Slide 3-Introduction

SIMON ROBERTS: We're going to look at exclusionary abuse of dominance, and we're going to do it through looking at a hypothetical case study. The case study examines the situation where a competitor has brought a complaint against an incumbent firm alleging several forms of an exclusionary conduct. And we are going to act out the process through which the competition agency analyzes the complaint, collects information, and makes its initial evaluation.

Now, the core of the complaint is about low prices being charged by the incumbent for the product that competes with the entrant's offering. This is the price which the entrant says will drive it out of business. In other words, we're dealing with an allegation of predatory pricing.

In addressing the complaint, our emphasis throughout is on the possible anti-competitive mechanisms through which the conduct works and the implications of the conduct. We consider whether the entrant is simply being out-competed in the normal rough-and-tumble of competition on the merits and we need to examine the prices that are actually being reduced or cut and what costs should those prices actually be assessed against and over what period.

Now, jurisdictions obviously have different specific laws governing such behavior. So, what we are focusing on here is generally what is going to be at the core of a competition assessment. It's helpful, in looking at this, to appreciate that predatory pricing is part of the wider area of exclusionary abuse of dominance. And in such evaluations, the authority has to objectively consider the effect on competition, not just on the individual competitor that may be making the complaint, and of the wider effect of the conduct, especially on consumers.

A key issue that we're going to deal with is whether, although in the short run consumers appear to be benefitting from lower prices because the big price cuts that the incumbent firm has put through, in the long run, will the incumbent firm be able to raise prices or maintain relatively higher prices by undermining its actual and potential rivals? So, ultimately, is there longer-term harm on consumers from the conduct, even though in the short term it looks like consumers are benefitting?

Slide 4-Key Questions

SIMON ROBERTS: The important questions we're going to deal with here would be, starting off, is the incumbent a dominant firm in a well-defined market? What costs should the prices be assessed against? Will the entrant be excluded and will consumers be harmed? Ultimately, that trade-off of the short run versus the long run.

Slide 5-They Hypothetical Case Study Virtual Reality Consoles (VRCs)

SIMON ROBERTS: There are two companies in this hypothetical. There is Domco and there is Entco. Domco is the established, allegedly dominant producer, and Entco is the entrant. They compete in the market for a product called virtual reality consoles, a hypothetical product which is a gaming product. Domco's products are based on the proprietary Delta standard. So, its proprietary standard means only it can use it.

Entco's console uses an open standard, which we're calling the Gamma standard. So, Entco's come in and launched its product in that Gamma standard and what's happened is that Domco has recently launched its own product based on the Gamma standard.

Slide 6-Summary of the Complaint

SIMON ROBERTS: Entco has filed a complaint with the competition agency against Domco alleging that Domco is abusing its dominant position in the virtual reality console market, or the VRC market, by engaging in a number of exclusionary tactics that will drive Entco from the market, particularly that Domco has launched its Gamma machine at predatory prices.

There are a range of other complaints that have been lodged such as misinformation regarding the reliability of Entco's consoles. We don't deal with these here. We focus on the allegation that there are very low prices being charged by Domco for its Gamma console. And Entco says that what's going to happen is that this will harm consumers because, after it exits, and it alleges that it won't be able to survive for long at these prices, Domco will be able to put the prices way up for the products and also that Domco will be able to let the Gamma standard die in favor of its own proprietary Delta standard.

So, although it has a Gamma standard machine, now that is launched to fight Entco, it is not interested in that machine and it will close that down to allow its own standard to predominate. So, our discussion is going to focus on the predatory pricing claims.

Now, just at the outset, from our experience in working on such cases, we believe it's helpful to think in terms of the theory of harm, and in terms of the theory, to identify what are the necessary facts against which that theory has got to be or those theories have got to be evaluated in the actual case being considered.

Now, in textbooks, this looks like a structured process, and there is a structure to it, but in practice it's also an iterative process in the sense that you go back and forth from different theories, you get facts to evaluate the theories, and then you look from the facts and see what other possible theories should we be considering. So, it's a backwards and forwards process of debate. We have, therefore, decided to adopt such a debate style in order to work through the case. So, we've got protagonists which will be pushing more one side or the other side of the case.

Slide 7-Introductions

SIMON ROBERTS: As for myself, I come from the South African Competition Commission, but in this case, I'm chairing the meetings in the authority. And I am concerned ultimately that we are properly considering that the complaint, that we've got -- we're identifying the right questions, the necessary questions, and that as we go through the assessment we're obtaining and asking for the right information in order to be able to properly weigh up both sides of the case.

JORGE PADILLA: My name is Jorge Padilla. I will be the leading investigator in this case. I will be considering why the competition authority should take this case up and, in particular, I will be explaining the many reasons why the conduct under investigation may constitute a serious competition infringement.

ALISON OLDALE: I'm Alison Oldale with the Federal Trade Commission, currently on secondment from the UK's Competition Commission. I will play a member of the case team who takes a more cautious approach.

Let's go back to the case team now. They've spent some time doing some desk research into this complaint, and Jorge is going to present their findings.

Slide 8-Desk Research

JORGE PADILLA: Hi, we have done some desk research and we have looked at the prices of the different machines. We have looked also at their profitability, the nature of the standards, and also we have investigated the recent evolution of market shares. We have found, in particular, that Domco's Delta console, the first entrant into the market, is relatively expensive when you compare it with Entco's Gamma console. We have seen that not only prices are high, but that the financial price is telling us that Domco's profitability with its Delta machine is very, very high. It's very significant.

The price of Domco's Gamma console is way below that of the Entco's Gamma console. In fact, you know, some of the studies that we have been looking suggest that Domco has entered the Gamma market at a price that is unbeatable by Entco, a price that is way below the manufacturing and commercialization and marketing costs of the Entco machine.

Based on articles in the gaming press, it's not clear that one standard is superior to the other. We have seen that the Gamma and the Delta standards have their pros and cons, and there seems to be considerable uncertainty as to which of the two standards is going to succeed, is going to dominate the market, if any, or whether, you know, what we will find is that both standards share the market forever and ever.

