to try to sort out the good from the bad and ask the panelists, what is the role, first, of cost-based tests in sorting through these things?

And, when you answer, let's bear in mind the three types of departures from linear pricing that we're talking about. What is the role of cost-based tests in determining the net anti-competitive effect of these practices? What do they tell us about the potential benefits and harms? And I guess I'll turn to the one Mike that we have, first.

MICHAEL WALDMAN: So I'm not going to answer the full question. Let me just answer the question in terms of the multi-product brand loyalty discounts, which was what I focused on this morning. And Mike Whinston can talk about that, I'm sure, later, concerning single-product brand loyalty discounts.

I'm not a big fan of cost-based tests for the following reason—as I talked about this morning, there are lots of different possibilities for what could be going on, in particular if you think about it as a substitute for tying. Many of those result in either improvements in social welfare and some result in decreases in social welfare.

And so, if I'm thinking about a cost-based test, then a cost-based test would make sense if somehow the cost-based test mapped into that taxonomy—so that if you passed the cost-based test, it's more likely to be welfare-improving and, if you don't pass it, it's more likely to be welfare-decreasing. And I don't know any analysis that suggests that that's true. Maybe it is, but I haven't seen any analysis like that.

And so it seems to me that a cost-based test, at least for multiple-product brand loyalty discounts, seems problematic, because I don't see why that's going to be a good way to think about how we get the highest welfare that we could possibly get.

DANIEL O'BRIEN: OK. So, if not cost-based tests, what are some alternatives?

MICHAEL WALDMAN: Well, my sense is that the main focus, particularly if you look at the cases, is kind of this leverage argument and exclusion argument. And those arguments tend to hold, at least the main part of the theory says they tend to hold, under a certain set of conditions. I think Dennis Carlton and I and Patrick Greenlee have a paper that kind of maps that out. You can just sort of look—does the case satisfy those conditions?

Now I think that, in our paper, we maybe hadn't thought—Dennis and have a new paper in Economic Journal in 2012 which, I think, sort of expands the set of conditions in which the leverage argument might be problematic or might apply. And so I think that other paper may not have talked about the set of conditions exactly correctly. But, basically, it's saying, we have a theory. This is the theory that we're really worried about. Do the facts of the case match the theory? I would be more comfortable with that than a cost-based test.

DANIEL O'BRIEN: Yeah, Ben?

BENJAMIN KLEIN: I don't know if we want to make it free—

DANIEL O'BRIEN: Free-flowing.

BENJAMIN KLEIN: So I guess I don't really think, from an economic point of view, there's a big difference between bundling and single product. I mean, obviously there's a huge difference in the law in terms of whether you want call it tying. But in terms of the economics, it's—the tying good you can think of in a single product case as inframarginal sales.

And the question, I agree, it's this question of leverage. And it's the question, are you taking advantage of your dominant position and using the consumer surplus on the non-contestable sales? Which can be the inframarginal sales if you're a dominant firm with a single product or it can be the other products when it's a bundling case. So I think that's the way we should be looking at this.

And in terms of the price-cost, I think that's one of the hooks that you have to look at. I mean, how do you take advantage of the consumer surplus on the inframarginal product? You make an all or nothing demand. So you can do that either contractually—so you do it like *Dentsply* or something like that. It becomes an explicit exclusive dealing arrangement because the distributors have to have the *Dentsply* products. So you make an all-or-nothing demand.

How do we see, economically, whether you're making and all-or-nothing demand if you're not actually doing it contractually? Well, you look at attributed price-cost. And as I was trying to say this morning, there's an efficiency reason for why you want to do these types of things. And it's not just firms with what we would call market power because, like in the drug industry, all you need is a product with a very low marginal cost.

And every firm wants to sell more units of their product. And, therefore, they're going to have contracts which lower the prices for the marginal units. And the question is, is there effective competition for those incremental units by a rival firm?

It doesn't have to be a symmetrical case. It could be a dominant firm with 70% and a rival has 30%. And the buyer has the ability to, let's say, shift 20% by what they can do—by making it the preferred thing on the formulary or whatever they're doing. And so, just as long as there's open competition for that contract, there will be the 90%-10% or, if the rival wins, it will become 50%-50%. And the question is, how do you know if there's open competition for that?

Well, I think it might be difficult to measure contestable sales and to do it. But, in principle, I think that's what we should be looking at, attributed price relative to cost. And that would mean an equally efficient rival could compete for that contract, for those 20%.

So, I mean, Steve—where is Steve?

MICHAEL WALDMAN: He just walked in.

BENJAMIN KLEIN: There's Steve. Steve is going to tell us that a less than equally efficient rival could have an effect. Which is obviously the case. But I would say, in these cases—I mean, one of the benchmarks I like—there's no woman with the sign now; you tell me when to shut

up—but if used as a benchmark, what if the firm just engaged in price discrimination on just those units?

And just as long as they had price above marginal cost, we basically would think it's OK. It makes it more difficult for the rival to compete if that's what the firm is doing. But it doesn't raise the rival's costs, and the rival's going to have to lower prices to get the switching. And just as long as the contract is not made all or none, in an economic point of view, I would say that that's just competition for distribution, for the place to have the eye-level shelf space or to be on the formulary or whatever.

DANIEL O'BRIEN: Does anyone have views on the single product loyalty case? Is that different than the multi-product loyalty case in terms of how we think about whether we want to use price-cost tests? Or maybe we want to wait until the later panel this afternoon to hit on that? Unless someone has some views on it? Yeah, Matt.

BENJAMIN KLEIN: Well, certainly, I have views but I'm not—

[LAUGHTER]

MATTHEW BENNETT: I mean, it's difficult because, if we think that all of these things have very different theories of harm, then it's quite difficult to get any kind of one single test that covers all the theories of harm. And I accept that completely. But when we're thinking about exclusion and the type of cases that, at least in Europe, we deal with most of all, then it seems like multi-product discounts or bundled discounts are a lot easier to handle than single product because, normally, it's fairly clear what the assured base is, the must-have product is, and what the contestable base is.

Whereas I think one of the difficulties when you're trying to do these retrospective rebate tests, and the effective price test, if you like, is determining exactly what is the contestable portion of demand and what is the assured portion. And the problem there is that the tests entirely turn on that, because as soon as you have the entire base is contestable, then you're no longer really having to look at an effective price test, you're looking at essentially a predation test. You're just looking at competition on the two bundles. And you're looking at

whether one person is pricing below the cost of the entire bundle rather than on the effective price, if you like.

DANIEL O'BRIEN: So with respect to all units discounts, if you had an environment where you have a large dominant firm and a very small player coming in and the buyer is operating just past the cliff, then the marginal price of the increment for the buyer would be negative. Do people on this panel feel that that would be a sufficient basis to condemn, say, a firm that had a 90% share or something, that kind of a discount?

JULIE MORTIMER: I would say, no—I don't know if this works, but, I don't have a green light. My response, immediately, would be no, because there are a number of issues that are important in terms of aligning the incentives between the downstream firms and the upstream firms. So, for example, in that confections case that I talked about earlier, you may not want 90% of the cost of bad service to fall on the upstream firm.

BENJAMIN KLEIN: More generally, we have to think about it as competition for the general contract and not for a particular buyer and not for a particular unit. I mean, you have a thing, if it says if you get to 80%, you get a 20% discount, and you're at 79%, we know the price of that incremental unit is going to be negative. But that's not the useful way to look at it economically.

We should look at what the rival can effectively compete for. Like on the *Sanofi/Eisai* case, they were able to switch hospitals by offering large discounts for getting the hospitals—say, they're going to have 70% of the sales. Even though Sanofi was the dominant overall in the marketplace. So I don't know if I answered your question, but I get upset when people talk about, oh, for that one unit, yeah we have one unit.

I mean, obviously if you're at 79.9%, obviously, that next unit you're going to buy.

DANIEL O'BRIEN: That's why I asked the question, Ben, because I knew you'd get upset.

[LAUGHTER]

Matt, you had some—

MATTHEW BENNETT: Just on that, I think there's another condition that you need to worry about, and that's essentially, is there an effect? Is it foreclosing—if you're thinking about the foreclosing case—a significant portion of the market? And, again, this is something that we had in the Office of Fair Trading IDEXX case where we said—there was a particular product; it was a veterinarian diagnostic test.

And it was clear that it was a must-have for people who thought that their dogs had to have this pancreatic cancer test. The problem was—the alleged theory was that they were trying to leverage it into the wider diagnostic market. And what we found was that, actually, the portion of people that had a demand for the two of these tests jointly was very insignificant as a proportion of the demand for the wider diagnostic market.

In other words, there were only 10% percent of these people that were actually trying to buy it jointly, and 90% percent of the people in the wider test didn't want it jointly. And, therefore, it was never going to have any foreclosure effect. So even though it failed the price-cost test, it wasn't going to foreclose because 90% of the market was still open.

BENJAMIN KLEIN: I mean, a lot depends on how you define the market. It seems ambiguous in your case. But that's one of the things that I find upsetting about *LePage's*. The plaintiff had 67% of the private label tape market at the time the case brought. Even if it failed the attributed price test, which it didn't with 3M's discounts, we're talking about some major buyers. But still they're not going to foreclose them from the market, *LePage's* from the market.

So I think that's the next—if you're going to use this attributed price-cost test to determine if it's de facto exclusive dealing, you then have to go through the exclusive dealing analysis and look for anti-competitive effect in the market.

DANIEL O'BRIEN: Just one more follow up on this, following up on what Matt said. In exclusive dealing, we generally don't think about using a price-cost test. But exclusive doing is really a special case of a loyalty discount. So should that tell us something? And it seems, in this discussion here, it is telling us something. Is there a feeling among the panel that, in thinking about the exclusive dealing aspects of these problems, in a lot of cases, the price-cost test is not going to tell us that much?

[LAUGHTER]

PATRICK GREENLEE: Ben would say, yes without any of those qualifications.

BENJAMIN KLEIN: Well, no. I mean, the thing is, just because it's exclusive dealing and it's not predatory pricing, doesn't mean the price-cost test is irrelevant. That's just a non sequitur. OK? I mean, it's not predatory pricing, but it does not mean that the price-cost test is irrelevant.

The other mistake is that—I think people fail to recognize is that, just because it's exclusive dealing, they then look for the exclusive dealing efficiencies and say, well, are the efficiencies protecting specific investments, preventing free riding or—you go through the list. But just because it's exclusive dealing and that's the anti-competitive analysis we're going to do, doesn't mean that we're limited to those efficiencies of exclusive dealing. And, in particular, you have the efficiencies of just price discounting here, which is, like, the best efficiency.

MICHAEL WALDMAN: Let me go back to an earlier question. I think it was Michael Salinger's theory, which is—if you have a 90% base—you get this price discount if you have a 90% percent share. Then you can set it up by basically saying, OK, we're going to keep the price high, and they can compete at this lower price or they can compete at the higher price. We can compete for more than 10% of market share by lowering the price a lot or we can keep a high price and stay with 10%.

And so I don't think the price-cost test addresses that very well. And also going back to something I mentioned and something Randal Heeb mentioned, which is, if you have a dynamic setting where there's R&D investments and product improvements and having a small market share today has an effect on your ability to build your product and your market share over time, then keeping this 90% market share—maybe that might not be so bad for today. But going down one or two generations of the product, it could make the firm much less competitive and so could actually hurt much more in the future.

And that's kind of what Dennis and I sort of worked out in a particular case in this 2012 paper. So, again, I think there are issues with the price-cost test, which don't, in my mind, map that well into when is it welfare improving, when is it not welfare improving?

FRANCINE LAFONTAINE: What I'm hearing from you is in part that you want to use the price-cost test as a test of whether there's exclusion or not. So maybe that would be the counterpart—to say, is the rival able to compete for the contestable part of the market as a question, as opposed to being a price-cost version of that question? Does that make any sense for what you—because you want to use it as a screen for exclusion.

BENJAMIN KLEIN: Well, I didn't say safe harbor, but I think you're right I am inferring that. I guess I agree with you, if I understand.

FRANCINE LAFONTAINE: I'm trying to clarify what you're doing.

BENJAMIN KLEIN: If what you're saying is, do I want it to be safe harbor? Mike [Waldman] has things why it shouldn't be a safe harbor. That's what he's saying. His first point was that the firm could raise the list price, is basically what he's saying. If they raise the list price a lot and give the discount, then it's going to fail the attributed price test. And if it doesn't fail the attributed test—I mean, the bottom line is all the cases I'm familiar with, not just *Eaton* and *Sanofi* and *LePage's* and *PeaceHealth*, in all those cases, they didn't raise the list price. 3M did not raise the list price of the Scotch tape.

So it's a theoretical possibility, and there are reasons that it could go in that direction. But I would say that's one thing that we should look at, empirically. The other point about why it shouldn't be a safe harbor—basically, you were saying you could have a rival that has higher costs and it's this dynamic story. The rival then is going to have lower costs but it could not compete effectively now—

MICHAEL WALDMAN: It could have lower costs for some small quantity.

BENJAMIN KLEIN: Then it has lower cost—but is it minimum efficient scale or minimum viable scale, that quantity?

MICHAEL WALDMAN: No.

So it gets driven out. And the question is this dynamic question that over time—

MICHAEL WALDMAN: It's kept small.

BENJAMIN KLEIN: Right. Well, I would say the burden—in the competitive process, I get uneasy making quote “welfare”—I would say, in a competitive process, what we should be doing, is that rival, if there are dynamic efficiencies over time if they can grow, that rival has to make an investment and take some losses because it has higher costs now. But the question that we should be caring about is, is the dominant firm, at this point, taking advantage of its dominant position and using it in a way that is quote “disadvantaging” the rival?

I would say just as long as the price is above the marginal costs of that firm, I would say that that's OK. So I guess I agree.

STEVEN SALOP [from the audience]: Just to make the record clear, you said there should be a safe harbor or not?

[LAUGHTER]

BENJAMIN KLEIN: I'm saying it should be a safe harbor. And you'll say, what's wrong with my answers to Mike's. OK. You want to go onto the next question?

[LAUGHTER]

PATRICK GREENLEE: So we heard from Tim Brennan this morning about—we really should be thinking about these cases or one way to think about these cases is that the dominant firm or the firm with a significant share is signing up a bunch of retailers. The idea there should be—should we really be thinking about that as being rather analogous to just monopolizing or monopolizing the use of that retailing market? Should we just be thinking about that complementary market, focusing on how much of that market is still available to other firms?

I just was interested in what the reaction the panelists had about Tim's approach to thinking about loyalty.

FRANCINE LAFONTAINE: So for vertical restraints, for non-price, I guess, vertical restraints, for quite a while, in some sense, the way that the rules have been applied have focused on what's happening in either the upstream or the downstream market in terms of

competition level. So, to me, that's very consistent, what he's suggesting there, with that kind of approach.

We will worry about these vertical restraints if we see that they increase, the possibility of market power being exercised within one or the other of these markets.

PATRICK GREENLEE: Anyone else? Tim, you've got five votes.

[LAUGHTER]

Ultimately, though, when we're thinking about trying to assess effects, then we really have to think about, well, what's the equilibrium? What's the predicted outcome going to be if a certain pricing practice was not being used? When we think about merger simulation, we use simple linear pricing. There's a pre-merger equilibrium. There's a change in the ownership matrix, and we let people re-optimize, see what sort of price effects we have.

When we're thinking about these types of cases, if we're going to intervene some way or think about intervening, the question really, then—we'd have to figure out what the equilibrium is going to look like if the strategy is not in place. And if that's the case, what strategies or what restrictions—what is that but-for world? What are the strategies or pricing strategies that we would contemplate for the firm that was under investigation? Matthew.

MATTHEW BENNETT: I mean, I guess we have a kind of a threshold that the harm has to be significant in mergers because otherwise you would end up basically, unless you could prove efficiencies, you would ban every single merger. So we have this kind of substantial—at least in Europe, we have the substantial lessening of competition, and I see that as the kind of equivalent that we might want to think about with regards to these type of practices as well.

So if there is not going to be substantial foreclosure, then it's unlikely that you're going to get the substantial increases in prices. And, therefore, we shouldn't worry about those too much. So I think there's an analogy there that we might usefully draw.

JULIE MORTIMER: I would just add to that there can be several challenges to calculating those new equilibrium linear prices. And so I guess two comments on it. One is that, when we are discussing the very wide range of vertical restraints that have been kind of put on the table

today, one of the things that is obvious from the wide ranging discussion is that these contracts, they get very, very complicated. But one silver lining to that is that they also induce a lot more opportunity for flexibility.

So one of the things that happens when you sort of do the counterfactual linear pricing equilibrium is that you lose some of the anti-competitive inefficiency effects but you also lose some contractual flexibility. And that can have important impacts on its own. In many of the cases where I have worked, or cases I'm familiar with empirically, another point about but-for pricing that strictly is the sort of simple linear pricing kind of format, is that that's often the basis for price discrimination across different channels of distribution.

So one of the big issues, for example, for vending, is that we don't really recalculate new equilibrium linear prices. The reason for that is that it's very difficult for manufacturers to try to police, across different distribution channels, how the goods move. The goods that go through the vending channel tend to have very different retail prices than goods that move through grocery channels, for example, or convenience stores. So they're facing constraints oftentimes that we haven't really fully appreciated from the perspective of outside researchers or analysts of those industries.

PATRICK GREENLEE: So then suppose there was an antitrust investigation, maybe it's vending or what have you, and you've evaluated it. There are some efficiencies there, but it does look like something bad is happening and if we need to specify what the bad is, we can do that. I guess the question, not too articulately stated, is would we expect the targets of the investigation—what kind of strategies would we allow them or would we contemplate that they'd be using, absent the strategy that got them in trouble initially? So part of what I was hearing you saying was, well, if we compare with linear, there are a lot of other problems that you might be creating or efficiencies you might be throwing away. I guess the question is, would we be assuming that if Intel's found guilty of doing something that we should just expect that they're going to go with simple linear pricing on all of their—

DANIEL O'BRIEN: I think Patrick's basically asking, what is the but-for world and to what extent does the theory and empirical work—although, I gather there's not been that much in

this area—tell us about how to think about what the most likely but-for world is? Because isn't it the case that we would have to make some conjecture about what that is in order to analyze this stuff?

FRANCINE LAFONTAINE: So the more recent empirical work that Mike Whinston referred to and that Julie described does exactly that. It looks at what would happen if—and the same thing with price discrimination, the more recent price discrimination empirical literature says, OK, so we have these tools. Now we'll see what happens if we remove one of them or we add something else. So, presumably, you end up in court because something has changed or something has happened that has led to the dispute. So maybe that's one way of defining the but-for is to say, what if that change didn't occur?

DANIEL O'BRIEN: Yeah, but in many cases, we have practices where something's been in effect for 20 years and we've decided it's gotten to the point where we just can't tolerate this anymore and we're going to go after it. I mean, a lot of the exclusion cases I have worked on are that way. What do we know about thinking about what the but-for world is likely to be?

I mean, we're talking about departures from linear prices, but whether or not non-linear contracts are some substitute, maybe imperfect substitute—sort of where they're going to go if we don't let them do what they're doing. I mean, how much do we really know about that and how should we get at that? Are we left with sort of, oh, it says in these documents that if we didn't do this, they were going to try that? I've seen those, but beyond that, in terms of predicting next-best strategies—

JULIE MORTIMER: It would be different for every industry.

FRANCINE LAFONTAINE: It would be different for firms within industries, even. That's the point I was trying to make earlier when I said there are alternatives, and they'll look for an alternative that gets them as close as possible to what result they were hoping to get with the one that they have now. But my question to you back would then be, so what has made it become intolerable? If it has been going on for 20 years, why now? So something has changed, I presume, in the market or something.

DANIEL O'BRIEN: Usually, somebody has complained.

