IN THE COMPETITION APPEAL TRIBUNAL 1517/11/7/22

Salisbury Square House
8 Salisbury Square
London EC4Y 8AP

Monday 18th November- Friday 20th December 2024

Before:

The Honourable Justice Michael Green
Ben Tidswell
Professor Michael Waterson

Merchant Interchange Fee Umbrella Proceedings

A P P E A R AN C E S

Sonia Tolaney KC, Matthew Cook KC, Owain Draper & Daniel Benedyk on behalf of Mastercard (Instructed by Jones Day and Freshfields Bruckhaus Deringer LLP)

Daniel Jowell KC, Jessica Boyd KC, Isabel Buchanan, Ava Mayer & Aislinn Kelly-Lyth on behalf of Visa (Instructed by Linklaters LLP and Milbank LLP)

Kieron Beal KC, Philip Woolfe KC, Oscar Schonfeld, & Reuben Andrews on behalf of the SSH Claimants (Instructed by Scott+Scott UK LLP and Stephenson Harwood LLP)

Mark Simpson KC, Jack Williams & Alastair Holder Ross on behalf of Walter Merricks CBE (Instructed by Willkie Farr & Gallagher (UK) LLP)

Tuesday, 26 November 2024

(10.30 am)

In open court

MR VASSILIS ECONOMIDES (continued)

MR STEFANO TRENTO (continued)

MR JUSTIN COOMBS (continued)

MR DEREK HOLT (continued)

MS RACHEL WEBSTER (continued)

MR GREG HARMAN (continued)

Questions by THE TRIBUNAL (continued)

THE CHAIRMAN: Good morning, everyone.

You had your hand up, Mr Holt.

MR HOLT: Yes. Sorry, I did not want to sort of disrupt the proceedings, but (inaudible) yesterday at 4.25, and there is a brief remark I need to make regarding a correction/clarification regarding what Dr Trento was conveying about how I had put forward my discussion of the Hilton case. It will only take a minute, if that would be convenient?

THE CHAIRMAN: Yes.

MR HOLT: So I think the first point is a very quick one. Thank you to Dr Trento for correcting me in relation to the time period of the transaction data for Hilton, it was of course five years, not three, and that was not a material consideration in relation to my selection of the relative approaches, albeit of course five years of data at a monthly aggregate level I think is a short period of time to assess cost pass-on, but that is not, I think, the most significant issue.

The thing I wanted to clarify is that in Dr Trento's remarks, he, I think, conveyed, perhaps based on what I had said, that I put very little weight on the granularity of the transaction data for Hilton, and I just wanted to clarify to the Tribunal, and indeed to Dr Trento, that if that is what I conveyed that was unintentional.

I agree, and indeed have used, granular data in all of the other claimant data where available, and my view is that there really is an important trade-off in the context of Hilton reflecting that you have different levels of aggregation.

So, in sum, I agree with Dr Trento that granularity can be of assistance in identifying more precisely the relationships between prices and other variables, but that in the context of the Hilton data, with the aggregation of the costs, there are a number of concerns with that; unit aggregation bias, the mixed effect problem, and indeed the fact that some of these costs are partly fixed.

So in my view, all of these are downward bias effects, and I accept that in my analysis that is also affected to some extent by downward bias for some of those reasons, but I also accept there could be a mix effect that, although it is unclear, could go the other way.

So it is really just that context I wanted to clarify.

PROFESSOR WATERSON: Thank you.

So I wanted to continue with a number of econometric issues, or broadly econometric issues.

As I said yesterday, and as I think you agreed, broadly speaking, P is being regressed on C, just at a very broad level, so then a question comes, well, obviously there are other things that are going on and a question of what controls you think are relevant.

Maybe we will start with Ms Webster talking about what she has done in terms of control.

MS WEBSTER: Okay, thank you.

So if I start with my analysis of public data.

PROFESSOR WATERSON: Yes.

MS WEBSTER: The approach that I have taken is to look at a number of alternative specifications, some of which have no controls, some of which have a time trend as a control but no other controls, some of which have a time trend plus a Covid dummy, and then some of which have all of those and then some additional controls, such as a dummy to reflect the change in VAT in 2008.

My overarching comment would be that I do not necessarily think that the controls I have included are particularly good controls. The purpose really of including them is to understand the impact of their inclusion on the results that I get for the coefficient on the cost measure that I am seeking to measure the pass-on of.

What I find is that the results that I get are highly sensitive to the inclusion of those controls, and whether that is the time trend, or whether it is time trend and other controls, there is a large variation in the results that I get, and that is telling me something about the stability of my results and the certainty of them, if you like.

So I think the fact that I get quite unstable results suggests to me that there is quite a lot of uncertainty in my ability to reliably estimate pass-on.

PROFESSOR WATERSON: Thank you. Is that a particular issue in the public data or in other work you have done as well?

MS WEBSTER: I think it also affects the merchant data too, but to a lesser degree. I think it is more marked in the public data.

PROFESSOR WATERSON: Thank you.

Mr Holt.

MR HOLT: Yes, so briefly to cover the public data and then the claimant data respectively.

So in my public data analysis, I have recognised that in addition to the variables of interest, which are, in my case, a combination of either COGS and/or wage rate changes, that other factors potentially could affect price as well, and so I have tried to control for that through, in particular, demand. Changes in demand could be the most likely effect that would affect prices beyond those cost changes, in my view.

The way I have done that, which is a standard approach, is through the combination of a time dummy and a set of seasonal dummies as well. So that controls separately for any overtime change in demand, as well as any within-year seasonality patterns.

I also looked at some sensitivities in relation to different specifications, including the use of household expenditure, but I do have a comment in relation to that as an alternative. I put -- I really do not put weight on that particular alternative, although it actually, I think, in some cases, leads to an increase in my -- in the public data estimates of cost pass-on, because I am concerned that household expenditure interacts heavily with the Covid period, because obviously household expenditure really varied a lot during that period, both down and then back up, so there was a huge amount of variation.

PROFESSOR WATERSON: Also across sectors.

MR HOLT: Potentially across sectors, yes, but not in a way that I would suggest is linked to the normal fundamental relationships between demand and supply in the economy. It was essentially the artificial shutdown of large parts of the economy that drove that, so I find that to be artificial and therefore I have not put much weight on it.

So the claimant data, which is different in the sense that because it is in general disaggregated, and therefore I can use the panel-based approach, I have different controls, which I would accept are richer in terms of dealing with demand. The way I deal with that is through time-fixed effects. I appreciate that that might not be a terminology the Tribunal may have come across too much, but essentially what that allows for is any time-varying impact on prices through, for example, changes in demand, and in a panel setting it is possible to do that in a way that is flexible, indeed more flexible than can be done in the time series approach.

In other words, if there are any particular patterns to demand, such as, you know, increase and then decrease, or the impact of Covid and so on, then this approach, in my view, is a very flexible and useful way to deal with that.

Furthermore, I have had controls to reflect product fixed effects for the majority of the cases. The idea there is, I think, going back to yesterday's discussion, that helps to ensure that the pass-on estimate is focusing primarily on time variation of changes in product level costs, variable costs, rather than cross-sectional variation between sometimes very many products that might be in the panel.

I did say there is an exception to that. So, for instance, for Primark, there was insufficient variation at the product level to offer a reliable approach, in my view, so my product fixed effect went up one layer in order to allow for some cross-sectional variation at that level. In my view, that is the appropriate trade-off or balance to take because (a), as already said, there was not sufficient variation at the product level, and (b) because the product subsection level, which I adopt, still includes, in my view, very, very similar products. So, for example, it would be long-sleeved formal shirts or something like that, which I think is sufficiently similar to allow a useful comparison of prices and costs.

PROFESSOR WATERSON: Thank you. So would you reflect the same comment that Ms Webster said, which was the estimates, particularly on the public data, move around a lot?

MR HOLT: Yes, that is a fair comment, and I have also accepted that, and sort of written in my reports that, it is quite clear that my public data results are more imprecise and that the sensitivities do have a greater impact relative to the central estimate of my baseline than would be the case, for instance, in the claimant data. I think that reflects the different data structures.

It also reflects, actually, my modelling choice to use the first differences approach because, as a general statement, first differences models are noisier because they are not capturing the changes in the level over time as part of the model.

So I am not surprised, frankly, that the first differences approach leads to somewhat noisier estimates, less precise estimates.

PROFESSOR WATERSON: So just to check, this is first differences, quarter minus previous quarter, not this quarter this year, minus this quarter last year?

MR HOLT: No, it is Q2 minus Q1.

PROFESSOR WATERSON: Right, okay.

MR HOLT: Again, just to remind Tribunal, the purpose of that is to allow the pass-on to not necessarily be fully contemporaneous, i.e. it all has to happen within the quarter, but to allow it to take place over up to a year.

PROFESSOR WATERSON: Thank you.

Mr Coombs, I think you mainly worked with public data or your main focus was public data?

MR COOMBS: Well, in practice I have used both, so where public data was available I used public data, but in situations where the public data was not available, or the public data seemed to me to be unreliable, then I used the merchant data instead. So maybe if I just go through each of the two.

So in the case of the public data, I tested various different control variables, so a time trend, a dummy to account for the financial crisis, which occurs in the middle of the period that my data covers; monthly dummies, so essentially trying to strip out seasonal effects that you see in a lot of these sectors, you know, seasonal sales, things like that; some specific dummies to deal with some particular outliers and events.

What I do not do in the public data is I do not have a dummy for the Covid period, so I simply exclude the Covid period. So my data all stops in 2019 and, because my data starts in the 1990s or in 2000, that gives me enough observations without having to include the Covid period, so I just exclude the Covid period completely from the public data.

If I just comment on this issue that Ms Webster has raised, where I disagree with the way that she interprets what is going on here.

So what I have done is I have looked at different specifications of the model, should you include some of these control variables, and I tested whether they should be included. So, you know, is the variable -- is the control variable statistically significant, does including it produce economically sensible results, and I then determined, well, is that a specification that is robust and reliable or is it not?

I have then done what I think is the standard approach, which is you start with a large set of controls and then you gradually work down to what we call a parsimonious model, a model that includes the controls you need, but excludes the ones that make no sense or are not appropriate, and then relied on those results.

Now, the fact that the approaches I have rejected produce different results, I do not think that really tells you anything about the reliability of the results I am actually using, because I have tested down to a model that I consider to be the reliable approach and the reliable model.

So that is what I have done with the public data.

With the merchant data, there, the same as Mr Holt was explaining, I have a panel data. So I have included the product fixed effects, which I explained yesterday, or tried to explain. Hopefully I got across what that is and what that means. So essentially I am just capturing the variation over time, not across the different products.

I have included -- I have tested including demand controls, although in fact there is only one merchant where I actually found that they were necessary and kept them in my base model.

The other key point is that for the merchant data it is a much shorter and later period. So the data covers the Covid period. So there I have checked to see whether it is possible to exclude the Covid period or whether it is better to include the Covid period with a control for the Covid period, and sometimes I exclude the Covid period, sometimes I include it, depending on which seems to be more robust approach to dealing with

Covid.

PROFESSOR WATERSON: Presumably the dataset is quite small once you have excluded it?

MR COOMBS: Indeed, yes. So that is the issue, and that is why in many cases I include the Covid period with a control.

Yes, so I think that is summarises what I have done.

PROFESSOR WATERSON: Thank you.

Dr Trento.

MR TRENTO: Yes, thank you.

I have done claimant data analysis, but I also have comments on public data analysis, if I may.

On public data analysis, I think we -- there are many issues with the analysis. One of the issues is that you cannot control for all of the costs that affect prices because, for instance, if a supermarket buys French wine and then resells French wine, that goes into the CPI but it does not go into the PPI, and therefore there is a mismatch between the measure of costs and the measure of prices.

There is another issue with the CPI/PPI which is they are not designed to have a one-to-one correspondence, so there are some products that are in the CPI and not in the PPI and vice versa. So, for instance, when one analyses the price of food -- sorry, pet stores, then in the CPI you have many products, so those include pet foods, but it also includes small pets, it includes cages, it includes kennels, it includes booster injections and all these products, and then when you look at the PPI, it is only pet foods really. So there is a mismatch in there which is you cannot control for all of the costs that affect prices.

Now, to the extent that the costs that we are controlling for are correlated with the costs that you cannot include in the analysis, that will lead to a measurement error. So that is a first avenue for bias.

There is another problem which I think may be even bigger, which is in many of these models -- I agree with the models, for instance, that Mr Coombs and Ms Webster have used, which is an error correction model. The error correction model is a good model to analyse the relationship between two variables over time, so price and cost, but it is a model that does not allow you to control for other things, like demand, for instance.

Now, that creates an admitted variable bias which means the following, that you are attributing to costs changes in prices that are actually due to something else, so in this case demand. Because imagine you have wages, and then wages affect prices in two ways. One way is that they affect the cost of the firm, and, to the extent that they are passed on, that is a pass-on mechanism, but they also affect the purchasing power of families, and therefore the higher the wage, the more people can buy, or the more willing they are -- they are more willing to pay higher prices, and therefore that is another effect on prices, but it is not a pass-on effect.

Now, if you look (inaudible) control for the second effect, which is a demand effect, then you will attribute any change of wages to a pass-on mechanism, but that is not correct.

PROFESSOR WATERSON: So an example would be an increase in the minimum wage?

MR TRENTO: That would be an example, yes, I agree with that.

Then, yes, there are other issues, I think. The last one is maybe simultaneity bias, which is when you look very high level aggregate price indexes, you are looking at CPI and PPI, what is PPI? PPI is the wholesale price the manufacturers set. But manufacturers, there is evidence that they set their prices with an eye on inflation, and inflation is CPI. Therefore there may be a causality that actually goes from CPI to PPI which is not pass-on, but it is a correlation, and if you are not able to control for that, and the way to control for that would be to use instrumental variables, then you will attribute to pass-on an effect that is not actually pass-on.

PROFESSOR WATERSON: I am going to come back to that last issue in a short while, otherwise, people may want to comment on that, but we will come back to it.

MR TRENTO: Yes.

PROFESSOR WATERSON: Thank you.

So the --

THE CHAIRMAN: Did you want to say something about claimant data?

MR TRENTO: Yes, maybe very quickly.

PROFESSOR WATERSON: Yes.

MR TRENTO: Sorry, just very quickly, because this is the analysis I have done.

With the claimant data, I think the principle is that we include or we try to include all of the factors that we know from witness evidence and qualitative evidence are relevant for pricing, and that has been possible for many factors due to the availability of very granular data. We have tried to control for the effects on demand on prices for those sectors for which Covid is particularly problematic, we have included a control for Covid, and we have done a large number of sensitivity analyses, which means we have changed the model.

So we have -- I will not go into the details, but we have modelling logs and modelling (inaudible). We have a model that allows for different timelines for overhead costs to affect prices. We have a different way of treating overhead costs. Then we change -- maybe we add a variable that maybe is not in the baseline model, we see whether it changes the results, or we take out another variable or we change it.

So we did a large number of sensitivity analyses, in some cases up to more than 70 sensitivity analyses. So that is, yes, what we have done with the claimants' data.

PROFESSOR WATERSON: Thank you. That is very useful.

So focusing for the moment then on -- sorry, Ms Webster.

MS WEBSTER: May I just come back on the comments made by Mr Coombs, just briefly.

There was one particular comment that I wanted to follow up on, which is the idea that because when one includes these controls in the model, one then sees a coefficient on that control, which is not statistically significant, or it is of an odd sign, my view is it is still not right to think that the model without the control can be preferred.

The reason for that, just to give one example, would be if there was a correlation between the control that is being introduced and the cost measure. Let us say those two things are correlated, and also they both affect price, what is happening then in the model is the model is struggling to distinguish which is having an effect on price, and it may then result in a coefficient on the control that is not statistically significant, which is why sort of, from my perspective, you are damned if you do and damned if you do not. If you put it in, it may cause a problem because of the correlation between the control and the variable of interest, but if you leave it out, there may be admitted variable bias.

So really the approach that I have taken is not to try to get to this preferred model, but more to understand the stability of the result.

If, in the alternative, I had found quite a stable result when I am adding in these controls, that would give me a lot more comfort that there is -- you know, the results are more reliable.

PROFESSOR WATERSON: So, econometrically, the problem is not potential multicollinearity between the variables?

MS WEBSTER: Yes.

PROFESSOR WATERSON: Thank you.

So then an issue with public data that I wanted to raise with you. Because of the nature of that data, those data, whatever you prefer, you are going to be estimating an elasticity, the elasticity of price with respect to cost, so then -- and, as we have already discussed, there are potential issues with doing that. But then there is in my mind potentially a bigger question, which is what you multiply that by to get the pass-on, the P over the C, and I would now like you to comment on that particular issue, and so, well, we will go with Mr Coombs first and then go back along the line.

MR COOMBS: Thank you. Perhaps, just briefly, if I could respond to what Dr Trento was saying earlier regarding the public data and the fact that there are potential demand effects and endogeneity effects.

In terms of demand effects -- so obviously this potentially can arise also with the merchant data; theoretically it can arise in the public data, theoretically it can arise in the merchant data. As I said earlier, I tested this in terms of the merchant data and found out that actually it was not an issue for all but one of the merchants, which suggests that there is no reason to expect that it would also be an issue with the public data.

In terms of the endogeneity, which is almost like reverse causation of saying, well, it may be actually that prices are causing a change in cost, rather than the other way round. So I am using a lagged model, so what I am saying is what is the relationship between future prices and costs today? You can plausibly think that, you know, costs today are affecting prices in the future. It is more difficult to see how prices in the future would be affecting costs today. It requires people to have a lot of foresight about future prices and somehow be able to react to that.

So I can see the theory. There might be an issue, but in practice I think it is less plausible ...