While the Delta standard is proprietary, the Gamma standard is open. So, you know, everybody agrees that there may be future and further entry into the Gamma standard and nobody expects royalties to be charged there, whereas, you know, that's not going to be the case apparently with the Delta standard, because Domco doesn't seem to have any definitive plan of licensing -- for licensing its Delta machines.

As regards market share, Domco's market share has been pretty stable and very high. Its Delta machine continues to sell very well despite Entco's Gamma entry. The Domco Gamma machine has taken market share, quite a bit of market share -- actually, a significant amount of market share apparently, from the Gamma -- from the Gamma machine of Entco. But the cannibalization effect of Delta's -- of Domco's Delta share -- machine, sorry, it doesn't appear to be very significant. All in all, it seems that the strategy of entry into the Gamma market by Domco is paying off significantly.

Slide 9-Caution!

ALISON OLDALE: Well, there's some reasons we shouldn't rush into this. Customers are getting low prices and lots of choice right now. We would need to be really sure of future harm before we stepped in to stop that. And being sure in this case is going to be hard. It's a new and changing market. There is talk of some new technologies coming in, ultimate reality consoles, I think it's called, and these might prevent harm in the future. And any analysis of prices and costs in this case will be a mess. Volumes are changing. Firms are using low prices to help establish their products. Decisions depend on future forecasts that we find hard to judge.

In short, I can see us spending a lot of time investigating this case and not ending up with a clear answer either way. And, moreover, by the time we get to the end, the market may have changed completely. So, any intervention may be too late or not needed in any case.

Slide 10-The Theory of Harm

SIMON ROBERTS: I'm hearing that there's lots of things that we need to check out. It does look as if Domco's introduction of the Gamma console is at very low prices. It does look like this may be an important marketplace and it's important to take up these kinds of -- this kind of a case in order to establish a precedent as to how this could be analyzed.

But all we're deciding at the moment is whether to continue with the investigation and to obtain more information and to evaluate that against the framework we need to look at predation. So, it's important to be clear about the facts that we're going to need to collect and to evaluate in order to test the theory of harm.

Slide 12-Opening the Investigation

ALISON OLDALE: The team has opened an investigation into Domco's conduct, focusing on the possibility that it is engaging in predatory pricing. How should we structure the investigation?

The team is off to a great start. It has a clearly articulated theory of harm. This identifies the conduct of concern, low prices, and it explains how this might harm competition and consumers, by forcing rivals to exit so that Domco faces weaker competition in the future, allowing it to set high prices and putting it under less pressure to offer a variety of products to innovate and improve.

The team might add additional theories of harm as the investigation proceeds and it learns more, or it might drop this one. But at any point in time, being clear about what theories are being considered provides focus and structure to the investigation. It provides a roadmap, a set of issues which the agency will need to gather evidence about and which it will need to illuminate with suitable analysis.

Using a theory of harm to structure an investigation makes it more likely the agency will get to the end of the process and have what it needs to reach a view about whether Domco has engaged in anti-competitive conduct.

So, what is the basic framework in this case? What is the roadmap for our case team as they focus on whether Domco is engaging in predatory pricing? The team will need to gather evidence and conduct analysis about two key substantive issues. First, will the conduct force rivals to exit? And, second, will prices rise in the future as a result to an extent that makes consumers worse off overall? We can use likely exit and recoupment as shorthand for these two limbs.

But there is another aspect to the basic framework for assessing predatory pricing that I should stress, the need for caution. Predation involves setting low prices, the sort of conduct that competition authorities seek to promote when they guard competition. Falsely condemning low prices as predatory risks harming consumers in the case being investigated, but it also risks harming consumers more generally if it chills competition in other markets as firms seek to avoid the attention of the authorities and the team should bear this in mind when evaluating the evidence they gather.

Turning to the evidence itself, what evidence and analysis is likely to be helpful to the team when they investigate these key issues? I will go through some headings.

Slide 13-The Evidence and Analysis

ALISON OLDALE: First, market definition and dominance. Most investigations of unilateral conduct involve an assessment of the relevant market and the market power of the firm under investigation. The ICN has issued recommended practices on the assessment of dominance and substantial market power and has published a chapter in the Unilateral Conduct workbook on these topics.

These assessments are important for many reasons and can provide evidence both about whether the predator's actions are likely to force its rivals to exit and about the potential for subsequent recoupment.

Here, I'll highlight just a couple of points on recoupment. Starting with market definition, this involves identifying the products that compete most closely with those directly affected by the conduct in question. The team will need to find out whether customers consider standard gaming consoles to be a good alternative to virtual reality consoles. This matters. Without recoupment, high prices for VRCs once the predator has forced the prey to exit, there is no harm to consumers, and the team will need to check whether such a high price would be defeated by customers switching to other products.

Slide 14-The Evidence and Analysis

ALISON OLDALE: Turning to dominance, an aspect of this assessment to which the team should pay particular attention to is the potential for entry. Attempts by the predator to recoup its early losses through sustained high prices may be defeated if the prey is likely to reenter or if other firms can come into the market and replace the lost constraint. And without high prices in the future, the low prices currently being charged are nothing but good as far as customers are concerned.

Slide 15-The Evidence and Analysis

ALISON OLDALE: The second area of evidence and analysis I shall talk about are price cost tests. These are tests comparing prices and costs and can provide vital evidence about the potential effects of low prices on likely exit and, to some extent, on recoupment. But they need to be used with care.

The team will need to pay particular attention to the way they measure costs. The right way to do this will depend on the facts of the case and will be tied to the purpose of their test. One question that can be illuminated by comparing prices and costs is whether Domco's prices are so low that there are few legitimate explanations for them. Are they so low that they probably only make sense if they're part of an exclusionary scheme that will leave to exits and recoupment?

There can be many reasons why firms set prices that are temporarily below some measure of costs. But authorities and courts in a number of jurisdictions have noted that selling at prices below the costs the firm would avoid if it sold a bit less for a short period can be hard to justify. On its face, it looks as though the firm would be better off selling less for a short period. There might be reasons why the firm will set this low price, absent a plan to exclude rivals. A sale might generate additional revenues from follow-on products or the sale might be part of a temporary strategy to build customer awareness.

But, nevertheless, in many jurisdictions, prices below the short-run marginal cost or average short-run variable cost are considered suspicious and a good reason for continued investigation.