BENJAMIN KLEIN: I mean, we know that it's likely to be some form of price discrimination with regards to the incremental contestable sales, right? I think the reason they don't go to more direct price discrimination is not, as I said this morning, it’s not because of the Robinson-Patman so much, but because it's very difficult to measure the incremental and contestable sales. It's going to vary across buyers. It's going to vary over time.

And so you're going to get a more quote “inefficient,” less perfect price discrimination type of contract. But we know, in general, that's what we're going to move to. But I agree with everybody it's going to vary depending on how best you can measure what you're trying to measure.

MICHAEL WALDMAN: Well, it also depends on how wide you have the antitrust ruling, right? So if you have a narrow ruling that says, this narrow thing is illegal, that opens sort of more substitutes than if you say this wider class of things is illegal. So the ruling itself has an effect on what we would expect as a result.

FRANCINE LAFONTAINE: And even the possibility of a suit, what kinds of things are more likely to get them to be looked at.

DANIEL O'BRIEN: So let's talk a little bit about the empirical literature and what we think the body of empirical literature in the area tells us about how we should be approaching our analysis of cases. Are there significant insights that are generalizable across industries? Is it that we're just not very far along yet? Are there some major gaps that you think would be useful to fill before we can say we get much out of the empirical literature?

Is all of this stuff kind of case by case, within case, doing our own empirical work within the case because there's nothing generalizable? Where are we in that whole spectrum?

FRANCINE LAFONTAINE: OK. Should I start? Go ahead.

JULIE MORTIMER: Well, I think there are a couple of key takeaways. You also asked, are there gaps in the literature? There are gaps in the literature you can drive a truck through at this point. So I gave a couple of multi-product examples. Mike Whinston, in his slides, talked about a couple of single product cases that are more exclusive based. There's a little bit more

work on exclusive dealing per se. But there are not a lot of—I can't think of any empirical studies that have really detailed data on a contract that references rivals or a contract where we're also dealing with issues of collusion as a result of the contract.

I think the couple of guiding principles that I've taken from empirical work in this area is that the substitutability of the products is going to be really key on the demand side. On the supply side, having a star product in your portfolio can make a big difference in the multi-product cases. And also the—sort of the permanence of dominance. In a lot of discussions of industries, there's taken for granted this notion that we can categorize firms into dominant and competitive fringe or dominant firm and then entrant. And in a lot of industries, that's a sensible way to look at it, and in other industries, the nature of dominance is always changing and is always in flux. And so I think understanding the nature of competition there, we've got some examples in both cases. But it's important to kind of distinguish between those.

And then also just the role of the downstream firms. I think another important gap in the empirical literature is our ability endogenize downstream effort and what role that plays in inducing the contracts to be written in the first place and in terms of what kind of welfare effects those contractual obligations end up having.

FRANCINE LAFONTAINE: So I'm just going to complement a little bit what Julie just described. I would say it's not just that there are gaps. I think it's a huge gap. There's very little—

DANIEL O'BRIEN: It's a huge opportunity.

FRANCINE LAFONTAINE: It's a huge opportunity. No, I totally agree. Because there are lots of different practices, lots of different ways to think about them, lots of different industries where they occur. So you need an awful lot of evidence in order to be able to make sense of that. And we don't have close to enough for that.

Having said that, we learn from two main sources of information, really, and many of you here have learned a lot from cases that you've been involved with. And those cases—you get access to some details about the contract and all that. That's great, but they are a very selected set of things. There's a reason that these cases were brought.

And so it's not representative of all of the kinds of contracts that we see out there and what they're used for. So when you think about the broader set of contracts, first, I agree with Julie. I don't know of any study that really has kind of the referring to rivals. Actually, yours technically refers to a rival because there's a 90%—no, it was 90% of your thing from last year. That's right. OK. So even the 90% didn't work.

So there are studies that have looked really at loyalty discounts the way that we are describing them and the way that they've occurred in cases. The studies that we do have are about mostly exclusive dealing and/or tying. There are only a handful. And they're in settings that don't end up in court systems very much. They're in settings where the downstream market tends to be fairly competitive. And because of that, I think, they don't find negative effects on consumers.

The one that I think is an exception to that is the work by Crawford and Yurukoglu that looks at the cable industry, where there's less competition than in other contexts. And it's a more structural model and all that. And one of the main effects that they see from removing the bundling there is that it affects the bargaining process upstream. And because of that, at the end of the day, removing that doesn't benefit consumers. So they're able to look at things like that, with that.

So I think those are the main things I would say to complement what she said.

JULIE MORTIMER: I mean, it is an opportunity, but the challenge of getting the data remains an important challenge and a difficult challenge. And one that I think, as we move into more Big Data settings becomes—at some level, it's more well-organized; on the other hand, the access challenges becomes even more difficult. So people who have access can do this, but it becomes more difficult to get access if you're outside of that realm.

DANIEL O'BRIEN: We just have a couple minutes. Just maybe in closing we could ask, from the perspective of economic theory, sort of where we are in understanding these practices. I'm wondering what people think are the urgent needs in terms of moving forward with the economic literature and thinking about these things to help us resolve how we should be treating these practices. Anyone have any thoughts on that? Yeah, Mike.

MICHAEL WALDMAN: So going back to the multi-product brand loyalty, Patrick has a very nice paper which shows how it can be related—you can do a tie or something close to a tie. But the literature hasn't really sort of fleshed out the similarities, the differences, the subtleties in terms of commitment and some other issues. So I think it would be really nice to get that settled and sort out those details, because I think, in terms of moving forward—really understanding the theory a little bit better than you can get out of the current literature. Because there's a lot of literature on tying but there's not a lot of literature on multi-product brand loyalty discounts. And not a lot of literature connecting the two to make sure that we understand all the nuances there.

DANIEL O'BRIEN: Sure. Anyone else? OK. That's it. Thank you.

[APPLAUSE]

PRESENTATION: INTEGRATING THE ECONOMICS OF EXCLUSION WITH CURRENT LEGAL POLICY

- **Steven C. Salop, Professor of Economics and Law, Georgetown University Law Center**

STEVEN SALOP: My job today is to turn this complex economic analysis into concepts and language that a bright law student, or maybe a judge, can understand and manipulate. So I'm going to talk about several points. The main point is that there are two paradigms for looking at exclusionary conduct, Predatory Pricing and Raising Rivals' Costs. I'm going to try to apply them to CPPs.

I'm going to talk about how it could be possible that a discount, or something called or framed as a discount, could harm consumers. I will talk about counter-strategies and bidding for the contract. And then talk about the flaws in the price-cost test.

So my secondary goal is to answer Ben Klein. So let me just go right into the two paradigms. We've got the standard Predatory Pricing paradigm based on the war of attrition. The predator reduces prices and investment, it causes the rival to exit. The predator then might be able to recoup its investment with a higher price in the future. Maybe consumers are harmed on balance.

In contrast, the Raising Rivals' Cost paradigm. The paradigmatic scenario is that you raise the competitor's costs, which leads the competitor to reduce its output or restrict its output, raise its own price, which permits the dominant firm to raise its price or maintain it at a super-competitive level, and thereby, consumers are harmed. So that's the, as Joe put it, the elevator speech.

There are two varieties to raising rivals' costs arguments that I call input foreclosure and customer foreclosure. Input foreclosure is that you raise the rival's input cost. Customer foreclosure is that you reduce the rival's output and reduce the rival's revenues. So the first corresponds to, sort of, narrowly Krattenmaker/Salop. The second is really the naked exclusion concept of knocking customers' outputs down.

The two variants, in practice, interact. The harm to competition does not require total foreclosure, most importantly. A partial foreclosure is enough.

Simply raising the rival's costs can lead to customer losses. The customer losses can lead to higher costs. And there can be not just unilateral, but it could also be coordinated effects. So there's kind of a connection between what Joe was doing and the Raising Rivals' Cost paradigm.

Comparing them, so when you think about it in terms of the law, the left-hand side is the conventional view in Matsushita or Brooke Group, rarely attempted, and even more rarely successful. Why? Success requires the victim to exit, requires short-term profit sacrifice as an investment recoupment.

The harm is speculative because rival may not exit, because the price may not go up enough, and, as been stressed, there's an inherent short-term benefit from lower prices. Discounts are a good thing, and therefore, consumer harm's unlikely. We should have a light hand against this.

In contrast, the Raising Rivals' Cost conduct. Look at it, sort of, column-by-column. Exit's not required, there does not necessarily need to be short-term profit sacrifice because there can be simultaneous recoupment, there's immediate consumer harm from the high prices, and there may not be, certainly not inherent, consumer benefits. There may not be any consumer benefits.

The classic case that I always like to talk about is the case of arson, burning down your rival's factory. But there's also a case like Conwood, or lots of other cases where the claimed efficiency benefits are not really cognizable. So if we were to apply these two paradigms to CPPs, the application of Predatory Pricing is really simple, straightforward.

It's only going to work if it causes exit. You're only going to cause exit if it fails the below-cost test. What I call the incremental revenue, incremental cost. The discount attribution test.

And most importantly, entrants can compete for either exclusive distribution or nonexclusive distribution. And so the counter-strategy is the need to price below cost. Consumer harm is really unlikely.

In contrast, apply the Raising Rivals' Costs paradigm. Well, first of all, distribution is an input, I think is a way to think about it. They sell distribution services. And the CPPs can reduce the entrant's ability to compete.

Higher distribution costs. So it could be input foreclosure, output revenue loss from restricting its scale. That's the customer foreclosure.

And then, in terms of what we were talking about before, if you could lower the maximum scale of the entrant, that can lead to less of a threat to the monopolist sales, what I've called Judo economics, or the puppy dog ploy. If you limit the maximum output that the entrant can get, then the monopolist does not need to lower price. It could just accommodate the small scale entry.

As a result, the monopolist, the incumbent, can maintain monopoly power. Maybe he won't have to lower price at all, or maybe not as much. And the weakened entrant may have an incentive to coordinate rather than compete hard. If you've got barriers to expansion, you might as well coordinate.

And lastly, that the counter-strategy of bidding often fails. And note, I'm saying the counter-strategy of bidding for nonexclusive distribution, because, usually in these cases, the entrant doesn't have a broad-enough product line or high-enough consumer demand for its brands that it could really compete effectively for exclusive distribution. So there's not going to be the standard competition for the contract. It's going to be that the dominant firm is going to try to get exclusivity. The entrant is going to try to get non-exclusivity, nonexclusive distribution.

So how does the Raising Rivals' Cost paradigm work? Well, it suggests greater concerns. You don't need exit. You don't need short-term profit sacrifice. And indeed, with simultaneous recoupment, or in general, a greater bang for buck than you get from predatory pricing.

The monopolist doesn't need to lower the price of every unit. It only needs to lower the price of marginal units. So it's going to cheaper for the monopolist not to deter entry.

The benefits to consumers? Well, there can be penalties for non-exclusivity rather than discounts for exclusivity. There could be lump sum payments that are less likely to be passed on. And more generally, and I think sort of in answer to Ben, the discounted price might exceed the price that would occur in the but-for world. You're not just supposed to look whether price went down relative to what it was yesterday, but the issue is whether the discount goes below the across the board price that would occur in the but-for world.

The main point is that just because a firm can frame a CPP as a discount, that doesn't make it pro-competitive. The word, discount, is not a magic bullet for a defendant. The real issue here, I think, where the real disagreement is, is the ability of the entrants to engage in counter-strategies. Why can't the entrant bid for the nonexclusive while the dominant firm is bidding for the exclusive? If it's an equally efficient entrant, why isn't it just simple, equal, head-to-head competition?

Well, several reasons are possible. One is that the incumbent often gets the exclusives preemptively. Before the entrant really comes on the scene, before all the distributors become aware of the entrant, the incumbent gets an exclusive. Second, very generally, if the entrant has to bid for distribution and its costs are going to be higher, it's going to be less likely to enter.

But these last two are the ones that I want to stress. The first is that the monopolist gets an exclusion value from exclusivity. It's purchasing market power. It's purchasing the ability to maintain its market power, not just distribution. And that factor is very important, and I'll show you an example of how it works in a second.

The second is this idea of externalities. That if the entrant needs wide distribution, multiple distributors, then the entrant's going to face a coordination problem. That can be a separate problem that gives the monopolist, the dominant firm, a bidding advantage. Now, if the entrant only needs very limited distribution, if all you need is one distributor per city, then this Raising Rival's Costs story, as you'll see, is going to be somewhat less compelling.

So how does this exclusion value work? And this is actually a slide I use with my students. So suppose the story is that you've got a monopolist, you've got an incumbent, and it's earning profits of $220.

And if it gets the exclusive, we're going to bid for a distributor, and if the monopolist wins, it's going to maintain its profits of $220. Whereas, if the entrant gets distribution from this single distributor, nonexclusive distribution, then you'll have head-to-head competition, they're equally efficient, they'll make equal profits. Here, I've got $70 each.

So total profits, if the entrant survives, if they're a successful entrant, total profits fall here from $220 to $140. That's no surprise. Competition's good for the consumers, bad for profits.

Now, suppose they get into a bidding competition for this distributor. Well, the entrant would only be willing to bid up to $70. That's it's profits. But the monopolist would be willing to bid more than $70. The monopolist is willing to bid up to $150 because that's the profits than it would lose if the entry occurs. It's willing to pay more because it's protecting its monopoly profits.

In this model, the monopolist will win the bid. If there were an actual auction, it would win the bid at $71. And the entrant would fail and the monopoly power would be maintained. Why?

What's going on here is the entrant's only bidding to get duopoly profits. The monopolist is bidding to maintain its monopoly profits. Because competition reduces profits, the monopolist is willing to bid more. And you could put in any numbers you want here. So long as total profits fall from entry, this will work.

The second big issue is the coordination issue. If the entrant needs wide distribution, then maybe it's entry will fail if it only get some of the distributors, but not all them. And therefore, if doing a non-exclusive with the entrant rather than taking exclusivity from the incumbent is a risky proposition for each distributor, their expectations matter.

Well, “I'll do it if I think other people will do it”. That creates not a pricing coordination problem, a classic Coasian coordination problem. And that will make it less likely that the entrant will succeed. So how does that work?

Well, here's an example. Suppose you have three distributors and the entrant needs distribution from all three, but it's happy to get nonexclusive distribution. And if the entrant gets distribution for all three distributors, it will earn profits of $70, the duopoly profits from that earlier slide.

Well, my claim is that a rationally foresighted entrant would not bid. Why? Because if he wins on the first two, he's sure to lose the third one. The incumbent can outbid him $71 on the third one. Knowing that he's going to get outbid on the third one, he won't bid on the first two.

So I don't know what it would be in Latin, Joe, but I'm sure there's a nice Latin phrase for why, here, the entrant would not even try to bid. Therefore, the incumbent does not need to go below cost. It does not have to offer a price so the incremental revenue is incremental cost, because the entrant's not going to bid more than $1.

Suppose the entrant only needs two distributors, not all three. Well, depending on the distribution of profits, it can still work. In this case, the entrant would be willing to bid up to— no, that's not right. The entrant would have to bid at least $140.

The entrant would still only bid $70. The monopolist would bid $150. So it's still might still not going to work for the entrant. That's what happens when you do the slides a week in advance.

But at the same time, all entrants are not doomed. If the new entrant is efficient enough so that joint profits, joint duopoly profits exceed the single firm monopoly profits, then, actually, the entrant can outbid. So that can occur if the entrant's more efficient, or it can occur if there is significant enough differentiation. Which really means that the entrant's preferred by some customers, or for some units. That's what product differentiation means.

It can also work, and I think that the case that people often look at, is one where we only need one distributor. In this case, suppose the entrant only needs one distributor. The incumbent would have to bid $71 for each of the three distributors.

So it would have to bid a total of $213 in order to deter entry. But deterring entry is only worth $150, so the incumbent would give up. Therefore, the incumbent would not try to outbid the entrant there. So this is not a story that says entrants always lose in the bidding. It just says sometimes, and ones that we want to be concerned about.

Now we get to the flaws, and what are the implications of this for the use of the price-cost test? So the issue here is errors. The incremental revenue less than incremental cost test leads to errors. And where you have errors, that leads to improper deterrence, and in particular, under-deterrence.

Interestingly, not only do false negatives cause under-deterrence, but false positives cause under-deterrence, too. And I didn't say that, Posner said that first, actually. Because if there are false positives, then there's less to gain from complying with the standard, so you have lower incentive to comply. And both I and Ben Klein know that if you're equally likely to be ticketed if you're going 50 miles an hour, you might as well go 80.

And these errors for the price-cost test are not surprising. Because the price-cost test, in the end, is a test of anti-competitive purpose. It's a test of intent, not of effect. And that's true because we care about less-efficient entrants, but it's also true in general. It's a test of intent. That's the way Areeda and Turner thought about it in the beginning, and that remains true now.

So what about the false negatives and false positives? Well, someone mentioned this earlier. Dan mentioned this earlier. If you have coerced or required exclusive dealing, it always satisfies the incremental revenue, incremental cost test. Because if the distributor chooses non-exclusivity, the incumbent will earn revenue of $0, because it won't sell any quantity.

The price will be infinite. The quantity will be 0. Revenue will be $0. And since, with exclusivity, the incumbent earns some revenue, therefore, incremental revenue's positive, so it could easily exceed incremental cost.

Where there's simultaneous recoupment, whether it's a price penalty or whether it's simply simultaneous recoupment because the entrant doesn't come in, incremental revenue always exceeds incremental cost. You don't need to go below cost.

Third example? That exclusion value example I gave you earlier. The monopolist only had to bid $71, but its profits were $220, and the profits that it was protecting were $150. It didn't nearly need to go to cost. So the incremental revenue, incremental costs test is not going to predict.

And finally, in my examples with multiple distributors, it's not going to work there either. A rational entrant, the one we worship in antitrust, that rational entrant has no incentive to bid more than a $1. And it's not that the entrant is failing to protect itself and should be taken to task for failure to protect itself. It's the fact that a rational entrant has no incentive to try to bid.

On the other hand, there can be false positives. The case in which the entrant only needed a single distributor, that I talked about earlier, is one where, if the monopolist did bid and won the first bid, it might have bid to a point where incremental revenue was incremental cost, but it would lose in the end. And so therefore, there would be a false positive to go after that monopolist.

Second, a classic example where an entrant only needs a single distributor is where they're going for a lead customer to certify the quality of their product. And if they get that lead customer, they'll be able to earn very high profits in the future. If the incumbent's in the same situation, if there's not a symmetry as in, sort of, the standard monopolist-entrant case, competition could easily reach an equilibrium where they're both bidding below cost for that lead customer. So there could be false positives as well.

To summarize, should we use the Predatory Pricing paradigm? No. Why? Because CPPs have more exclusion benefits per dollar of the monopolist's exclusion costs relative to predatory pricing. Michael used the term “cheaper exclusion” this morning. I think it's a really good term.

So it's cheaper for the monopolist. There are fewer consumer benefits. If you've gotten an across-the-board price cut as in Brooke Group, then consumers get the benefit on lower prices on all those units. Whereas, with CPPs, they only get the benefit of the lower price on those marginal units. So you put these two things together, and consumers collectively expressing their voice through the antitrust laws, have fewer collective incentives to permit CPPs than they would to permit potential predatory pricing.

Couple on top of that, we don't just need a more intrusive rule, but the Predatory Pricing test leads to substantial false negatives, some false positives, and systematic under-deterrence. So you put that all together, we should not be using the Predatory Pricing paradigm.

So where do I come out on this? Well, we all know this story. You can look for the key under the lamppost where it's an easy task. There's plenty of light. Or you can look for the keys where you've actually lost them.

And so, I think we shouldn't be using this cheap and inaccurate test. What we should be using is the rule of reason. We should apply the Raising Rivals' Cost paradigm, the now-standard, four-prong analysis. The plaintiff would need to show harm to competitors which could literally be raising rivals' costs or reducing rivals' revenue, restricting the rivals' output.

You'd need to prove harm to competition. It's not enough to prove harm to competitors. You'd need to prove harm to competition as market power effect, what I've called power over price. You'd need to take efficiencies into account, and where there are efficiencies, you'd need to figure out the net effect or the likely net effect on consumers. And of course, the primary focus is harm to competition, not harm to competitors.