PROFESSOR WATERSON: It is the funny old thing about umbrellas cause rain, because on days when it is going to rain people carry an umbrella.

MR COOMBS: Precisely. So one can sort of think about the plausibility of which direction of causation it is likely to go in.

So now, coming back to your question, which is about the fact that you have to convert an elasticity into a price on a pass-on level. Again, I should point out this is not a problem that is unique or an issue that is unique to the public data. When we are dealing with the merchant data, in many cases we are doing the same thing. We are estimating an elasticity which has to be converted into a pass-on level. So it is an issue that applies to both sets of data.

In terms of, you know, how you do that, in the case of the public data, what I did was I used information from the ONS. They produce what are called supply use tables, which tell you what proportion of the sector is represented by these different costs, and then use that in order to calculate a margin. I think the difficulty here is in terms of deciding, you know, which costs do you include, and that is maybe an issue that we will find there is disagreement on, because my understanding is that what other experts have done is simply taken the cost that they have included in their regression and what is the mark-up over that.

What I have done is thought about, well, what does this cost represent? So this comes back to what Dr Trento was saying earlier about potential mismatches. Now, obviously what I tried to do is make sure ideally I do not have mismatch. So he talked about, you know, pet foods and so on there. I do not use public data for that sector, I use the data from the merchant Pets at Home for that sector, because that is one sector where I could not get a good match.

In the case of groceries, I do get a very good match. I look at this and see, well, if I look at the

PPI that I am using and the CPI that I am using, do they match, and they actually match very well. In other cases they fall in between, in the sense that maybe they are imperfect, and in those cases what I have done is I have worked on the basis that the costs I am measuring are a proxy for total cost, and have used the mark-up over total cost. That is a conservative approach, in the sense that that will tend to lead to a lower pass-on estimate. The logic of doing that is I am assuming there is a relationship between the costs I am measuring and total cost and, if that is the case, then that -- then the approach I am using is correct.

The alternative assumption is that there is no relationship between the costs I am measuring and other costs. I think that is a very strong assumption in the opposite direction, and also that would -- if you take that assumption and use it, you would then end up with higher pass-on rates. So the approach I am using in that sense is to the extent that there might be some difference between the pattern of the costs I am measuring and total costs, it leads to a slight underestimate of the pass-on rate.

PROFESSOR WATERSON: Yes, I see the problem, particularly if we take an example in the airline sector where nearly all the costs are fixed, at least in the medium-term, you know, you lease the aeroplanes, you have the pilots, etc, that the variable costs are a very small component of the total cost, and you have to make some allowance for that.

MR COOMBS: You have to make some allowance for that. But also it comes back to this point about we are looking over the long-term, so we need to think about what -- you know, how -- to the extent that costs are variable over the long-term, not over the short-term.

PROFESSOR WATERSON: Yes. I think, correct me if I am wrong, but I think in your analysis you find that generally in retailing, the mark-up of revenue, if you like, over gross costs is relatively modest, it is around 3-5%, that sort of level?

MR COOMBS: Yes. If you look across the -- if you look at data that is economy-wide, then, yes, you end up with an estimate -- actually, the data that I used there is European data rather than UK data, but I do not find any systematic difference when I look at UK data and compare it with European data. But with European data, you end up with a net mark-up of about 3%, a net margin of about 3%.

PROFESSOR WATERSON: So the P over C is really quite small.

MR COOMBS: Yes.

PROFESSOR WATERSON: Thank you.

Mr Holt.

MR HOLT: Yes, thank you.

Actually let me first also briefly comment actually on a point that Dr Trento raised that I think is related to this point, which is about the matching of the price and cost indices, which obviously then comes into play also in the price-cost ratio.

So I agree with him that in general a one-to-one match, which would be ideal, is not generally available, and I would also acknowledge that the approaches that Ms Webster and Mr Coombs took to the public data, at least in some cases, led to some closer matches than the approach I adopted, which was essentially to start from the: what are we trying to achieve here? Which is sectoral pass-on estimates. What are the subsectors? I identified good and sufficiently reasonable price indices for as many as 30 subsectors and then tried to find the best available match from the costs side.

I think I was quite upfront that the matching was imperfect and, as a general proposition, that would lead to noise. So in other words, if the costs are not a one-to-one match, then obviously some of the variation in the cost would not be expected necessarily to affect prices, and that could add a downward bias, attenuation bias; some noise and measurement error is having an impact.

I do also agree with the other point, however, that Dr Trento made, which is that if in the regression there would be some other relevant costs that could affect price that are not being taken into account, and, furthermore, they would be correlated with the costs that are being taken into account, then that could lead to an admitted variable bias, an upward estimate on the costs that I include.

PROFESSOR WATERSON: A sign of that would depend on the relationship between --

MR HOLT: Yes, that is true. If there was no correlation, it would not be an issue. If it was a positive correlation, it could be an upward bias, and conversely if there is a negative relationship. I think it is fair to say that either neutral or possible positive correlation may be more likely.

PROFESSOR WATERSON: So likely to be an upward bias?

MR HOLT: Potentially an upward bias, but let me come on to how I have tried to deal with that issue.

Acknowledging a quite central difference between the approach of Mr Coombs and myself is that, whereas he is focusing on total costs, I have focused on variable costs, and so what I have tried to do is identify the best sets of costs proxies that are relevant and not limited that to one type.

So, for example, if in some public data sectors both COGS and labour were likely to be, at least to a significant level, variable, then I would include both, so to some extent I have tried to allow for that concern by taking a broader approach to which potential costs could be included.

Now, again, I accept that that still does not get you to the one-to-one match, undoubtedly. So there is the noise issue that has the downward effect, but the possible issue of admitted variable bias if the correlation point that you already identified holds.

The other issue, though, I tried to take into account is to take a price-cost ratio, which now come back to this topic, which likely reflects, essentially, as Mr Coombs was saying, the entirety of the variable cost base, so -- and the way I have done that is to take a gross margin.

So if the gross margin is essentially the revenue less the sum of the broadly variable cost, whatever is included in that, and if I am not, in my regression, capturing all of those costs but only some of them, which is the proposition that I might have an admitted variable bias, then there is an offset. It is neutralised by the fact that I am capturing more of the variable costs in the conversion from the elasticity to the pass-on rate.

PROFESSOR WATERSON: Is "neutralised" putting it a bit strongly?

MR HOLT: Well, it is. That is a good point. Neutralised if it is highly correlated. If it is not highly correlated, then I am overcompensating and, if anything, I would still have downward bias. So neutralised if it is highly correlated, because I am capturing the relevant costs in my conversion. In my view, it is either addressing the effect or possibly over-addressing the effect.

So I think -- I just wanted to make a couple of remarks around the matching point.

Now, as to the price-cost conversion point, I think it is worth bearing in mind a couple of things. First, I acknowledge, and some of the other experts have made this comment, that there is a question as to whether the price-cost information for the conversion is in a sense internal to the dataset that you are using for the regression. So I agree with that, that there is more precision to the price-cost conversion for the claimant data. Because you have essentially a single dataset that you are working with, the regression can be fairly directly linked to the prices and costs.

PROFESSOR WATERSON: More precision.

MR HOLT: More precision. Whereas for the public data that does not apply, and one, in my view, has to do the best one can to get the best available price-cost ratio for the subsector in question.

The way I have done that is to identify -- and it depends on the type of variable costs I have. If it is a PPI-type COGS cost, I have gone for a gross margin analysis for firms in the S&P 500, focusing on the UK. If it is a labour-related cost, average wage expenditure, for example, then I have looked at ONS input/output tables. So I have tried to identify essentially the best available price-cost ratio information pertaining to the public data, but I acknowledge that that adds a source of some further uncertainty.

Thank you.

PROFESSOR WATERSON: Nevertheless, some of the estimates you get for some of the sectors appear to give implausibly, what many people would think to be implausibly high mark-up -- shifting. So over 100%, well over 100%.

MR HOLT: Yes. I think you are talking about the pass-on rate as opposed to the price-cost mark-up. The pass-on rate in a number of my estimates is above 100. Now, I have not just used them all, I have filtered for either implausible results, i.e. pass-on rates that are implausible, but I have not set 100% as the threshold, but I have excluded some that were much higher than that, as well as some that were negative. That is, I think, reflecting either data issues, or the fact that in a first difference model there is imprecision as I mentioned before.

So I agree with you that some of the models led to implausible results and I have not relied on them. Some other models had results that I considered to be plausible and reasonable, albeit in some of the cases imprecise. In other cases, a joint significance test across the lags, which is my relevant criteria for considering significance, does apply, so in about 17 of the 25 cases that applies.

So I have got sort of, you know, more imprecision perhaps due to the overall modelling approach than applies to the ECM-type models that Mr Coombs and Ms Webster have adopted, but I have not ruled out taking forward results purely on the basis of significance. I have applied a filter but at a slightly higher level than that. I have excluded some for implausibility and some for very large standard errors, but I have not, you know, done that in a precise "if it is insignificant I am not taking it into account" approach.

PROFESSOR WATERSON: Thank you.

Ms Webster.

MS WEBSTER: Thank you. If I might also start by just making a comment on the comments made by Dr Trento in relation to the matching point. Dr Trento in particular mentioned the fact that PPI indices, which are available, are domestic. They relate to the price of goods that are sold from UK manufacturers at the factory gate prices which can then be used as an input by -- is an input for merchants, the costs that the merchants face.

What is missing is information on the price at which merchants can buy in products from overseas, so the price of imports of finished goods which are then for sale by the merchants. I just wanted to point out that this can be quite significant. So I think Mr Coombs and I have both decided that we cannot undertake an analysis with the public data for the clothing sector, and that is because the vast majority of product that is brought in by merchants in that sector, that is imports. So it would be inappropriate to try and do an analysis of pass-on using the public data for that sector.

But for the sectors that Mr Coombs and I still do look at, I just wanted to share some figures to just gauge the significance of this. So for automotive fuels, household furniture, the percentage of imports sold by merchants is over 30% marginally. For food and drink it is 25%. For entertainment, also 25%, restaurants.

So I just wanted to share that to give a sense of the materiality of the costs that are potentially missing.

PROFESSOR WATERSON: Yes. In fact, it is salutary to think about how small the manufacturing sector in Britain actually is; 10% of gross value added.

MS WEBSTER: Well, yes.

I do note the comments which Mr Holt makes about potential upward bias, and I suppose I am not sure to what extent that means that the estimates are conservative, in the sense that if all the true estimates are really to be a bit higher, then we are really even further into the realms of estimates that are implausible. So for me this is more a -- more a cautionary note, actually, to just understand the inherent uncertainty which comes from the inherent difficulties with the underlying data.

PROFESSOR WATERSON: Yes.

MS WEBSTER: So I will move on to the price-cost ratio.

So the approach that I have taken is very similar to -- well, similar in some respects to Mr Coombs, in that I have used the same underlying data, the ONS and the supply use tables, and as Mr Coombs says, what I have done is I have identified a price-cost ratio only focusing on the cost measure that I have got in my regressions. So I have looked at the relationship between that cost and the price then of the basket of goods that I am analysing.

I very much accept the point that Mr Coombs makes. So if it is the case that the coefficient, the pass-on elasticity that I estimate for my cost, is picking up the effect of other costs on prices, then the price-cost ratio that I use will overstate the resulting pass-on rate.

Now, I suppose my comment is: I do not really know quite what my coefficient is picking up. Is it picking up the effect on price of all of those other costs that are excluded from my regression or is it not? If it is not, then the approach that Mr Coombs has taken will automatically lead to a lower estimate of cost pass-on than is the true estimate related to his regression.

Again, that then leads me to think, well, Mr Coombs' estimates are likely to be at the lower end of the true pass-on rate associated with the regression, and therefore potentially in the realms of masking some implausibility of the results.

PROFESSOR WATERSON: Thank you.

I think there maybe I can comment on something and see people's reactions, I realise we have not come to Dr Trento yet, but -- which is that all of these estimates, of course, have error bars around them, and multiplying an elasticity with big -- with fairly substantial errors by a big number is potentially problematic, because you have this -- you know, at the lower end it might be very much different from what it is at the upper end by the time you multiplied it by something.

Is that reasonable, would the others say?

MS WEBSTER: Only to say that I think that is a reasonable statement to make, yes. My general comment on the discussion that we have had on price-cost ratios is there just is not a perfect way to do this, and there are different ways, and they will give you different answers, and you just need to recognise that that is an uncertainty.

MR HOLT: Yes, I think, as I mentioned earlier, there is uncertainty in the price-cost ratios. The way I have tried to deal with that is to look at what the ratio is from the available evidence on gross margins. I have actually looked to see if relying on the UK S&P estimates might in some cases lead to too much uncertainty due to that being based on a very small number of firms in some cases, and I have looked at, for example, global estimates, again from the same source, from S&P, and broadly they are similar.

So that gives me some further confidence that, at least in terms of the estimates of the gross margins that I am using, that it does not seem to be systematically out, but I do acknowledge that there are some noise factors due to the fact that the data source is not a direct mapping sometimes to the regression source.

PROFESSOR WATERSON: If the coefficient on the elasticity is subject to quite wide bands, then when you are multiplying it by something you are exaggerating those bands, potentially.

MR HOLT: I think that is fair. It is obviously also notable that if it is the case that the gross margins are very high, and the costs being looked at are a smaller proportion of the costs base of the relevant subsector, then one might expect that that would lead to a lower elasticity; in other words, from an average perspective it is not an issue, because the smaller the cost in terms of its relevance, the likely lower the elasticity but the higher the gross margin. Albeit, again, in the way I approached the gross margin, I am not sort of trying to match the gross margin directly to the cost itself.

So I think that somewhat avoids the issue, or at least mitigates the concern that you have identified to some extent. But, clearly, if you take a small number, put an error around it and then you do mark-up, then you obviously scale up the uncertainty to some extent, yes.

PROFESSOR WATERSON: No, I make this point only because what is generally being reported is, of course, to make it more straightforward to understand, what is generally being reported is the mean estimate rather than the standard errors.

MR HOLT: Yes.

PROFESSOR WATERSON: Which are often implicit in the tables by the stars.

MR HOLT: Yes, I think different experts have approached that in different ways. I think Ms Webster would probably say that she has actually described generally what is the range, I believe that is fair. I have provided the results in the annexes which are what the standard errors are, and identified where in some cases the standard errors were, in my view, so great that one should not put reliance on them. But otherwise you are correct in identifying that what I have ultimately taken from the results, the least where I have deemed them to pass the sort of, you know, sufficiently informative part, is then to take the mean point, yes.

PROFESSOR WATERSON: Thank you.

Mr Coombs.

MR COOMBS: Yes, well, I think the first thing to say is, you know, obviously there are imperfections in the data and difficult decisions that have to be made in the analysis, but that obviously is the situation with any econometric analysis. I have never come across an econometric analysis where I have had perfect data and have not had to make decisions and judgments about how to do the analysis, so I do not think that is anything particularly unique about this case.

PROFESSOR WATERSON: No, I agree.

MR COOMBS: Yes.

I would agree that, you know, there obviously is going to be some imprecision in the estimates and that there is also an effect from the assumptions that we are making about how we scale up the elasticity to produce the pass-on estimate. I think one thing is having uncertainty, the other thing is having an uncertainty where you know directionally where it goes. So I would say in terms of the scaling up, the approach I have taken, first of all, I think it is the more plausible approach to take, but, secondly, to the extent that it is wrong, I know which direction the bias is in. The bias is that the true pass-on rate will be higher than the estimate that I am providing.

So I think, you know, there are many cases where in my report I discuss where there is some uncertainty here, and I try to identify which direction it is going in, and this is a case where I have identified which direction it goes in, in the sense that if I have this wrong, the true estimate will be higher than the estimates that I produced.

MR HOLT: Can I just make one related remark, which is that we are obviously talking about the imprecision of the individual estimates in this context. I have recognised that, but then taken a step back and considered, well, what are these overall -- what is the overall information from having carried out this exercise telling me?

Well, broadly, the public data is showing fairly high pass-on for most of the cases, albeit with quite some variation, and I have included a number of which are actually significantly lower, like in the 40% range, having identified that perhaps they are subject to particular downward bias because of these measurement effects, but I have decided to include them in any event.

But then I looked at what Mr Coombs and Ms Webster had done on similar datasets but with somewhat different indices, different methodologies in terms of ECM versus my first differencing(?) of a less(?) approach and, again, the overall indication is that broadly the results are quite similar, broadly fairly high in most cases but with quite a bit of variation.

Now, obviously each of them put, you know, somewhat different weight and confidence on those results, and obviously Ms Webster has lower levels of confidence and Mr Coombs has higher levels of confidence, but I think it is quite instructive that all these different approaches are still leading to broadly similar results.

Furthermore, when you look at the other evidence sources, as I was saying yesterday, there is nothing to suggest that the public data is overstating pass-on by comparison to the claimant evidence. In fact, on my analysis, the average is somewhat lower, and indeed I think it is also somewhat lower than the results I adopt from the existing studies.

So I think, again, this goes back to my sort of triangulation approach. While no doubt any of these sources has uncertainties and difficulties, I think it is quite instructive that there is a broad degree of convergence, or at least common, you know, general insights that can be brought from all of them.

MS WEBSTER: May I --

PROFESSOR WATERSON: Dr Trento.

MR TRENTO: Yes, maybe only a general point, which is the following: as discussed before, we are looking at -- in the public data, we are looking at cost indices that account in many cases for less than 50% of total costs. So we have heard from Ms Webster that we do not have information on the price of imports for finished goods that can account to 25 to 30% of the cost of retailers. We do not have information -- sometimes information is not used on overhead costs. So that amounts to a large discrepancy between the price index and the cost index.