Another important question that can be addressed by price cost comparison is whether Domco's prices are likely to force rivals to exit. Here, the first issue is whether there is evidence that the price will be held low for a long time, at least as long as it would take to force the rivals out.

Evidence of exclusionary intent can help here, though it can be hard to come by. When reviewing documents, the team will need to take care to distinguish between an intention to take business from rivals, which is what agencies generally expect competing firms to try and do, from an intention to bring about an anti-competitive outcome, which agencies condemn.

If there is good reason to think the low price will be in place for a sufficiently long time, the team can learn something important about its potential effects on rivals by considering this question, would a rival that was forced to match Domco's price be better off exiting the market altogether and avoiding the costs involved in continuing in operation? In other words, does Domco's price force rivals to operate at a loss?

This assessment can be an important part of a predation investigation, and I will make two observations about implementing it. First, the relevant cost benchmark here will be the costs the rival would avoid if it exited the market. These will include some fixed costs, but will not include those entry costs that the rival cannot recover when it exits. Identifying these two types of costs can be a fact intensive part of the investigation.

For example, can the factory that is currently being used in the market be converted for another use? If so, staying in the market is more costly because it prevents the rival making money from the factory in other ways. If, on the other hand, the factory has no other use, it plays no role in whether exiting or remaining in the market is more profitable.

And the second important point when evaluating this sort of test is that many jurisdictions and agencies use the dominant firm's costs for this assessment rather than those of the rival, and they do this for two practical reasons.

First, the dominant firm will generally not know its rival's costs. If the agency uses rival's costs as the benchmark, the dominant firm may not know if its pricing is objectionable and this can cause problems. And, second, agencies are usually very cautious about protecting inefficient rivals. An important part of the competitive process involves firms striving for efficiencies that allow them to set prices their less-efficient rivals find hard to match, and using the dominant firm's costs as the benchmark will limit the risks of deterring this desirable activity. This benchmark is an example of an as-efficient competitor standard for exclusionary conduct.

The team will need to evaluate the evidence and analysis I have outlined carefully in light of other evidence about Domco's intentions and explanations for its pricing. Let's see how -- what they find.

Slide 17-Assessing Dominance

SIMON ROBERTS: Okay, good morning, Jorge.

JORGE PADILLA: Good morning.

SIMON ROBERTS: Good morning, Alison.

JORGE PADILLA: Alison.

ALISON OLDALE: Good morning.

SIMON ROBERTS: Thanks for all the great work you've done on this case. I've been through the file and I don't want us to get bogged down in talking about market definition. I think we can take it for granted that there's a virtual reality console market. Clearly, there will be challenges on this and we'll come back to it. But let's take that for a given at the moment. But dominance and substantial market power, that's another issue. So, let's start with that question.

Jorge, tell us your view.

JORGE PADILLA: Well, dominance, you know, it's a bit boring, but after all, abuse of dominance is an abuse of dominance and one has to check these things. So, we have found -- we have acted as the typical market share calculators and we have calculated a few market shares and we have looked at, also, profitability, to try to see whether indeed Domco is what they say it is, and we have found that the Delta machine have, you know, very, very high market shares. I mean, to some extent, it's because they were the first entrants, but very, very high. That Entco has not really taken a lot of the market following entry. Therefore, you know, we see persistent high market shares. And in terms of profitability, you know, they look pretty fat.

So, based on those market shares and the persistence of market shares and the margins, you know, that they're making on the Delta standard, they really look like the dominant player in this VRC market that we are accepting as a working assumption.

SIMON ROBERTS: Okay. So, we've got this dominant player, it looks like. We've had an entrant, I mean, so, entry costs are not, you know, insurmountable.

ALISON OLDALE: Well, I think in this case we really need to focus on whether there are barriers to entry, and I'm really not sure that we can say that there are aren't. So, two things. As I said, Entco has come in, so he's right that they haven't got a huge share in the market yet, but their share is growing quite quickly and Domco's felt it necessary to respond to that entry in some way. Clearly, they see Entco as a competitive threat. So, we've seen entry. It can't be a market where entry is impossible because it's happened.

But more interestingly perhaps, if you go through the documents -- and there are various quotes on the reports -- there are lots and lots of internal discussions of Domco about the threat they see from the ultimate reality consoles in the future. So, they are preoccupied with the worry that in the future they will face a severe competitive threat from a new technology that has got even better than anything to give to gamers a great experience. So, even if they're dominant now -- and I'm not sure that they are -- even if they are dominant now, that is not going to persist for very long.

What really matters in the predation case like the one we're looking at, because in predation remember, at the beginning, in the predatory episode consumers definitely benefit. We only worry about it if we think there's going to be a long-term harm to competition, and Domco certainly seems to think that it's not going to have an ability to act as it wants to and exploit its customers in the future because of changes in the marketplace.

SIMON ROBERTS: So, you're saying, sure, we might have this firm which has large market share, but right now, these are good competitive prices. But we worry about obviously those prices going up if Entco is driven out. But then there's this new -- what's this ultimate reality? I need my kids to explain it to me, ultimate reality consoles. This is like another generation or something, right?

ALISON OLDALE: So, as far as I can see, that is correct, it's a complete new generation, complete immersion in the gaming experience. I see Jorge is getting very excited.

Slide 18-Assessing Dominance

JORGE PADILLA: Okay. I have two comments. First, I mean, Alison is right that Entco has been growing market share, but we'll be looking at, you know, how and to what extent this is going to continue. You know, they are -- they have a different machine, a much cheaper machine, and, you know, they have been able to attract a few price-sensitive customers. What we get from the game press today is that, you know, they have got what they're going to get unless they made very significant investments.

And, you know, as we talked -- we discussed before, you know, these guys are, you know, highly leveraged and it's not clear that they're going to be able to make those investments. And, certainly, with what Domco is doing in the market, you know, I have my serious doubts. So, you know, will that progression in market share that we have observed thus far continue to the future? We have serious doubts.

There are many, many reasons also why they are going to be in difficulty in attracting, you know, existing customers out of Delta. You know, this is a market with network effects. All these games and the game consoles and the feedback effects that are generated, you know, we see also that entry to Delta and to the Delta standard, forget about it because it's proprietary. So, there will have to be, you know, further entry with a Gamma standard, you know. And if Domco prevails in what it's doing, there's going to be huge reputational concern.