You should look into counter-strategies. You'd like to know whether the entrant did attempt to protect itself, and if not, why not? That can throw light on the effect.

Is there any role for the price-cost standard? Well, it certainly shouldn't be a safe harbor, but it could go the other way. Should it be sufficient for illegality? And I would say no. I'd say, if incremental revenue is less than incremental cost, that suggests anti-competitive intent.

But we shouldn't be focusing on intent. We should be focusing on effect. So that might be a useful fact, but it's not sufficient for the plaintiff. If incremental revenue exceeds incremental cost, that's good for the defendant. It's good because it could be worse, right? It could've been incremental revenue less than incremental cost, but it certainly should not be, per se, legal, should not be a safe harbor.

It's helpful, but not so helpful, because it's consistent with exclusionary effect, and indeed, even exclusionary intent where you don't need to go down to cost. So we should be focusing on evidence of harm to competition, not the price-cost test for intent.

So how do you do it? What are the details? Well, here's a long list for you to study later. So be a quiz on this later on. General, two steps: you need to show injury to the competitors; and then, a second step, injury to competition. The latter is more important.

The facts vary, and not every piece of evidence is relevant for every case, but here's a set of evidence that would be relevant for analyzing the plaintiffs' claim. So the constraint's on the input to output level, the ability of the entrant to expand. If the incumbent can hold the entrant to a small enough level of output, then that's sufficient to allow the monopolist, allow the incumbent to maintain high prices. You don't want to just look at the issue of whether the rivals' costs are raised for the output they produce, but the question is whether the output's costs are higher to expand beyond some level. If there are barriers to expansion, that can be enough to permit the incumbent monopolist to maintain high prices.

But if the excluding firm lacks market power, you can use this conduct to gain market power, but that's obviously going to be a harder case than when you use the exclusion to maintain market power. There are efficiencies. I don't want to say there are not efficiencies. Ben talked about them. The Mikes talked about them as well.

If you're going to say that the lower prices are discounts that are good, you need to focus on the but-for world. You need to make sure the price is not a penalty. You need to make sure that it's anticipated by the retailers. But most of all, you need to compare the but-for world. You can't just frame it as a discount in order to win.

I just leave you with the main conclusion, I think, that comes out of the distinction between the two paradigms. Thank you.

[APPLAUSE]

PRESENTATIONS AND DISCUSSION: THE LAW OF CONDITIONAL PRICING PRACTICES

Presenters:

- **Einer R. Elhauge, Carroll and Milton Petrie Professor of Law, Harvard Law School**
- **Daniel A. Crane, Associate Dean for Faculty and Research, Frederick Paul Furth, Sr. Professor of Law, University of Michigan Law School; Counsel, Paul, Weiss, Rifkind, Wharton & Garrison LLP**
- **Randall Heeb, Bates White**
- **Robert O'Donoghue, Barrister, Brick Court Chambers, London**

Discussants:

- **Richard Brunell, General Counsel, American Antitrust Institute**
- **Willard K. Tom, Partner, Morgan, Lewis & Bockius LLP**

Moderators:

- **Michael J. Bloom, Assistant Director, Office of Policy and Coordination, Bureau of Competition, Federal Trade Commission**
- **Robert A. Potter, Chief, Legal Policy Section, Antitrust Division, U.S. Department of Justice**

ROBERT POTTER: We have a very distinguished panel for the law of conditional pricing practices. I won't go through everybody's bios, but I will note that their distinguished bios are all contained in the material that we have for you. First we'll hear from Einer Elhauge, and then Daniel Crane, Randy Heeb, Robert O'Donoghue, and the discussants will be Richard Brunell and Will Tom.

EINER ELHAUGE: Well, thank you very much. So I'm here to talk about the *Meritor* decision and about how to adjudicate loyalty discounts in general. I want to begin with a point of agreement, since Dan and I are going to disagree about a lot. One thing we do agree on is that the *Meritor* case held that the price-cost test should only be applied when "when price is the clearly predominant mechanism of exclusion."

Now, we disagree about whether *Meritor* was right to cabin in the price-cost test in this way. To me, *Meritor* had it right—that is, every loyalty discount has two aspects, and everybody likes to emphasize different aspects of it. They both have a pricing element, which defenders like to refer to and emphasize to analogize to predatory pricing. But they also have a condition

that's restricting purchases from rivals, which opponents like to focus on to analogize to exclusive dealing.

The question that I think *Meritor* raises is, for this set of loyalty discounts, what is the predominant mechanism what is manually creating an exclusion at issue. Is it price, or is it the condition? So I actually see *Meritor* as an effort to try to bridge the conflict in the circuits, and to try to create one unified standard.

Now, the factors that *Meritor* itself pointed to as showing in that case—that price was not the clearly predominant mechanism of exclusion—actually have a lot of overlap with the conditions we've been talking about so far today. First, they looked at whether or not the condition bundled contestable demand to incontestable demand. So very similar to Mike Salinger's theory and paper presented this morning. And there are quotes from *Meritor* that talk about that.

I'll also point out, *LePage's* really had that same kind of theory in mind, because *LePage's* actually defined a single tape market that included branded tape and private label tape. So it was really a bundle of incontestable branded tape to contestable private label tape.

Second, there might be a theory that the condition raises rivals' cost, prevents economies of scale, or some other economy—there might be evidence of that. And *Meritor* thought there was evidence of that in that case. And *LePage's* they also found evidence of that. So that's obviously—Steve Salop just vigorously presented that theory, and Mike Whinston summarized some of the economic literature on that.

Third, *Meritor* said, you might show that the condition at issue raised buyer switching costs in a way that predatory pricing doesn't, in that case, by requiring looking at some different book in a way that made it more difficult to switch. So I think *Meritor* already points us to various ways of looking at the economics in order to distinguish which loyalty conditions should be treated differently from predatory pricing.

But there are also some other factors that we might look at. The fourth factor is whether the loyalty condition is excluding sales of an equivalent rival product that's lower priced, or a better rival product that's equally priced. Now this isn't so much a fourth anti-

competitive theory as a way of simply caching out the other anti-competitive theories in a more administrable fashion. If a cheaper equivalent rival product is actually unable to compete for certain sales for which would be regarded as equivalent, we can say something wrong is going on—something anti-competitive happened here.

Meritor itself didn't have that evidence. So in some ways, it was a harder case. I'm not saying it should be necessary, but sufficient to show that something other than low price is what's doing the exclusion.

Fifth, there might be evidence, in fact, that the prices exceed but for prices. So we don't actually have a loyalty discount at all. We have disloyalty penalties. Now the defenders like to emphasize the word discount a lot for loyalty discounts. But I think that's taking unfair rhetorical advantage of the fact that discounts sound good. Really, what we know in the case for sure is, there's a price difference between what the compliant buyer pays and what the noncompliant buyer pays.

The economic question or functional question is, is that above or below but for prices? So we can't assume that from the word discount or from the word penalty. We'd have to have some sort of evidence about it. If this is met, it seems to me, we might say it's out of the loyalty discount category at all.

And note that *Meritor* stresses that price has to clearly not be the predominant mechanism. And I think part of the reason for that is the price-cost test, even for predatory pricing, is somewhat over-inclusive. And their justification for it is, well, at least we have a very clear short term benefit to consumers. If this is in play, though—if we think it might actually be a penalty—we have no clear short term benefit to consumers, and thus no reason to apply the presumption.

Now Dan, in his article, has argued, well, this is just impossible, because you're saying a penalty price is sacrificing profit, because you're charging above the monopoly price when you do it. It seems to me, though, that the economic models show that is profit maximizing, because it leaves most buyers to accept the loyalty agreement. And if that was impossible, it

would be equally impossible to have tying or exclusive dealing. Because you make no money when that is rejected, because you don't make the sale at all.

And I've seen it happen in lots of cases. Of all the cases, I can only talk about one that's become public, because I testified in it as the economic expert. But in the RTI case, there was various loyalty programs introduced at different times covering multiple product items. 188 times a loyalty term was introduced. All 188 times, the loyal price was not lowered from the price before. And 187 out of 188 times, the disloyal price was increased from what was before. So they didn't change the price that a loyal customer got. All they did was increase the price that a disloyal customer got.

The Cartel Ringmaster Theory is another clear example of this. We're raising prices with a cartel. And Ben Klein, actually in some work with Jennifer Grenitz, showed that Standard Oil itself entered into loyalty discounts where they agreed to pay railroads 15% more than they had paid previously, in order to get a discount from that relative to what other oil companies were paying. So it was worth it to them to get a competitive edge over the other oil companies.

But there's a case where it was an anticompetitive loyalty discount, and the price was clearly above cost. And particularly important because the Standard Oil case is what prompted, in large part, the Clayton Act, which itself is about pricing on the condition that you not deal with rivals. And I don't think it's plausible to think from that legislative history that they had a price-cost test in mind.

Lastly, a loyalty discount can effectively divide a market in a way that raises prices. Abe Wickelgren already covered in detail the theory that he and I have about this. Dan again argues that he doesn't think these cases actually exist. But I do know of many cases like this that I've been involved in. And I also think there's no reason to reject it categorically, even in cases where it can be shown. Even if it's not true often, when it is true, it should be allowed as a theory.

Price-cost test. I guess a lot of other people have complained about them. But let me throw a few more bits of dirt on the grave. The biggest problem, I think, is that loyalty

conditions under a lot of these theories are anti-competitive precisely because they inflate prices, not lower prices.

So if we're going to have a price-cost test, we're going to have this perverse Catch-22, which is, if you don't show that the condition raises prices, then the defendants will say, you haven't shown antitrust injury. And if you show the condition does increase prices, then they'll apply the price-cost test and say, ergo, you fail the price-cost test, so it can't be illegal. So tails I win, heads I also win. It's great if you want per se legality for loyalty discounts, not if you're trying to sort out which are anti-competitive.

Second, you can raise rival's costs in a way that prevents survival from pricing at incumbent costs. People have talked about that. Third, though, it means that at equivalent prices, defendant is often getting sales it didn't deserve on the merits. So people have talked about that as a tax. The analogy I draw is actually to trade law. If somebody imposed a trade tariff that was 10%, we wouldn't say, well, that's not anti-competitive, because you could overcome that if you priced at cost.

Next problem is that defendants can often offset rival price cuts with increased penalties. These price-cost tests tend to assume that the defendant has their hands tied, and won't respond to anything that the rival does. And that's not very plausible. And relatedly, there's an assumption that the rival will have incentives to cut prices down to cost. In fact, a lot of these models show that precisely the problem with loyalty discounts is they can eliminate those rival incentives. You can harm consumers by excluding less efficient rivals as well.

On administrability, I think really proving these factors is not that inadministrable. What really creates the inadministrability problems are the price-cost tests, like the discount attribution tests. I think it should be a rule of reason where you do ask, does it cover a significant share of the market? Or are anti-competitive effects directly shown? But also pro-competitive justifications can be introduced.

Now, in my experience, they're rarely actually offered plausible pro-competitive justifications. What defendants tend to say is just, well, we offered a discount. But that assumes that this difference was a discount to begin with, first. And second, there's always this less

restrictive alternative, which is lower your price without the condition. And unless you can prove that the condition lowered your costs somehow, it's not really an efficiency.

With buyer willingness or terminability, I think the basic problem with the legal tests that focus on them is that they ignore entirely the externalities problems that people have already discussed. Today you can externalize onto the rest of your market, or downstream if you're an intermediary. I know Dan is going to emphasize cases where the buyer is big. But even if you have a big x%, you externalize onto 100 minus x% of your market. And if you're an intermediary, you externalize to even more.

He's also going to talk about the GSA, I think, in the government. But that's a small share of the travel budget, I think, of a firm with its travel market share. And actually in the hospital industry, where I've had most experience in this kind of cases, the government tends to not allow loyalty discounts under its contracts. Anyway, the same reasons why they enter into it also mean that buyers have no incentive to terminate these conditions if they're present. And I analogize this to the Tragedy of the Commons, which is, we don't think the Tragedy of the Commons was averted, because farmers voluntarily brought their goats, or could have terminated at that end.

And lastly, I'll just say, there's also always these old Supreme Court cases that have never been overruled, and are binding, and have a lot to say that cuts against price-cost tests, and I think support a rule of reason for loyalty discounts.

MICHAEL BLOOM: Thank you, Einer.

[APPLAUSE]

MICHAEL BLOOM: Our next speaker is Professor Daniel Crane.

DANIEL CRANE: Well, thank you very much to the FTC and Justice Department for inviting me here today. And a big thanks to Einer for previewing my entire argument today as a very helpful warmup. So I want to talk about loyalty discounts and what I call the hospitability tradition of the United States Supreme Court and the lower courts on the question of unilateral price discounts.

And a lot's been said today about differences between unilateral pricing, discounts of that sort, the predatory pricing variety as compared to loyalty discounts. There are important differences, and I don't want to gloss over those differences.

But the big point I want to make is that, to the extent that there is a hospitability tradition—meaning that the federal courts have embraced unilateral price discounts as something that needs to be protected from overly aggressive antitrust intervention—not categorically, not in every case, but as a general predisposition—that same hospitability tradition needs to be extended to loyalty discounts, because they also have the effect, in most cases, of benefiting consumers and creating efficiency.

So two quotations from cases. The first one on sort of the standard Frederick pricing analysis—"low prices benefit consumers, regardless of how those prices are set." And it's important to notice that the Supreme Court has said "regardless of how those prices are set." It could be through resale price maintenance. It could be through price squeezes. It could be through predatory overbidding. The court again and again and again has said, it doesn't matter what the mechanism is of the lower price being set. If it's unilaterally determined, those prices do not threaten competition.

And in the Virgin BA case, the Second Circuit repeated the same idea as a kind of a loyalty discount, "rewarding customer loyalty promotes competition on the merits." So this is the hospitability tradition that I want to focus on as being, in my view, appropriate as a prior belief when it comes to loyalty discounts. Again, not saying that there's never a case for antitrust intervention. But as a prior belief, as a general condition, I would argue for the hospitability tradition.

So my roadmap is four points I want to make. First of all, as Einer, said, I'm going to argue that market share discounts are often driven by clients. And that is important to understanding their pro-competitive benefits.

Secondly, market share discounts often have pro-competitive advantages over volume discounts. Einer says, well, why not just offer straight up discounts without the condition at all. There are some important reasons why market share or loyalty discounts are actually more

advantageous both to big customers and to small customers. And they can also be advantageous to both sellers and buyers at the same time in ways that should not be neglected.

Third point is that market share discounts should be presumed to be true discounts, not penalties for disloyalty. And the fourth point is that, to the extent that foreclosure is the analytical matrix for legal analysis, foreclosure should require objective economic evidence that the rival could not profitably compete, which does require looking at costs and revenues.

Customer driven. So as we've heard repeatedly today, collective action problems may drive customers to demand anti-competitive terms. This is well understood in the economic literature. It's less plausible to be the case. We have large customers who are sophisticated in their buying decisions. It's not impossible. These are just matters of probability where you observe a practice employed by large, sophisticated customers who are exercising their collective buying power often to lower their prices. The story—this is a cost externalization problem—is just less plausible.

Einer stole my thunder with the GSA example. Those of you who are federal employees will know that, when you fly in many city pairs, you are directed by the GSA to fly with a preferred airline. Those contracts are structured to give loyalty discounts. If you doubt it, go to the GSA website where they explain this to you. They drive their prices lower, they tell you, by exchanging a high share of the customers who fly for the federal government on that carrier for that city pair. Right?

Very well understood by powerful buyers, by big buyers, by sophisticated buyers, that this is a way in which you could extract lower prices. Does it mean it's never anti-competitive? No. But the fact that large buyers use this strategy is a reason to think about it within the hospitability tradition.

My second point goes to advantages to structuring discounts as loyalty discounts or market share discounts, as compared to other kinds of discounting mechanisms, particularly volume discounting, which we've heard about some today. Now, as was mentioned this morning, it's possible for a volume discount and a loyalty discount to operate identically. If the

buyer has completely predictable buying needs in the upcoming cycle, a loyalty discount might be identical to a volume discount.

But when you have unpredictable demand by particular buyers, it could actually be to the benefit of the buyers to structure the contract as a loyalty discount as opposed to a volume discount. It has the effect of shifting the risk from the buyer to the seller.

And in particular, when you have a seller that is trying to plan for the demand for the upcoming cycle, and you have a market where the downstream firms have shifting market shares because of competition among themselves, structuring the discount as a loyalty discount—as my example in the slide shows—can have the effect of allowing the seller to predict the volume and needs to make an efficient investment decision in the upcoming cycle.

And it also allows each of the buyers to maintain the lower price, regardless of their exact volume need, depending on the competition that they face and the market conditions they face downstream. And so, one of the pro-competitive benefits of loyalty or market share discounts over volume discounts is that it can allow even a smaller customer, that might not qualify for a volume discount, to obtain the lower price simply by promising to buy a certain percentage of his sales from the seller.

So we've heard other examples today about efficiencies that come from loyalty discounts. What I want to point out here is that these are particular efficiencies that come from loyalty discounts that you do not obtain from other kinds of discounts, like volume discounts. So again, it's a reason to think about these within the hospitability tradition of unilateral price discounts.

My third point goes to another theme that Einer mentioned, that we've heard already discussed today at some length, which is the penalty theory. Which is, these are not necessarily true discounts. There's no a priori reason to think they're true discounts. They are simply price differences. They could be higher prices, they could be lower prices. We just don't know behind the veil of ignorance. So we shouldn't assume anything.

And the basic model here is the monopolist that's already charging the profit maximizing monopoly price raises the price even further, by definition to a unprofitable price

for the monopolist, and then lowers the price back down to the monopoly price, but with the additional condition that the customer not buy from rivals, or not buy a certain percentage from rival.

Now, I understand, as I say, this is a possible—I don't say it's impossible. I say it's not generally plausible that this is the explanation for loyalty discounts. And it's not generally plausible, because it has the monopolist exceeding the profit maximizing monopoly price. Now that's true in one of two ways. Either at the penalty price—the penalty price is clearly a price that's being above the monopoly profit maximizing price—is unprofitable to the monopolist.

But even charging the monopoly price with a condition for exclusivity that is onerous to the customer—it's onerous because the customer, by definition, would want to switch to an alternative supplier—is like imposing a penalty itself. So even monopoly price plus onerous condition restricting the customer's choice exceeds the monopoly maximizing price. If that's true, the implications are that these are presumptively true discounts.

If they are exclusionary—they could be exclusionary in the sense that there's a short term profit sacrifice for the benefit of obtaining long run monopoly power. But at that point, we're back to all the predatory pricing law, where we look for evidence of recoupment and profit sacrifice.

My fourth point concerns foreclosure and what foreclosure means in legal analysis. Foreclosure needs to mean—if it means anything—that the rival cannot profitably match the loyalty discount, and therefore is foreclosed. So at a minimum, it has to be the case that the rival is unable to compete profitably for whatever the allegedly foreclosed segment of the market is. Otherwise, foreclosure becomes a vacuous concept.

So the condition where the consequence is simply a change in the price, as the court in the *Sanofi/Eisai* case pointed out, that condition is still a price term, right? The mechanism of exclusion cannot be a non-price term, by definition, if the condition is, you lose a lower price if you switch to the competitor. So a 10% loyalty reward is exactly equivalent to the 10% disloyalty penalty. The court in the *Eisai/Sanofi* case got that exactly right.

So in order for there to be foreclosure, there needs to be economically objective evidence that the rival, in fact, is unable to compete. You should not be able to allege that a segment of the market is foreclosed without some kind of a showing that the rival, in fact, cannot access customers in that segment of the market. Otherwise, it's simply assuming the conclusion that the word foreclosure suggests.