Then there may be issues about simultaneity. Mr Coombs has said that he is trying to mitigate these issues by taking future prices and current costs, and these are factual matters, really, but -- it is not for now, but my understanding is that all of the experts are taking contemporaneous prices and costs.

Now, there is a lot of uncertainty about this public data analysis, and the price-cost ratio is an additional source of uncertainty. So this is the way -- this is the way I see it: in the claimants' data, that source of uncertainty I think is just not there, because first of all, when I use modelling levels, I do not need to translate a pass-on elasticity into a pass-on rate. I have already have a pass-on rate. Second of all, when I use the modelling logs and I need to translate an elasticity into a rate, I have price and cost from the same claimant.

So, in my opinion, this is another reason why I have chosen to use claimants' data, rather than public data.

PROFESSOR WATERSON: Thank you. But do you want to comment on Mr Holt's remark just now that the claimant data tends to show similar or maybe higher pass-on rates?

MR TRENTO: I think that is correct. My point is the following: my point is not, you know, are we overestimating or underestimating with the public data, but I think what we know is that there is a bias, and that is an important reason for me not to place much emphasis on the public data.

The second thing I would like to note is that I think Mr Holt is inevitably referring to the pass-on of COGS, which is what he estimates. There is no comparison between the pass-on of total overhead costs in the two analyses. I think, to the extent that one can do a comparison, it seems to me that the analysis, when you estimate the pass-on with public data, would be higher, so suggesting that there may be an upward bias in there, but I think that does not refer to the pass-on of COGS but the pass-on of total overhead costs.

PROFESSOR WATERSON: Thank you.

MS WEBSTER: Sorry, is it -- would it be okay if I responded to Mr Holt's comment about the sort of overarching conclusions which I think can be drawn from the analysis of public data?

PROFESSOR WATERSON: Yes, certainly.

MS WEBSTER: So I talked a lot about the uncertainty, but I do want to agree with Mr Holt that when I look at the results of the analysis in the round, they are pointing towards a high level of pass-on of variable costs. So I do agree with that conclusion.

I think the significance of my comments around the uncertainty is that it causes me not to think it is reliable that I can say for sector A the pass-on rate is 78%, and for sector B the pass-on rate is 85%, because I think that the precision in the analysis is not such that I could reliably say pass-on were different in those two sectors.

So really it comes to a question about how to apply the findings from the empirical analysis, rather than sort of the broad conclusion from the analysis where I do agree with Mr Holt.

PROFESSOR WATERSON: Mr Holt, I saw you nodding.

MR HOLT: Yes. I would just like -- Ms Webster raises a very good point about what do we do once we have a range of estimates from a range of different broad sources or types of data in order to try and reach views on sectoral pass-on? I think it is quite clear that, if you look at the analysis that we have each obviously separately carried out on all three of those sources, that we are reaching broadly similar overall conclusions in relation, of course, at least to the pass-on of variable costs. There is a modest distinction between us as to in which cases are those relevant and in which cases might there be more focus on fixed costs, but, broadly, where variable costs are relevant, we are reaching broadly similar conclusions.

Now, I think her approach is to say, well, that is helpful and, you know, it is largely all fitting into 70 to 100, and I think that is as far as I can go. Any further sector-based distinction is too uncertain due to the imprecision of the various different estimates.

I do not have a strong view to say that is an incorrect approach, she is not addressing it in an appropriate way. I do not think that. What I do think, though, is that given there is quite a large range of different evidence sources, each of which is an independent one, looking at a different dataset with a different methodology, that -- and given that what we are ultimately trying to do is to get, in my view, the best estimates for each of the relevant sectors, that taking forward the averages across this evidence does give a useful input to the Tribunal to understand where are those various estimates coming out. Some of them are, you know, in the 90s, some of them are in the 70s, and so on. I think that is a useful input because it allows the Tribunal to be aware of where there is some differentiation across sectors.

But having said that, I do accept that, you know, the fact that in my overall averaging approach I have come up with, you know, 82 in one case and 85 in another is not to say that that is because there is, you know, statistically significant differentiation between the two, but that the average of the evidence is suggesting a broadly similar amount, and that if the average of all the evidence is suggesting, you know, 10 or 20% differences, that is perhaps a helpful guide to where there might be some variation across sectors, but you can still, of course, take the, you know, one-digit precision and sort of, you know, apply a degree of banding around that, if that is what the Tribunal deemed appropriate to do.

PROFESSOR WATERSON: Thank you.

MR COOMBS: Sorry, could I just make two comments?

First of all, just on something that Dr Trento said, which he said that in some cases the match between the price and the cost data is such that the costs that are being included are a minority of the costs. I would just like to clarify -- I will not speak for Mr Holt or Ms Webster, but in my own analysis, the approach I have taken was to ensure that I was including the majority of the costs in my matching between price and cost.

Secondly, and it may be that we are going to come on to discuss the merchant data, I am not sure, but we have been focusing on the public data, and identified that there are imperfections with public data, which is agreed. But we should not lose sight of fact that there are also issues with the merchant data as well. The merchant data is always one merchant's data from one merchant in a particular sector, whereas the public data covers the entire sector or subsector that we are looking at. In addition, the merchant data is capturing the change in costs of that particular merchant, and, as I think has been discussed, what we really want to be capturing is the common change in costs across all merchants in a sector, and if we just look at the data for one merchant, there is a risk that we are capturing merchant-specific cost changes, which will mean that we are underestimating the pass-on rate.

So I agree that there are imperfections with the public data, but there are also many issues with the merchant data, and I think we need to make sure we do not lose sight of the fact that none of this data is perfect and we really need to sort of look at all of it and recognise the limitations and the benefits of both.

PROFESSOR WATERSON: Thank you.

I think Dr Trento would agree that you are only looking at -- for example, let me just take an example, if you are looking at Primark, then its position might be quite different from that of, say, Selfridges in terms of -- or Jaeger or something like that?

MR TRENTO: Well, I think I agree, yes, that within a sector you can have a range of pass-on rates. My point is that there is no ex ante bias. So if the range of pass-on rate is between 20 and 40%, maybe we are taking a claimant that is on the low end side, or maybe we are taking a claimant that is on the high end side, so more close to 40%, but ex ante we do not know whether we are taking a claimant on the low end side or on the high end side, so there is no ex ante -- there is no ex ante expectation that there is going to be an underestimation or an overestimation. This is one.

The other comment I would like to make is that the experts have been provided for some of the sectors with up to three claimants' dataset to eye-ball, and I am sure Mr Tidswell will remember that there was a long phase where the experts eye-balled the data that had been provided by different claimants, and then the choice of the claimant was completely -- was only related to how good the data was, you know, to estimate pass-on. So that was the only consideration that the experts made.

So I acknowledge, yes, there could be a range, but there is no ex ante expectation that it will be biased on one side or the other.

PROFESSOR WATERSON: At the same time, I think you would acknowledge that the claimants were not chosen through a random process in an earlier stage, that they were chosen partly -- well, partly those who were willing, and you are again working with material you have and making the best job of the material that you have?

MR TRENTO: I agree.

Sorry, just one point, which I made yesterday already, but because I need to look at the pass-on of claimants and not at the whole UK economy, I have, in some sectors that I define, I only have a handful of claimants, so maybe one or maybe two or maybe three, and therefore extrapolation for those sectors is much easier for me than it would be for Mr Coombs who is actually tasked with a different objective, which is to estimate the pass-on for the whole of the UK economy. So representativeness would more of an issue, for instance, for Mr Coombs than it is for me.

MR ECONOMIDES: If I am allowed to comment just on the representativeness of the claimants, because this is a topic that we looked at specifically. I looked at it in the context of my report.

I think Dr Trento is right. He chose the sectors to analyse on the basis of the percentage of the claim that they represent, and the sectors that he focused on represent a very high percentage of the claim, about 70%, if I recall correctly. Then, as he said, it is only a small number of claimants, sometimes there is only one claimant in a sector, so the representativeness question obviously does not arise with respect to that.

We did look, though, to situations where there is more than one claimant and we found that there are some exceptions, and you rightly pointed out that there is a difference between an entry level -- a merchant that focuses on entry level price points versus one that focuses on luxury price points. That applies potentially to fashion. We did not have department stores in the claimant list, so that issue did not arise with respect to them.

But beyond fashion, where the difference was a bit theoretical, because in the list of claimants, at least as originally processed, there were no significant luxury brands, it does not arise in most cases. So, yes, one could argue that Hilton is different from a Premier Inn in terms of the price point, but we found that a lot of the dynamics in terms of the accounting treatment, in terms of the pricing models -- they need to fill up their rooms, and they need to manage their pricing to do that -- are actually quite similar.

So from a business perspective, the factors that contribute to pass-on would be equivalent. I appreciate that econometric analysis is potentially a different thing.

PROFESSOR WATERSON: Mr Holt, you wanted to come in?

MR HOLT: I think (inaudible) recent discussion is potentially referring to, at different parts of the debate, about the fact that for the claimant evidence we are relying on essentially one claimant per sector for the most part.

The first issue is whether the single claimant can represent a basis on which one can estimate pass-on and make an inference as to a sectoral rate of pass-on. While I have some concerns about whether one can do that, on the basis that it is obviously the smallest possible sample, and one would ideally have several estimates with which to look at and then reach a firm view about the sectoral rate, at the same time I also recognise that part of the approach to sectoral estimation is to recognise that the conditions for pass-on, including the unobservable demand and supply conditions and precise nature and intensity of competition, are broadly similar within a sector, and therefore, on that basis, more or less any claimant could be argued to be just as good an estimate as more or less any other.

Now, obviously you still have measurement error and the risk of the fact that there might be either a true reason for a differentiation within the sector, and you happen to have selected one on the low end or the high end, or it could be that the noise in the data means that even if it was similar to everyone else, the measurement does not allow you to sort of do that very precisely.

I think all of those problems exist to some extent, but in a sense we are where we are with the number of claimant datasets, and I think we to some extent need to work with it. I would not, however, overstate that that is representative, it is an estimate, and I think the fact that it is a single estimate intending to represent a whole sector, and I appreciate that Dr Trento thinks that, you know, he was instructed to focus on what is the evidence saying for the SSH claimants, and that is a somewhat different thing than what it is saying for the sector, but in my view, that is a further reason to sort of look at the sectoral evidence from the other evidence sources.

The reason I said there was a risk of conflating two issues is that that is all about representativeness of, you know, selecting a claimant and how the process was achieved for that. I think the second issue, though, is given that we are using an individual claimant dataset, then Mr Coombs' point is potentially valid -- in my view it is valid -- which is to say that some of these costs that we are looking at may represent firm-specific decisions that they made, they might reflect different levels of efficiency, you know, there might be particular reasons why they have got extra costs coming in, in that month, which might not be consistent with what is happening at the industry-wide level.

All of those sorts of factors, in my view, cause a risk. Now, it might not have turned out to be a material risk, but those are the sorts of things that represent a different question, which is: is a single claimant dataset going to represent a firm-wide cost change?

Now --

THE CHAIRMAN: Mr Holt, you have had quite a lot of say ...

MR HOLT: I am sorry, let me stop there.

THE CHAIRMAN: I think we need to move on.

PROFESSOR WATERSON: Thank you.

Just to say, by the way, that I was a bit surprised when I went into Selfridges in Birmingham to find there was a Primark concession inside it. Anyway ...

THE CHAIRMAN: We will take a ten-minute break.

(11.45 am)

(Short Break)

(11.55 am)

PROFESSOR WATERSON: Thank you.

So on to another topic now. This is a topic that in a sense there was some discussion about yesterday between Mr Harman and Mr Economides, which is that there is this back and forth process that you both described in different ways in the way that firms behave, and you could think of that as actually it is not just that costs cause prices, but that prices to some extent influence costs.

There are particular examples that one can think of like this. I mean, I will give you a couple of examples, but, I mean, any university knows -- any major university knows that its fees for home students are fixed, so its price is fixed, but it has a lot of control over its costs. It can say, well, we want departments to cost less, and the department head gives the unwelcome news to the academics that class sizes have got to go up, and that small groups will not be taught -- the small group options will not be taught anymore, etc. That is one example.

Another example that you read about in the papers is shrinkflation, that, you know, known value items in supermarkets, people know in some sense what the price is going to be, and then the costs are cut in order to meet that, so, you know, six biscuits becomes five or whatever.

So maybe we could -- so, in those senses, the causation is the other way round, and I thought it might be useful to have a brief discussion of this possibility before we go further. Let us start with Mr Harman.

MR HARMAN: I mean, yes, I think a firm can have many different ways in which it responds to shocks within the business, and I think the approach that you had identified is -- or the examples that you identified are things that we would see and we would expect. Obviously one way to recover overhead costs is if you could increase volume. So in your University of Manchester, if it is feasible to increase the volume of students, and assuming that the fees charged cover your variable costs, then every single additional student that you would get would make a contribution to fixed costs.

PROFESSOR WATERSON: Yes.

MR HARMAN: There would be some other considerations that would be needed, for example. I mean, how much could you increase the class size until it becomes a quality issue that students react to in some way? So they would be obviously considerations.

I think that we -- you know, we are all aware of shrinkflation. I used to remember a time when Mars Bars were huge, back in the '70s, and they seem much smaller today, so, you know --

PROFESSOR WATERSON: That reminds me of something else, but I think we will pass on that.

THE CHAIRMAN: Probably good for our health.

MR HARMAN: Yes. I think the other problem is that you may get a change in the quality of the ingredient going into certain things. So is a way to mitigate inflation, for example, to cut a corner and to increase, you know, your supply base with products? I think that is the case.

I mean, I spent quite a lot of time obviously looking at the factual record, and I do not see it discussed much, but I do not think that that tells me very much, because the paucity of the information or disclosure that was provided, you know, may exclude -- the information that could be available might actually include those types of examples, but I am not aware of, or at least many examples of, that is the reaction to take, but it is completely plausible and logical that it might.

PROFESSOR WATERSON: Mr Economides now.

MR ECONOMIDES: Thank you.

I fully agree with you that there is a two-way relationship that you described between prices and costs, and I would argue that the way the relationship works depends also on the nature of the costs.

To be more precise, you mentioned shrinkflation. I think shrinkflation, based on my experience, is more linked, for example, to a COGS increase, so if sugar increases or the price of chocolate increases, the product manufactured may shrink, because the producer wants to maintain customer affordability, they want to maintain -- they know that their kids are going after school into a convenience store at the end of every day and they have X amount of pocket money to buy, and if it goes too big then they will not buy it.

So whereas -- back to the discussion between COGS and overheads -- the fact that auditing services for the business increases the price is unlikely to find its way into shrinkflation, to impact shrinkflation in the same way.

Also -- I wanted to also take the opportunity to highlight one particularity about how overheads are managed in a business. I think we are all familiar with the concept of overhead ratio, which is essentially overheads divided by revenue. So even though we think of the P&L of a business as a cascade starting from revenue, then you go into gross margin, then you go to operating margin, actually overheads are normalised based on the revenue.

So I think Mr Harman is very right, the best way to grow -- to improve the overhead ratio is to grow revenue, grow volume, and that is the preferred way for a business. So most businesses will pursue growth because that improves the overhead ratio.

Now, if you have an increase in overhead costs and you seek to increase your prices, in most markets that will, everything else being equal, reduce your revenue, and therefore your overhead ratio will deteriorate. That, for me, is a very important point to keep in mind, that mechanically, in a typical firm, when overhead ratio deteriorates, either because revenue has declined or because overhead costs have increased, the natural instinct is not to increase prices, unless you are very fortunate to have one of those goods where demand increases when price increases.

So then the implication is, and we might get to that later, different types of cost management, and I would distinguish between cost avoidance, cost reduction and then supply renegotiation as the three types of reactions. I do not know if this is a topic of interest that we should pursue further, or you want to get to that later, or you want to prioritise other topics, but I think there is a significant difference as to the applicability of those different mechanisms to different situations, and I think it is important, especially if we are to talk about supplier pass-on, to spend a bit of time discussing the differences between the three types of costs -- cost control measures.

PROFESSOR WATERSON: Maybe you would outline that briefly now.

MR ECONOMIDES: Yes, very happy to.

So cost avoidance is the simplest one. It happens all the time; we do not often see that because it is not in the news. It is budget time, functions in a business come in with their budgets, I am sure it is the same in the universities everywhere, and things are aggregated up. Then there are -- things do not necessarily work, typically they will not work, and there is a need to reduce budgets. Typically the first thing you look at is things that have not been committed, so can we -- it is not -- maybe it is not the right time to buy this new photocopier, maybe it is not the right time to recruit an additional person in finance. Those things do not make it in the papers because those are part of the normal business.

Now, during the year that may happen again. Maybe overhead is not tracking appropriately, or a revenue is not tracking appropriately, so the business will, in their quarterly reviews, look at that and say: what have we not spent yet and what can we reduce? Without cutting costs, not letting people go or anything, but can we spend in the next quarter a bit less on marketing; maybe that person we have not found yet in finance, let us not get them in.

So cost avoidance is the easiest and happens all the time.

Cost reduction requires a trigger. Cost reduction is the type of things we read in newspapers, you know, letting people go. It is costly, it is painful, it does not happen unless there is a very clear trigger, because it distracts the organisation from its objectives.

Supplier renegotiation I would argue is pretty core to every retail business. They have buying teams that look at different products -- meat, sugar -- and they are incentivised and tasked with getting the lowest price possible all the time. If they cannot do that, then the business will fail.

So the notion that there needs to be a specific trigger to go and renegotiate with suppliers, for me is -- would be problematic and unusual. It would signal that the business is not doing its best.

I think the final point that I will say is if you look at the track record, the operating margin in the retail industry in the UK, unfortunately it is not a very positive track record, operating margins have been declining over the years. That is both the case in grocery retail and in non-grocery retail.