We have seen also some switching costs. There are economies of scale in production. We will see when we discuss, you know, the costs and the manufacturing costs per unit, et cetera, and that economies of scale matter. We have serious doubts about the ability of new entrants to come into the market and Entco to grow its market position.

And this ultimate reality thing, it looks to me like the ultimate -- if I may say so, you know. Nobody knows what it is. Everybody talks about it. For what we know, it could be vapor-ware, you know. It's in thin air. Domco is obviously telling us all sorts of the stories about this ultimate console, but frankly speaking, they don't seem to be particularly concerned with the way that they price the Delta machine. All that they're doing is introducing a new machine in the other standard and, you know, that doesn't seem to be reflecting the concern about the ultimate machines, because if they were really concerned about that, they would be trying to invest and get into those markets rather than enter into a standard that, according to them, are *passe*.

SIMON ROBERTS: Well, we might have to get an expert in the field to tell us about ultimate reality consoles down the line. But I think, at the moment, let's work on the basis that that's uncertain and, you know, people who bought those -- the virtual reality consoles and the gamers that are making the games, and presumably they're in that market, they're on that platform.

Slide 19-Review of Domco Strategy Documents

SIMON ROBERTS: But we've got some strategy documents and -- unless you want to say anything more, Alison -- we can get some strategy documents which relate to their motivation. And I understood from the report that some of them look, you know, pretty damaging for Domco and also suggest to us that we should be picking up this case and taking it seriously.

JORGE PADILLA: Simon, the team is really excited about this and we are really -- I mean, you read these things and, man, we think that this is meaningful and we should make use of it. I mean, what these guys have done in some of the documents is we get into the market and we're going to get with these Gamma consoles, we throw away these guys, these Entco guys, and here we are reigning supreme again without that machine.

And not only that, look, look, I'm going to quote, huh? I'm quoting what they said. "After we out-compete Entco, other firms eyeing the market will think twice as they will have to get our gamers and game designers to move across to their untried offering." You know, a reputational concern -- barrier that will entrench their position forever and ever.

SIMON ROBERTS: So, it's not that you can't get into this market. That's not what we're trying to understand in terms of barriers to entry. We're saying, well, what's the likelihood of people coming into this market in the future to prevent Domco from exercising whatever market power it might have.

JORGE PADILLA: That's ridiculous.

SIMON ROBERTS: And they say, look, this is what we're going to do.

JORGE PADILLA: We remain supreme forever and ever.

SIMON ROBERTS: Well, I know economists particularly tend to be skeptical about these strategy documents, but also other documents have come out as well. So, down the line, we should be a little more cautious.

Slide 20-Review of Domco Strategy Documents

JORGE PADILLA: You should read it. You should read it.

ALISON OLDALE: I did read it. And this member of the team is a little less excited about the documents. So, I mean, I agree that that quote that you read out, it's got a nice story in it. It does hint at a real mechanism by way -- by which this conduct could lead to a harm to competition by creating a reputation that creates a barrier to entry.

But I'm bound to say two things. One, that is the best document or the worst document for Domco. We've looked through hundreds of --

JORGE PADILLA: Oh, they will cherry-pick as well, come on.

ALISON OLDALE: It is the worst -- and even that's quote, even the very best document from the perspective of taking the case is not perfect. It's not great. It talks about out-competing. Well, what's wrong with out-competing?

One interpretation of that document is that they are mainly pointing to what are the likely consequences of their perfectly legitimate response to entry, which is to respond by pricing a competing products and out-competing it. They may think that consequence of that will effect what happens in the future. But, in itself, it doesn't demonstrate conclusively that that was the only reason that they did it and that the only reason they think that Entco would get out of the market is because of exclusionary conduct on their part.

JORGE PADILLA: Would you read that document differently if I bring the numbers?

SIMON ROBERTS: Well, definitely, we're not going to run the case on the documents. We know we've been down that road before and, you know, a lot of time, money, et cetera. So, I think we've got to recognize the core of the issue. We've got to get the numbers and we've got to see, you know, what will be the harm if Entco exits and prices go up or whether there's actually going to be other -- you know, what will happen if there's other firms.

JORGE PADILLA: Okay. We have a few numbers.

SIMON ROBERTS: Okay, great. Well, let's take a break and come back after lunch and Jorge can take us through the numbers and see where we end up with some hard facts.

JORGE PADILLA: Okay. We'll see each other.

Slide 21-Obtaining Price-Cost Data

SIMON ROBERTS: Okay. So, it was interesting to look at the strategy documents, but we understand that we have to be very careful about drawing any further conclusions from them. Ultimately, we've got to understand what the data tells us.

So, Jorge, you're going to take us through, first of all, what we've got in terms of the data, what data we collected, from whom, and just help us understand what it is. And then, secondly, take us through what it means, what questions are we trying to answer with the data and what conclusions can we draw from it as well as what we need to do further. JORGE PADILLA: Okay, Simon, thank you. Well, we've done a lot of accounting these days. So, we have been looking at Domco's accounts, we have been looking at Entco's accounts, we have been looking at Domco for a period of time with respect to the Delta machine. They have been in the market, as you guys know, for a period of time. Entco, we have also looked at several periods. With Gamma, which is the Domco -- the Gamma machine of Domco, we have looked at a much shorter period of time because it just launched it a few months ago.

We've looked at how many units they have sold, you know, and what they are selling on a monthly basis, and then we have tried to calculate manufacturing costs per unit, advertising costs per unit. We've been looking carefully at what are the prices -- net prices, taking into account discounts and all that stuff. And then we have calculated margins. And as I said, we have done that for Domco and we have done that for Entco. You know, to the best of our knowledge, we have been thorough.

Slide 22-Per Unit Price-Cost Data

SIMON ROBERTS: Okay, thanks.

Alison, you have -- we've got cost data. Just to be clear about this, this is per unit data for -- we've got it monthly over a period of time --

JORGE PADILLA: Correct.

SIMON ROBERTS: -- but you just put up the most recent months so that we can work with that.

JORGE PADILLA: Absolutely.