And my final point simply goes to the need for a structured rule of reason, particularly given the fact that most of the cases we're talking about are jury trial cases asking the jury to decide in a vacuum whether there is foreclosure without the kind of objective economic evidence that rivals cannot compete is really to ask the jury to make up the law on the spur.

MICHAEL BLOOM: Thank you, Dan.

[APPLAUSE]

MICHAEL BLOOM: Our next speaker is Randal Heeb.

RANDAL HEEB: Thank you all again. I'm going to take a lot of inspiration from a joint paper with Doug Bernheim. But if you want to know what Doug thinks, ask him. And that goes for anybody else that I work with as well.

This agenda is hopelessly optimistic. So a, I'm going to talk fast, and b, I'm not going to get to any fraction of it. But I'm going to focus instead on a couple of what I think are the key points that Doug and I call out in that paper, which goes through what I would call a structured rule of reason. So I'll take as Dan's last slide the endorsement for what I would suggest is the right way to approach these topics.

So let me just jump in to the first stage of that with respect to the mechanisms that implicate only price here. And I was surprised to find that I think I may be the only person who might actually tolerate a price-cost test, with the exception of Dan, and maybe Ben. And I would suggest that for mechanism where price is the primary mechanism, that it might well be an acceptable compromise.

Nobody in this room, I think, thinks that that adequately determines whether or not something's pro-competitive or anti-competitive. But in the real world, we have to make trade-

offs. And that's not a terrible compromise. Because we haven't seen a lot of those compromises in actual practice and actual cases, I don't think that we've really dealt with the question of what is the appropriate measure of cost, and what some people claim is a consensus around the average variable cost. I think we'll break down if we actually start testing predatory pricing cases again.

But more interestingly, I want to talk about applying the framework to exclusive conditions, or exclusive dealing, or raising rivals' costs, or contracts referencing rivals, or whatever's your favorite way of describing this particular concern. And it captures all of the various conduct listed there.

And what I want to focus on, instead of going through the details of the test that Doug and I have proposed, is to instead focus on what I think is the most important practical implications of it. And to foreshadow that, it's that there are things that I think are under-appreciated—empirical consistencies that are under-appreciated that help us take some comfort that these will not lead to a lot of false positives. And I'll talk you through what I mean by that.

So clearly, there need to be all of these necessary conditions for an exclusive contract, or exclusive conditions to be anti-competitive. And I want to focus—and especially since I think there's not very much controversy around most of these—I want to focus on the negative contracting externality. And I'm going to jump around in my slides a little bit to make reference to a comment Dan made a minute ago.

The negative contacting externality that has to exist for a contract—say a contract referencing rivals—to be anti-competitive is that it's not defeated by the sort of Coasean arguments that if you had all the customers, and these are big sophisticated customers, you've got the rival or the would-be entrant are sort of all at the table. And one would expect that any anti-competitive effects would be competed away.

And there has to be something that stops that from happening. And in every situation, I imagine that there could be a different negative contracting externality. But the one that is most obvious is that it's actually tomorrow's customers that are harmed, not today's

customers. So arguments that depend on the sophisticated customers that are here today—that could stand up for themselves, that might demand this exclusivity—ignores the fact that the burden of the anti-competitive conduct—of this particular type of conduct—is borne by future consumers.

Similarly, that explains why the rival can't bid away that exclusivity. If a monopolist is using an exclusive condition in order to diminish future competition, what the rival stands to affect if the rival becomes a more successful competitor is to largely compete away the rents that the monopolist would get in the future.

This is essentially the same point that Steven Salop made just a few minutes ago, that the ability of the rival, when they become better in the future to compete away that rent, means that the rival doesn't have that expected value in its pocket to bid for the exclusivity today. Looking for that mechanism, this negative contracting externality that prevents this sort of usual Coasean solution from working, is a necessary condition of the anticompetitive effect.

I want to contrast that contracting externality with another contrasting externality that I think is always important and always lurking in the background of these analyses, the pro-competitive externality. As a matter of practice, most of the pro-competitive justifications for what I would think of as unusual contracts—and I know that these contracts are not unusual in some absolute sense. They abound in the real world.

But they're not the normal form of competition. The normal form of competition is unrestricted contracts that don't condition on the customer's behavior with respect to the rivals. Even though we see a lot of these, they're still in relative terms extremely unusual. Typically they are explained—this unusual contract is explained because it's necessary to overcome a contracting externality, in order to incentivize investments by the downstream firm, would be the most common and easiest one to imagine. There are many, many other permutations of this.

Focusing on what I think is the most common situation is that now we are facing a world in which there are, on both sides of the argument, a discussion about whether or not this externality exists from the point of view of the side arguing for the anti-competitive

externalities, to understand why that negative externality defeats the Coasean solution that would be there otherwise. And on the pro-competitive side, to explain the nature of the contracting problem that the dominant firm faced, and had to engage in this unusual contract in order to overcome.

My observation, or my reassurance to those in the defense bar, is that, in fact, both of those externalities leave discernible traces in the record. We can actually go to documents, and we can understand what was the nature of the contracting problem that the dominant firm was facing. Why did they feel like they needed to incentivize the downstream firm?

In contrast, we can see alternative explanations in the record often about wanting to win the business, which the business people will often confuse a pro-competitive motivation, I just wanted to "sell more." When you drill down on that, as we have done when we've tried the counsel, you often find that, well, it's competitive because I wanted to sell more. Why was I going to sell more? Well, because by undertaking this, my arrival wouldn't be nearly as much of a competitor next time around. And that's the sort of things that you can find the record.

So as you examine the nature of the exclusivity on both sides, you're looking for something that economists recognize that actually is likely to show up—both in terms of empirical exercises and in the documentary evidence—that would allow you to then weigh which of these two factors is most likely to be the explanation for the conduct.

That would suggest that dominant firms engaging in legitimate pro-competitive conduct ought to take some comfort. First of all, I would argue there is—and even if there isn't, I would argue there should be—a substantial market power screen. Most firms are not going to face this question anyway. If a firm, in fact, has market power, and has legitimate pro-competitive concern, it's probably going to be readily apparent.

Good counseling will suggest that they make it even more obvious and document the explanation for these restrictive kinds of contracts, in which case, they ought to be able to engage it with a fair degree of comfort that they're not going to be called out later as being anti-competitive. Conversely, just whining failures will not be able to plead that they're being excluded if they have to show the nature of the externality that was present that prevented

them from being able to overcome the obstacles to be able to be the competitive force that they claim they would have.

Those are not typical conditions. We would have to see something unusual. Why couldn't they obtain financing? Is there an information asymmetry? Is the nature of the product that they're selling such that you have to have sustained interaction with the customer over multiple generations in order to generate customer loyalty? These are the sorts of things you would find in the evidence.

So back to the question of false positives. I think there should be more optimism than I sense usually about whether or not we can engage in this kind of rule of reason structured analysis, and not be overwhelmed by the possibility of false positives.

[APPLAUSE]

MICHAEL BLOOM: Our final panelist before we turn to our discussants is Robert O'Donoghue.

ROBERT O'DONOGHUE: Good afternoon, everybody. And it's a great pleasure to be here. And thank you to Michael Bloom and to Andrea for inviting me here. As a sort of token European, I was asking myself on the way over, why am I here? And it did strike me that we have much more history in Europe of getting all this wrong. So we started down this process about 40 or 50 years ago with the Sugar Cocktail case. And we've had various iterations in the meantime. So we uniquely in this context may have some information to pass the other way. The information tends to flow from west to east rather than the other way around.

In the 12 minutes available, I want to do two things. First of all, to give you six minutes on what the law says in Europe, and then to give you another six minutes on my own experience as a litigator and as a counselor in these kinds of cases, and some of the pitfalls. Because one thing that struck me—at least, attending so far—is that there is a certain lack of practical context with some of the debate. And ultimately, this is an issue for practical counseling and for real-time decision making. That needs to be borne in mind.

Now, a couple of contextual remarks, because some of you would be very familiar with this. Some of you, this may seem like something from another planet. But just to put this in context, the system in Europe is essentially agency led enforcement. We do not have treble damage litigation. We do not have jury trials. It is typically led by the Commission in Brussels in a centralized fashion.

Now, in my view, that has important implications for the substantive standards as well. Because in a sense, having a fairly aggressive approach to conditional rebates is perceived—rightly or wrongly—to be less problematic where you have omnipotent and omniscient regulators. So the private bar difficulty is less of an issue in Europe.

We have some private litigation. I make a living out of private litigation. But it is by no means as big a feature in Europe as it is in this country. We have a prior requirement of dominance. There is no attempt offense. There is no offense of gaining a monopoly. Typically the enforcement we've seen in Brussels to date has been around very high levels of dominance—70%, 80%, 90% market shares. And there is, of course, a parallel stream of enforcement at a national level among the 28 member states, and they vary enormously in terms of sophistication.

Just to sort of in five buckets to summarize what the law says in Europe—this is all post *Intel* judgments a couple of weeks ago. So it's pretty up to date. The Canterbury one is the exclusivity rebates, where there is an express condition or there is de facto exclusivity as a condition. These are akin to per se illegal, following the *Intel* judgment. And rather surprisingly, the *Intel* general court said that size of rebate, covers, duration, all irrelevant. You don't even need to show a potential foreclosure effect in these kinds of cases.

The big issue, which I'd like to come back to, because it has some parallels with the dissenting opinion of *Meritor*, is what on earth does de facto conditionality mean? That to me is pretty controversial. Bucket two is standardized volume rebates. These are presumed legal on the basis that they have some likely reflection of efficiencies. Bucket three is the sort of classical fidelity rebate, which is a situation where there is no exclusivity condition as such, but there is a commitment on the part of the buyer that has a fidelity building affect. The typical case is

where the rebate is contingent on attaining an individual sales objective year on year sales increases.

Now, for this third category, the courts have consistently said for the last 20 years that you need to look at all the circumstances. So it is sort of redolent of something approaching rule of reason. But there is a sort of dichotomy in terms of the enforcement, because at a commission level, one sees with *Intel* there's certainly a fairly sophisticated and forensic treatment of all the circumstances in the decisions. But then when one goes on appeal to the courts in Luxembourg, it has tended—so far, at least—to be, frankly, pretty superficial.

And even evidence that is a contra-indication of foreclosure—rivals increasing their shares, dominant firm decreasing its share—is by the by. So there is a potential difference there.

On price-cost tests, the commission, perhaps uniquely, in its guidance paper, it did propose a price-cost test. To be clear, this is not a predatory pricing test in the sense that one is looking at total output and a simple price-cost test. It is looking at a subset of output and demand of the contestable and non-contestable shares, and determining an effective price over that subset of demand. It is something different and inherently more complex.

In *Intel*, the general court said this AEC test is extremely interesting, but it is not a necessary part of the legal test. It is something that is, at best, facultative. So clearly what actual weight it has, other than commission enforcement priorities. There is some scope for an efficiency defense, at least in theory. But in practice, because of prior requirement of dominance, that condition is, for all practical purposes, precluded.

There is a sort of optical problem, in terms of a flaw with the case law. Because if one doesn't need a theory of harm—if it's akin to per se—then how does one calibrate offsetting benefits? What is one weight against? If the benefit is ten, but I don't need to calibrate it, and my dis-benefit is something else, what exactly am I weighting? And the sort of damning fact is that there isn't a single decision in Europe that I'm aware of that has ever accepted an efficiency defense. And that seems to me to speak for itself.

Unconditional price cuts is similar to your law in this country. So I won't dwell on that. A few final remarks to wrap up. I will pick up on some of these in more detail if we have time. The case law in Europe, for better or for worse, is pretty formalistic for the most part, although the commission—at least in recent decisions—has tried to get away from that.

In a sense, it isn't exactly logical. Because, as was discussed this morning in some detail, the contractual effect of committing someone to dealing with you on an exclusive basis, that can be achieved in exactly the same way through an economic condition. So the idea that my bucket one is per se unlawful, but my bucket three is potentially a rule of reason, that really makes no sense.

I think more generally, the idea that there are formalistic categories that are good, bad, or indifferent is really going against the trend of effects analysis in general, which seems to be the predominant theme in antitrust today. Now a point in a different direction as a counselor is that the law is formalistic, but at least it's clear, for the most part. In my experiences, businesses may prefer something that is clear, even if it is clearly wrong. Because they can deal with that. In real-time decision making, they can work with that. So there's a question of legal certainty that is sometimes forgotten in this debate.

I think the big picture point I would make for today is that there's been a lot of discussion this morning about type two errors. But to me, in terms of real world counseling, I think where the focus needs to be is on type one errors. Because in Europe, what happens—and this happens not quite every day in my practice, but many days.

You're dealing with a firm that perceives it is at the risk of being found dominant So it is perhaps around 40% market share. You have this very formalistic case law. The full hammer of the law bites for the firm who are 40% and the firms who are 99%. All of these, depending on their approach to risk, are treated in a way that's essentially fungible. And it seems to me that the cost of type one errors in this context must be pretty devastating.

If I had to say one thing today, it's that you need to bear in mind that it isn't necessarily the sort of bird in the bush that is sort of the objective in the real world when one is counseling. This is the enforcement cost, I'm afraid.

To sort of tie into that, and then pick certain points made by Dan and by Einer, in my view, the objective shouldn't be some search for an economic nirvana. I suspect we'll never really get there. I entirely accept that, yes, sometimes buyers may ask for a deal that's bad for them. I entirely accept that short duration isn't necessary dispositive, in terms of being a good thing. And I accept that some rebates are not necessarily a discount, if one looks at but for pricing.

But the risk in my view is that one looks at these possibility theorems, or at least things which cannot be excluded. One then uses that as the basis for the general law. That, to me, gets things backwards. I think one can tolerate that there are exceptions where some things are not a discount, where exceptionally some people ask for a bad deal. But in my experience of counseling these firms—I mean, they're not poor grandmothers—the customers—and they're not idiots.

In the *Intel* case—I mean, *Dell*—is it being suggested that they had no clue in terms of how these rebates might play out? The firms I deal with, their customers are very sophisticated. They have their own ROI analysis. They have very, very sophisticated buying practices and processes. And in my experience, what happens is that they use a combination of rebates offered by different sellers as effecting an a la carte approach for them.

Depending on where they're at in their business cycle—their quantities, the time of year—they will mix and match these different schemes. In effect, for them it is the best of all worlds. And they play these sellers off against each other. And this dynamic aspect to conditional rebate practices is sometimes forgotten in the modeling, which is essentially static.

Now one final point on this AEC test. I mean, it is one of those tests that is beautiful in theory. But in my experience, particularly in the light of *Intel*, it is difficult to apply, has a significant risk of error, and is not generally useful for ex ante decision making. And there are a whole bunch of decisions that need to be made which are not obvious or intuitive. I mean, is there a contestable share? How big is it? What are the average avoidable costs? Over what time period? Et cetera, et cetera.

In *Intel*, one seller, four OEMs, 150 pages in a decision dealing with just these points. And one of the things I do as a practitioner as well is utilities regulation. All of this seems to me the kind of thing that the FCC is doing in terms of retail price caps or wholesale price caps. The idea of doing this in an ex post environment, in the context of ex ante decision making in real time, whether it goes too far.

Fundamentally, of course, unless one is litigating, the possibility of getting the data seems to me quite difficult. In fact, when you think about it, if competitors had this information on their respective contestable shares and the details of that, in normal circumstances, that itself would be an antitrust violation. And it's worth thinking about that. -

I've got 30 seconds. I'm going to wrap up now. Where I come out in all this is that the price-cost test is fine if one has the data. And the scope for error is not as significant as I've observed in cases I have worked on. And it does seem to me that the rule of reason is the least worst of the alternatives. But I entirely agree with Dan Crane that one needs to know what one is measuring against.

Because it is all very well saying there is foreclosure. But if I observe someone's market share reducing, on which side of the ledger does that go? Because the foreclosure I observe may in fact be competition. And I think there's a fundamental lack of precision as to which bucket one puts particular pieces of evidence. And I think one does need a structure, because otherwise it becomes slightly amorphous. And I'm going to stop there, but I'll be happy to come back to these points.

MICHAEL BLOOM: Thank you, Robert.

[APPLAUSE]

MICHAEL BLOOM: Our first discussant is Rick Brunell.

RICHARD BRUNELL: Thanks. It's a pleasure to be here. I think on the discount attribution test first. I see some consensus—but perhaps not—that if the discount attribution test is flunked if there's adequate data, that's a problem for most everyone. That is, it's sufficient to at

least get the dominant firm in trouble, or perhaps establish foreclosure, if not establishing presumptive illegality.

I didn't hear anyone actually today in the entire program talk about a total price, total cost analysis—sort of a traditional profit sacrifice test as being necessary. And I don't think even Ben was arguing that. And I don't think Dan was arguing that. And as far as the law goes, I don't think—it's certainly an open question whether some kind of a more strict Brooke Group test would be required if we had to have a price-cost test.

Dan's amicus brief in the *Meritor* case didn't take a position on that. So I'm not going to put him on the spot here. But I sense that's kind of off the table. Most people did think that should get you into trouble. Steve was suggesting that maybe you might have some false positives, even when the discount attribution test is satisfied or implicates the defendant. And I'm not quite sure—I'll have to speak to him later—whether he was talking about sort of a profit sacrifice version of that, or the margins on that. So he can explain that to me later.

There seems to be disagreement, of course, as to whether satisfying such a test would be or should be a necessary condition. And certainly Einer and Randy and many others today have suggested that is not the case. And Einer interprets *Meritor* as not requiring that in order to show that the effective means of exclusion is not price. One could say that *Meritor* was not requiring or was not saying that the failure to establish the test would be—make it clear that pricing is the means of exclusion.

Now the less demanding version of that is the contestable and uncontestable demand. Einer interprets this factor as being part of the *Meritor* case, which would move you out of the price-cost test requirement. I think that's a reasonable interpretation. But of course, the case that Dan likes, this ASI case in the Northern District of New Jersey, rejected the whole idea of bundling contestable and uncontestable portions of demand as being suggesting that there was any kind of problem.

It's interesting to see what the generalist district court judge was thinking. He said "if you have an incontestable demand, that sort of a hard earned monopoly." That's actually the

result of competition. So the fact that the monopolist is using an incontestable portion of demand—that's fine. That's competition on the merits.

I want to address now the issue of discount versus penalty. There's obviously significant disagreement on this panel over the extent to which royalty profits are likely to be discounts or penalties. And I'm not going to wade into that. The question is whether it really should matter. When you have a true exclusive dealing arrangement, it doesn't matter whether the exclusive dealing arrangement is purchased with a rebate, or a benefit, or is the product of coercion or threat.

So I'm not sure why it shouldn't matter so much whether the pricing is a discount or a penalty if we're talking about an exclusionary theory. Perhaps it's a rebuttal to an attempted justification that you have lower prices. But that's about it. And Judge Cooper, in the ASI case, did say that this is just a matter of semantics, and didn't really matter whether it was a true penalty or not.

Let me just mention, as well, this issue of that Robert was talking about, and others have talked about how this is a common practice—these kinds of loyalty discounts. I was discussing this with my wife at dinner last night. And she said, you know, what's the problem? Loyalty rebates or benefits are ubiquitous. She didn't use that word, ubiquitous.

And then I explained, well, the problem arises when you have a monopoly or a dominant firm, and the dominant firm uses its incontestable market share to tax the rival, to make it more expensive for the rival to obtain share of business. And that tax idea, which perhaps—Will Tom might have—

MICHAEL BLOOM: Joe Farrell.

RICHARD BRUNELL: Joe Farrell. Which has been around for a while just seemed to be the sort of intuitive counter to the this is a ubiquitous behavior. Thanks.

MICHAEL BLOOM: Thank you. Our concluding discussant is Will Tom.

WILLARD K. TOM: Thanks. I'm going to start by disagreeing with something Robert said. And in the spirit of competition here, I will say that we in the US have the Europeans beat by

decades in terms of getting things wrong. As I was listening to this panel, and also the panels this morning, I guess I was listening from three different perspectives—that of counseling, enforcing policy, and litigation. Which maybe is appropriate, since some of my current colleagues say I have not been able to resist going through the revolving door as often as possible.