So the notion that businesses are -- have the opportunity to negotiate with their suppliers for better prices, but they are not doing that, and instead they are allowing their margins to deteriorate, I think it is, for me, another evidence that if there was any more to squeeze out of the suppliers, they would probably do that, and there does not need to be an additional trigger, like an increase in cost, to do that.

So I would be surprised if there is a -- if there is a lot more to be squeezed out in the context of the MSC or any other such cost, and I do not think supplier pass-on is very material in this case.

PROFESSOR WATERSON: So to summarise, supplier renegotiation is something that happens all the time, but the other two forces are more sporadic and tend to be focused more on fixed costs?

MR ECONOMIDES: Exactly. Exactly. Overheads, I would say, which include obviously variable and fixed overhead costs.

PROFESSOR WATERSON: Thank you.

So could I --

MR HARMAN: Could I reply perhaps to some of that, if it is helpful?

PROFESSOR WATERSON: Briefly, yes.

MR HARMAN: I mean, firstly, I just want to correct something that was said right at the beginning, that Mr Economides agrees with Mr Harman that growing sales is the best way to address overheads. I did not say that, I said that was one method that could be used. I also said that is not directly something that I see in the evidence of these cases. It is one potential approach, but it is not all of the options that the firm can adopt. So I think that is an important starting point.

The second is just to increase the thought of what do we mean by supplier pass-on? It was mentioned in the context of cost of goods sold, but it actually also applies to overheads. It is the provision of goods and services to the firm from external providers of products and services.

The notion that these businesses are at an efficient minimisation of cost is not borne out by the evidence, because what we actually see every single year is that there are saving targets that are required. In part that is required because of inflation; inflation hits both cost of goods sold and also of overheads.

So the company always has to be trying to minimise their costs, and there are a number of reasons, and we can come into those in due course, there are principal agent issues, there is, you know, resources, and how quickly costs can be removed from a business, and it is an ongoing trajectory of trying to achieve savings over a longer term.

I think that, you know, making comments like "we observe that in certain sectors margins have fallen", as some kind of indication that what is driving that is the inability to pass on costs, I think is potentially one-sided, because another example might be the entry of low-cost providers into the marketplace. So if you think about groceries, you have the Aldis of this world and Lidls, who have impacted the profitability of the big four groceries, because not only are they lower prices, but actually, in terms of quality, they have improved greatly as well.

So I think it is difficult to make these broad comments that there are certain types of cost initiatives, and it would be unusual for a company to adopt one rather than another, because that is a very high level statement. I think one has to look at the factual record from the claimants that have provided evidence to see if those thoughts are borne out.

PROFESSOR WATERSON: Thank you.

Now, what I would like to do is to ask the economists to comment on that, starting with Dr Trento, but in the particular context of the estimates of price and coming from cost.

MR TRENTO: Thank you.

I only have one very brief point, which is you mentioned that prices could affect costs in some instances, and I agree with that observation, and that creates an issue from an econometric point of view. Because what we estimate with the econometric analysis, we estimate a correlation between price and costs, but we do not know whether the causality is going from prices to costs or costs to prices. We are only interested in the latter, because that is a form of pass-on, but not in the former, because that is not a form of pass-on.

The way that we have tried to address this problem, I think it is a difficult issue to solve, but the way we have tried to solve the issue is that we have used granular data from the claimants that allows us to sometimes estimate a quality adjusted price, if you want. So, for instance, take the case of Primark. If Primark has a pack of five T-shirts and then it says, well, we set a price of £10 but this is no longer profitable, and then what we do is we do not change the price but we actually cut on costs, which is similar to one of the examples that you gave before. So the pack of five T-shirts becomes a pack of four T-shirts, but the price is still £10, that would be taken into account if we had information on how many T-shirts are in the pack.

So with granular data, it is a problem that to some extent can be overcome.

PROFESSOR WATERSON: Yes, good. Thank you.

So this is essentially the simultaneity problem that you have identified, that the assumption in the model is that the correlation is from cost to price but it could be the other way round.

How do the other three react to that?

Mr Coombs.

MR COOMBS: Maybe I will make two points.

The first is the point on the -- this sort of reverse causation point. So I think on that, and I have already explained that, certainly my analysis, I am using a lagged model, and I think it is less likely to be affecting the situation in a lagged model.

I think -- I agree with the point Dr Trento just made, that in terms of the merchant data, because of the way that our panels are designed, it should be picking that up and making sure that we do not have that problem.

In terms of the public data, obviously this is something that is also looked at when the indices are constructed. So when the ONS is constructing its Consumer Price Index, it is always making sure that it is making a like-for-like comparison and, you know, if it is -- the price -- if it measures the price of four shirts in January 2023, then when it comes to January 2024 it is going to measure the price of four shirts, not three shirts. It will make sure that it is making that like-for-like adjustment.

Just more generally on the sort of extent to which this might be a problem, I think, coming back to your example, Professor Waterson, of the university. With respect, I think universities are not typical of the merchants that we are looking at. So this is one reason why I did not actually analyse the data for the University of Manchester, because as you said fees have been fixed for the past more than ten years or whatever until this year, until my daughter goes to university and the fees go up, but --

PROFESSOR WATERSON: They only go up for her, of course, not for people in the second and third year.

MR COOMBS: Indeed. But that is quite unusual. Most of the merchants we are looking at, obviously they are constrained by a demand curve and competitors, but they do have, in some sense, the freedom to choose their prices. When it comes to their costs, if they want to renegotiate costs, they cannot just go and change the cost in the same way they can change the price, they have to negotiate. That then raises the issue of how much bargaining powers do these retailers have against their suppliers? So I think there is a difficult question there.

So that was the first point I just wanted to make. So, you know, I think I am rather sceptical about this mechanism and the extent of supplier pass-on.

The second point I would just make is in terms of --

to the extent that this is relevant to Mr Merricks' claim, where I am not quite sure exactly how relevant it is, and I think this depends on how the Tribunal goes about reaching its judgment in this case, but hypothetically, you know, what Tribunal might do is the Tribunal might look at the evidence that we have been discussing over the past day and a half and, on the basis of that, decide that there is some pass-through to consumer prices, and that pass-through is X%. I am not going to presumptively suggest what the number is today, but the Tribunal says it is X%.

Then that leaves Y%. 100 minus X is Y%. That is the remainder. So X% is the loss that consumers have suffered. Y% is potentially the loss that merchants have suffered. The argument that is being discussed now is maybe it is less than Y, because maybe there was some supplier pass-on, which means that some of that loss was actually incurred by suppliers to the merchants, and not all of it was incurred by the shareholders of the merchants.

If the Tribunal sort of reaches its decision in that sequence, this supplier question is a question between the merchants and the schemes, because the Tribunal has already decided that the loss to consumers is X%, and that is the loss that had been suffered by the consumers that Mr Merricks is representing.

So just in terms of the logic of this and how it fits in, I just sort of wanted to make that point that depending upon how the Tribunal thinks about this, it might be that the issue of supplier pass-on is really an issue between the merchants and the schemes rather than an issue for Mr Merricks and his class.

Did that make sense?

PROFESSOR WATERSON: That would be quite handy for you.

MR COOMBS: Anyway, I just wanted to clarify that logic.

PROFESSOR WATERSON: Mr Holt.

MR HOLT: Thank you. I think I have four points.

The first is just building on your example of shrinkflation. I do not see this as actually inconsistent with the framework of cost pass-on. All you have to do is think about, well, what is the price per unit that the customer is paying? It has gone up. Okay, sure, you have to maybe think about is it the price per Mars Bar or the price per gram of Mars Bar? If you want to think about it as the price per Mars Bar, then perhaps the chain was: the cost went up, the price would otherwise have gone up, and then there was a price point concern, i.e. no-one is going to pay £1.10 for a Mars Bar, we have to stay at 99p, so let us, you know, get the cost of goods sold back down.

In other words, the chain was: the cost went up, the price went up, but actually, you know, infinitesimally, because they did not really want to do it, the price went back down and costs came back down, mainly because the relationship was we need to, you know, take account of what are the variable costs when we set a price and set something that makes sense.

I think in terms of the helpful example that Dr Trento provided about the Primark T-shirts as a good example of shrinkflation, I entirely agree. That would be taken into account in our claimant modelling, irrespective of whether you do product fixed effects, because in that case you would look at only time variation, and the switch from the, you know, £10 for five shirts to £10 for four shirts would not be a data point you would use, but you would look at whether at any point in time and for any of the other products costs did change and that impacted on prices.

Now, in Primark, actually, I have used the subsection level, so those would likely be in the same subsection, and the cross-sectional variation would therefore be informative, and I think the cross-sectional variation would indicate a relationship in this particular example; in other words, the COGS for the case of five shirts would be somewhat higher than the COGS for the case of four shirts, and that cross-sectional variation would both be taken into account and indeed relevant, so I do not think it is really a problem.

Let me make a more general point about simultaneity, which Dr Trento has raised on a couple of occasions, assuming that we are not having a whole separate topic on it, but it has sort of already been captured.

In Holt 11, i.e. my first main report of the proceedings, confusingly, I did acknowledge that there could be a relationship of the type that Dr Trento identifies; in other words, it could be that, for example, because of an increase in demand, that would both push up the price of the products I am looking at in the public data, but also potentially push up the cost of the inputs due to the increase in demand raising the price for those as well. So I acknowledge that.

My answer to that was: I do not consider it likely to be of great significance in the context where (a) I am controlling for demand. In the public data I control for demand, albeit in an imperfect way. But perhaps more importantly, because I am carrying the analysis out at a sub-sectoral level. So essentially the supply elasticity at a sub-sectoral level, i.e. a more disaggregated level of the economy, is likely to be greater, because there is more scope for substitution, and in general this simultaneous impact between price and cost is highlighted more at the aggregate level, i.e. the overall macroeconomy PPI/CPI relationship.

My understanding of the literature is that that has not been identified at the more disaggregated level, and it certainly would not be expected to feature at the claimant or individual firm level, and indeed, as I have mentioned before, at the claimant level you can control for this anyway through the more flexible demand control, and indeed the results from the public data and the claimant data, as I mentioned before, do not suggest any significant issue.

So that is briefly on simultaneity.

I also do not think that the example given earlier -- that if you raise the wage, that will feed through into increased prices -- is one that is likely to be of concern in the claimant analysis or in the sub-sector analysis, because I can very well see that an increase in wage of a McDonald's employee will lead to perhaps some greater purchasing power. But how much of that is going to go back into McDonald's burgers or, you know, the sub-sector, I think the size of the effect is probably modest.

Then, finally, on supplier pass-on. I have not been instructed to address it, it is not a point of principle that I think is consistent with my long-term framework, but I can very well see, in the alternative world, that the sets of facts -- counterfactual position of the proceedings and relevant economic principles that I think are most relevant, if the Tribunal for whatever reason went a different route on that, then this would be something that you would need to investigate, potentially. My main concern in that regard would be how would you proceed on that basis, given the nature of the information disclosed?

PROFESSOR WATERSON: Thank you.

Ms Webster.

MS WEBSTER: Yes. I will be brief, because I think Mr Holt has given a very fulsome answer, of which I agree with actually I think almost all of what he said.

On his first point, about how to interpret the shrinkflation example that you give. For me, that is an example of an increase in the effective price that the customer is paying. So I think that sort of is very similar to the issue that we are measuring anyway in terms of sort of the relationship between the cost and the price.

I do not have anything to add on simultaneity on this example with the wages. I have considered it in my work and then considered that it is not a major issue.

Then in relation to supplier pass-on, again, it is not an issue which I have been instructed to consider. As an economist, I start from a position of I would expect the profit-maximising firm to be optimising its costs, and therefore, if there is to be a change in costs, then the sort of -- as the economist, the most natural solution to that is I do not expect the business to go out and find further cost savings, because I would expect they would have been found anyway, earlier, if they were available.

Then I suppose I take a step back, just as I have in relation to price pass-on, and say, but, you know, in reality, the world is not always like that, and firms are not always profit-maximising in quite the way that we describe in this sort of fine-tuning of prices or costs. So I do not rule out that, you know, in response to an increase in costs the business may look harder at, you know, all of the costs that it is incurring. More management attention and focus on that may lead to some savings.

Then that is where I need to stop because, for certain, that is the sort of the role for the factual evidence.

PROFESSOR WATERSON: Thank you.

So I think we will move on now to another topic. Essentially it is my last topic. For this, I think we will -- this is to do with the longer term and, in particular, the fact that for Merricks obviously the claim, as we have heard several times, covers a much longer period. So this is the question of how much can we infer from the evidence about the longer period, and obviously this particularly concerns Mr Coombs, but it may -- but I know that Mr Economides has also opined on this point, and others may have a view on this point, but it is probably not much of an issue for the merchants currently pursuing their claim.

So, if we look back at -- you may think I have forgotten about them, but if we look back at Ms Webster's two diagrams, and we have a number of other diagrams from Mr Economides which possibly represented a different picture. So maybe, Mr Economides, you would remind us of the sort of -- make a precis of what you said yesterday.

MR ECONOMIDES: I am very happy to, and I appreciate that my colleagues have not necessarily had the time to fully process, so I will avoid providing specific numbers and I will just focus on the principle, which is that some of the data that we saw in Ms Webster's report justifiably overestimates the change in penetration of credit and debit cards over time, not in the sense that the current level of penetration is wrong, but it was not as low as it appears to be in the chart some years ago. The penetration was probably already higher than that chart indicated simply because of the way the value of cheque transactions were dealt, and the fact that they were included in the denominator of transactions in the past when they were significant. They are still included but they are only now 12% of the total, whereas back then they were 80-something based on those calculations, and a good portion of those -- I will not venture to say what that portion might be -- referred to business transactions, so therefore that has the effect of depressing the card -- the debit and the credit card share of total transactions.

PROFESSOR WATERSON: But your point about the earlier period was that you were essentially speculating.

MR ECONOMIDES: I was speculating, I was making an educated guess that with some -- backed by the data from the British Retail Consortium for 2010, and using that as an anchor, that, working backwards from this, at least for 2010, where the British Retail Consortium data exists, the penetration was higher than that chart suggested.

Now, me trying to bring that data back to 1995, that was the part that I did on Sunday, and that I can appreciate is much -- it is more difficult to have confidence on, but already in 2010 the number from the British Retail Consortium was higher than that chart, much higher than that chart suggested.

PROFESSOR WATERSON: Yes.

So, Ms Webster, I do not know whether you want to come back on those issues at all?

MS WEBSTER: So the question which I have is I can talk specifically about the card usage data, if that is what is most useful, otherwise I could say more generally the framework which I have been using to think about the extrapolation over time, because I think only part of what I have set out in my report relates to card usage, and other elements of what I consider would be relevant factors to consider over time are not related to card usage but to card acceptance.

PROFESSOR WATERSON: Yes, of course, you have this other diagram, the card acceptance one.

MS WEBSTER: That is right.

PROFESSOR WATERSON: But, forgive me, card acceptance has gone up at the beginning of the Merricks period from 33%, if I am reading your diagram right, and is now up at about 60%. So maybe you could say more about that point and then come back to any other comments that you want to make.

MS WEBSTER: Okay, thank you.

So the way that I have thought about whether one needs to make an adjustment on pass-on rates; so let us say as a result of the work that we have done we have an estimate for pass-on for the merchant claim period, and then the question is: do we need to make any adjustment to that, going back in time to the Merricks' claim period?

I think there are three factors which, in my mind, would need to be taken into account.

The first one is: if we are in a world where, let us say, the Tribunal has decided that most merchants treat the MSC as a variable cost and seek to pass it on as such, then the question is whether the pass-on rate for that variable cost in the merchant period should be adjusted going back in time, and I -- and what we have also discussed, through the discussion about economic theory yesterday morning, is that a key driver of the rate of pass-on is the degree to which a cost is commonly incurred across competitors.

So what I have thought about is whether, going back in time, there is a lesser degree of commonality of MSC costs which, if there were to be, that may cause me to think, well, the pass-on rate in the Merricks' period would have been lower. So I have investigated that issue as best I can, acknowledging that, you know, the data is what it is, and I have looked -- I have looked at card acceptance rates, and so this is the figure in Annex 2.

Just to say, there is a structural break in this data where the recording approach differed and that is where the dotted line is, so that is why the figures jump down by 10%. So if one were recording on a consistent basis, one might say that the increase -- and, sorry, you think the trend is the same -- one might think the increase in penetration is something from sort of 33 up to 80, rather than -- sorry, 70, rather than 60.

So what I have taken from that chart and that trend is there is actually quite a big difference in acceptance rates between the 1997, which is where this goes back to, and 2021. Now, that potentially means -- sorry, and the other factor that I have taken into account is sort of some limited factual evidence that I could find, which is there did appear to be competitors in retail markets that took a different approach to whether they would accept cards or not. So Waitrose accepted card payments in 1995 and M&S accepted them in 2000 and, similarly, House of Fraser in 1994 and

John Lewis in 1999. So there is sort of -- generally across the market there is an upward trend in card acceptance, and then within some specific markets there is evidence of competitors doing different things, which to me means that there potentially is lower commonality in the Merricks' period.

I have not tried to quantify that in any sense in terms of what that means for lower pass-on in the Merricks' period because I think the evidence is not such that I am able to do that with any confidence, but I note it is a factor.

PROFESSOR WATERSON: Does it vary a lot by sector? Have you looked into that issue at all?

MS WEBSTER: I think that was difficult to do with the dataset. What I did note was Mr Coombs has pointed out again that there are some sectors that are included in this chart which may not be retail, so it includes agriculture, forestry and fishing, construction. So what I have looked at is: is this trend that I observe robust to excluding those sectors? The answer is that, yes, it is. You still see the same trend in the remaining sectors. The line shifts up slightly, so that you end up with actually higher levels of penetration at the end of the period, perhaps consistent with the sort of feeling now that card acceptance is sort of everywhere.