SIMON ROBERTS: And we can go back and look at the other data in much more detail, but this is a per unit data price, costs, advertising, margins.

ALISON OLDALE: You know, I think compared to most cases that we deal with, we've got pretty good data in this case. Domco tried to mess us about a little bit and hide the ball its cost information, but I think we've gotten to the bottom of it.

SIMON ROBERTS: Okay. Well, we can also go back to them, of course, and get a hold of more data if we need it. But tell us what can we draw -- what can we understand from the data that we have got?

JORGE PADILLA: Okay, let me tell you briefly. So, let me start with the Delta machine. It's not really the machine that at stake, but I think it is a useful reference point.

So, we have thereabouts 100,000 units sold in the last month. If you look at manufacturing costs per unit, about $320 per unit. If you look at advertising, they seem to be running campaigns on a regular basis and there is -- you know, the overall cost per unit is about $30. They're selling the machines at $459, and this confirms what we already knew, they are making, you know, reasonable margins, if not fine margins on that machine, $109 per unit.

With respect to their Gamma machine, here we have been investigating what is variable, what is fixed. If you look at variable manufacturing costs, you have 260 per unit. If you look at the fixed costs, you will go to 450 per unit, and 450 may be a little bit exaggerated because it is -- you know, it may not be a steady state or a long run equilibrium level because they are selling a few units, but that's what we found from the cost accounts.

They have been advertising heavily. I mean, they want to really, you know, hit the market. So, $60 per unit.

Again, you know, maybe in the longer term, you know, that will go down because they will sell more units. But they're advertising heavy. As we know, they're pricing very, very low. They're pricing $60 per unit less than the Entco Gamma machine. And if you take all these into account, these guys are losing money and they're losing big money, actually, on each unit of the Gamma machine.

Just for reference and comparison in terms of the Gamma machine, let's look at the Entco Gamma machine. What we have done here is to look at, you know, to look at the numbers before Domco's entry and to look at the numbers after Domco's entry. And while here we were interested in understanding whether or not there was some profit sacrifice in terms of the entry of Domco, here we were trying to answer the question that you asked me the other day, which was, you know, will Entco exit. So, you know, I went and researched that and this is what we see.

Okay. So, first thing, Domco enters, these guys lose volume. As a result of that, their manufacturing costs per unit jumps up, you know, from 300, 310. They react to the entry by advertising. These guys are running big advertising campaigns, these guys are matching it. And now they are incurring an advertising cost of 50 -- $50 per unit. They have also reduced the price and tried to meet the competition with a bold price reduction but because this was a bold price point. And as a result of that, they have jumped from, you know, a healthy -- not as big as the Delta machine, but a healthy gross margin to a margin that is clearly negative.

So, what do we see? Domco losing money, Entco now losing money within that -- you know, we may be seeing some foreclosure strategy here, guys.

SIMON ROBERTS: So, this looks like, I mean, Domco has put the Gamma machine into the market just to kill Entco, and this is not sustainable. Everything's -- consumers are not going to carry those great prices once Entco is killed and has to get out of the market. But, yeah, so we should definitely take this case, eh?

ALISON OLDALE: Well, there are a couple of things that we need to think about, I think, first.

SIMON ROBERTS: Okay. Well, you know, put the other side up there.

Slide 23-Price-Cost Data Average Variable Cost Average Variable Cost (AVC)

ALISON OLDALE: Well, so, the first thing I think we need to think about is what do we really know if this is a long-term low price strategy. We all know that there are lots of reasons why firms will have temporary prices, temporary low prices, particularly when they introduce a new product and they're trying to get customer awareness. So, this might be a temporary strategy, in which case it would be wrong to look at the total costs as Jorge did including the fixed costs. We really ought to be just looking at those variable costs that would be avoided during this temporary period of low pricing. And if we look at just the variable costs, we get a very different picture.

Truly variable manufacturing costs, so this is just the materials and the energy and consumables used over a short period, is much lower, 260 as Jorge said. The truly variable cost of advertising, well, that's hard to get. I mean, we've done our best. Our best estimate is about ten. The price is 330, as you know, but that gives a fairly healthy margin. What it means is that every unit sold in this period is profitable. It's making some contribution to the fixed costs.

So, I think if we -- unless we are really confident that this isn't just a period -- a short period of temporary pricing, then we really need to look at these figures here, and the figure here indicates that there is no problem.

The other possible problem, as Jorge mentioned, even if we were looking at a different cost base is that even for -- even if we were looking to long period, we have to think that the present snapshot of costs is misleading because that's as Jorge said, volumes are very low. So, just looking at the average costs, as they are now, might give us a misleading picture of what's going on. So, I think that there are at least two issues really that should give us pause.

SIMON ROBERTS: Okay. So, this is a very different picture here, the manufacturing costs is just the materials making each machine and whereas if we take into account the robots and the factory, the factory space, et cetera, then we end up with that 450 or so I think which -- because they're using -- they're producing relatively small volumes.

But I think just coming back to this issue about, you know, what's the decision they've taken, what's the decision they have to take to keep this running and if they close down the factory, you know, could they use those robots for other things, could the factory space they are hiring you know, they save that rent, et cetera.

And, certainly, with the advertising, I mean, I've seen it in the shops. I mean, the promotional materials is out there in the front of the shop, they're selling the units -- I mean, surely we should be taking into account that, because if they decided they didn't need to carry on making this machine, they would save all of those costs. Those would all be avoided. Or are we missing something here? How are we going to map our way through?

Slide-24-Price-Cost Data Average Avoidable Cost (AAC)

JORGE PADILLA: I knew that you guys were going to comment on this question, and, you know, as you usually say, guys, make sure that whatever you say is robust. So, we have conducted a few robustness tests. And instead of relying on the 450 figure with the $50 per unit in advertising, we have tried to dig -- as far as we can with the data that we have at the moment -- and this may mean that we need to dig deeper and to ask for more information -- but with what we have at the moment, we have tried to see what would be the appropriate measure of avoidable manufacturing costs and avoidable advertising costs.

You know, because, yeah, Alison is absolutely right, you know. Not all fixed costs that we have computed initially may be avoidable. Some of them may not be avoidable and, therefore, we shouldn't take them into account.