But those three perspectives are obviously related. Because one of the key questions you're asking as a counselor is, how predictable is the outcome in litigation? And again, in the United States, much of that depends on can you get to a jury or not. And so one thing that struck me that maybe hasn't been emphasized enough with respect to that perspective is that the choices are not, I don't think, limited to *PeaceHealth* or *LePage's*.

The *PeaceHealth* says discount attribution test. They don't even really add on a recoupment requirement of any kind. You do the discount attribution, and that tells you whether it's lawful or not. *LePage's* essentially said, look, this is just too hard. Why don't we all send it into the black box called the jury, and let the jury decide. And that will be the end of it.

It seems to me that there are some alternatives to that, that when you're dealing with outright exclusive dealing—100% requirement, you don't say, well, this is a jury question—let's send it to the jury. You might ask, what are the justifications? Or you might ask—and probably more cases get decided on the basis of how much foreclosure is there. Now, the concept of how much foreclosure is necessary has been kind of vacuous in the case law.

But there is some stuff out there that tries to tie the necessary amount of foreclosure to economic or quasi-economic concepts. One sign that I'm getting very old is that when I'm looking for an instant example of that kind of specificity, I go to what most of you, I think, would think is really, really obscure—namely, the analysis to aid public comment in the mid-1990s FTC decision in Time Warner Turner.

One of the things that the commission said there is what we're worried about is what it takes to launch a new programming network. And it takes access to a critical mass of subscribers. And one of the reasons we've got some concerns with the vertical issue here is that if you get control over—if CNN, the dominant provider of news programming, gets control over

a large enough critical mass of multi-channel program distributors, a competing news channel may not be able to compete, or a current fringe competitor.

We're worried about that. If it takes access to 60% of the households past to launch a viable competitor, then we might start to worry about the dominant news programming facility controlling more than 40% of the subscribers. So then you get Microsoft. There were people in the early days who said, oh my god, why should we worry about whatever Microsoft does in browsers? That's ridiculous. Netscape is the one with 90%. Internet Explorer has 10%. They can do whatever they want. We don't care.

Ask there is true doubt, at least if you polled every single active judge in the DC Circuit. They kind of disagreed with that. And so you ought to be looking at how much foreclosure do you need in the particular theory that you're talking about. So a related point is, remember, the question is not raising rivals' costs. And Steve Salop made this point, but maybe not emphatically enough.

And maybe the problem is that the acronym RRC sort of floats off the tongue reasonably easily. But the issue is raising cost to gain power over price. There are a lot of questions that can be asked with respect to the to gain power over price part that is susceptible—or could be susceptible—to judicial determination even before getting to the jury.

I see that I have less than 30 seconds left. I will end with a completely pie in the sky proposal that will never happen in our judicial system. But it's kind of worth thinking about anyway. Which is, if you remember back into your ancient administrative law history, Kenneth Culp Davis suggested the distinction between legislative facts and adjudicative facts.

I kind of wish, given the distinctive roles of the common law judge in saying what the law means, and looking to economics to figure out what the law means, versus the jury figuring out what the facts are. I kind of wish you could submit economist declarations along with your motion to dismiss. Because a lot of the questions that we're grappling with here really are economic questions about what the law means. But you won't glean the answers to that from the case law.

And one of the great things about the FTC and what it's doing, and DOJ in terms of what they're doing together in workshops, and what they're doing in issuing reports, is that it can offer some guidance to courts that our judicial structure doesn't currently permit.

MICHAEL BLOOM: Thank you, Will. Please join me in thanking our panel and discussants.

[APPLAUSE]

[SHORT BREAK]

PRESENTATIONS AND DISCUSSION: THE LAW OF CONDITIONAL PRICING PRACTICES, CONTINUED

Presenters:

- **Jonathan Jacobson, Partner, Wilson Sonsini Goodrich & Rosati**
- **Sean P. Gates, Partner, Morrison & Foerster LLP**
- **Leah Brannon, Partner, Cleary Gottlieb Steen & Hamilton, LLP**
- **Fiona M. Scott Morton, Professor of Economics, Yale University School of Management**

Discussants:

- **Abraham L. Wickelgren, Bernard J. Ward Centennial Professor of Law and Economics, University of Texas Law School**
- **Steven C. Salop, Professor of Economics and Law, Georgetown University Law Center**

Moderators:

- **Samuel N. Weinstein, Attorney, Legal Policy Section, Antitrust Division, U.S. Department of Justice**
- **Andrea Zach, Attorney, Bureau of Competition, Federal Trade Commission**

ANDREA ZACH: Good afternoon and welcome back. My name is Andrea Zach and I am an attorney with the Bureau of Competition here at the Federal Trade Commission. I am here with my co-moderator Sam Weinstein, an attorney with the Legal Policy Section, Antitrust Division, U.S. Department of Justice. We are very delighted for this second panel on the Law of Conditional Pricing Practices. We have a very distinguished group with us today. I will go ahead and quickly introduce.

We have Jon Jacobson from Wilson Sonsini, Sean Gates from Morrison and Foerster, Leah Brannon from Cleary Gottlieb, and Professor Fiona Scott Morton from Yale University School of Management. We also have our two commentators—or discussants—Professor Steve Salop of Georgetown University Law Center and Professor Abe Wickelgren from the University of Texas Law School. And with that, I will turn it over to Jon.

JONATHAN JACOBSON: Thanks, Andrea, and thanks for inviting all of us here today. It's a great experience and very exciting. It's wonderful to be on the 3:45 panel and try to figure out something that has not been said a lot better. But what I am going to try to do is propose a general equally efficient rival paradigm with no math. So let's see if we can do that.

Starting out on what I hope is common ground, that conditional discounts are not *per se* illegal, they are assessed under the rule of reason—at least here where we don't have 283-page numbered decisions. Conditional discounts can be a means of competing.

The important point that I want to focus on is the plaintiffs who lose out just because they are lazy or incompetent or just don't want to meet the competition that the defendant is providing are not the sort of plaintiffs that we should be allowing to sue. That's something that really was not discussed a lot earlier in the day, although Dan Crane articulated that point in a way that I very much agree with.

So how do we get from that common ground to actual rules? Well, I think we can generally agree that practices that impair rivals to the extent that they can no longer constrain the defendant's market power, raising rivals cost to achieve power over price is, as Will Tom reminded us, may warrant prohibition. I think we also agree that competition for the contract should be encouraged and that attaching conditions to a discount may make that competition more effective.

A rule that allows inefficient rivals to prevent competitive discounts can be a use of antitrust to subvert competition. And we don't like that. The rules need to provide some basis to distinguish legitimate conditional pricing practices from those that harm consumers. And that's particularly important in a litigation context and particularly important—and it occurs daily—in a counseling context.

The way I would articulate the equal efficient rival test is that conditional discounts that a hypothetical rival facing the same incremental cost as the defendant can meet or beat profitably and that these should not be deemed exclusionary. Discounts that cannot be met on that basis may be exclusionary and unlawful if the effect of the condition—this is the achieved power over price part—is to increase, protect, or maintain the defendant's market power. The point of this test is to ensure that the defendant is able to compete for the contract. In this analysis, I suggest—and from what I've heard today seems to confirm it—that given current knowledge, which is still in infancy, even in Europe 40 years later, that that is the best mode we

have for distinguishing the plaintiff who should be allowed to sue from the plaintiff who should be barred at the motion to dismiss or summary judgment doors.

Now, in terms of the two practices that we are focusing on most today—bundling and loyalty discounts—the concerns are a bit different, and there will therefore be some differences in applying the equally efficient rival test. The underlying concern about bundling is similar and analogous—I'm anticipating Sean's remarks—to tying; the underlying concern about loyalty discounts is similar to exclusive dealing. I agree with those who say this is not about predatory pricing because the harm, if any, flows from the conditions, not from the price level. So your full *Brooke Group* paradigm is really inapt when applied to conditional pricing practices.

Now, critics on what I will call "the right" say we should apply a full *Brooke Group* approach to everything because discounting is so important. But the concern here is not price levels—it's tying or exclusive dealing. It's exclusion irrespective of the price level. Both tying and exclusive dealing and similar conditional discounts can be profitable even if the total price is above full *Brooke Group* levels. Critics on "the left"—and we heard this today—make the point that even less efficient rivals can compete in a manner that lowers prices to consumers. And that is absolutely true. The problem is that we need some leeway for granting conditional discounts, and we do not want to discourage competition for the contract. Because if we do, the long run effect on competition will be negative in a material and possibly significant way.

That's why the EER approach**.** Now application to bundling is relatively straightforward, may involve some math—so I was fibbing a little bit earlier—under the discount attribution test that the *PeaceHealth* court applied, that the *Ortho* case applied, and that the AMC recommended. Incidentally, Janusz Ordover tells me that he invested this test during a lunch break during his deposition in the *Ortho* case. I've heard others claim to invent it, but that was the most interesting story that I've heard on it, and I have no way to disprove it.

Under this approach in the bundling context, you take all the discounts from all the products, you apply them to the competitive product, and there's a safe harbor—it is not a test of illegality—there is a safe harbor if the pricing on that basis is above incremental cost. The reason for this is that if a rival cannot compete profitably on that basis, the problem is the

rival's higher cost structure or incompetence, not that the conduct of the defendant, which could be described as exclusionary in that context.

So care must be taken. Einer and others made this point today that the defendant has not artificially raised the unbundled prices and that the discounts are really discounts and not disguised penalties. But this is not nearly as hard as critics made out. I've actually never seen it in my case. The case that Einer described seemed fairly easy to discern that those were penalties rather than discounts. So I do not think that it is a big problem or reason not to use this test.

Loyalty discounts are more challenging. I do not advocate—in fact, I advocate against trying to isolate the contestable and incontestable volume, I think it is a fruitless exercise. I've never seen it worked. I've seen it argued. I've seen it modeled beautifully in economics papers. But in the real world, it is just not practical.

The question ought to be asked more directly. In a loyalty discount case, can the smaller rival, assuming it had the same incremental cost as the defendant, meet or profitably beat these discounts—either with a straight discount strategy or some other reasonable and reasonably available competitive counter strategy?

In both of these cases, the touchstone should be the same. In applying the rule of reason, the key question should be whether the plaintiff, or in a government case an equally efficient rival, can meet or beat the discounts on sufficient volume that the rival can continue to constrain the defendant's market power. It is not enough that the rival can meet it on 5% of the volume. If you need to reach minimum efficient scale, 25%—the volume that you have to be able to meet or beat effectively has to be enough to enable you to prevent the defendant from raising prices. This means that absent the unusual case where a plaintiff is more efficient than the defendant, if it is clear that the plaintiff can compete effectively for the business in question—and often, you can tell that from the complaint—but that the plaintiff simply has not done so, dismissal or summary judgment should be granted. That should be a way to more economically dispose of unmeritorious cases.

Now, the *Eisai* case, which got past a motion to dismiss but was sent off on summary judgment, provides a useful analysis. If the court had the facts right, the plaintiff Eisai's profit margins were 85%, which is very high. I question whether that number is accurate, but that's what is in the reported decision. In any event, it was clear, at least based on the facts that Judge Cooper found to be beyond genuine dispute, that Eisai could profitably have reduced that profit margin significantly, gained significant volume, and constrained Sanofi's market power. *Eisai* is a case where I thought the reasoning at least—whether she got the facts right or not is another question—is consistent with what I am arguing today.

Contrast the *Eaton* case, the *Eaton* case actually talks about an equally efficient rival analysis. The court doesn't adopt that as a test, but it is integral to the analysis that the *Eaton* court talked about. Now, I think the search for whether something is predominantly price or predominantly not is rather an elusive one and that the focus should instead be, "is this a loyalty discount? In which event, let's see if an equally efficient rival can compete." Basically, convert it into exclusive dealing analysis or a bundling case and apply the *PeaceHealth* case.

I have a final slide on Europe. And it is simply to reflect my shock and awe at the decision of the general court. Thank you.

SAMUEL WEINSTEIN: Thanks, Jon. Now we will hear from Sean Gates.

SEAN GATES: All right. What I would like to talk to you about today is how do we develop legal rules in the face of uncertainty. Typically, when you look at the development of antitrust rules in the U.S. system, you have courts following a consensus economic view. You've got scholarly consensus. You've got a long line of cases. But in the case of bundled rebates and loyalty discounts, you don't have that. So what is a court, what is an agency, to do?

The courts have been dealing with this for quite some time. It is not a new phenomenon. I saw some cases that were put up by Einer going back to, I don't know, 1870 or something like that. But if you look back in 1976, there was a *SmithKline v. Eli Lilly* decision clearly dealing with these issues in 1976. We've had district court decisions out of New Jersey, several out of California, Ohio, Pennsylvania, Massachusetts, Missouri, and New York. We've had decisions out of the Second Circuit, the Third Circuit, the Eighth Circuit, the Ninth Circuit.

These are not new things. So what are these courts doing? Well, what they are doing in the face of a lack of economic consensus, is they are turning to analogies. You've heard them today numerous times: predatory pricing, exclusive dealing, tying.

The question then becomes, "is this really about just putting this behavior in a box that we are all familiar with? Or, is there something else to it?" My contention is that analogical reasoning, which is what the courts use and it's a common law tradition, is actually fundamental to the way we think about things, and the way we discover things. We see it in science. For example, there's a molecule for benzene—was a mystery for years and years until a certain scientist actually had a dream about a snake eating its tail; he used that as analogy and came up with the structure of benzene.

The idea that an atom, the structure of an atom, is similar to the solar system is an analogy that's been used. There are entire fields of design by analogy where people and engineers will come up with products based on analogies to things that we see in nature.

Analogy is endemic. It is what we use and it is what the courts use. And you've heard this morning lots of economists use it. So it is not foreign and it is not some kind of sub-par type of reasoning.

So how do we know whether we have a good analogy or a valid analogy? Some say, predatory pricing. Some say it's like exclusive dealing. Some say it's like tying. How do we test that? How do we know what is good, what is bad? Is it some say "to-may-to," some say "to-mah-to"? Some people say that picture on the screen is a rabbit. Some people say it's a bird. How do we know? Is it a vote? Is it who said it?

It turns out that actually there are some ways that we can test analogies to see whether or not they are really good. There's actually an entire field examining the psychology and cognitive science of analogies.

Analogies are simply a way to map something that we are familiar with on to something that we want to learn about. The idea is that you take those similarities and you map them to the target, and in the process, what you are trying to do is to maintain the relational structure. It is not enough to just have physical similarities. You have to maintain the relational structures.

So gaining consensus among antitrust lawyers is like herding cats. We all understand that because you can't herd cats. They don't follow the rules. Just as we saw this morning, antitrust lawyers and economists don't agree on a lot of things. You cannot herd them.

An electrical circuit is like a plumbing system. Not because electricity is like water, but because pressure in a plumbing system is similar to voltage in an electrical system. There is a relational similarity. High pressure leads to flow. High voltage leads to flow of electricity.

A good analogy is one that maps the elements onto the analog while maintaining these relational structures. Similarities in physical structures are not enough. HCL—hydrochloric acid—and water are similar in that they both have hydrogen atoms and both of them are liquid at room temperature. But the effect on your skin is a little bit different from one to the other. You wouldn't want to take a shower in hydrochloric acid because the relational structure between hydrochloric acid and your skin condition is different from that of water. That's an example of a bad analogy.

So how does this turn out? How do the courts—how are the courts doing when they are applying analogies for conditional pricing practices—when they're using the predatory pricing, when they're using exclusive dealing? How are they doing it? Well, for the most part, the problem is that the courts are just looking at the similarities in the conduct. Rebates are like price discounts; therefore, predatory pricing involves price discounts. Reapply that rule. Bundled discounts involve conditional sales of multiple products. Tying involves multiple products and conditional sale. So we use those rules.

What the courts do is based on these kind of, I will call them surface similarities or conduct similarities, they infer that the same economic effects apply and therefore the same legal rules should apply. But antitrust rules, legal rules, are more than just similarities in conduct. We actually blend the economics, the policy, and the prudential concerns. Now, what we need to do, and the courts have failed to do for the most part, is to evaluate how those policy concerns and those prudential concerns map onto the target.

Let me give you an example. The example is the predatory pricing analogy. Since everybody's been, as I understand, throwing dirt on the price-cost test, I will throw a little bit more dirt on it.

All right, so the price cost test, the *Brooke Group* test—that was not driven purely by economics. The court in *Brooke Group* even said that above-cost pricing may reduce economic welfare. So the test, the price-cost test, is not about economics per se. It was more about other types of concerns. We've heard about it this morning. One of the concerns was a skepticism that predatory pricing is a viable strategy. You've heard it this morning—"rarely tried and even more rarely successful." Why? Because you have all these conditions, one of which the courts focused on is that you have to recoup your losses. There's a deep skepticism towards predatory pricing and, of course, the price-cost test was driven by prudential concerns. The fear of chilling procompetitive price-cutting.

So the question is how do these concerns map? If we are going to use predatory pricing as the analog, how do those map onto the target of conditional discounts?

Well, let's start out. What about the skepticism? This idea that you—and there's a problem there because there has to be a recoupment. Well, at least on some conditional pricing practices, you don't have a recoupment problem. So that doesn't map at all. It doesn't apply at all. And the skepticism that predatory pricing is rarely tried and less often successful, does that really apply to conditional pricing practices?

What about the prudential concerns? If you look at *Brooke Group* and you look at the Supreme Court cases, what they are really saying is that, "we don't want to chill pricing—unconditional pricing. Because that's the kind of core conduct—competitive conduct." I mean, what's the alternative to that? What do I do? If I can't lower my price, what else can I do? I don't know. You can improve your product, maybe. But that takes a lot of time and a lot of effort. Pricing itself is at the core of the competitive process, so there's a lot of concern about chilling that.

Does that same concern apply to a conditional pricing practice? Do we think that a conditional pricing practice is a kind of irreducible element of competition? I'd say probably not.

The problem here, and what we are seeing, is that the courts are applying these analogies, but they are not really doing a full blown analysis. They are not really meticulously looking at whether the analog maps onto the target.

You could do this with exclusive dealing. You can do this with tying and see whether the analogies are really apt. This is just an example where I would say that the predatory pricing analogy isn't really apt because it doesn't map from the analog to the target.

One of the things that has driven a lot of the argument about what analog to apply is kind of the decision theoretic argument. All right, well, "if we don't apply predatory pricing, we are going to get too many false positives. We are going to get inefficient competitors and allow them to come into market, oh dear, and allow them to sue."

Well, I would say that if you really look at that from an analogical reasoning perspective, the problem with that methodology is that it really gives you a false sense of rigor. Let's face it: we have no idea whether or not we can measure the procompetitive versus the anticompetitive benefits. And when we say, "well gee, there's this risk of false positives," maybe there's a risk. But how much of a risk? So that's number one.

Number two, that decision theoretic framework was developed for binary decisions. I test Leah for cancer. She either has it or not. If she doesn't have it and I test positive, that's a false positive.

But what this framework doesn't do a good job of is looking at things in a continuum. When we develop antitrust rules, what we're looking at is we want to say, "is this really bad conduct, or is it maybe a small chance of a risk here? Where is it along the continuum?" That decision theoretic framework does not allow you to do that.

Then lastly, you heard it this morning quite a bit—"What are the alternatives? If we have a false positive, then what? What will firms do? And is that less or more competitive?"

In conclusion, let me end with just a quote and an analogy. The quote is from Samuel Butler, “Though analogy is often misleading, it is the least misleading thing we have.”

So in other words, “hey look. In the absence of an economic consensus, this is best we can do. And it is actually a very powerful tool.”

An analogy is the platypus. The platypus is a duck-billed, beaver-tailed, otter-footed, egg-laying mammal. When it was first discovered, people thought it was a hoax. Scientists thought it was a hoax because they didn’t know what to do with it. But over time, they figured out what it was and they categorized it.

