FTC-DOJ Conditional Pricing Practices Workshop
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Segment 3
The Economics of Conditional Pricing Practices (continued)
Transcript

MATTHEW MANDELBERG: Today's discussion of the economics of conditions and 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 HOLLAND 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 enforcing 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 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, 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, that 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's 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 presentation. 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 we're 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 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 substitutability 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 complimentary 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, thought. And that comes from the fact that consumers still benefit from having their first choice products available. And the substitutability 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 affects.

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's 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 diving 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 poll.

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 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 promotion 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 anti-competitive. 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 company's 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 does 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.

MODERATOR: Our next speaker's Professor Joe Ferrall.

JOE FARRELL: Thank you. so this is a complicated topic, big, scrolling topic. And I'm going to try to focus a bit and not say everything. Can we have my slides? OK. Here we go. It 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 then 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 aspect 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 anti-competitive 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 challenge is, 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 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, than 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 anti-competitive 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 the 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 [INAUDIBLE] 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 agreeing to something that 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 Siegel'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 Siegel 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 compliments 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 on 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 anti anti-competitive effects, we should step back unless the anti-competitive 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 anti-competitive 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 those 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.

MODERATOR: Thank you, Joe. Our next speaker's 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 to see and the DOJ for the invitation to come and speak with this joined this group for distinguished economists. I've assumed I was asked to come in order to provide a sort of state of play of enforcement and conditional pricing and with respect to conditioned pricing practices in the U. 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 left to 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 admissible 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 force 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, enforcement at worst. Chilling the very conduct of competition policy we signed 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 Intel judgment by the general court as exclusivity rebates. I do not share this view. I'm not sure 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 [INAUDIBLE] 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. It's 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's not just one. There's many of them. Cross member states. When applicable, of the administrative burden of assessing the full set of economic circumstances surrounding the allegedly dominant firms allegedly abusive conduct, before it actually 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 said, may seem egregiously unfair per what's dominant firms punitive even, and ironically abusive. And yet the statement of objection is a comprehensive documents laying down all the legal arguments and the supporting factual economic evidence allowing the allegedly dominant firm to defend and justify its conduct and indeed rebut any presumptions of illegality. To this effect, the defendant can even advance doubt on it's dominance, in which case whatever the conduct, it is legal.

Attempt at monopolization in Europe for most-- I'm sure everyone knows, doesn't fall under congressional rules. Is not covered. Moreover, the defendant has privilege and comprehensive access to all the information the commission itself has used to build its case. Now this and then this is system enforcement is far from perfect, arguably. It has flaws, less related to design probably. At least in my view, then and more to the implementation. But one can hardly argue that at least a systematic over enforcement, even if some individual cases may have greater merit than others. In this context, 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, commission pricing practices, are generally nearly always assigned a vigorous price competition. Moreover, I also firmly believe that an affects 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 they're not 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 the 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 present price modality.

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 AC test, sufficient competitive 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, and as efficient competitor. This AC test, in case or standard price predation serves as a sort of weak safe harbor. But the low 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 this as sufficient 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 recruitment. So again, not far away from the approach that was 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 a less 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 sufficient competitor principle in the context of non-price based abuses, such as dealing, tying, bundling, and refusing 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 a sufficient competitor would be able to trade profitably on a lasting basis.

Now, we've heard many critiques of the sufficient competitor test, even applied to price based conduct especially when implemented surprise cost tests. The most fundamental critique, at least to me, as s sufficient competitive 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 dominance firms 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 with exceptional circumstances required.

Now, applying the AC test, the sufficient competitor test, the non price abuses is obviously much less straightforward than the application to price based conduct. For example, when an exclusive deal forecloses on a sufficient 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 a sufficient 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 administratively 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 to require an AC analysis, particularly a continuitive one, in all cases of exclusionary conduct. As for refusal to supply, it is often practice possible to, at least to some extent, also evaluate whether refusal has the potential to exclude a sufficient competitor.

However, the sufficient 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 condition of 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 price 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 net worth 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, condition of 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 for rival suppliers to acquire such a minimum buyable 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 then common contracts sequentially, or discriminates across buyers, buyers may have a strong incentive to accept exclusivity inducing rebate. 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, then coming to find contractual or technical means to commit to lower its price to firms 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 dominance 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 factories, 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 consumption 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 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 won 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.

SPEAKER 2: Thank you, Miguel. We'll now turn to our discussions, 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 really 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-- 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 [INAUDIBLE] 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 Winston Bernheim Seagull. 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. There's a 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.

SPEAKER 4: 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 had 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 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 in 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 these-- 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 effect 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 entrance 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 with was this is not really a free 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 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 [INAUDIBLE], 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.

SPEAKER: 2: 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.