So, we have tried to do some calculations and, in fact, we have tried to be very conservative. You know, stripping out non-avoidable costs as soon as we had some doubts about avoidability. And when we do that, we come up with an avoidable cost measure, variable plus fixed and semi-fixed but avoidable. There is about $300 per unit. We have tried to do the same with advertising and we get a figure of $40 per unit. If we take those two figures and compare it with the price, we have again a negative number. And notice, we think that we are conservative because this 300 could well be 330 or 340, because we believe that there are a number of fixed costs, as you were mentioning, that could be avoided by closing down, et cetera, et cetera.

Now, there's another reason why we think that we have been conservative and that the findings are robust. And this is because you may recall when we were discussing the documents a few minutes ago, that, you know, the documents tell us that Domco's strategy is not just one of engaging in, you know, a price war for a short period of time.

What they say -- and we have to believe that what they say is what they mean -- but what they say is that they are using a fighting brand, that they are entering the market with the Gamma machine in order to corner and exclude Entco, and after that, they're not going to retain the Gamma machine. They're going to close shop, they're going to cease the support of the -- to the Gamma standard and, you know, we are going to go back to the Delta monopoly, to the monopoly of the Delta -- Delta standard.

If that's the case, if that is the predatory strategy, then if we think in terms of avoidable costs, there are some costs that we need to count as avoidable because had they stopped or had they not engaged in the production development of the Gamma machine, those costs would not have been incurred. Which ones are those? R&D costs and development costs.

Now, we have not quantified that yet. Maybe this is something that we really need to, you know, focus on and develop more evidence, but if we those are going to significant and substantial and if we add those costs to the ones I have just introduced here then, you know, we think that this margin is not going to be minus ten, but significantly negative.

Slide 25-Price-Cost Data AVC and AAC

SIMON ROBERTS: So, Alison, just before you come in, just so I'm clear in my head, so I understand what theory we are going to be fighting if we take this case, the first thing we're doing is really saying, do the costs match up to what their strategy says?

Their strategy says, we'll run this factory, then we'll close the factory down and we are really checking whether the costs they would avoid by closing the factory down, what are they and how do those costs relate to the price. That's a theory, I understand. We might want to get more information, and it comes out with, we think at the moment that minus ten figure. So, it looks like there are -- you know, they are making some losses and that fits with the documents.

But you're saying we should also look at the -- but it's quite close. That minus ten isn't such a big number. I mean, we going to see the armies of economists doing, you know, ex-post rationalizations saying, you know, we should ignore all the documents. We must be careful about that. But you're saying let's take the R&D costs in as well. Those are big numbers, which are going to make them much more underwater than that minus ten. That, I am not so sure about. Alison?

ALISON OLDALE: Well, two comments on that. So, the first one is, I think if we were going to do it at all, we need really strong evidence that this was a strategy that involved the deliberate introduction of a new product whose only purpose was to exclude rivals and then it would then be taken out of the market. So, I'm not sure that we have that strong evidence at the moment, but we can keep digging. But we would need to be fairly sure, I think.

But the second point is, even if we have that evidence, this might be interesting. It might tell us something that would make us be a bit suspicious. If this -- if the whole profitability of introducing this new brand really looked to be deeply underwater, that might make us suspicious, but we would still have to ask the basic question of whether this strategy is likely to be effective at excluding Entco or an equally efficient rival. And for that, certainly, Entco, its development costs are sunk. But Entco's decision about whether to leave the market, the development costs, the R&D, the big up-front advertising, that's all irrelevant. It's exit decision.

So, even if we did do the additional calculation Jorge is suggesting, I'm not sure that we should, even if we did it, we'd still have to do a calculation that lies somewhere in between these two in order to look at the effects on Entco. And as you said, it's going to matter where we are in here. Minus ten is a very big number, 60 is bigger, and we will need to spend a reasonable amount of time really finding out exactly where we lie between those two.

JORGE PADILLA: Alison, I think that we are -- I agree with you that we need to focus on whether an as-efficient competitor would exit. But I think that we strongly believe -- I, at least, strongly believe that if that's the question, then we need to look for a measure of avoidable costs that includes some of these fixed and semi-fixed costs that would be saved if, you know, the company was closing the factories and ceasing operations, and that this 260 is where we look.

Now, I agree with you that, you know, we are going to face opposition, we are going to have, you know, long accounting debates. We need to be really certain about that number, that number, you know, in order to make sure that, you know, we are not in an eye fetch. So, I concur. We need to investigate those numbers. But I think that, you know, if the decision at the moment is should we go on and continue the investigation, I would vote for yes.

Slide 26-Price-Cost Data AVC and ACC

SIMON ROBERTS: In terms of -- I mean, clearly if Entco does exit, we think the prices would go up. Consumers wouldn't be getting those great prices. And that 300 that you've put up, that's pretty much in line with what we understand Entco costs are on a per unit basis anyway.

So, they are facing the same position, in a sense, that Domco is and -- but they were -- they were – they had slightly higher advertising costs. I mean, maybe they're at a bit of a disadvantage in terms of protecting their position in the market and also I think their manufacturing costs have gone up a little bit because their units presumably have gone down. So, you've got a sharing out of those costs over a smaller number.

So, where do we end up with the data we have at the moment? I know we have to get more data with that Entco exit story. I mean, it looks like they're pretty much on an eye fetch. I mean, maybe they think that they can stick it out and get some more scale going or something, but I understood that they've got a reasonable scale already.

JORGE PADILLA: So, Simon, I think that you are right and your recollection is correct. Post-entry Entco has manufacturing costs of 310. Now, you could say that this is because they've lost volume and perhaps as the market stabilizes, they would recover and would move closer to the 300. They have advertising costs of 50. Again, you could say that perhaps that's because they are reacting to the entry of Domco and they are overshooting somewhat in terms of advertising. So, they may go back to the 40 that we are estimating is kind of the long-run for an as-efficient competitor. And their price was 325 and, again, they may be trying to beat the competition of this behemoth called Domco and, again, in the long run, they may try to go again to the 330.

So, you know, at the moment they're losing money, but we think that given these numbers are relatively comparable to those and we can link them. The two calculations, the calculation for Entco and the calculation for an as-efficient competitor, give us some, you know, comfort that we are not making bold or crazy propositions, you know.