So that is the first thing that I have looked at and the first factor.

Then what I have said is, okay, but to the extent that pass-on rates may have been different in the Merricks' period, that may be because, for merchants that treated the MSC as a fixed cost, if the Tribunal were to decide that there are some of those, the fact that MSC costs may have been lower in the Merricks' period may mean that this -- the lower costs and the change in a lower cost would be less likely to trigger these investment decisions or exit decisions such that you get fixed -- such that you get pass-on through a fixed cost mechanism.

Similarly, to the extent that MSC costs were lower in the Merricks' period than in the merchant period, then that may mean that merchants that treated the MSC as a variable cost in the merchant period would have been less likely to do so in the Merricks' period. So they may just have thought the changes were -- sorry, the costs were too small and the changes too small to be worth the complexity involved for the business of thinking about how to fine-tune their prices in response to changes in the MSC.

So the card usage chart that I present, which is

Annex 1, is an attempt to understand the degree to which MSC costs could have been lower in the Merricks' period, and I have thought further about the information that Mr Economides has shared, and also from Mr Coombs, and I think where I have landed is these are all alternative ways of trying to answer this question about what is the increase in the share of retail transaction value that is accounted for by card payments, and they all show an upward trend.

So in this chart, Annex 1, I had an increase from 1995 to 2002 from 3.5% to 81%. Mr Coombs' data, if I have understood it correctly -- I am sure he will correct me, if not -- shows an increase in total card usage from 20% to 62%. Then Mr Economides' data, which is only 2010 to 2022, shows an increase from 67% to 85%.

I will not comment again on the backward extrapolation that Mr Economides has done, but one could imagine if the same trend continued further back in time, it would go to a sort of materially lower level than he suggested from his extrapolation yesterday.

So therefore, from all of those sources of data, it is a fairly consistent pattern that actually, going back in time, card transactions would have accounted for a considerably lower proportion of retail transactions.

It is perhaps also just worth emphasising the absolute change in volume -- in the value of card transactions. So between 1995 and 2022, credit card transactions, the value of those grew by 400%, and debit card transactions by 2,500%. So there really is a very --

PROFESSOR WATERSON: In pounds?

MS WEBSTER: Yes, in absolute terms.

So there is -- there just is a very marked change, I think, sort of a bit reflecting your comment about payment by cheque -- or standing behind people paying by cheque in Sainsbury's.

So the question then -- so I have used these as a proxy for MSC costs, I have looked at usage, and I accept that usage does not equal cost, because it depends on the price that the merchants need to pay.

PROFESSOR WATERSON: Yes, and my understanding is that the MIF was higher, or the interchange fee was higher in the earlier period than it is now.

MS WEBSTER: Yes. So I have looked at that, and I have looked at -- I went to the PSR report which was undertaken in 2021, so published in 2021, that reports the change in the MSC over the period when the IFR came in. So it looks at the period 2014 to 2018, when the big change in MIFs occurred, and what that shows is the blended MSC that merchants were facing did not change, so it is largely flat. There was a change certainly in part of the MSC, I think, that was related to credit cards, so that came down, but because the volume of -- sorry, because debit card usage was considerably more than credit card usage at that time, the MSC rate was dominated by the debit part of the MSC, and therefore the average MSC has been fairly constant.

PROFESSOR WATERSON: So in the early period it was mostly credit cards which attracted a higher MSC, but now it is debit cards more?

MS WEBSTER: Yes, and I have not been able to look at a data source which brings those together. That would be a relevant thing to do, I agree.

PROFESSOR WATERSON: Okay. So, accepting what you have done, there are considerable uncertainties about what you say because in the earlier period the data is so much worse?

MS WEBSTER: I think that is right.

I have also looked at a report -- actually it is one of your reports, Mr Holt. I now cannot remember the timeframe that is covered, but that also shows -- this was Holt 8 in these proceedings - shows, again, a relatively flat MSC charge and I can, with time, maybe, look that up.

PROFESSOR WATERSON: Thank you.

Well, maybe that will be a topic for Mr Holt to be cross-examined on because he is coming up this afternoon.

MR HOLT: I think I would struggle to remember exactly what I said in Holt 8, to be absolutely honest. I might need some time to go back and look at it, if that was going to come. I have not focused on that for these proceedings.

PROFESSOR WATERSON: Mr Coombs, I am sure you will want to come back on some of these points.

MR COOMBS: Thank you.

So maybe just as a preliminary point, sir, you said at the beginning of this topic, Professor Waterson, that this is sort of an issue for Mr Merricks' claim and I am not quite sure how far you went in terms of saying it was of less importance or no importance for the merchant claim period.

I just note that if you look at the merchant data that has been provided, with the exception of Allianz, Allianz is the only claimant that has provided data covering the whole claim period. For the other merchants their data does not cover the whole claim period; it only covers the last part of their claim period. So potentially there is also an issue here in terms of the merchant claimants as well.

So then sort of moving on to the issue. So Ms Webster has described sort of two sets of data which relate to her two graphs and sort of two theories that she has put forward here.

So, starting with Annex 1 and card usage. So my understanding is that what she is saying is that if card usage was lower, then the MSC would have been a smaller proportion of a merchant's cost and therefore they in some way would be less likely to have passed it on because they would have been less likely, I think, to treat it as a variable cost, rather than a fixed cost.

So, first of all, I do not really agree with that theory. I do not agree with the idea that pass-on is dependent upon the size of the MSC cost and that is -- I mean, I talked about this yesterday, but we are looking at long-run pass-on and although people may be inhibited from passing on a cost increase in the short run, due to menu costs and other transaction costs, those become overcome in the long run. So I do not agree that size actually should affect the level of pass-on in the long run, which means that really I therefore do not really engage at all with the analysis, but, you know, even if one were to accept the theory, which I disagree with, as we have sort of discussed yesterday, you know, this graph, I think, does not give a correct picture because the denominator it is using, the estimate of the retail sector, is declining. It more than halves over time.

Ms Webster has now sort of quoted what the figures would be using the numbers that I found over the weekend or the numbers that Mr Economides has found. It does show that there is an increase in card usage. I do not think that really is controversial and I think we all know from personal experience that card usage has increased over time, but the increase is much less dramatic than shown in this diagram using these alternative sources of information.

As Ms Webster also discussed, you know, what you need to do is you need to take the card usage and you need to multiply it by the MSC. Now, she referred to some evidence which I, to be honest, have not seen so I cannot really comment on that. All I can comment on is that I think she was referring specifically to blended contracts, so it is important here to understand that merchants -- there are two types of contracts that a merchant has with an acquirer. One is a blended contract, where they negotiate a level for the MSC, and it is called blended because the same MSC will typically apply to Mastercard and Visa transactions and different types of transactions. That is one type of contract.

There is another type of contract, which is called IC+ or IC++, and in those contracts what happens is there is direct pass-through of the interchange fee. So effectively what the contract specifies that the amount paid is the interchange fee, plus a mark-up, or it is the interchange fee and scheme fees, plus a defined mark-up.

So with those contracts there is automatic pass-through of a change in the interchange fee and that means that, according to those contracts, when the interchange fee went down, as a result of the Interchange Fee Regulation -- I cannot quite remember when it came in but at some point during this period -- that would have automatically reduced the MSC for those merchants and my understanding is that, although those contracts were less common in earlier years, they have become much more common in recent years and cover a significant part of the market.

So I am getting to the sort of limit of my understanding of these facts, but it seems to me that there is a very relevant question here about what happened to the MSC, not just on blended contracts but on these other contracts, and how that feeds through into the card usage and therefore into the costs that were actually incurred by the merchants.

I think there is -- I think this is much more complicated than this graph, even if it were correct, is actually showing.

So you will then get to something which might show or might not show that there has been an increase in the cost to merchants. I do not really think that that is relevant, but if one does think it is relevant, then I think there is a question about materiality and threshold here. How much would this have to have increased in order to have affected pass-on? That is something which, you know, Ms Webster does not really set out what the threshold is that she would be sort of defining here, but I think there must be some threshold in place as to where this actually has some effect.

So that is the theory regarding card usage.

The other theory is regarding card acceptance. So this is then the graph in Annex 2. So the theory here is that when you have low card acceptance, then the MSC is not a market-wide cost and when you have high card acceptance, the MSC is a market-wide cost.

Now, the important point -- well, I think one important point to recognise here is that when we talk about whether the MSC is a market-wide cost and how that affects pass-through, the MSC is somewhat different from other types of costs. So, you know, generally when we have been talking over the past day and a half about the concept of a market-wide as opposed to a firm-specific cost, we have been thinking about something which is an exogenous cost shock to the business. So a grocery chain finds the cost of baked beans has gone up and then, in deciding whether to pass that through or not, it depends to some extent on whether its competitors have suffered the same cost shock. The MSC is not a cost shock in that sense of it coming from outside.

The MSC, for these purposes, what we are looking at is a decision by a merchant to accept cards and therefore pay the MSC and when it makes that decision, it knows that it is going to pay the MSC and it will only do so if there are advantages from card acceptance that justify paying the MSC, which generally means it will gain some competitive advantage over other firms in the market or it will redress the competitive advantage it currently faces if they accept cards and it does not.

So I think it is a more complicated concept here and one needs to take account of the fact that merchants gain an advantage which mean that they may well be able to pass through the MSC to their card holders because they gain that competitive advantage and they provide more convenience to their card holders.

Leaving that aside, and if we just sort of take a look at the graph, I think the important point here, which Ms Webster touched on, is what is relevant here is what is happening at the market level. So the theory here is that the graph is showing that card acceptance went up. What we are really interested in is not card acceptance at the level of the UK economy but card acceptance is the individual market where the merchant competes.

So one explanation of this graph is that what happened was, well, at the beginning of the period there were different sectors where card acceptance was -- in the extreme case, it was card acceptance was 33% across all these sectors, across, you know, supermarkets and public houses and other sectors, and by the end it had increased to 60-something per cent in the grocery sector and public houses and other sectors, but there is an alternative explanation as to what this graph is showing, which is that there are some sectors at the beginning of the period where there was a lot of card acceptance, such as maybe groceries, and some sectors where card acceptance was virtually non-existent, such as public houses, and then by the end of period we reach a situation where a lot more sectors we find card acceptance, such as public houses, and card acceptance is now sort of predominant across all of these sectors.

So the graph does not really tell us which of those scenarios is correct.

PROFESSOR WATERSON: But do you have evidence of this?

MR COOMBS: No, we do not. As I say, we do not. Unfortunately the situation is that, you know, Mr Merricks asked Mastercard for data that was at a more disaggregated level and Mastercard was not able to provide that data. So we do not really know what this graph is showing. We do not know whether it is showing, you know, a change in card acceptance at the market level or whether it is just showing that the number of markets in which card acceptance took place increased over time.

So I think that is a fundamental problem with this graph, that it does not really address the question that we are asking it to inform us about.

So I think -- well, I think I will stop there.

I think, in summary, my view is I do not really think this evidence actually answers the questions that we are asking here about what changed between these periods.

PROFESSOR WATERSON: Just to ask you one point. Of course the other thing that has changed over time is that there used to be a fixed charge plus a variable charge and now there is simply a variable charge since the IRF came in.

So do you think that is relevant to what you say?

MR COOMBS: That is -- I do not think -- well, it is -- well, I will be honest, it is not a question that I have really previously thought about. I do not think it does affect things because I think the hypothesis that Ms Webster is putting forward is based on the level of cost that the merchant is incurring, rather than the structure of that cost. So I do not think it is relevant. I will be interested to know what Ms Webster thinks about that question.

PROFESSOR WATERSON: The point I make is that card acceptance was often conditional in many retail situations, you know, card acceptance above £5, let us say.

MR COOMBS: Or else there was a surcharge if the amount was below a certain level, which if there was a surcharge, then obviously that leads to a pass-through to consumers.

PROFESSOR WATERSON: Thank you.

Mr Holt, do you want to comment on this?

MR HOLT: I think probably nothing really to add. It was not an issue that was directly relevant to me.

I would only add that perhaps it is relevant perhaps to look at, in any of this data, something that is sort of like-for-like and relevant and I can see the points made by the various experts as to how one might do that to ensure you are looking at the right base of transactions. Just, for example, on one of the charts that said 60% acceptance, if the base includes all businesses, including self-employed builders and so on who maybe only accept cash, I would not put a lot of weight on 60% in that context as a real indicator for what is happening in the merchant retail world.

PROFESSOR WATERSON: Thank you.

Dr Trento, do you want to say anything on this topic?

MR TRENTO: I think everybody wants to go to lunch and I do not have anything to add.

PROFESSOR WATERSON: Yes.

THE CHAIRMAN: I think Ms Webster wanted to say something.

PROFESSOR WATERSON: Do you want to come back?

MS WEBSTER: Now lunch has been mentioned, I shall be as quick as I can.

Just to clear up two issues on the data. So the PSR data -- the PSR study 2021, which reports the change in the MSC -- in fact very little change in the MSC -- just for reference, it is figure 10 and it is not obviously only blended contracts. It says that it is calculated by dividing the total value of fees paid for card-acquiring services by the total value of purchase transactions. So it is a more aggregated analysis.

I have also found my reference to Holt 8 and can confirm the data covered 2012 to 2018 and so it would not cover the earlier period on a like-for-like basis. So that is helpful to know.

PROFESSOR WATERSON: Thank you.

MS WEBSTER: I wanted to come back on two points that Mr Coombs raised.

The first one is in relation to the MSC not being like other costs and merchants having the choice as to whether to accept cards and perhaps doing so only in a world where they can pass on the additional costs associated with that as a result of the competitive advantage that they might face.

I mean, I think that that may be the case for some, but I think the evidence would suggest that there are other reasons why merchants would have accepted cards and, you know, not conditional on the ability to pass that on. I mentioned these in my second report, my reply report, and I found some studies which -- just to give you an indication, there were quite a long list of studies, but basically research studies and they -- so a study of UK retailers on behalf of the Joint Credit Card Company found that accepting credit cards promoted sales and avoided the £50 cheque guarantee limit.

Responses to a UK Monopolies and Mergers Commission investigation in 1989 stated that accepting cards generates extra business. 71% stated that it guaranteed payment. 54% stated that it enables purchases of over £50 cheque limit. 53% stated that it allowed for a quick settlement.

So there is a variety of reasons. So I think one cannot automatically assume that because a retailer accepted cards, that it was -- it had an expectation of being able to pass on the additional cost.

I am also not quite sure quite where that argument goes, to the extent that a merchant decided that it would be worth their while to start accepting cards and then, in the counterfactual, there is a reduction in the MSC that they pay. Well, if their competitors are not also accepting cards, then there is less of an incentive for them to pass it on, if there was to be a reduction in the MSC in the counterfactual. So I think commonality -- it does not get around the issue of they are not -- well, the issue if there were to be less commonality in the Merricks' period.

Then my final comment would be that I do accept the description that Mr Coombs sets out. It could be that lower acceptance is still high acceptance in every sector that has decided to move towards card acceptance and then the growth in acceptance rates is adding on additional sectors and that is why I also sought to take some comfort from the factual evidence and the examples of retailers who were operating in the same sector -- I would say direct competitors -- but having a different approach to card acceptance, and I think overall when I -- I think if I were to place more weight on some of these arguments, because I have talked about three mechanisms by which pass-on could be lower, my sense is that this lower commonality, a lesser degree of commonality in the Merricks' period is probably the more important and could lead to a materially lower rate of pass-on.

I think then there is a question of, you know, quite how merchants decided that they would treat MSC costs. Was it variable? Was it fixed? You know, that is where the factual evidence comes in and I think would be a relevant determinant for the question which Mr Coombs poses as to I have not set out a hurdle which is when an MSC cost falls to this level, then, okay, now we can assume that the merchant treated it as fixed. I am not able -- I am not in a position to be able to say what that would be, but I think that is where the sort of consideration of the factual evidence would come in.

PROFESSOR WATERSON: Thank you.

Very briefly, Mr Coombs.

MR COOMBS: Everyone keeps talking about lunch so I am conscious of that.

I just wanted to come back on this point about when we look at card acceptance, are we looking at a change in card acceptance across all sectors, that card acceptance has increased across all sectors, or are we looking at high card acceptance in some sectors, no card acceptance in other and over time more sectors start accepting cards? So I think there are two points here.

One is the sort of economic theory. Economic theory would suggest that you would expect there to be high card acceptance in sectors where there is card acceptance. If you are a merchant who accepts cards, then you have an advantage over your competitors, you know, and Ms Webster has just listed many of the advantages. So your competitors in some way are going to react to that. They need to start accepting cards, otherwise they are going to be left at a competitive disadvantage.

So economic theory would suggest that you would expect to see high levels of card acceptance in some sectors and in other sectors there may be no card acceptance. It would be surprising equilibrium where you have this sort of split between some merchants accepting cards and some that do not.

In terms of the factual evidence, I mean, I think it can be interpreted the way that Ms Webster put it, but it can also be interpreted the opposite way, which is that you have some very large retailers here. So the John Lewis Group -- I mean, Waitrose is part of the John Lewis Group so that is actually one merchant -- and Marks & Spencer, so these are large merchants who decided, "We are not going to accept credit cards, even though our competitors do". What happens? They gave up. They could not sustain that. They had to cave in and start accepting cards. So, I mean, that evidence actually suggests to me that it is not really sustainable. Even if you are a very large retailer with a well-known brand, eventually if all your competitors accept cards, then you have to start doing the same.

PROFESSOR WATERSON: Thank you.