The same is going to be true with conditional pricing practices. Over time, we are going to figure out what to do with them even though we have been dealing with these things for 50 years—30 or more years. Thanks very much.

SAMUEL WEINSTEIN: Thanks, Sean. Now we will hear from Leah Brannon.

LEAH BRANNON : I know it is very late in the day and I will try to be brief. But I do want to say some words in defense of the price-cost test.

I will not spend much time on background principles because people have talked about these points before. I agree with the points Dan Crane made about the Supreme Court law and the background principles favoring price discounts. I think those apply not just to price discounts by a dominant firm, but also discounts by a rival. And the economists this morning I think did a very nice job about talking about all the various reasons for conditional discounts. I think they made the point that these are often used in industries by firms that don’t have market power and there are a lot of efficiency reason for using these types of pricing structures. So I will turn to the much discussed *Meritor* case in the Third Circuit

As everyone knows and as they discussed this morning, with the *LePage’s* decision in 2004, the Third Circuit became something of an outlier with a very plaintiff friendly, “let’s throw it to the jury” kind of test, and accordingly became a real magnet for plaintiffs filing these types of actions. In 2012 in the *Meritor* case, the Third Circuit substantially limited its prior decision in *LePage’s* and noted that it was joining its sister circuits in holding that the price-cost test

applies to market share or volume rebates offered by suppliers within a single product market. So a very important clarification or movement in the law in the Third Circuit.

Unfortunately, for the defendant in that case, even though the court had adopted the price-cost test for single-product loyalty discounts, the defendant ultimately did not fare well because the court, as others have discussed, concluded that in that case, price was not the clearly predominant mechanism of exclusion. I think I have a somewhat different interpretation of that case from Professor Elhauge. In my view, some of the things that the court really found to be key determinants were the fact that the defendant was threatening to cut off supply.

That's the way customers perceived it. There were aspects of the contracts—for example, an ability in two of the four contracts with the customers, an ability for Eaton, the defendant, to cut off their supply if they didn't hit their market share purchase levels.

There were also requirements that the customers favor Eaton's product over competitors' products in their data books. So the court found that price was not, in that case, a clearly predominant mechanism of exclusion.

Which brings us to the decision earlier this year in *Eisai v. Sanofi*. And I will offer a disclaimer here that I and my firm do represent Sanofi-U.S. in this case. But my comments here today reflect only my own views.

In this case, others have discussed the facts, so I will not spend much time on them.

Eisai contacted with Pfizer, a third party, for the U.S. rights to market Fragmen, an anti-coagulant drug. Eisai did not innovate and develop this new drug. It just contracted for the rights to distribute it. And it sued Sanofi U.S. for billions of dollars in damages, alleging that Sanofi's market share and volume discounts limited Eisai's sales. I think this case was brought years before the *Meritor* decision. But after *Meritor* came out, Eisai argued at that point that there were six mechanisms of exclusion that were non-price in nature and therefore, they argued at summary judgment that the price-cost test should not apply. The court, if you have not read the opinion already, I recommend that you do. I think the court did a really nice job of walking through the law in this area and then very carefully applying it to the facts.

The court walked through all six mechanisms and found that they all come back to price. So things like imposing disloyalty penalties and charging higher prices to customers who didn't hit market share targets, the courts said, "that's price." The court then noted that there was no threat of non-supply and there was no requirement to favor Sanofi U.S.'s product over competitors' products. Therefore, the court granted summary judgment in favor of Sanofi U.S.

The court also went on to analyze this in the alternative, under the framework that Eisai was urging, in treating these as exclusive dealing contracts, and concluded that even under that approach, Sanofi U.S. would have won. But I don't think that can be used as a reason to argue that it doesn't matter which test you pick. Because I think everyone knows that there are pretty significant differences, practical differences, in terms of the test that is adopted.

And I think the others have made this point—I think Robert O'Donoghue made this point—that in counseling clients, you really do get these questions on a very regular basis from a large range of companies that have market shares. It might be a 40% and market share I think was the example you gave. And that might be the case. It might be a company with a 30% market share that hopes to increase that market share over time. And they want to know what type of pricing practices they can use. It might be a company with an 80% or 90% share. I think the price-cost test is actually extremely useful in that context.

The companies can figure out what their costs are. For counseling purposes, they can figure out if they are anywhere close to their costs. A risk-averse company might want to avoid anything that is even questionably below cost. I think even if the economists can debate about precisely how you measure cost, for practical purposes for companies, I think it is quite useful to have that type of a test for counseling purposes.

I think it is also useful for rivals when they are thinking about their strategy. Do they want to aggressively compete on price? Do they feel like they need to do that? Or can they file a lawsuit and seek billions of dollars in damages and maintain 85% profit margins? That is a choice that a company could make.

So I wanted to focus just for a minute on this notion of incontestable demand. People have used this term off and on throughout the day. I don't think anyone's really paused on it to

define it very clearly. I looked for definitions of incontestable demand and I haven't really found a very satisfactory one. I would urge the economists out there to help us and come up with a really clear definition of what incontestable demand is—if this concept is going to drive the legal treatment of a category of pricing practices. We've got a couple of definitions on this slide. The part of demand that's always purchased from the dominant firm—things like that. But I don't find those to be really helpful. Questions that I have that maybe some of the economists can help with is, "what if the rival can win over demand by discounting by 50% and be above its cost?" Is that demand incontestable?

To me, that seems pretty contestable if you can discount and win and still be well above your cost. What if you don't even have to discount 50%? What if you discount an extra 10 percentage points or one percentage point? I think there are very few people in this room who would say that if a rival can discount by 1% and win sales that that demand is incontestable. There may be others in this room who take the different view. But I think it would be helpful to have a clear definition here—maybe focused on elasticity of demand, maybe somehow breaking this down so we can understand it in practical application if this is going to drive our rule. Because I think if we were talking about a product that was completely fungible, if we were talking about wheat, I don't think anyone would be worried about loyalty discounts. It is because of the incontestable demand that people have concerns about these types of pricing practices in the first place. But people don't seem to be able to define what incontestable demand is.

Looking at these cases, I wonder why demand is incontestable in the first place. These are typically in differentiated product markets. So is it the case that the rival's product is just not as good? If you've got a drug product and the new drug is largely sawdust and it is not very effective and a small portion of customers will buy it because it's cheaper—there may be some very strong differences in the product. If you have a rule that turns on incontestable demand—for example, if you were to do a discount attribution test and distinguish—I understand Jon you're not arguing for it—but if you were to try to break apart the contestable and the incontestable part and allocate the full discount to the incontestable portion, you would be

creating a rule that gave more protection to a really bad rival who had a very low quality product.

If the reason why the demand is allegedly incontestable is that the rival does not have the same brand and reputation, are you creating an incentive for the rival not to go out and advertise its product?

All of these things, I think, are real questions. And then, to the extent this is driving the legal treatment, what kind of structure does that create for the allegedly dominant firm? How do they figure out how to price their own product? Do they have to figure out how good or bad their rivals are? Because if they have a really bad rival, they are going to have to be much more careful about how they create loyalty discounts. Maybe they can't use loyalty discounts at all. Going back to the beginning, I think there are a lot of efficiency reasons for these types of practices.

For practical reasons, and to encourage rivals to compete aggressively, I think the price cost test is extremely useful. I would encourage all the economists who came up with hypothetical examples to look at the facts of a case like *Eisai v. Sanofi U.S.* and to think about whether that's the type of case you want to see coming into court—where you've got a company that is pricing very far above its cost. Going to Steve, I know all of your examples, Steve, involve distributors. But someone who is selling directly to customers, to take that type of an example and think about how that affects your analysis. Thanks very much.

SAMUEL WEINSTEIN: Thanks, Leah. Now we hear from Fiona Scott Morton.

FIONA SCOTT MORTON: Hello and thank you, as others have said to all the organizers, for putting on a very enjoyable day. You may notice that this is a legal panel and I am an economist. So I am obviously here by mistake, but I will try to be entertaining nonetheless.

The opinions I am going to give are, of course, mine and not affiliated with any other organization that might have other people at it. I was impressed that Sean thought that in contrast to other parts of antitrust law, here we didn't have consensus among the economists and policymakers about—actually, those parts of most of what we talk about it is characterized by that disagreement.

I wanted really to make one point in this session, which is I think it is very important that all these tests and concepts that we are talking about are linked at some point back to competitive effects. If the contract in question isn't impacting competition, it is hard to see how you would have an antitrust violation.

What I think is really important is to actually look at the detail of the contract and figure out what is it doing. What is the effective price it is creating relative to marginal cost, relative to the but-for world, relative to recoupment? What does the contract exclude?

I am thinking here about a full product line that is driven by economies of scope. I think, unlike Leah, I don't have a problem with incontestable share. The examples that I have seen have been pretty clear. You've got medical devices that are different—one from the other and can't be used on the same patients.

But they all can be made in the same kind of plant because they are slightly different one from the other or the FDA has approved a drug for five uses in one case and one use in another case. Or you have flavors of truck transmissions. Some are for long haul trucks and some are for short haul trucks.

In the long run, the entrant could make everything. But in the short run, the entrant actually just cannot supply the other variants in the product line. And so that is an incontestable share because there's a monopoly seller.

One of the things I think is helpful to do in these cases is to look at the arithmetic and see if the arithmetic actually supports a theory of harm. Because if it doesn't, then I think that's a quick way to simplify the situation.

I am going to give you a numerical example loosely based on *ZF Meritor*. I also think it is interesting we have a real pronunciation problem in this part of the antitrust world: Ay-Sai, Ee-sai, Zee-Eff, La-Pay-ges, La-Pah-ges. Anyway, I'll just say what I'm used to and hope that it is right.

This is loosely based on *ZF Meritor*. Trucks come in five flavors. The dominant Firm A makes all flavors and charges $100 per truck. When the entrant arrives, A changes its price to

$105 per track. The entrant, Firm B, makes only flavor number five. It charges $95 per truck. Notice here, we are clearly defining the contestable share. The entrant B does not make the other flavors yet.

I am thinking along Randy's lines of there is a long term problem here. Firm A really does not want Firm B to move into flavors four, three, two, and one. The buyer purchases 100 trucks a year and needs 20 of each flavor. To date, Firm B, because of its innovative and relatively inexpensive truck, has a 15% market share—in other words, most of flavor five.

And then, we have the contract. This is a contract that references rivals. It is a loyalty rebate. The buyer's contract says the price is $105 for each track. But there is a 5% discount on all units if the buyer purchases at least 90% of its needs from A. Its need here is what draws us in the horizontal direction—its needs are going to come from A and B. So we have the rival involved.

The buyers contact Firm B, says the price is $95 per truck. Firm B is just doing linear pricing.

The buyer would, in the case of competition on the merits of linear prices, buy 15 trucks from B and 85 trucks from A. Now let's look at the effective price for the buyer once you have this contract in place. What is the effective contract price going to look like for buying from Firm A?

Well, trucks 1 through 89 are going to cost $105.27 each. You will see why I picked that number. Truck 90 costs its list price minus the total discount received for crossing the threshold. That is $105 minus the discount of $5.26, which is a negative number—negative 368.

Now trucks 91 through 100, we continue to get the discount if we continue to buy. Those are going to be $100 each, which is our ex ante price. So if you wanted to apply a price-cost test—which I think has limited usefulness—but if you wanted to do that, you could look and see that at the contestable moment, over the unit that the entrant is trying to sell, the effective price generated by this contract is negative (-)$386.

And that is less than marginal cost of $50, which I just picked arbitrarily. If you graph it, that's what it looks like. So I hum along here from trucks one through 89 at $105, and then I suddenly have this cliff.

The cliff, the question is, "is the cliff doing anything? Is the cliff keeping the entrant from crossing the cliff?" The entrant can get to truck number nine. But the entrant is going to have a very difficult time selling truck number 10. Because truck number 10 is going to have an effect—well, let's look at that. Before we get to the entrant, let me just point out the shape of this thing. I think one of the things that's a little bit misleading when undertaking these analyses is that people tend to focus on the average price. A 5% discount is not very big. It doesn't sound very dreadful. But what the loyalty rebate is doing is changing the shape of the price schedule. So it looks in this funny way with this funny dip—rather than just thinking about it as 5% off, in which case we have a line of 100 all the way from zero to 100.

Now, let's turn to Firm B. The effective contract price if the buyer buys from B, trucks one through nine are $95. But then the buyer is going to think, "uh oh, I'm getting to truck 10. And if I buy truck number 10 from Firm B, I forfeit my loyalty rebate from Firm A. So not only do I pay $95, but then I am going to give up my $5.27 on the 85 trucks which we are assuming I would like to have from Firm A."

This is duplicative of the previous analysis. You can either do it up or you can do it down. But I am just pointing out that either way, it looks pretty bad for Firm B. Because here they have no trouble selling the first nine trucks. But the contract-induced price for the 10th truck is very high.

So again, it is the shape of the schedule. Firm B's prices are somewhat lower than Firm A's in this example. But here, the contract bumps up the effective price of Firm B.

I think what you can do with a numerical example like this is ask yourself, "does this satisfy—does this match my theory of harm? Does it tell a story? Does it match the story I'm trying to tell about the competitive effects that I'm worried about in this context?"

If you think that jurisprudence requires you to have a price cost test, you could use this one. You could say, "okay, I have some information about market shares. I have some

information about demand. The relevant point where the two firms are competing is around this 85 to 90 window. And what's the effective price induced by the contract and how does that relate to marginal cost?" Also, as Steve pointed out earlier, this strategy is not very costly for the dominant firm.

So the ex-ante linear price was $100. And Firm A was making $9,000 in that case. In the contract, I raised my price to $105. I add a 5% discount. I sell 90 trucks. And I'm still making $9,000. If, on the other hand there had been entry and I didn't adopt this shape of a price schedule and I just continued with my linear pricing, I would make $8,500.

So I can adopt this kind of cliff, keep average price the same and prevent the entrant from getting those few extra sales. So, no recoupment is required. There's no discount relative to the but-for world.

What does the contract exclude? In this case, a few flavor five trucks that the buyer would like to buy from Firm B. Is that so terrible? Well, I think that if you are the dominant firm, the issue really often is, in these cases, are there economies of scale for Firm B in flavor five? Then, perhaps even more importantly, are there economies of scope across flavors? Can I make more medical devices, get approval for more drugs, make more, different types of transmissions if I have a sense that I can sell to—if I can sell to buyers?

Then, part of what's important about being clear about the contestable market, which I called uncontestable, I'm not quite sure what's correct, but that section of the market where the monopolist is selling is, how large is that? Because the larger it is, the smaller the discount I need to create a lump of money that I can apply to the marginal units.

If I have 80 units of type one through four, this is a tool that Firm A can use. That's $8,000 of uncontestable revenue. I can make up some contract that applies some of that to the marginal unit. And I can get perhaps some action on the part of the buyer because of that kind of money.

Now, some other things that I think the FTC wanted to raise in this conference that haven't come up yet are some business school-ish sorts of things. Since I teach in business school, I thought I'd bring those up.

There are a couple of issues. One would be measurement error and uncertainty. Do I really know what my needs are at the end of year? So there's some—am I going to consume 100 trucks or 106 trucks? And am I going to miss the threshold because I consume a few more trucks than I thought? You might want to set this thing up to have a margin of error so that the buyer doesn't tumble over the cliff if they are really trying not to. And the cliff might not be quite so steep. If you wanted to say, well, "we're not sure whether it is truck 90 or trucks 89 through 91." And then you might shrink the cliff but make it a little bit fatter if there's a little bit of measurement error uncertainty in the dollars.

The other thing that we see in the record is sometimes firms doing upfront payment. In *ZF Meritor*, you get the $1 million up front. You booked it. Now your division has book money, and you're going to the manager who buys the 10th truck from Firm B. And the $1 million has to be given back in the fourth quarter. So then we get to things like behavioral biases. Do we have an endowment effect by the firm? We get to managerial compensation. Do I get a bonus at the end of the year? Do I want to be the manager that caused us to lose the loyalty rebate? Do I want to be the manager who had to give back the loyalty rebate?

Buying patterns over the contract year—I told you we are moving along from truck one to truck 89. Well, do we know how much we are buying? Could we bid out the whole contract—all 100 trucks at the same time? Now, if we could do that, then we are back to sort of typically no harm. You compete for the contract if everybody can supply all five flavors. Here, we don't have that situation. So the entrant can't bid for the whole contract.

But the buying patterns over the contract year are going to depend on how sophisticated the firm is. Is the firm thinking ahead to having 90 trucks and getting the loyalty rebate? Or is the firm reacting to demand shocks as the year goes along and then discovering itself at this cliff and finding its behavior bound by that? That's just, I think, some other factors that are very real and that serve to constrain corporate behavior and are a reason why these contracts might work to affect behavior. And that's it

SAMUEL WEINSTEIN: Thanks, Fiona. Now we will turn to our discussion starting with Abe Wickelgren

ABRAHAM WICKELGREN: We've had a lot of discussion about price-cost tests and some discussion of other tests. I want to spend a little time talking about the idea of simple tests in general. There seems to be a lot of attraction to a simple test as some sort of a screen. But, I am going to question whether that might be not quite as attractive as people think.

First of all, as there's been some discussion with the price-cost test, they're not always that simple. They're certainly not always that error-free. The idea is that it provides clear guidance. But, of course, if we don't know exactly how costs are going to be measured or how the price is going to be measured, then we still have a fair amount of uncertainty.

I think sort of more generally, when we have these tests no one is suggesting that ultimately what we care about is how price relates to cost or whether an equally efficient rival could compete. What we care about is a more general question like maximizing consumer surplus—maybe it is maximizing total surplus, depending on where you come down. The idea behind these tests is that somehow, we gain something from this simplicity in terms of how it affects the deterrence or chilling trade off, how it affects administrative costs. But, as far as I can tell, I haven't seen any real detailed analysis of what we gain from these sort of supposedly simpler tests and how they affect that deterrence chilling trade off. I want to suggest that absent that, we might want to focus more on answering the question that we ultimately care about, which is, "how does the contract in question affect consumer surplus relative to some plausible, feasible alternatives?"

Not to suggest that issues of what people call false positives, or I would refer to—Louis Kaplow's phrase is "chilling effects." But that there are other ways to manage that then using questions that are in some sense not 100% correlated with what we actually care. We can manage the deterrence chilling trade off through other sorts of levers like adjusting the burden of proof. We can manage trade-offs on litigation costs through restrictions on evidence and things like that. It's certainly not to say it's conceivable. I could imagine there's a world with a plausible model where asking what is to some extent the wrong question gives us better results than asking the right question and trying to tweak the burden of proof. But it seems like without some sort of showing of that, we got to at least be somewhat more inclined with asking the more direct question. If we are worried that it is too expensive, we can adjust other levels.

If we are worried about false positives, we can adjust the burden of proof and hopefully manage those trade-offs a little bit better.

STEVEN SALOP: Thank you. I take it you are ceding your three minutes to me.

ABRAHAM WICKELGREN: Well, we were going to go back and forth potentially.

STEVEN SALOP: Well, I want to—that's called—

ABRAHAM WICKELGREN: We know how that works out.

STEVEN SALOP: That's called opportunism.

ABRAHAM WICKELGREN: He told me he believed in commitment. But we'll see.

STEVEN SALOP: I agree with Abe's comments. I just want to add seven other summary points, but in the spirit of speaking to lawyers and the clarity with which Jon spoke, I've got these down to seven sentences, many commas.

First, because the monopolist exclusion value and the entrant's coordination or externality problems involve a distributor case, there can be no effective competition for the contract. That seems to me to be point 1 in disagreement with Jon.

Dan was very close to Jon. In response to Dan, showing that the entrant has no rational economic incentive to outbid the incumbent should be considered objective evidence. Objective evidence is not simply comparing prices and costs.

Third, such entrants are not lazy or incompetent. They are only rational in the face of an effective exclusionary conduct strategy by the monopolist.