Having said so, I fully accept that we need to investigate this further, that we are going to be challenged, and that it all boils down, to some extent, to these numbers. So, I fully agree that we need to follow the analysis.

Slide 27-Are prices predatory? Price Costs Tests

ALISON OLDALE: Two final cautions.

SIMON ROBERTS: Yeah.

ALISON OLDALE: We do need to be careful. So, it is interesting to look into the actual numbers, but we need to be careful that we aren't going to end up protecting an inefficient rival. We need to pay attention also to what we think the efficient costs are so look at as an efficient competitor.

And, secondly, I do want to remind us all that if we think this is a temporary strategy, then we need to be looking at these variable cost calculations. So, we really do need to make sure that we do have some evidence that gives us confidence that this is a long-term strategy and it's appropriate to start looking at some of the longer term variable costs that are included in here.

SIMON ROBERTS: Okay. And the cautions are -- well made, of course, we've don't want to be protecting inefficient firms. That's not going to help anybody in the long run. So, I believe that helps us to clarify where we stand right now with the data. So, I thank you both very much.

JORGE PADILLA: Thank you.

Slide 28-Case For

SIMON ROBERTS: Okay. So, I think we've -- I've really understood what we've got in terms of the investigation. We've been through the theory of harm and what the appropriate tests are in terms of our law. We've been through the documents. We've looked at the data. We know we're going to have to do a bit more digging and everything.

JORGE PADILLA: Yeah.

SIMON ROBERTS: But I'm going to go to the board tomorrow and make an initial recommendation in terms of where we're taking this and I'm going to come back to the theory of harm and I'm going to say -- how does this fit into our overall set of priorities, strategies, what we should be going after. So, just bring that together for me.

JORGE PADILLA: Look, Simon, I really think that, you know, we have a case because, on the one hand, we see, in Entco's situation, we have done the numbers, as you saw before. You know, we really believe that these guys are likely to exit. Remember, on top of that, it's not just the numbers that we saw. These guys are highly leveraged. They are really indebted with lots of short term debt. You know, if they cannot meet -- you know, if they cannot produce good numbers on the following couple of quarters, these guys are out. So, you know, this is a real concern.

On the other hand, Domco really has, you know, cash reserves. They can withstand this. Will Domco recoup, which is one thing that I'm pretty sure is going through your mind? Well, you know, we do believe that they will because, you know, these guys have Delta. Delta is a great product. It's a product where they have -- you know, they make lots of money.

If they kill Entco, what they're going to do is they're going to drop this Gamma machine, they will raise prices with Delta or at least keep them as high as they have been, you know, charging for the time being and, you know, there's nobody that is going to come to the market to challenge that position. Who is going to come? I mean, the Gamma competitors? You know, there is an open standard there I guess and they could, but who's going to take the risk? Who is going to, you know, risk any money when they know that the reaction is going to be, you know, the fierce reaction that we have seen, and then, you know, what can we do? I mean, trust that these ultimate kind of stuff comes to the market? When? I mean, when is that going to come? Nobody knows.

So, we really think that, you know, Domco is going to be able to raise prices. And, yes, they have been telling us that, look, the reason why we can price so aggressively with Gamma is because we are uber and super-efficient. But, you know, the numbers don't seem to suggest that. They seem to be mortals like everyone else, you know. The numbers indicate that their profitability is not very different from that of -- or efficiency is not very different from that of Entco.

SIMON ROBERTS: Yeah.

JORGE PADILLA: So, you know, Simon, I do believe that we have a case and that you can go to the board and face their scrutiny.

SIMON ROBERTS: So, ultimately, you're saying the numbers, the theory, et cetera, says that, okay, prices look good at the moment, people have got variety, but what we're actually staring at is higher prices, an almost quasi-monopoly in the future.

JORGE PADILLA: Yeah.

SIMON ROBERTS: And its the standard.

JORGE PADILLA: That is what we believe.

SIMON ROBERTS: Okay. Now, that's clear. I think we know where we stand on that. I think ultimately we want to protect consumers and that's the consumer harm down the line.

JORGE PADILLA: Alison may see things differently, but -- you know --

SIMON ROBERTS: It is a balancing act. But, ultimately, the facts are going to -- we're going to stand up the facts against the theory and we're clear on what our position is.

JORGE PADILLA: Yeah, that's our view.

SIMON ROBERTS: Okay, thank you very much. Good job.

Slide 29-Case Against-Potential Weaknesses

SIMON ROBERTS: And, of course, this is really about balancing different sides. So, if we -- you know, when I'm going to the board tomorrow, I can say, look, these are the pros and cons. Alison, it's very important that you take me through the theory of harm again, how it all fits together so that we can be absolutely clear where we stand and what the risks are on both sides.

ALISON OLDALE: Well, I think Jorge makes some very good points, but there seems to be two potential weaknesses in the case. So, I think Jorge is probably right, that if this strategy, this low price that Domco is charging carried on for a long time, Entco would be in financial difficulties and it might be forced to exit.

But I'm really not sure that we have the evidence yet that would help us demonstrate that Domco definitely will keep this low price for a long time and will carry on with the advertising and marketing at its current levels. It could well be an introductory strategy as it tells consumers about the merits of its new product. And the case looks very different if this is a temporary strategy.

And this leads to what I think is the second hole, which is… are we sufficiently sure that there would be recoupment? Are we sufficiently sure that prices will go up in the future? So, I know it's speculative, but this ultimate reality console is a possibility and it's a possibility that seems to pray on Domco's mind to some extent, which affects the likelihood that it really is pursuing some sort of predatory strategy and for us does affect whether we think that there will definitely be problems in the future, because I really want to stress here, predation is a benefit to consumers in the short term. We need to be really sure if we're going to stop that benefit that we are saving consumers from a greater problem in the future. And I worry about whether we have the evidence to do that.

SIMON ROBERTS: Okay. Well that's obviously very important for us in terms of what we're doing. I mean, if this pricing is just the introduction of new model, I mean, clearly, you know, they need to get consumer acceptance, et cetera, and that's all good. I mean, that's low prices, getting people to buy into it. But if that's true, then Entco is not going to exit and we're going to have vigorous competition going forward. So, whereas, on the other hand, the consumer harm that there might be if there's a monopolist, as Jorge was saying, is something we have to evaluate.