Yes, both these things are essentially speculation in the absence of significant evidence.

MR COOMBS: I agree. I am just saying that you can interpret the evidence in different ways.

PROFESSOR WATERSON: Thank you.

THE CHAIRMAN: Well, not only is it lunch but I think that is the end of the hot-tub.

PROFESSOR WATERSON: Yes, that is right. You are out of the hot-tub and into the cold.

THE CHAIRMAN: Mr Holt, I am afraid you are going to be straight into the witness box so you are released from the purdah regulations over the lunch period, and everyone else is released, but we will start with you.

Thank you very much, all of you, for an enlightening session, one and a half days.

We will give you the extra five minutes, so we will come back at 2.05.

(1.05 pm)

(The luncheon adjournment)

(2.05 pm)

THE CHAIRMAN: Good afternoon.

MR JOWELL: I call Mr Derek Holt.

THE CHAIRMAN: I think we need you to swear in again, yes, please.

MR DEREK HOLT (affirmed)

Examination-in-chief by MR JOWELL

THE CHAIRMAN: Thank you, Mr Holt. Please sit down.

MR JOWELL: Mr Holt, you should see in front of you, at {RC-F/19/1}, a copy of your eleventh expert report. Do you see that?

A. Yes.

Q. If you could go, please, to page 233 in that. {RC-F/19/233}

A. Yes.
Q. You should see there a declaration and statement of truth. Over the page, on 234, are those your signatures? {RC-F/19/234}
A. They are.
Q. Is this statement true to the best of your knowledge and belief?
A. Yes.
Q. Could you go, please, to {RC-G/17/1}. You should see there a copy of your twelfth expert report.
A. Yes.
Q. If you could go, please, to page 191 of that document {RC-G/17/191}.
A. Yes.
Q. If you go over the page, you see two signatures. Are those your signatures? {RC-G/17/192}
A. Yes, they are.
Q. Is that report true to the best of your knowledge and belief?
A. Yes.
Q. Are there any points you wish to correct or add to your two reports?
A. No.
MR JOWELL: Thank you.
Please wait there, Mr Beal will have some questions.

Cross-examination by MR BEAL

MR BEAL: Mr Holt, good afternoon. I am going to start with what Mr Justice Barling used to call the usual weasel words.

We cannot sensibly cover every point in your very extensive written evidence, so the fact that something is not directly challenged does not mean it is accepted by us, and we have had a direction from the Tribunal that I do not have to put my full case to you, so this cross-examination proceeds on that basis.

Now, in your eleventh expert report, paragraph 1, you say you have already provided an overview of your expertise, and you refer to your first report where you have done so.

Could we look, please, in that first report {RC-K/5.1/1}. If we could scroll down, please, to paragraph 1 in that report. {RC-K/5.1/5}

You say there that you have -- your name is as set out, you have over 25 years' experience, and you were:

"... previously instructed on behalf of Visa Inc and Visa International Services to provide expert evidence as part of the *Sainsbury's v Visa and others* proceedings ..."

Just pausing there. That litigation started in about 2013, is that right?

A. Yes, although I believe I was instructed closer to around 2015.
Q. Were you instructed by Visa on anything before that date?
A. No.
Q. In terms of -- could we then go, please, to page 21 {RC-K/5.1/21}. That says, about three or four paragraphs down, if I can just find it in my version, the last paragraph on that page:
"Derek acted as the testifying expert on behalf of Visa Inc in relation to one of the largest UK competition litigations ... He also appeared as economic expert on behalf of Visa in an oral hearing in relation to the European Commission's investigation into whether inter-regional multi-lateral interchange fees breach competition law ..."
When did your work with the EU Commission start?
A. It was around that time, in 2015, I referred to earlier.
Q. Now, we know from Trial 1 that there was a commitments decision in 2014. Were you involved in the procedure that led to that commitments decision?
A. No.
Q. So this was your involvement leading to the commitments decision that was given in 2019, is that right?
A. Yes.

Q. Were you involved from 2015 to 2019 in work presenting Visa's case to the European Commission?
A. I would not say I was involved on an actual basis throughout that period. The main focus I had was on an issue around the exemption part of that debate, and during much of that period, as you may recall, the UK proceedings were occurring, so the *Sainsbury's* and *Asda* ones. So I think my main focus from -- throughout most of 2015 through 2017, as it pertained to acting for Visa, was that.
Q. Could we look, please, in your eighth report, that is {RC-K/21.5/14}. Could you re-familiarise yourself -- I note what you said in the hot-tub, that you have not studied this yet again -- with paragraphs 2 and 3.
A. 2 and 3. (Pause)
Sorry, paragraphs 2 and 3.
Q. That is back on the page it was just on. Thank you. Paragraphs 2 and 3. (Pause)
A. Would it be possible to expand the size little bit? Yes. (Pause)
Yes.
Q. So is it a fair reflection that you have become a regular expert for Visa, putting it no higher than that?
A. I have acted on a few cases.

Q. Have you been involved in the further commitments that Visa gave in July 2024, this year?
A. No.
Q. Were you involved in Visa's interaction with the EU Commission in relation to the Interchange Fee Regulation or the review of that regulation?
A. No, I do not think so. No, I cannot recall having advised on that.
Q. Are you aware that Visa does instruct economists to do work that it then uses to persuade regulatory bodies to adopt a particular regulatory point of view?
A. I am aware that they have appointed economic advisors for various purposes.
Q. Could we look, please, at {RC-J1.7/1/1}. This is a paper written by Chang et al, called:
"The Effect of Regulatory Intervention in Two-Sided Markets: An Assessment of Interchange-Fee Capping in Australia."
This does not appear to have been on your reading list of academic articles?
A. I mean, I cannot recall if I cited this article, and you, I think, perhaps have given the answer that I have not, and that is -- I am happy to accept that. I would have to re-familiarise ... It may be that I have looked at this at some point in the past. Obviously this looks

at the impact of interchange fee capping in Australia, so I think there was a fair bit of debate on that topic in the context of Trial 1, as I recall, so -- because the Australian example was cited as an important example of what might happen if you either reduced or changed the MIF structure.

Q. Dr Frankel gave evidence on it. That is not why I am asking you about it.

Could we look, please, at the footnote marked with an asterisk, which identifies the author and refers to a previous version of this paper. Then it has as the last sentence, or the second to last sentence:

"We also appreciate superb research help of [various individuals] and financial support from Visa USA. We retain the rights to all errors."

So this was a paper that received funding, was it not, from Visa USA?

A. It does seem to say so, yes.

Q. I am inferring that you were not familiar with it when I showed it to you?

A. I have not -- at the very least I have not looked at it recently. I may -- and, again, you know, I have looked at a lot of documents in the course of the proceedings. I cannot precisely recall if I cited it in the previous part of the proceedings. I do not think I have in these proceedings.

Q. I infer from that that you are not aware of your client drawing it to your attention, either, specifically?

A. I am not aware of the client having drawn it specifically to my attention.

Q. Could we look, please, at the abstract, which gives us the general direction of travel of the paper.

A. Sure.

Q. Right at the top of that page, under the section, "Abstract". Perhaps magnify that somewhat.

It explains it is examining the impact of:

"... the Reserve Bank of Australia's decision to reduce interchange fees on credit cards in Australia by almost half."

The authors find that:

"... in the short run, issuers have recovered between 30 and 40 percent of the loss of interchange fees. Merchants have benefited from lower fees but it is questionable whether those benefits have been substantially passed on to their customers. The per-transaction price at the point of sale has not changed significantly and there is relatively little evidence thus far that the intervention has affected the volume of card transactions in Australia."

So that is where they are getting to.

Could I please pick up on some salient points of detail, starting, please, at page 7 of this document. {RC-J1.7/1/7}

In the last paragraph on that page, if we could expand that, it refers to the magnitude of the change, coupled with the linear demand curve, would, as a matter of theory, imply less than full pass-on. Can you see that in the last sentence?

A. Yes, I do.

Q. Then on the next page, page 8, if you could read, please, the first two paragraphs on that page {RC-J1.7/1/8}. (Pause)

A. Yes.

Q. So these authors, when they are looking at the impact of a MIF reduction in Australia, consider that as a matter of theory, the relevant empirical evidence would imply less than full pass-through, and that instant taxation is the only example they can find of figures above 100%. Do you see that?

A. Yes.

Q. Then, please, at page 9 {RC-J1.7/1/9}, the next page, the last paragraph:

"Merchants on the other hand experienced a relatively small reduction in cost. If fully passed-through by acquirers, the interchange fee reduction amounts to less than half a percent of their selling price (and only on those transactions that take place on credit cards). The evidence on price rigidities, and particularly the one on asymmetric price responses cited above, makes one doubt that such a small cost reduction would affect final goods prices very quickly, even if there were extensive retail competition."

So that is the overall conclusion they reached. That, with respect, is at odds with the conclusion you invite this Tribunal to draw, is it not?

A. Well, I would not reach that conclusion. I make a number of remarks about this.

So the study seems to be published in 2005, so they would have had evidence, obviously, for a period of time prior to that, and I have not been able to see in the study exactly what timeframe they actually had access to the information for, but obviously the Australian regulation I believe started to come into effect around 2003, if I am not mistaken, and so it may well be that there was some time for any transmission mechanism to occur that may not have been fully picked up in this data.

But I think actually what this seems to do is to raise two important issues. One, it questions what was happening at the upstream part of the market, the acquirers, and to the extent that they had not passed everything through, then you would not of course expect retailers to pass the component that the acquirers did not pass through. Then, secondly, consistent with the approach I have adopted, and I think in line with the other experts, there is a signal to noise ratio issue, and I do not think an empirical study, looking at the extent to which there have been reactions to changes in MSCs, and here we do not even know what the MSC change was, can really tell you that much due to the signal to noise ratio issue.

Q. Could we look, please, at page 14 of this document {RC-J1.7/1/14}. They conclude at the top of the page, that, relying on various estimates and analysis they have done, the average reduction in overall merchant costs was 50% of 0.42% or 0.21%. So that is dealing with the first issue you identify.

They then set out in the third paragraph on that page:

"The very little empirical evidence there is suggests that, in fact, merchants have tended not to pass through the reduction in the merchant discount to consumers in the form of lower prices. Cannex, an independent research group, surveyed merchants in

Australia regarding the impact of the interchange fee regulation on their regular business practices. Among merchants who reported a change in the merchant discount during the previous year, less than 5 percent declared that they had reduced prices to consumers. On the other hand, more than 20 percent reported that their profits had increased and almost 60 percent reported that they had not experienced any changes in their regular operations."

So that would suggest, would it not, that when the prices that affected it is low, it is unlikely to be passed on through lower prices to consumers?

A. Well, I think I disagree primarily for the reasons expressed before. The top of this identifies what the nature of the change was, and that makes it very difficult to ascertain with any real, I think, empirical rigour what the rate of pass-on was. The references to 50% seem to be affected by the uncertainty associated with the small change in the signal to noise ratio.

Q. Could we go back, please, to page 13 and I will give you some meat on the bones, under the heading 5.1.2, "Acquirers, merchants and consumers":

According to the RBA, the reduction in interchange fees imposed by regulation led to a reduction in merchant service fees ... The average merchant service fee that the now regulated systems charge fell from 1.41 percent immediately before regulation to 0.99 percent in the quarter ending June 2004. The RBA estimates that the fall in the merchant discount represents savings to merchants of over $500 million per annum.

"We consider the extent to which this decrease in costs to merchants was passed on to consumers."

It is the pass-on to consumers, notwithstanding that substantial reduction in the cost to merchants, they considered had not been shown by the empirical evidence.

A. Well, yes. But as this paragraph says, the reduction in cost was quite small for retailers. Not in absolute terms; 500 million you might say is a significant amount, but in the overall Australian economy, which is probably close to 500 billion US -- sorry, Australian dollars, maybe a bit less, maybe it is not --

Q. Well, it is the prevailing rate that is going from 1.41% of the transaction value to 0.99% afterwards; correct?

A. Yes.

Q. That is higher than the change that you would posit for the abolition of the 0.2% MIF charge as a component of the merchant service charge in your counterfactual?

A. I think that is right on an average. I think --

Q. Well, it is two and a half times, is it not? 0.5 is 2.5 times bigger than 0.2.

A. Is 0.2 the ... I am not sure if 0.2 is --
Q. I beg your pardon, let us just say it is 0.4 as a difference. That is twice as much as 0.2.
A. I think I can agree to that.
Q. Good. I will sit down while I am ahead.
A. My point is in an empirical analysis, trying to look at how a retailer is reacting to a 0-point -- whether it is a 0.2 or 0.4 change, there is so much noise in what retailers are doing due to a range of other things that I would be unlikely to want to put much weight on this sort of analysis, and that is exactly where all the experts came to a view that we needed to look at proxies.
Q. Now, in this particular case, as you have identified, there is an issue between the merchant acquirer and the merchants in terms of a pass-on issue. That is correct? That is for Trial 2B.
A. Yes.
Q. I understand that Visa has accepted that the there is no issue for merchants that are on IC+ and IC++ contracts?
A. I think that is correct.
Q. So for them we do not have to worry about acquirer pass-on, because it is assumed that pass-on is complete?
A. Yes.
Q. Now, you would accept, presumably, that when looking at

the issue of acquirer pass-on, which is a form of indirect pass-on, is it not, one would need to apply the same economic principles as applied to the different form of indirect purchaser pass-on from acquirer to merchant and from merchant to customer?

A. Yes.

Q. You would accept that the consistency of that approach would be a virtue in -- as a matter of professional discipline as an expert economist?

A. Yes.

Q. Could we look, please, at {RC-K/6.1/9}. Could we look, please, at paragraph 20 of this. This is your third report.

A. Yes.

Q. At paragraph 20 at the bottom of the page, you are dealing with a sixth fact from the Supreme Court which related -- we will see in paragraph 19 what the sixth fact that you identified was:

"The decisive question is whether in the absence of the MIF the prices acquirers charge to merchants at large would be lower."

So that is the sixth fact that you were considering.

You say:

"The applicability of the sixth fact would need to be tested in individual cases. If my understanding of the Supreme Court's judgment was correct, the sixth fact would not hold if acquirers did not pass on any counterfactual reduction in MIFs to merchants."

So that is the position you are taking, is that right?

A. Yes.

Q. Could we then please turn to page 9, paragraph 55. I am told I have the given myself the wrong reference. It is page 16. It is paragraph 55 anyway. Yes, thank you very much. You saved my blushes. {RC-K/6.1/16}

At the bottom of the page there we have paragraph 55. You then address that question. Now, perhaps you would be kind enough to read that paragraph and then I will put some points to you, if I may. It spans both pages, unfortunately, so do shout when you need to look over. {RC-K/6.1/17}. (Pause)

A. Yes.

Q. So there we are dealing with the question -- the prior question of acquirer pass-on. You have recognised the same principles should apply, and you are recognising that the analysis firstly should be based on factual analysis?

A. Yes.

Q. That you would have to take into account the relevant share of the cost or revenue accounted for, in this case

by commercial card MIFs?
A. Yes.
Q. That you recognise that depending on how acquirers reflected commercial cards in their pricing, they might not be pass on the MIF?
A. Yes, and I think in addition one would also want to carry out an empirical analysis.
Q. So each of those factors should hold good equally for the question of merchant to customer pass-on, should they not?
A. Well, again, it depends on what timeframe we have in mind. I think in the context where one wants to look at a short-term reaction, then I think some of these factors would be particularly relevant. It was not clear from the Supreme Court information what sort of timeframe should be applicable. I am forming a view in relation to the current proceedings that a long-term framework is appropriate.
Q. So is it short-term when it is acquirer pass-on and long-term when it is merchant pass-on?
A. It is indeterminate subject to the nature of the Supreme Court interpretation in the acquirer pass-on context.
Q. We established that the Supreme Court was looking at the claim period that began in 2013 -- the claim that began

in 2013, is that correct?
A. Yes.
Q. It went back six years because of limitation reasons?
A. Okay, I am happy to accept that.
Q. So the claim period that we were looking at was 2007 through to when the Supreme Court was handing down judgment, sometime around 2018/2019. Is that right?
A. I think that sounds correct.
Q. So that is a pretty substantial 12-year period which is in play by the time the Supreme Court says go away and work out what the answer is?
A. Well, I think I would agree with you, in terms of the length of the period that you have just described, it could reasonably be described as a long-term. What I was not in a position to do was to interpret the meaning of the Supreme Court, and that is why I identified that as essentially a factual question. But ultimately when it came to then applying a methodology in order to answer these questions, I adopted an empirical approach, i.e. to look at what the data tells you about the rate of change in MIFs and what the impact of that was on MSCs.
Q. There are a number of things you did not say in this evidence. You did not say it is important to consider whether or not you are looking at the short term or long

term, did you?

A. I may not have said it in that context. It did not appear to me relevant, given that I was deferring the interpretation of that assessment to the Supreme Court's finding.

Q. You did not say it is important to consider whether or not the cost in question is an industry-wide variable cost?

A. Well, I did not seek to set out all of the economic factors that might be relevant in the context of the acquiring market, I accept that. I have done that, indeed at the direction of the Tribunal, alongside the other experts, for the purpose of the assessment of downstream pass-on, and we have gone through a great deal of debate about which are the relevant factors. I would say that those same factors are relevant to the acquiring upstream pass-on rate as well.

Q. So there is not going to be a different answer as to whether or not the cost is industry-wide for acquirers as there would be for merchants, in your evidence at least?

A. I do not think there would be. I mean, again, Trial 2B is upcoming. I have not drafted my report yet. In fact, we have not even had the bulk of the data yet for it, as I understand it. But certainly --

Q. I have not started on Holt 13 yet either, if it is any consolation.

A. I would apply essentially all the same principles that I have identified in much greater detail for the purpose of the downstream pass-on for Trial 2A as I would for Trial 2B.