Fifth, CPPs raise greater competitive concerns than predatory pricing, and so should entail a more intrusive legal rule, and not one that is hard to administer because it is so difficult to measure a contestable versus incontestable demand. It is hard to see how you can support a price-cost test when you say you can't measure the underlying factors that are used. Based on my own experience in the *Intel* case, it is really hard to measure contestable versus incontestable demand.

In short, creeping *Brooke*-ism—which is what this is—creeping *Brooke*-ism in the form of an incremental price-cost standard is not the way to maximize consumer welfare or maintain a competitive process.

I do counseling too. I think for counselling purposes, Leah, you should just tell them to cut prices across the board instead. If, for example, if they wanted to fix prices with their rivals, I hope you would just say "no," rather than tell them to be really careful to not violate the subtleties inherent in the agreement requirement.

Those are my seven points on why we should stick with the rule of reason—a harm to competition standard—rather than looking under the lamppost for a seemingly simple but actually quite complex price-cost standard. Thank you.

ABRAHAM WICKELGREN: Not to have too much agreement back and forth, but to build on this concern about the price-cost test, I think there's also a question from a counseling standpoint, to the extent that we have a price-cost test. As Leah said, firms may be risk averse.

But there's actually a risk that having a price-cost test can actually lead to higher prices. So yes, it is better for the firm. It gives them some certainty. But, if part of getting that certainly is because we know that courts are going to measure these things with error, you can eliminate any sort of marginal risk of liability by increasing your price above some level. We might actually, even though the point of price cost test is to provide a safe harbor for price-cutting, it could potentially lead to higher prices in equilibrium if we have enough uncertainty in terms of how courts are likely to measure practice.

STEVEN SALOP: What I would add to that as a counseling issue is, if you do the rule of reason, it's really not simple for the plaintiff to prove harm to competition. I think the counselling concern that Leah was raising was really, take a firm without market power, no prospects of market power. It wants to use these CPPs in order to get into the market, be more effective—a rather *Sylvania*-like use of vertical restraints. Well, I don't think they're going to have a problem.

The problem is when the CPPs are suddenly discovered by a monopolist as a great way to increase consumer welfare just at the moment that the entrant appears in the market—or

four months before the entrant appears. I mean, what I was struck with in Ben's talk was he wasn't saying we see all these two part tariffs—nonlinear pricing—when the monopolist did not face a threat of entry. It was only when he faced the threat of entry that he began to institute the CPPs. And that's suspicious.

JONATHAN JACOBSON: Can we have one minute of discussion of the discussants?

SAMUEL WEINSTEIN: Do we have a minute left in time? Sure. Of course.

JONATHAN JACOBSON: So Steve, I just wanted to make one point, which is in the real world, a firm without market power can face a lawsuit based on the Fortas-like definition of a relevant market in his dissent in Grinnell. The red-haired, one-eyed man with a limp market in which the firm that in the real world has 30% share in the world of litigation may find itself with 100% share. So the counseling issue is not limited to firms that we would agree are dominant. It is something that you have to look at across the board, particularly in differentiated products cases.

STEVEN SALOP: I think this real world argument worked really well when I was 35 years old. But I'm not anymore. I've been in the real world for a really long time too. What I see in the real world these days is that firms with 100% of the market are getting called—that the market's defined broadly so that the market is 30%, not the other way around. I would take as a case in point the argument made by the defendants in *Bazaarvoice* that the market was very broad when it seemed pretty obvious, both to the judge and to other observers, that the market was really pretty narrow and had a very high market share.

JONATHAN JACOBSON: Our principal argument was that whatever the market was buying, the government couldn't identify a single customer that was susceptible to harm. Now, we have a long opinion holding otherwise. But market was not our argument.

SAMUEL WEINSTEIN: OK, well, I'd like to thank our panelists and presenters.

ANDREA ZACH: Thank you, everybody. Thank you.

ROUNDTABLE DISCUSSION: WHERE DO WE GO FROM HERE? OPEN QUESTIONS AND POLICY CONSIDERATIONS

Participants:

- **Jonathan Baker, Professor of Law, American University, Washington College of Law**
- **Daniel A. Crane, Associate Dean for Faculty and Research, Frederick Paul Furth, Sr. Professor of Law, University of Michigan Law School; Counsel, Paul, Weiss, Rifkind, Wharton & Garrison LLP**
- **C. Scott Hemphill, Professor of Law, Columbia Law School**
- **Fiona M. Scott Morton, Professor of Economics, Yale University School of Management**
- **Richard M. Steuer, Partner, Mayer Brown**
- **Michael Whinston, Professor of Economics, Sloan Fellows Professor of Management, Department of Economics and Sloan School of Management, Massachusetts Institute of Technology**

Moderators:

- **Deborah L. Feinstein, Director, Bureau of Competition, Federal Trade Commission**
- **Renata B. Hesse, Deputy Assistant Attorney General for Criminal and Civil Operations, Antitrust Division, U.S. Department of Justice**

DEBORAH FEINSTEIN: Well, as Jon remarked to me, this is an impressive showing for the end of the day. I hope it is because we can all expect this panel to tell us all the takeaways and everything that we should now agree on as a result of the day. I'm Debbie Feinstein from the FTC. Renata Hesse here from the Department of Justice. And we are joined by Jon Baker, Dan Crane, Scott Hemphill, Fiona Scott Morton, Richard Steuer, and Michael Whinston, many of whom you've seen already here today.

I think we'd like to start off with Jon and Richard, who were not previously on panels, to tell us what they think are the key areas of consensus or, because I think there's nothing on which there was consensus today other than this was a good session, near-consensus. Can we agree that price cost probably doesn't end the inquiry? Can we agree that we should only worry about this with dominant firms? What is it that we can agree on?

JONATHAN BAKER: Thank you, Renata and Debbie and FTC and DOJ. I think the big takeaway for me—and I don't think it was 100% for the panel—but what I got out of this was that price-cost tests or creeping *Brooke*-ism, as you said, is really not helpful. There are a few

people who defended it, but the main reasons I thought that came through were, first, there is a big risk of false negatives—not finding a violation when it is really harmful.

There were several examples of that. If the anticompetitive theory is collusive, you might not have any price below cost. If it is exclusionary, you could have simultaneous recoupments, you might have delayed recoupment but no harm to buyers in the short run. Also, one way to see why there's a big risk of false negatives is to realize that several speakers saw the kind of practices, the pricing practices we are talking about here, as, in various ways, similar, in some cases, to exclusivity and to tying, which were special cases that would not be appropriate places for price-cost tests to use as a safe harbor or even a screen.

I have some comments on some of the specific arguments for price-cost tests, but I think I won't go into that now. But I want to give the other two main reasons why I think price-cost tests weren't helpful that I thought came out of the day.

And the second is that this risk of killing meritorious cases that I'm emphasizing I think is more serious than the risk of not deterring frivolous cases, which is something that Abe Wickelgren was talking about towards the end, about you have to compare—yes, there are lots of good efficiency explanations for the conditional pricing practices. And it's not surprising that they are used in competitive markets. But the cases that we are litigating aren't selected at random from all of the cases in the economy where these are being used. We are looking at cases where the government or the plaintiff says, "hey, there's other information suggesting competitive harm." That's what Steve was trying to say—Salop—at the end there about the dominant firm. The practice was being introduced when the dominant firm faced the threat of entry. And so there's more to it than just the conditional pricing. There are other factors as well. So I wouldn't get overwrought about the need to deter frivolous cases here in this setting.

Finally, there was a lot of discussion about administrative difficulties that undermine the benefits of bright line rules. When price-cost test is the test, the contracts were complex. I think—I'm sorry, I don't remember how to pronounce your last name, Kusum's last name—to emphasize that in her slides. And it is often hard to measure price and cost and what exactly

the conceptual experiment we have in mind is that would reveal price and costs are not obvious.

And so the administrability benefits, I thought, were also overstated. So my big takeaway from the day—not 100%, not everyone agreed—but my view of the general sense is that price-cost tests are just not helpful in approaching the analysis of the conditional pricing practices that were at issue today.

RICHARD STEUER: Well, I think it's fair to say there was not complete unanimity on anything, but there were three points that I took away. One is that a lot of what we are talking about, in one form or another, is leveraging. I know that's a dirty word in some circles, but really it all came down to—whether you call it contestability or foreclosure—was leveraging. And it is really hard to measure. I think there was quite a bit of consensus on that.

Because it is so hard to measure, there are two ways we can go. One is a presumption of illegality, like in the EU, which is basically the rule of the emperor's new clothes. "Mommy, that's a naked restraint." And I think that, following from that rule, is that, by having a near per se rule, a rule of presumptive illegality, what you create is certainty in counseling, which we heard about, and, beyond certainty, you have more consistency in that I think if there were counseling from a number of the participants on our last panel, companies might be following very different approaches to their programs than if they knew the answer was always going to be "no."

Now, on the other side, it's hard to measure. So we should have a presumption of legality or at least we should have a system where the burden of proof is on the plaintiff to prove that there are anticompetitive effects. That's much closer to, of course, the system that we have in the US. And the hard question to ask, because when we're talking about these loyalty discounts—and I know there's been a lot of debate during the day—are they really discounts? Are they really disguised price increases? Well, the bargaining that goes on, in most instances, is really hard bargaining by very sophisticated purchasing departments for a great deal of the American economy.

We're talking about parties that are in very, very tough negotiations, and so the question we have to ask, if we are going to forbid discounts of this kind, are we willing to take a bet that the economy would be better off banning these discounts in the short-term or in the immediate term when companies are getting low prices in the hope that this will allow more entrants to come in with better products and lower prices in the long term? Or are we better off taking the bird in the hand and saying, "companies should be able to get these discounts, negotiate for a bundle discount, negotiate for a loyalty discount, basically use the purchasing power that these sophisticated purchasing departments have, in the expectation that, in the long run, the gale of creative destruction is going to blow this whole market apart and there will be an entirely new set of products that approach things in a very different way?" So that's point one.

Point two is that although they say hard cases make bad law, I think we have a problem of easy cases here. I know it is going to sound strange to call these "easy cases," but cases like *Meritor* and *Intel* involve markets with two or three manufacturers. In one case, we had two manufacturers and one of them went out of business. That was pretty dramatic. And also very few purchasers.

In the real world that we've been hearing about, usually the facts are much messier than these. Of course, I understand, naturally, these facts are harder than I'm saying them. Courts tend to streamline the facts and we see that all the time. If you've actually been in a case, you know that the facts are infinitely more complicated than they read in the opinion.

But, basically, there is a danger that, based on rules coming out of these streamlined facts, we are going to have some oversimplification. And the fact is, there a lot of other variables that go into loyalty discounts and bundle discounts. Just to name a few—whether the customers are wholesalers or retailers? If they are retailers, do they face tremendous competition, particularly, are they selling products that can be sold over the internet? Because, in a lot of markets, the internet has changed everything. Otherwise, the question is, do these distributors basically own that part of the market? Do they have something that is locked up for hundreds of reasons that occur in the marketplace? How important it is it to get that

intermediary? Or is the contract with someone who is actually an end-user where having that sale means nobody else is going to make the sale?

Depending on whether the customer is a retailer or end-user, the procompetitive effects vary, of course. With retailers and wholesalers, often, these discounts are meant to induce exclusivity, to be able to protect trade secrets, to combat divided loyalties. With end-users, there really, on the one hand, is the fact that some end-users are always going to want a second source. So these strategies necessarily will fail because there is a need for a backup source.

On the other hand, for some end-users, there is tremendous efficiency in having a single source. If you think about, for instance, an airline fleet. Is it more efficient to have one kind of airplane where you only need to stock the same replacement parts and train people on the same equipment or to buy two or three different brands? So that's the second point.

And, finally—and this was touched upon—is there a sophisticated enough assessment of the anticompetitive effects? The *PeaceHealth* test looks very simply on whether an equally efficient competitor can compete at the same price level. But there are other aspects that need to be looked at with potential new entrants. One is—could it build a better mousetrap? Is its product simply going to be better?

Second, could it have an alternate bundle? It may not have the must-have product that it is competing against, but it may have a different must-have product and be able to put together a different bundle. It is a very sophisticated analysis but it needs to be done.

Another one is, even if there's only one must-have product that can compete, if one of the entrants doesn't have it, can it partner with somebody else who does have it? Can it piece together a bundle that is at least as competitive or more competitive? And, as some of the panelists have pointed out, can it simply save so much money by focusing like a laser on one product where its competitors are trying to manufacture and market a full line that it can give a discount that's enough to overcome? And I know some courts have looked at this and endorsed a carve-out analysis where—and I don't think we got to it today—but is it possible to simply

carve out an exception that will allow new entrants to come in, even though those competitors who can compete on an equal footing have to?

So those are the points I saw. It's tremendously important because, although it's true, as somebody said, that only a handful of cases ever get litigated, as we know from the folks who have spoken today, for every litigated case, there are thousands of counseling sessions.

RENATA HESSE: Given what Dick just said, I'm wondering if others on the panel have thoughts on or views on stories of either harms or efficiencies that you found particularly persuasive that you heard today.

SCOTT HEMPHILL: The big thing for me was that there was such dissensus as to the stories, that everybody—I mean, not everybody—a lot of people had very strong intuitions about what theory is usually correct or how the pricing usually happens. But for each of those stories, I felt like there was a pretty strong counter-story. So I was left feeling that we have kind of no idea, collectively, at least, about what is actually going on outside the context of individual matters on which some of us may have worked or are counseled. I mean, there's some bigger picture perspective, but it just seems, on the facts side, extremely mixed.

DANIEL CRANE: One of the things I wanted to point out is that today we heard a lot of the collusion stories. All the action on the ground is on the exclusion stories. This is mostly about private litigation, B2B private litigation. It is not consumer cases, mostly. We are talking mostly about businesses suing other businesses. So to the extent that we have collusion stories and that is driving antitrust analysis in some way, that is not really matching, at least, the practical questions of counseling or of litigation that those of us involved in this are looking at today.

So, for example, in the price-cost test, to the extent that one wants to argue that the price-cost does not capture collusion stories, well, should that have any bearing on the cases where the theory is an exclusion story? And if so, I want to hear more about why the law on exclusion, which is what is being asserted in most of these cases, should be changed in a context when—because of concerns about collusion—when those aren't even being presented at all in the case.

FIONA SCOTT MORTON: I just want to point out that, in an exclusion case, you have a harmed party who would like to sue. In a collision case, both firms are making more money, so you wouldn't really expect to see private litigation in that context.

DEBORAH FEINSTEIN: Right. So that raises the question of, what should the agencies be looking at? There are sort of two scenarios. One is when we have a complainant here. So let's start with that. Somebody says they've been foreclosed. When should we care about it?

Only when they have exited the market? Only when their share has been decreased significantly? Only when they say they want to enter and they can't? And then, once we do have a complainant and we decide to look at it, should we use price-cost as an initial threshold? Is it completely meaningless? Should we just do a full-blown rule of reason? Are there safe harbors in terms of the dominant firm's market share or the amount of market share required to get the discount? How do we start on that sort of easier of the two cases?

MICHAEL WHINSTON: Maybe I could just say something at least on the price-cost test. At the beginning of the day, I listed a number of arguments for price-cost tests that were argued for predation. I think if you go through those, the first two apply here. Which is, you can cut down on litigation and you can create a bright line with the price-cost test.

But I think the relevant question is there are many ways you can do those things with other safe harbors or other rules. And there's a question whether the price-cost test is really doing those things well. So I guess my own sense is, when you go through the other kinds of arguments, it's in line with what a lot of people said. I think it's not at all clear that it's doing it well.

And, especially this equally efficient competitor argument—if you think about the theories, say, the theories of exclusion, we know that the cases that we're concerned about most are cases where there's a relatively dominant firm. And so the equally efficient competitor argument, I think, sort of just isn't getting at the right point.

FIONA SCOTT MORTON: I just want to say one brief thing about—it's not clear to me that the price-cost test is so terribly useful, but as I tried to say in my presentation in the last panel, I do think it's worth figuring out what the orders of magnitude are. I mean, is your

discount going to create $350 to work with or $3.50 to work with? It's worth working through some of the arithmetic because you might find that you just don't have much that can affect competition or you might find that you have something that creates a large incentive and I think it's worth knowing that.

MICHAEL WHINSTON: Actually, if I could just—in terms of other safe harbors, you can think of, as I said, many other things. It could be based on the share of the firm employing it. It could be based on the share—if there's a discount, how large a share do you have to have? I mean, if a firm had a discount that applied when it got 1% of the market, probably, we would think that is something that we wouldn't want to look at.

So I'm not saying exactly what these things should be, but I think there are, potentially, other kinds of safe harbors that would be useful and useful for counseling as well.

DEBORAH FEINSTEIN: So now the tougher case, which is, how do we know when one of these loyalty discounts that looks like a price decrease, looks like everybody's competing because we don't have the supposed foreclosed competitor coming in to complain to us, how do we even identify that case? And how do we think about trying to stop those sorts of things if we think they're a problem?

Don't all speak at once.

[LAUGHTER]

RICHARD STEUER: If Fiona is correct that everybody is benefiting, you are not going to be hearing about those cases until there is somebody who feels that they are foreclosed. And then the hard questions are looking at what is a must-have product, looking at—particularly time horizons because, obviously, if you choose not to bring a case, it's a matter of saying to somebody who feels aggrieved, go out and compete harder. You are positing a case where there is nobody who is come in and complained about it at all, which is even more difficult.

JONATHAN BAKER: I took the question to be addressing the collusive potential and so the harmed parties are the customers. And maybe they are intermediate customers and maybe they know it and complain or maybe not. But so I think the way you would identify the case is

that you would have some concern about the industry in the first place and you would be thinking about why are prices high. And you would be thinking about, is there an agreement? You may say, “well, I don’t know, but maybe this is a facilitating practice and is worth challenging for that reason.” That’s the articulation Michael Salinger used this morning, which I thought was perfectly fine. It’s just the same analysis you would bring to any concern about high prices in an industry. And this might be one of the practices that could facilitate it.

MICHAEL WHINSTON: Actually, if I could just jump in—so a lot of these collusion stories—one of the ways in which the loyalty contract is being used is to prevent access to some other rival. There’s a dominant firm that’s facilitating collusion in the vertical structure and charging a high price to retailers or distributors. But part of it is then keeping out—the distributors have an incentive to go find someone else. And that was true in Joe’s story and in some of the papers in the literature as well. So it may look like an exclusion case, but, in reality, it has some of these collusive features in the end.

I don't know if every case that we—I could imagine cases that appear because of an exclusion complaint. But, in the end, the theory is actually something that is what we, in the context of today’s discussion, would have called a collusive story.

SCOTT HEMPHILL: The last point does create, of course, a pretty important difference between what we would expect from private litigation on these cases and agency cases. I think agencies, with all the pre-complaint discovery, compulsory process, have, whether you like it or not, a kind of opportunity to be sort of curious or suspicious and jump in and kind of muck around and work out over time what the real issue is. I think a private filing a complaint would face some severe challenges. At least, I would suspect so. You know, putting out their Whinston [INAUDIBLE] story and then sort of over time moving their way toward Salinger.

RICHARD STEUER: Of course, let’s recall the reason for having all of these programs is to get closer to exclusive dealing. And if you had an industry where everybody had exclusive dealing, that wouldn’t be enough to make out a case of collusion. At most, that would be conscious parallelism without more.

JONATHAN BAKER: Well, what I wanted to add was that if the problem is collusive and if Dan's right that all the case law is being developed in the context of exclusion cases, that's another danger that the legal rule that might develop involving a price-cost test would be problematic. It could be a rule suited for exclusion cases and—if Dan had his way and some of the others, Leah—was a very skeptical rule involving a price-cost test, it could have spillover effects in impeding meritorious agency litigation when the theory isn't exclusion at all or else in Mike Whinston's version where it's exclusion supporting collusion.