I think we're going to have to go -- I'll tell the board we have to go back to the data. We're going to have to look at the data, maybe look at the time period we've got, et cetera. But at least it's very clear where we stand, I think, now in terms of the information and the analysis. So, thank you very much for all the hard work on that.

Slide 30-Balancing Exercise

SIMON ROBERTS: Okay. So, having looked at the evidence, having heard the analysis and arguments put forward by Jorge and Alison, we've ultimately got to take some kind of a decision. Although, in reality, of course, we could continue to investigate and get further information. But it is a difficult -- it's a judgment call and it's a difficult call in cases such as this. We've got to come back to the beginning. In a sense we've got to say, what does this mean about the impact of Domco's behavior on competition and consumers welfare -- consumer welfare.

On one side, we've got rigorous competition here. Domco's entry into Gamma virtual reality consoles has had a positive effect on consumers. They're getting lower prices. There's vigorous competition. They're out there marketing their products. And, so, this is benefitting consumers in the short run.

The high levels of ad spend that we're seeing might be expected or would be expected in an evolving market, persuading consumers to accept the products, adopt the products more quickly than they would otherwise. However, on the other side, Domco does seem to be protecting its significantly higher prices and margins on Delta VRCs. There's some switching across the Gamma machines, but a substantial proportion of consumers are still buying the higher-priced Delta VRCs. And on top of that, there seems a reasonable likelihood that Domco's strategy will exclude Entco and then Domco would be free to raise the price of its Gamma VRCs or to phase out the Gamma VRCs altogether, meaning the consumers would only have the higher-priced Delta VRC and potentially reduced choice as well.

Now, of course, this depends on whether there are other entrants that come into this market. And this would be a very, very important part of an analysis of potential predation in a case like this. It does seem that there are non-trivial barriers to entry and, importantly, it seems that these will be reinforced given the nature of this market. There are lot of reasons why it may be difficult for entrants to come in. However, there have been arguments about why you might get entrants not necessarily like Entco coming in relatively cold, but entrants from other gaming platforms or in the future other technologies which would have to be taken into account. And, again, further information would probably have to be collected here. So, ultimately, the antitrust organization must decide -- we must decide where this balancing of the consumer welfare gains in the very short term, but the likely harm that may result in the immediate longer term, given Domco's market power, and the effect these actions that it's having will have on the kind of reputation of Domco to deter other entrants in the future and protect its position and the higher prices and the higher profit margins that it's making from that position.

Slide 31-Epilogue

JORGE PADILLA: What implications can we draw from the hypothetical case that we have been watching? First, the assessment of exclusionary abuse is riddled with difficulties. Complaints often lack detail, often lack supporting data, and they are not entirely consistent from a logical perspective. Defendants need not collaborate. The possibility of error is therefore high. But this does not justify the non-intervention policy. It justifies a clever intervention policy.

In order to navigate through the turbulent waters of a complex exclusionary case, competition authorities may proceed in two stages as we have seen in the previous minutes. First, the competition authority should assess whether there is a plausible theory of harm, whether the characteristics of the market, whether the behavior of the company that is allegedly abusing a dominant position lead to a plausible theory -- a plausible situation of foreclosure, whether an entrant that has been acting as a dynamic force for competition in the market may be at risk as a result of the actions undertaken by a company with significant market power, actions -- conduct that may not be easy to justify from an objective perspective, actions and behavior that may be suspect.

The plausibility of the theory of harm is essential in order to continue. There are numerous allegations that, when confronted with the characteristics of the market in question, make simply no sense. There are numerous allegations of anti-competitive behavior that are simple complaints against the aggressive behavior, but legitimate -- legitimately aggressive behavior of companies with superior products, superior business skills or simply a little bit more luck.

Once a competition authority has concluded that there is a plausible theory of harm, the competition authority should move from theory to facts and check in as rigorous manner as possible that there is a well- defined anti-trust market, that there is a dominant position in that market, that the company with market power, the dominant company, has been acting in ways that are not consistent with normal competition, ways that exploit the competitive process, abuse the competitive process, distort the competitive process in a way that leads to reductions of consumer welfare.

This can be done by looking at the documentary evidence, but it also requires a thorough investigation of objective facts, of pricing behavior, of the existence of barriers to entry, of the possibility of reentry and exclusion.

And last but not least, the competition authority should also investigate whether there are pro-competitive explanations for the behavior in question and assess those and balance those against the anti-competitive theories, the anti-competitive effects using the facts of the market.

In order to minimize the likelihood of error, in order to minimize the possibility of over-enforcement or under-enforcement, competition agencies can adopt the sort of dialectic process that we have seen illustrated in this hypothetical case, a dialectic process where one part of the agency acts as a prosecutor, another part of the agency acts as a devil's advocate, and there is a third part that acts as adjudicator. In no way should the competition authority take an a priori position before it has checked that the theory of harm, that the allegations in question, are plausible from a logical perspective, from a theoretical perspective, and more importantly, that they are supported by the facts of the markets in question, by the facts of the conduct and the study by the behavior of both the dominant companies and alleged victims.

Now, these could be achieved as we have done by doing in this presentation, by dividing the team in three parts, the prosecutor, the defendant, and the adjudicator, by replicating within the team the sort of dynamics that may exist in court. It can be done differently. It can be done by structuring too -- separating the first stage and the second stage very clearly, by having a group of people conducting the first stage, you know, which is the identification of the case, the preliminary prima facie analysis of the complaint by, you know, this team being focused on assessing whether or not the theory of harm is plausible, and then in a second stage, bring a new group of people that joins the existing team and creates this sort of confrontation that we have seen between Alison Oldale and Jorge Padilla during today's presentation, the dialectic between those that are in favor of intervention and those that are against intervention.

In this way, we hope that the decisions will be better decisions and that we will deal responsibly, logically and coherently with a risk of error that is inherent in every single exclusionary abuse, because to repeat myself and to conclude, that possibility of error should not be a deterrent for intervention. What it should be is a reason why we adapt our processes, our policies, our methods to make sure that the risk of intervention isn't analyzed and that we conduct our investigations in a much more thorough, consistent, coherent and correct way.