Now, it may be that there are some things that might be different. I would not have thought necessarily that the industry-wide characteristic would be that different, because, to my knowledge, acquirers, who are effectively the analogy to the merchants for the purpose of that upstream pass-on, similarly, I think, take MIFs that are set by the schemes, and so there -- the factors that lead to firm-specific conditions would, as a starting the point, likely be broadly similar.

Now, there might be some other factors, such as the nature of the downstream merchant customers of the acquirers that possibly could be taken into account, or it might be that different acquirers focus on different schemes or types of transactions. I am not making a statement that any of that is the case. Again, we have not yet had the data for Trial 2B. But those are amongst the sort of factors that I would likely take into account which would be consistent with the principles that I have applied in Trial 2A.

Q. Can we look in your eleventh report, please, at paragraph 14 {RC-F/19/27}. What you say there is issues also affect the Article 1013 analysis which will form the focus of Trial 3. As part of your 103 assessment, you are planning on looking at certain exemption issues and therefore, in essence, you are planning on looking at a UK economy-wide figure because it will be useful for, firstly, the exemption issue and, secondly, the Article 102 issue, both of which are issues for Trial 3. Is that right?
A. Yes, yes, that is what I say there. Yes.
Q. Could we then look please at page 22 {RC-F/19/227}. It should be paragraph 734, over the page, sorry, 228 {RC-F/19/228}, and you say there:
"I further considered how an economy-wide pass-on rate could be calculated given this will be necessary in due course in order to determine the acceptable level."
So the reason at least for starting on the UK economy-wide rate was to use the work in due course for Trial 3. That is fair, is it not?
A. Yes, that is fair. I think even in my earlier reports I identified, amongst the set of potential pass-on issues that could be relevant, that it was not only relevant to the mitigation points in relation to the merchant claims but it was also relevant to exemption, yes.

Q. You have recognised that you are not instructed in the Merricks claim; that is right, is it not?
A. Yes.
Q. It is right, is it not, that the UK-wide economy rate was not identified specifically as a Trial 2A issue, was it?
A. I cannot recall what list of issues were identified. I do recall, in Holt 11, indicating that I was instructed to consider an economy-wide MIF, and the reasons for that were firstly that it would be a relevant consideration at least for the exemption debate and recognising that was a Trial 3 issue, but given, secondly, that the direction, as I understood it from the Tribunal, was that in view of the proceedings structure, the umbrella proceedings, that it would be helpful and relevant and consistent with a proportionate and feasible approach to determine pass-on at sectoral levels, so that that could be applied to any claimants, whether stayed or participating or any other type of claimant really.
Q. Could we see how you express it as a reservation in the joint experts' statement prior to the sectorisation issue emerging. That is {RC-K/18/52}. I hope we can drill in on a footnote at the bottom of that page.

What you said is you proposed to estimate the pass-on of the active claimants but also the average economy-wide pass-on. That was not directed to the sectoral determination, was it?

A. Sorry, I missed your question?

Q. Well, your reservation says nothing about the need to determine sectoral analysis, sectoral figures?

A. Oh, that is a good point. I think what that footnote says is I propose to estimate the pass-on of the active claimants but also the average economy-wide pass-on. Looking at that as it is written, that is not actually consistent with what I have been tasked to do and have set out to do, which is to estimate the pass-on for the relevant sectors within which both active and non-active claimants may be sitting.

Q. So Visa instructed you to do this economy-wide pass-on analysis, is that right?

A. I was instructed -- I refer to an instruction to consider an economy-wide rate, but of course I have not done so for the purpose of -- in itself to do that. What -- the main objective, and what I have essentially done in Trial 2A, is to derive sector level estimates, and in some cases sub-sector, but essentially sector level estimates. The additional calculation that led to an economy-wide estimate was actually quite trivial, because it relied on the same sectoral estimates that

I had, and then some data that I had from Visa regarding MIF or card payment shares across the sectors.

So I think the more accurate portrayal of what I have done in Trial 2A is focus on sector level pass-on analysis, while recognising that it is necessary in any event for Trial 3, and, furthermore, that try as I might, the evidence sources have been insufficient to lead to a reliable estimate for all of the sectors to use, at least as a default starting point, an economy-wide value --

Q. I understand, Mr Holt, the gap-filling explanation that you have come with now. But at the time that you were embarking on this joint expert statement, you were not anticipating that there would be any gaps, were you?

A. I thought --

Q. You thought you had it covered by empirical studies, public data and everything else. You did not want any claimants' --

A. I think --

Q. -- data and evidence to be in?

A. Sorry, I did not mean to cut you off. My recollection is that I was indeed focusing, as a primary set of evidence sources, on existing studies and public data, but I also recognise that there may be some gaps, and obviously my view on the gaps could only at that time have been preliminary, because I had not yet carried out the detailed analysis of those two other sources. So I think I had, even at an early stage, again, I cannot recall which of the reports and/or expert statements I made this point in, but I certainly have made it, that the claimant evidence could be a useful supplementary source of evidence, in particular to fill gaps.

Q. Now, you would recognise, I assume, that this issue of pass-on is closely linked to the issue of volume effect?

A. Yes, it is -- the issue of volume effect depends on the level of pass-on.

Q. You have not dealt -- you have chosen not to deal with that, even though it is a Trial 3 issue, even though it is intricately connected with what we are doing today?

A. I think, in common with the other experts, we have parked the issue of volume effects. That would be -- I am not sure it is fair to contrast having calculated an economy-wide pass-on rate with failing to have done volume effects. Doing volume effects would be required at every sector and would be an extensive exercise thinking about elasticities in all of those sectors. That is a very large exercise. Calculating the economy-wide MIF from a starting point of sectoral estimates is a limited calculation that I have done in Holt 11.

Q. You would presumably accept that if you are proposing an 88% pass-on rate, that would have a material impact on consumer demand, so the volume effect would prima facie be large?
A. I would certainly accept that, as a general matter of principle, the greater the pass-on rate, the more likely it is that there would be a volume effect. I do not know -- I mean, partly that is just a matter of proportionality. In other words, if there is more of a price effect, then of course for any given amount of reaction or sensitivity of consumer demand to that, it would likely go up. It is not going to go down, I agree.
Q. You were instructed, were you not, in the CICC litigation as well?
A. Yes.
Q. That is where you will need to look at a UK economy-wide rate because it is an opt-out class action?
A. Yes.
Q. Is it something that you had in the back of your mind when you were looking at a UK economy-wide analysis here?
A. No. I am not even sure when I was starting -- sorry, I would not be able to comment at what point did I first refer to the economy-wide point, relative to when I got

instructed on the CICC claim, but what I do recall is that at a fairly early stage of the -- of these proceedings, in terms of the general issues to be considered for pass-on, I did identify the relevance of the exemption debate. So that I do recall making at a quite early stage.

Q. Could I please invite you to look at your twelfth statement, paragraph 196 {RC-G/17/32}. I am told it is page 69 {RC-G/17/69}.

A. Which paragraph, please?

Q. 196. This is one of several places where you make this critique. You say there are:

"... considerable gaps in the disclosure of the willing claimants ..."

I am now going to ask you about your criticism of your disclosure from the claimants, who are the ones who are before this Tribunal as part of Trial 2A.

You are aware, are you not, that Visa's Redfern requests were pursued and were either accepted or rejected by this Tribunal?

It is a criticism you make in numerous places. I am simply summarising it, and giving you an example of it, that you do not think our disclosure has been up to snuff, do you?

A. Well, I think the way I would put it is there are a couple of different ways of thinking about the role of the disclosure, and I am talking about the qualitative disclosure as opposed to the data. In my view, it was not necessary in order to carry out the analysis that I was focusing on overall for Trial 2A because of the relevance of the facts and counterfactual and economic principles that, together, led me to believe that a relevant proxy would be -- would be a variable industry-wide cost one.

Q. Could we then please look at {RC-K/18/10} at footnote 9. No, that is ... This is {RC-K/18/10}, footnote 9 at the bottom of the page.

It says, and this is part of the joint expert statement, neutral statement:

"Mr Holt additionally considers that while evidence could in principle be requested in disclosure from all merchants, this may not be proportionate."

You specified that you:

"... would rely on this evidence to establish both whether MSCs are characterised as fixed or variable and whether they are per unit or ad valorem."

So you were recognising that full disclosure from all of the merchants was not going to be a proportionate exercise, were you not?

A. Could you just scroll up? I would just appreciate seeing the context because I have not recently looked at this.

So, okay, the question here is what is the evidence? Now, that is ultimately going to be most relevant to the consideration of the nature of the MIFs, and I think there is a number of options, including top-down options, including sector and publications, and so on, that I have focused on, and, for example, Visa and Mastercard shows. I think those are actually perhaps the most important considerations.

So, for instance, merchant service agreements, which I refer to here, which is where the footnote is, would be highly relevant evidence to examine the facts as to the nature of the fixed or variable structure of the MSCs because --

Q. (Overspeaking) -- Trial 1, have you not? My memory is not great, and I remember seeing quite a lot of --

A. (Overspeaking) Yes, we did have some MSCs, so that is why I refer to this being available from Trial 1.

So what I am saying here is that in order to address the important economic principle, which is that the fixed or variable nature of the cost is a crucial factor, one still needs to think about what are the facts that would inform on that question. It is not just by presumption that we can say the MIFs perhaps are necessarily industry-wide or variable. What the experts as a group here are engaging in is a recognition that it would be interesting to know on what basis you might investigate that issue, and what I am saying here is, well, the acquiring contracts will actually say: here is how your MSCs are determined.

So, for instance, if the MSC is determined on an IC++ basis, well that is obviously variable. If it is on a blended basis but applied at the per transaction level, it is obviously variable. If it is on a fixed amount per month irrespective of the card transactions, then you might argue that that could be a fixed example --

Q. Moving on to the data that we were talking about, in contradistinction to the qualitative evidence we have just been discussing, you recall, do you not, that there was a collaborative approach to finding the best datasets between the experts?

A. Yes, I think the experts did their best to collaborate in that respect.

Q. You would -- you were prepared to recognise at times that certain data was useful but not essential for your methodology. Do you recall those words?

A. Yes, and I think it is important to distinguish between two types of evidence. The first is the claimant data evidence. That was identified at an early stage as being at least useful to fill in gaps and, as the evidence became available, I took the view that it would be useful to complement the sources from other evidence sources, such as existing studies, with the claimant evidence where the structure of the evidence -- of the claimant data permitted it. In contrast, for example, to Mr Coombs, who had a stronger reliance on the public data, and then only essentially, I think, used the claimant data to fill in gaps.

I took a slightly different approach, which was looking at all the relevant evidence for a given sector and applying that same process for all of the sectors. So I did agree and was collaborating with the identification of, okay, if there is going to be claimant data, then we need to make sure that it is as relevant as possible. That is what the joint expert without prejudice sort of -- I cannot remember to what extent that moniker is necessary, but we were engaging on sort of considering where were the most important gaps and what were the structures of data that were being put forward by the claimants. If they were not capable of being analysed generally, you know, we would say so, and we did not really want that data.

Q. If I understand your evidence correctly, though, what you want is a combination of how do these businesses price their products in practice and how can we check the underlying data that lies behind their costs and prices decisions?

A. No, that is inaccurate, at least in so far as I was engaging on that process. My view was that the data could be helpful to fill in gaps and to complement the other evidence sources, and if there was going to be a data disclosure, then there of course needed to be a minimum standard of information such that we could then process the data.

The alternative set of evidence, which was essentially the voluntary disclosures, which was I think part of the positive case of some of the claimants, is not something that I had identified as being relevant to my overall assessment, although I did, of course, because it was made available, and in part because of the positive case of some of the other experts that was being put, I wanted to investigate what it was saying, but it was not in a sense central to my overall approach.

Q. That is because you were pursuing this: we are capable of working out the answer from empirical studies, public data. You were doing a higher level analysis which would not have included the qualitative evidence from

the claimants in the first place?
A. Well, I would -- that is not quite correct. I would also use the claimant data, and I did. But for the purpose of identifying the proxy that would be most relevant, the evidence that I determined to be relevant were the nature of the counterfactual in the long term focus, the nature of the MIFs of which there was evidence, variable, industry-wide, in my view.
Q. When we applied to adduce qualitative evidence, Visa opposed it, and you stood behind Visa on that issue, did you not?
A. Well, I was asked what would be the point of that type of disclosure in relation to determining the sectoral pass-on rates, and I did not see the immediate relevance of it.
Q. When we applied for a sampling procedure, as had been initially accepted by the Tribunal, Visa opposed it, and you stood behind Visa on that as well, did you not?
A. Well, I think that was -- sorry, I think, yes, I, again, was concerned that it would not be possible to carry out a sampling procedure of issues of the nature of the qualitative evidence that would lead to a proportionate and likely relevant long-run approach to determination of the proxy.
Q. So why did you complain about the absence of a sampling

procedure in the hot-tub this morning?
A. I was not complaining about the absence of a sampling procedure. What I was complaining about -- in fact, I would not say I was complaining. All I was identifying was that I was using the data that was available, and I was recognising that the data was all we had, at least from the claimants, but it was, at least for nine of the 13, complementary.
The debate about the sampling procedure was initiated in part because there is a perspective on the part of some of the experts that the qualitative evidence was central, and one needed to try and go down that route. My concern with that was that it was not likely to be meaningful and not likely to be proportionate and not -- nor would it be necessary in order to identify what were, in my view, the relevant considerations to choose the proxy, which I could repeat again but I think --
Q. I am going to move on to discuss the need for economic theory and the role of economic theory.
A. Okay.
Q. You would accept as a general proposition that economic analysis should follow commercial practice?
A. Yes, I think obviously the point of economic theory is to try and identify outcomes that are broadly consistent

with observation over time.

Q. There is no point building a theory that only lives in an ivory tower, is there?

A. Yes, I think that is fair.

Q. If the actual commercial conduct in the real world does not mirror what economic theory would predict, then frankly economic theory should move on, should it not?

A. Well, I would agree to some extent that economic theory has in some cases moved on in order to reflect these types of issues. One area where economic theory has not generally moved on very far is understanding what are the core profit-maximising incentives that firms face. Those same principles have been well understood by economists for a very long period of time and, yes, there might have been some further work in more recent years about the precise conditions under which different economic models of competition, of imperfect competition, and so on, could lead to different outcomes. So I certainly agree that it has not been a static prospective on economic theory, it has built up over time. But the general proposition of what are the factors that define profit maximisation, I think, are clear and have been for a very long time.

Q. If the available evidence before this Tribunal is that businesses routinely price in a certain way, that the way they do that is not necessarily consistent with how you think they should price in a certain way, then surely your "should" does not beat their "does"?

A. Well, I think I accept that from a conceptual standpoint, if you took that as a fact, then there are, I think, two remarks I would make.

One, it is then important to think about, well, what is the period of time that you are interested in, because, as I have already explained, I can very well see that things like price adjustment costs and/or the particular channel that you might adopt for, you know, for how you might operate a pricing strategy, could have a timing impact.

In my view, however, it is unlikely to be determinative as to long-run outcomes in the market because, and, again, I think I said this in the hot-tub, you -- it is unlikely that it would be sustainable for firms to deviate persistently from what their incentives are, given the range of pressures on the -- on the firm from a variety of sources, being owners, from competition, and so on. Similarly, I cannot see that that could be an explanation for an entire sector-wide deviation in the long term from what the underlying principles would tell you.

Q. Could we look, please, at {RC-J1.4/53/65}. This is part of a report from RBB, who you know well, and Cuatrecasas, the Spanish firm, that was tendered to the European Commission, and was relied upon for the purposes of producing the 2018 Guidelines that you cite. I think you have cited the RBB report in your report as well?

A. Yes.

Q. So if we look, please, at page 65, as part of this study, paragraph 104. If we can bring up 104 specifically, please. It says:

"... it is essential that economic analysis is practically-minded and responds to and is consistent with the factual and other evidence pertaining to an individual case. The economics must 'fit' with the relevant market context. In particular, the framework of assumptions that underpin any economic analysis must reflect the relevant realities of the market at hand."

So even on a sectoral basis, that would apply, would it not; assuming a sector encompasses a portion of the market, you need to have an eye very firmly on the real world facts?

A. Well, again, I agree with that as a general proposition. In my view, I have identified what are the relevant facts in the context where I have identified that, given the counterfactual, we are looking at the long-term outcome. So I have identified the underpinnings that I think are most relevant to the determination of long-run pass-on.

Q. Could we look, please, in your eleventh report, paragraph 152 {RC-F/19/67}. What you say there is:

"... there are a variety of ways pass-on can occur ... it is my view that the economic incentive to pass on the cost, as determined by the cost's key economic characteristics ... is the most relevant consideration for pass-on."

That of course does not give any effect, does it, to the real world perspective that we have just looked at in the RBB report?

A. Well, I disagree, because I have identified a range of relevant real world factors in terms of the nature of the MIFs, and, furthermore, as the RBB report, I think, also clearly says, identified what are the most important economic principles that are related to pass-on.

The RBB report itself does not really distinguish as to what is the appropriate pass-on timeframe because that might vary from case to case. So I can very well see that in some cases more weight might be given on short-term considerations than would be appropriate, in my view, in this case.

I think then what I am indicating in this paragraph is that the qualitative evidence, and obviously there is a comment about what the qualitative evidence as it was and what the qualitative evidence as it might have been could tell you.

Q. Are you downgrading the importance of this consideration in the light of the evidence that has been given?

A. I think -- not really. I think what I am saying here is that it is unlikely that in the long run, given the timeframe that I am focusing on, that firms would have -- or a sector, because, again, I am focusing on sectors -- that the pass-on rate would systematically and over the long term deviate from what the principles would tell you due to some of what is discussed as qualitative evidence leading to different channels by which this may happen.