DANIEL CRANE: The other problem, Jon, is that you write a rule or you institute a set of legal principles about exclusion, but thinking about collusion, they don't apply at all. So my point would be, if the agency is concerned about collusion, you're looking for different markets. I mean, first of all, the products are more likely to be fungible.

Most of the exclusion stories we've heard today rely on some degree of product differentiation. Without product differentiation, you don't get to contestable and then contestable shares of the market. So I think it would be useful to sort of sketch out, if you are going to write a report, the market conditions that would give rise to a collusion story. I think they are going to be different from the market conditions that give rise to an exclusion story. And then, if you have an exclusion concern over market and a complaining competitor, then I think you need to think about the mechanisms of exclusion and not try to write a general antitrust policy that takes into account conditions in very different kinds of markets.

RENATA HESSE: Let me try to broaden this out just a teeny bit since it seems like we're now hemmed in by whether we call something collusion or exclusion. And really, what we should be thinking about is what the impact on the consumer is. So how would you think about advising either clients or the agency in terms of thinking about these problems?

It sounds like we'd either have a price-cost test that everybody agrees on or an exclusion-based test that everybody agrees on. So where do we go from here? How do we think about these problems if you have a course of conduct or a type of conduct that appears to be discounting that's causing an impact on a rival?

MICHAEL WHINSTON: So I guess one, maybe related to this question and backing up a little bit from the price-cost test, is—one issue that came up today is a difference between, say, volume-based pricing and pricing based on share or loyalty, where the pricing depends on, basically, what a rival gets. I think those two things are different. I think often those who want a fairly laissez faire approach, their arguments tend to be about volume pricing.

So, for example, Ben Klein today, in the examples that he gave, they were all volume pricing examples. But then that is extended, by analogy, into loyalty pricing. I think one of the things the theory tells us is those two things are different. They can be in some extreme cases exactly the same thing. That point was made. But they are not always the same thing and they are often not the same thing. So I think the two things we want to approach in different ways and perhaps with different tests and safe harbors.

FIONA SCOTT MORTON: I also thought one of the interesting things we learned from professor Ailawadi is how many different marketing tools there are out there that firms seem to use in various creative ways to create incentives for distributors or retailers to do what they want. So I think, if you are contemplating favoring some kinds of contract types and disfavoring other kinds of contract types, there seem to be a lot of directions a firm could go to achieve efficiencies that are arguably procompetitive.

SCOTT HEMPHILL: Can I just pick up on that just for a minute? This also is from the same presentation. I don't remember whether it was only on the slide or whether it was also said, but you get the sense—and I've heard this from other people too—that sometimes the party engaged in the practice doesn't know why. Maybe they forgot. Maybe they did it because another firm is doing it. I would think that, from a counseling perspective, have them figure that out. And work that out pretty carefully.

And this connects just to a small second point. I was at a conference last week on a different topic and a prominent practitioner basically made the point that we sort of need clear rules. It's a little bit like "we heard we need clear rules so we sort of work with that." They analogized to tax. With tax law, they engaged in practices to try to figure out, given the letter of the law, how to do something sort of functionally similar. This was in the context of reverse

payments settlements. “As long as we know what’s legal, we can do something that kind of accomplishes a similar goal.”

Now, put to one side that tax has an economic substance doctrine that at least tries to avoid that kind of gaming, I think clearly antitrust certainly has that. So picking up a point made earlier, if the client is basically trying to figure out how to functionally accomplish exclusive dealing but without the form of exclusive dealing, the initial reaction should be you’re probably in trouble unless your *Brooke Group* really, really does carry the day across this whole terrain.

DEBORAH FEINSTEIN: Well, I tell you the answer that got a lot of time in private practice—and Richard can say if he got the same—and then you tell me all how to deal with it is, “my customers are demanding volume discounts and you told me I can’t do that under the Robinson-Patman Act so is there another way I can do it?” And the answer is, well, if you make it practically available, you can do market share discounts.

RICHARD STEUER: The other thing that comes into this is that, in talking about the supplier who doesn’t know why they’re doing it, sometimes that actually is an efficient and logical reason based on the theory that, when you are dealing with distribution, with retailers and wholesalers, that they know better how to market your product because they are closer to the customer. And although you can give them direction, you must put in six SKUs in your vending machine or you must have this display. You may not know it as well or be able to do it as efficiently as saying, “I want your undivided loyalty for this product and together we will figure out because you’re nearer to the customer, the ultimate customer, the consumer. And by having you loyal to us, we’ll come up with strategies together and you won’t share them with my competitors because you are carrying a lot of other brands.”

JONATHAN BAKER: So I'm loving this idea that, in this area of antitrust, we are dealing with firms who are maximizing profits by having no idea why they’re doing what they’re doing.

[LAUGHTER]

RICHARD STEUER: They’re sophisticated.

[LAUGHTER]

RENATA HESSE: They're very sophisticated.

JONATHAN BAKER: But I did want to take this discussion that we just had and bring it back to Renata's original question which is, "what do we do either as enforcers or counselors or whatever?" And I think this last discussion makes clear that the first thing we do is we try and develop a clear understanding of the mechanism by which the particular practice we're looking at affects the incentives of rivals and customers. What does it actually do to change the incentive space by the actors? And then we can work out from that whether it appears to be a collusive practice or is excluding someone. And then if it is excluding, we have to go think about, is competition harmed or is it just excluding someone without harming competition?

But the first step is to figure out what the practice really does. Which is another way of saying, which model really applies? The efficiency models? Which are the harmful models that are on the table.

FIONA SCOTT MORTON: I agree with that. I just want to interject something that's slightly different, but everybody always calls for more research at these kinds of things. I totally agree with that, and I wanted to echo what Julie Mortimer said earlier. Which is that it is hard to get data from firms. And it's going to be especially hard if the reason they're using the conditional pricing is to exclude or collude. I think that what you are going to see from academics probably is a biased set of results where there's a lot of nifty contacting going on that's doing really efficient stuff.

And that we should expect to see it. It's not a surprise, but I think those are the firms that would be most willing to share their data if they understand that that's why they're using those practices. So I think just a flag that the problematic cases might arise in litigation or might arise with agencies and not so much in the academic arena.

DEBORAH FEINSTEIN: So what are the proper efficiency defenses? What would be a good rationale? Is it enough that an equally efficient competitor would be able to compete? What gets us out of this box? When can the agencies not worry about a complainant? When can clients not worry about this from an efficiency standpoint, assuming that they have a

reasonably high market share and that it is a reasonably high market share loyalty they are requiring?

RICHARD STEUER: Well, I can start it. There are two sets of efficiencies. One is with the distribution channel, what I talked about a moment ago, which is that having undivided loyalty leads to certain marketing efficiencies. With end-users, it's a little bit different. There are sometimes the efficiencies of carrying a single brand, like the airline example I mentioned, which is a little bit streamlined. But beyond that is also the efficiency of using purchasing power. Which is what Dan was talking about. But it happens in a lot of industries where purchasers feel that they should be able to get the benefit of their purchasing power to be able to exact lower prices from their suppliers. So we have to look at all of that.

JONATHAN BAKER: There were really two questions there. One had to do with what are good efficiency explanations for the conduct? And the other is, what about efficient pricing? On the first one, there are lots of good efficiency explanations. We heard lots of them.

This whole area, just as an aside, reminds me of the discussions about most favored nations and customer clauses because there are exclusionary stories, collusive stories, efficiencies stories, and you got to figure it out, and it's complicated.

But I heard lots of stories about ways in which the conditional pricing practices promote complementary investments by, say, vertically related firms, by aligning incentives better or preventing free riding, eliminating double marginalization. I heard stories about cost savings, some of them were on the slides, to the seller in production and distribution and to the buyer in searching and sorting. I heard stories about price discrimination, which can be efficient and expand the market. And several of Ben's stories were like that too. So there are plenty of good efficiency stories.

As to whether the equally efficient rival test is a good one, I'm not so sure about that, however. Because the problem is that is, again, false negatives that—was it Mike who said this before?—of course the dominant firm's rivals aren't going to be equally efficient all of the time. And yet you're excluding them as a way to extend market power. So you are just missing that if you use the equally efficient rival test.

SCOTT HEMPHILL: One piece of the evaluation of efficiencies that we have only sort of talked about in passing—it's been mentioned a bunch of times, I think—is what do we make of the availability of less restrictive alternatives? If we do have a plausible efficiency and there's a plausible anticompetitive effect here, how deeply are we going to interrogate whether they could have done this some other way? I mean, knowing that we have this enormous variety of contractual tools at our disposal, why is this one being chosen instead of another one? Could this be accomplished in a less restrictive way?

If there's a way that could have been done slightly less effectively but a lot less restrictively, under what circumstances are we going to insist on that as a policy matter, I think, is a hard question that we sort of take for granted—we repeat it a lot at least. This is part of the rule of reason. "When are we going to actually do that?" is an important question, at least conceptually.

DANIEL CRANE: One point about efficiencies is that, in antitrust analysis, there are lots of circumstances when we don't require efficiency or inefficiency to be proven on a case-by-case basis. So there are plenty of models where price-fixing cartels can produce efficiencies and yet we make a blanket rule that we are not going to entertain those arguments on a case-by-case basis because we sort of have this very strong prior belief that cartels are much more likely to harm efficiency in the aggregate and that the costs of inquiring on an individual basis don't justify that inquiry. I'm not suggesting per se legality for loyalty discounts nor do I suggest that the analysis needs to be an open-ended rule of reason to the extent that, in every case, the defendant is sort of put to the burden of proving every possible efficiency.

I think part of this learning process includes some kind of evaluation of what are the generally realized kind of efficiencies, including just what we talked about, which is dominant buyers or buyers of any kind lowering their cost structure by trading loyalty for a lower price. And I think that needs to be embedded in whatever the legal rule is without requiring proof of that on an individual basis. Which we all know from the merger context, proving efficiencies on a case-by-case basis ends up meaning that efficiencies really often falls out of the analysis altogether.

RENATA HESSE: So listening to this discussion, it sounds like we're in a little bit of the world of, "you know it when you see it. I know a bad one when I see it and I know a good one when I see it." And that's not usually a very satisfying place for folks to end up in these kinds of discussions. So I'm wondering, what do you think the agencies should be doing to try to maybe develop some better guidance in this area, given that there doesn't seem to be any great consensus around any principles, at least not on this panel?

FIONA SCOTT MORTON: Yeah, I think the great strength of American antitrust law and enforcement is that it's case-by-case. You take it and you take the facts and you look at the facts and you figure out if there was anticompetitive harm. So I think one of the early panels this morning stressed how complex all these contracts can be and how complex relationships with retailers or distributors can be.

And I don't disagree with that, but I think that it's only relevant when you're trying to build a meta-model that you're then going to say, now the agency is going to take this path if A and this path if B and this path if C. I actually think it's simpler to wait until you have an example in front of you, whereupon a lot of the different cases fall away because you're dealing with a specific set of facts and it gets much easier. So I think trying to develop broad rules is quite difficult and it's not clear to me it's worth it.

MICHAEL WHINSTON: I also think there are low-cost ways of screening out a lot of cases, potential abuses of these practices where we don't think there is any real threat. Small market share for the firm using it is one example. So we're really talking about those examples and cases that aren't screened out in that way. At that point, I think you do need to look and have a very fact-specific investigation and have a theory of harm that explains both why competition and consumers are harmed and that's consistent with facts in the case.

RICHARD STEUER: Certainly, the first step is the easy one. Which is, assuming that these are effective and result in 100% exclusivity every time they're used, would that exclusive dealing be unlawful under the traditional law on exclusive dealing? If not, then you need look no further. Then it becomes much more complicated.

And I agree. What we've learned today is that it is more complicated than anyone's identified because when you put together everybody's complications that were articulated today, you've got thousands of them. I think we understand what the complications are, but I wish there were a golden thread that we could point to from today to tie them all together. I don't think it exists.

RENATA HESSE: For example, would anyone on the panel think it would be wrong for the agencies to pursue one of these cases and not use a price-cost test as two of the three cases have recently used?

FIONA SCOTT MORTON: I think price-cost tests have all sorts of disadvantages as many people have pointed out and, depending on the circumstances, might not really tell you anything very useful. But, again, you'd be hard pressed to say that that's going to be true every single time because, what is marginal cost? How do we measure these things? Are we talking about contestable share that's right where the cliff is or is the cliff located in some far distant place from the contestable share?

You can go on and on in that way. And so I think you could easily have a set of facts where the price-cost test was really just not helpful at all. But does that mean you shouldn't ever look at prices or effective prices generated by the contract? I think that would be a little bit extreme also.

DANIEL CRANE: I would urge that it's important to keep in mind the institutional context that we're talking about. If we're asking what the agencies, whether its DOJ or FTC themselves should do in an investigation or seeking injunctive relief some kind, that may be quite different than what the agency should recommend in an amicus brief to a court. Private litigation for treble damages after the fact, with juries as decision makers, is very different in terms of what's possible and necessary in terms of structuring legal rules than an injunctive action by the FTC to have someone stop doing something in the future.

So it is important because we've heard today from a number of people about the open-ended, throw-to-the-jury type instruction, which is sort of a tempting strategy. We can't answer the questions that we're answering, but if we don't have a consensus view, or economists don't

have a consensus view on something, punting it to a jury and asking them to decide is really the worst possible strategy. So I do think that, to the extent the agencies want to counsel courts as to what courts should be doing in private cases, you can't have sort of the infinite flexibility or the greater flexibility you might have if you're simply thinking about how you would formulate the case yourself as an injunctive matter within the agency.

SCOTT HEMPHILL: We do have some help also from other pre-jury techniques, from *Twombly* and from *Matsushita*. I do want to mention *Matsushita* in one other context because I have not been the only one to quote the "rarely tried and rarely successful" language from *Brooke Group* and you asked whether these other kind of pricing contexts also pick up that same degree of skepticism. *Brooke Group* said it that way but *Matsushita* actually explicitly referred to a consensus among commentators that predation was rarely tried and rarely successful.

If nothing else, I think the absence of consensus here suggests the huge degree of skepticism that we have, which may not match a consensus among commentators either for predation—that is, even as to predation, I'm sure there's a consensus among commentators that price predation is "rarely tried, rarely successful." That's certainly absent when it comes these other pricing practices.

RICHARD STEUER: I think what we've learned is between the easy cases for the plaintiff and the easy cases for the defendant, the gray area here is probably larger than in most areas of antitrust law. And the cost of making wrong decisions in terms of stopping discounts presents some dangers. So I think that, on balance, we're better off with the American burden of proof rule than the presumptive illegality rule that we see emerging in the EU.

But those are the choices.

DEBORAH FEINSTEIN: Before we turn it over to Andy and Bob for closing remarks, does anybody have any final thoughts on the issue?

RICHARD STEUER: Well, I did learn today that, applying economics, Snickers bars are interchangeable with Hershey bars, which I never would have guessed before.

[LAUGHTER]

KUSUM AILWADI [from the audience]: Only when you're at the vending machine and you have to have a candy bar.

[LAUGHTER]

MICHAEL WHINSTON: I guess, just on this last point that Richard was saying, I think you have to be a little bit careful about—again, it's this analogy. If you say we're going to be concerned about discounts that are based on market share, loyalty, that reference rivals, that we're killing discounting. There are a lot of other ways to discount, including based on just your own quantity. Now, I think this issue about Robinson-Patman is kind of an interesting and—if part of the problem is coming from a different antitrust law, what do we do? But I think you need to be a little careful about that.

RENATA HESSE: All right. Thanks to our panel.

[APPLAUSE]

CLOSING REMARKS

- **Andrew I. Gavil, Director, Office of Policy Planning, Federal Trade Commission**
- **Robert A. Potter, Chief, Legal Policy Section, Antitrust Division, U.S. Department of Justice**

ANDREW GAVIL: So as I demonstrated this morning, I don't do substance. Thank you all for joining us and participating in today's exceptional presentations and discussions. We had hoped to advance the collective thinking on these issues and our presenters have risen to the occasion and made that happen. Even if we agree that there's disagreement, I think that we have aired out some arguments that hadn't really been fully developed, and I am very pleased with how the day unfolded.

I especially want to thank our presenters and discussants who have provided us with so much intellectual food for thought. Your hard work was evident and we very much appreciate your efforts today. So please all join me in thanking all of our speakers and presenters and moderators.

[APPLAUSE]

As you all know, it takes many people to conceive of and organize a workshop such as this one, and I would like to acknowledge some of our organizers for their enthusiasm, their dedication, and creativity in assembling today's program. While it's late in the day, please indulge some well-deserved expressions of appreciation. From the Federal Trade Commission, I want to start by thanking Chairwoman Edith Ramirez, Debbie Feinstein, and Marty Gaynor for their support of the project and our planning team participants, Michael Bloom, Andrea Zach, Doug Hilleboe, Dan O'Brien, Patrick DeGraba, Mike Vita, Dan Greenfield, Chris Brian, Andrea Kelly, and Natasha Sivananjaiah.

From the Office of International Affairs for their help in securing speakers with accents, Maria Coppola, Joshua Barton Gray, and Molly Askin. And they're all saying the same thing about us. For our workshop logo and graphic work, Carrie Gelula, Teresa Peeler, Chris Hundycz, and Wayne Abramovich. And from our Office of Public Affairs, Peter Kaplan, Mitch Katz, Cheryl Warner, and Gail Kingsland. Thank you all for your work.

For today's webcasting, Bruce Jennings and our webcasting team in the back of the room. And last, but definitely not least, our events planner, Laura Kittelson.

From the DOJ, we also had a planning team and I want to thank them as well, starting with Assistant Attorney General Bill Baer and Deputy Assistant Attorney General Renata Hesse. They have both been very supportive of the project from the start and we appreciate that in and I just want to comment on how I think, together, our teams worked pretty well, splendidly, in fact. It was a pleasure to work with Bob and our colleagues at the Department of Justice. In particular, I want to cite Bob, Bob Potter, Patrick Greenlee, Matthew Mandelberg, and Sam Weinstein, as well as Jeff Wilder and Garner Kropp.

I'd like to single out one person, and I think all of us know why—Andrea Zach from the Bureau of Competition's Office of Policy and Coordination—for recognition and a special note of appreciation. As all of our workshop participants and all of the planning team members well know, Andrea has worked tirelessly over these last few months with good cheer on the workshop, tending to every detail in order to make today's workshop a success. Please join me in thanking Andrea for her dedication and patience.

[APPLAUSE]

Finally, I'd like to remind you all that the public comment period for today's workshop will remain open for 60 days, until August 22. The details of the submission process can be found in the press release announcing the workshop, which is available on our website. We encourage and look forward to receiving and considering your comments.

And, finally, I'd like to turn things over to Bob Potter from the Justice Department.

ROBERT POTTER: Thank you, Andy. When Andy explained this to me and we talked about how we were going to present, Andy said, "I'll go first and you do clean up," and I thought that sounded pretty good. And now I realize I'm in the unenviable position of everything having been said but not everybody said it. I'm the one who has to say the final words.

So I want to just say on behalf of the Department of Justice, we thank the participants for their important contributions today and their really tireless efforts to come here, present, think about these issues, make presentations that hadn't been done in advance, and contribute to the dialogue. We are very fortunate to have them. They are leading economists, leading academics, and leading practitioners. And we really thank them for that.

Secondly, I wanted to just mention that these types of workshops and the material we get at them are very, very important in our policy and enforcement planning. We look at these for years and years to figure out, "oh, wait a minute, in the workshop we thought about that issue. Let's go back and check that and think about that in the context of this particular case." So I wanted to say that this is not sort of a "one day and it goes away." This is something that is going to impact our enforcement for years and years. So I want to thank you for that.

And then, my final thing is I wanted to make a special thank you to two people. On the Department of Justice side, Matthew Mandelberg did a lot of the behind the scenes grunt work. You don't get a lot of appreciation for that. Thank you, Matthew. And then I especially wanted to double Andy's thanks of Andrea, who just did a fantastic job. Thank you, Andrea. And thank you, everybody, for coming.

[END OF WORKSHOP]