Q. I want to reassure you, I am coming back to the long-term/short-term analysis.

A. Sure.

Q. But given that it has been your response on a number of occasions now, let us just grasp the nettle.

A. Yes.

Q. On your economic principles first point, you are positing a situation where one considers the long run; correct?

A. Yes.
Q. In the long run, you say all costs are variable; correct?
A. Well, I have said that all costs are variable, but it is actually -- yes, so I agree with that point that all fixed costs at the point where they need to be repeated, or new investment decisions need to be made, that then becomes a variable decision, so I agree with that statement.
Q. Over the long run, a firm that does not recover its costs in full will go out of business?
A. Well, that, I think, is likely correct, because unless there is some sort of means by which the firm will be subsidised, then I think that obviously must be the case, yes.
Q. So if the claim period is long enough, any surviving claimant that is not in the hands of the administrators will necessarily, on your economic theory, have passed on in full any loss they have suffered?
A. No, that is incorrect. So I have not said that pass-on must be in full for any type of cost. Firstly, in making the statement about the recoupment of long-term costs, one has to think about the sector-wide or industry-wide level of cost change, and if cost changes are firm-specific, that would already be a reason why

a firm might not be able to recoup its costs, because it was incurring higher costs, for example, than the market average.

Q. Your case is that the MSC is not a firm-specific cost, is it not?

A. That is correct.

Q. Why are we bothering with that? We can have a debate about that, so why are you advancing that as an explanation?

A. I am advancing that as a response to your suggestion that, in general, all firms must be -- all costs must be recouped, and I am just saying that is not my view. Not all costs must be recouped in the long term. Costs that are industry-wide must be recouped, on average, in the long run.

Q. That would lead to a presumption then in your case, I take your point that you are not advocating for full pass-on, but any surviving claimant would necessarily have passed on 88% of their industry-wide variable costs, which would be all long-run costs, all costs in the long run?

A. Sorry, I am hesitating because I am not quite sure what the question is. I am --

Q. I am reining back from full pass-on, because I have taken your point that you do not advance a full pass-on case.

A. Okay.

Q. So reining back to 88%, which is the magic figure.

A. Sorry, 88% --

Q. Can you identify a claimant, on your application of economic principles, who would not be found by this Tribunal to have passed on 88% of their costs over the long-run period?

A. Well, yes, but primarily because some of the sectoral estimates are below that value, which I think is perhaps not the most fundamental point that you are making.

I think what I am identifying is for the given characteristics of the MIFs, the evidence from a wide range of sectors, the three sources, and substantial individual evidence within each of those, is consistent with a high but not complete level of pass-on of industry-wide variable costs.

Now, that could mean that overall, long-term costs recovery of some types of costs may well be substantially below 88% in some circumstances, but for the relevant circumstances here, 88% is the economy-wide average I have identified. Obviously there is variation across sectors.

MR BEAL: I am about to come on to look at the factors that you say we should take into account, which, for those closely following my openings, is the second of my 14 points. You will recognise in due course that there is a certain similarity between the categorisation and where we are.

But I am noticing it is five past 3, and given that it is a new topic, I am wondering if that might be a suitable moment?

THE CHAIRMAN: Yes, we will take a ten-minute break.

(3.05 pm)

(Short Break)

(3.15 pm)

MR BEAL: Mr Holt, let us look at the factors that you take into account. Please could go we look in your eleventh report at paragraph 21 {RC-F/19/29}.

A. Yes.

Q. You identify three key factors you consider most relevant:

"... (a) the nature of the affected cost; (b) the nature of the cost change; and (c) the duration of the cost shock."

Can you see those?

A. Yes.

Q. I am going to show you now a legal authority, because it identifies the factors that this Tribunal in the *Trucks* case thought were relevant. Please could we look at

{AB-D/37/98}.

You have cited the *Trucks* decision in your reports, so I am assuming you are familiar with it. But in order to give you a heads up as to what the factors are, please could you read paragraph 228 through to paragraph 230.

Well, perhaps just --

A. Let me have a second.

I would note that 228 begins by saying:

"... the legal test for causation ..."

Am I correct that that --

Q. That is not a matter for you.

A. No, I agree. I am just saying that 228 is concerning that topic, just to clarify.

Q. It then goes on to say:

"There must be something more specific ... and there are a number of potentially relevant factors it can rely on, including ..."

It then identifies factors which are not legal factors.

A. Yes, but this is in the context of what is the appropriate legal test, as I understood. I was not instructed to consider --

Q. (Overspeaking) They are not a matter for you. All I am saying is these are factors which the Tribunal, at face value, is identifying as factors, and I am going to ask you about whether or not you think these are meaningful factors or not, if that helps, if you want to see the shape of it.

A. But if the factors were identified specifically in the context of the legal test --

Q. But that is not a matter for you. I am just asking ...

THE CHAIRMAN: Well, I think if you just answer the question.

A. Okay, I am sorry. Yes.

MR BEAL: Just concentrate on dealing with the questions and I will worry about the law.

A. Right, okay.

Q. Let us keep it that way.

A. I did not want to stray into legal territory, that is all.

Q. So the first factor is:

"Knowledge of the overcharge or the specific increase in the cost in question."

Would you accept that is a relevant factor?

A. So this is sort of my concern. My -- I do not think that is relevant to the economic principles of pass-on because it is a but-for test, not a conscious factor. My test is about what would happen in the counterfactual with and without the MIFs.

Q. That is a perfectly fair answer and you are saying that.

The second factor is:

"The relative size of the overcharge against the claimants' overall costs and revenue."

Would you accept that is a relevant factor?

A. It might be in the short-term but not in the long term.

Q. So to the extent that your evidence -- I am not going to bother to take you to it if that is your answer orally. To the extent that your evidence has previously suggested that is not a factor at all at any stage, you have modified that position, and you would now accept it could be a factor in the short run?

A. I think I agree with that proposition, but I am not sure, I have not acknowledged before now, that there could be a timing issue.

Q. I am not going to waste our relatively finite time by tracking down things where I can show you what the position is.

Factor number 3:

"The relationship or association between what the overcharge is incurred on and the product whose prices have been increased."

Would you accept that is a relevant factor?

A. If I were to interpret that as what is the nature of the cost, then, yes, i.e. is it variable?

Q. Then the final one is:
"Whether there are identifiable claims by identifiable purchasers from the claimants in respect of losses caused by the overcharge."
A. That, in my view, is not relevant to the assessment of the (inaudible) pass-on.
Q. Could we then please look at {RC-J1.4/19/14}. This is the Commission 2019 Guidelines, recital 51.
A. Yes.
Q. That is page 14, not 40. So 14. Thank you very much.
Could we look, please, at paragraph 51. Again, I do not wish to put you on the spot. So if you can cast an eye over that, it identifies the most important factors affecting the existence and magnitude of the pass-on effects.
A. Yes.
Q. In summary, they are whether the costs are fixed or variable; you would accept that one?
A. Yes.
Q. Whether the cost impacts all or the vast majority of customers in a market?
A. Yes, that is the firm-wide point, yes.
Q. The nature of the demand that direct or indirect customers face?
A. Yes.

Q. The strength and intensity of competition in the markets where the direct and indirect customers are active?
A. Yes.
Q. Price adjustment costs?
A. In the short run.
Q. The proportion of the firm's costs affected by the overcharge?
A. Potentially in the short run.
Q. Buyer power?
A. Not likely to be relevant in retail pass-on to consumers who do not generally have buyer power.
Q. Vertical integration issues?
A. I think in theory it might have an impact, but, again, for retail merchants, less likely to be important, I think.
Q. Price regulation?
A. I agree that the nature of price regulation could potentially have an impact.
Q. Then the timing of pricing decisions undertaken at various levels of the supply chain?
A. I am not quite sure I understand exactly what that means, but it sounds like it could be a short-run but not long-term factor.
Q. I assume that the Commission held that these were relevant factors for the question of pass-on that was to

be resolved by the national courts?
A. I presume that is why it wrote the Guidelines, yes.
Q. Do we find anywhere in the Commission Guidelines a statement that none of this matters because, in the long run, all costs are variable and they will be recovered by a company that does not go out of business?
A. No, and neither is that my position.
Q. Could we look, please, at paragraph 56 next, recital 56. It says:
"... other elements may, under certain circumstances, play a crucial role in the direct purchaser's price formation mechanism, and, hence for passing-on of the overcharge ... one element ... might be important in order to quantify passing-on is whether the input affected by the overcharge represents a large or small share of the direct purchaser's variable costs. A direct purchaser may face costs when changing its prices, so-called 'price adjustment costs'."
If the overcharge is only a small share, it may not be profitable to pass it on effectively and incur the menu costs adjustment.
You would accept that is a correct statement of principle?
A. Yes. Again, it has a particular focus on the short-term adjustment.

Q. To the extent that you have in your evidence, again, I am not going to go through it line-by-line, but to the extent in your evidence you have suggested it is not even a relevant consideration, that evidence would be superseded by the evidence that you have just given to the Tribunal; correct?

A. Well, I am quite certain I have referred to the nature of the price adjustment cost and what role it can have, so --

Q. Let me take you to it. It is your twelfth report, paragraph 41 {RC-G/17/26}.

It is not just the menu adjustment cost issue, it is also the relative size of the cost within the stack of variable costs.

At 41 you say:

"There is some agreement between the experts that the size of the cost item is not generally a relevant factor as regards the pass-on of variable costs. Whilst large fluctuations in variable costs are likely to be passed on in the immediate or short term, in the longer-term firms face powerful economic incentives to pass on all variable costs, regardless of their size."

So I had understood from that that you were saying that the relative size of the cost is not a relevant consideration. Indeed, you say:

"I do not consider the size of a variable cost to be informative."

A. Well, yes, but that is not because I have not accepted that price adjustment cost can have a short-term effect --

Q. (Overspeaking) I am talking about -- I beg your pardon. This is not specifically dealing with price adjustment cost, it is also dealing with the parallel issue, which is the relative size of the cost.

A. Yes, I would make the same point in that regard, yes, because one of the main reasons why a small cost might not be passed on in the short-term could be a price adjustment cost.

Q. So you accept that the relative size of the cost, at least in the short-term, is an important factor?

A. It may be in certain circumstances.

Q. Could I ask you then, please, to look at paragraph 255 of this report which is at page 87 within this document {RC-G/17/87}.

You will recall in the paragraph immediately above 255, Dr Trento had said:

"Intuitively ... the size of the cost matters, as small fixed costs are less likely to influence the market structure - and therefore to affect prices - than larger fixed costs."

Now, putting to one side the issue of fixed versus variable for the moment, you say you disagree with that intuition.

"In my view, it is important to note that 'entry and exit' should not be understood too literally ..."

You then say:

"As explained by Ms Webster, firms often review various aspects of their operations and investment opportunities. For example, 'supermarkets may frequently evaluate the ongoing viability of ... their existing stores, and potential locations for new stores'."

A. Yes.

Q. So am I to infer from that that if, for example, the MSC is treated as an overhead, you say it would have been factored into investment decisions by Tesco when deciding whether or not to open up a new superstore on the edge of High Wycombe?

A. What I am commenting on here is what are the mechanisms by which fixed costs may be transmitted to prices, and I am engaging on the debate that that would mainly be through changes in market structure, entry and exit.

The only additional point I am making is that it is not quite so limited to such dramatic changes in the supply and demand structure, because smaller investment decisions made over time can also be informed by changes in fixed costs, such as the likelihood of a new investment being profitable, and so on.

So I am merely making the point that, even if there is a fixed cost that is not sufficient to trigger entry or exit, there still may be a mechanism by which a change in a fixed cost could have an impact on prices.

Q. I am going to move on now to look at demand and supply curves. You would accept that the shape of the demand and supply curves is a relevant consideration for determining the likelihood of pass-on?

A. They ... hmm ... That is a very precise question about the "likelihood" of pass-on.

I would agree that the shape of the demand and supply curves are, in principle, an important set of factors that might determine the extent of pass-on, and under certain limited conditions they could be consistent with no pass-on. So that is why I am sort of having to give such a -- quite a very specific answer, because I think my general point would be demand and supply conditions are a relevant consideration to the likely level of pass-on in a given sector, albeit they are not easily observed and can be captured in the empirical evidence, but the question you have put is whether it affects likelihood, as opposed to extent.

Q. Can we look, please, at {RC-J1.4/54/56}. This is part of a 2014 RBB report, so prior to the one that we have already looked at. It was prepared, I think, for the OFT, but let us just see whether or not you agree with the proposition that is put here.
A. Sorry, which paragraph, please?
Q. The second paragraph down.
A. "Dynamic considerations"?
Q. Ah, we are on the wrong page which is why I am not finding my note. This is 26, rather than 56. Thank you, yes.

So we see at the top of the page this statement saying:

"This confirms the graphical intuition above, namely that the extent of (absolute) pass-through depends on the relative magnitudes of the slopes of demand and supply."

Then there is a reference to figure 3 and some technical detail I am not going to go into. Then the next substantive paragraph:

"If the elasticity of demand is large relative to the elasticity of supply, so the pass-through rate will be low. Conversely, if the elasticity of demand is small relative to the elasticity of supply, the pass-through rate will be high."

So I imagine that that is dealing not necessarily with the linearity of the supply and demand curves but with the curvature, is that right, because it is dealing with elasticity rather than the supply and demand simpliciter?

A. Even linear curves can have elasticity, but I happy to accept that elasticities, and indeed the shape of the curve, whether it be linear or a different shape, can have an impact on the rate of pass-on, yes.

Q. Then if we look, please, at {RC-J1.4/19/15}, paragraph 53, so that is {RC-J1.4/19/15}, I am hoping we have recital 53 at the top of the page. We see there that:

"... the product demand that the direct customer faces affects the level of passing-on. A standard price formation mechanism builds on the fact that the demand a firm faces (i.e. the quantity it sells) decreases when it raises its price. The extent to which a direct purchaser raises its own price when facing an overcharge depends on whether the demand reacts strongly to such a price change or not. For instance, if the direct purchaser is a monopolist and the demand that it faces is equally sensitive to a change in prices for all price levels and the direct purchaser is facing constant marginal costs, economic theory suggests that half of the overcharge will be passed on."

Pausing there. That learning is reflected in the curve that was provided to you by -- the demand curve analysis that was provided to you by the Tribunal, is that right?

A. Yes, I think, at a broad level, yes. I mean, obviously there is ad valorem versus unit rates and thing like that, but I think we probably do not need to get into that on this question.

Q. Well, I think, certainly since 2014, the evidence is that the rates have been predominantly ad valorem because of the impact of the IFR, is that fair?

A. I thought IFR came in --

Q. December 2015.

A. Yes.

Q. But with Visa commitments, they were foreshadowing the IFR regime, were they not?

A. I cannot recall the precise structure that they had for --

Q. I am not going to relive the joys of Trial 1 with you, if I can avoid it.

Could we then look at the next sentence, please, in this paragraph:

"If the demand a monopolist faces drops 'more and more' (i.e. at an increasing rate) when price increases, it is less likely that the overcharge will be passed on as compared to a situation in which the demand that such a monopolist faces drops 'less and less' ... as the price increases, all else being equal."

Can you see that?

A. Yes.

Q. So, in essence, most firms will face a demand curve that reflects less and less demand in the face of increasing prices, will they not?

A. Well, I am not sure I am able to agree to that. This is sort of a theoretical frame and it is focusing on monopoly. Obviously that is a -- one of the two sort of simplified models of perfect competition and monopoly, and a number of insights around pass-on can be drawn from those. Most markets obviously are much more complex in terms of the nature of competition. So I think what that means, and the way I have interpreted all this, is that there are some learnings and broad principle one can draw from this theory, but really that is why I have not overly emphasised it from a precise measurement perspective; I have gone to the empirical evidence.

Q. Any downward facing demand curve will reflect diminishing marginal utility of consumption by the consumer; correct?

A. Yes, I think that makes sense.
Q. That is true whether the shape of the demand curve is either convex, concave or linear, if they are downward sloping?
A. Yes, but the issue is not just whether is it downward sloping, but what is the rate at which the downward slope is changing over time, which you are alluding to in the convex and concave situation. I think from a theoretical proposition, those distinctions can actually be quite important in terms of the rate of pass-on.
Q. Diminishing marginal utility will hold good, will it not, regardless of whether it is a concave, convex or linear demand curve?
A. I think --
Q. On a downward slope.
A. Sorry, I am just trying to ...
Q. Well, let us have a look at the curves in situ. This is {RC-J1.4/19/36}. At the bottom of the page there, we have a simplified representation of three types of graph. One is linear, one is concave and one is convex. Can you see that?
A. Yes.
Q. They all have in common the fact that they are sloping from top left to bottom right, albeit with different

curvatures, as you have explained?
A. Yes.
Q. Each of those graphs will reflect, will they not, the principle of diminishing marginal utility?
A. Yes, in the sense that the value attributed to an additional unit consumed is less. But I think the pass-on question is what is the incentive for pass-on, taking into account the trade-off between the impact on lost sales and the impact on the margin protection associated with the price increase, and my point is that the shape of these curves has an important impact in that regard.
Q. Can we have a look at your eleventh report {RC-F/19/59}, paragraph 122, and in particular footnote 67. You say in footnote 67:
"Convex demand functions are often used in economics as they have a number of desirable properties such as, amongst others, mathematical tractability ..."
I am just stopping there, I am not going to engage with you on that. But then you say:
"... and diminishing marginal utility ..."
Which you then explain.
A. Yes.
Q. The point I am making to you is that in fact the diminishing marginal utility point you take there

applies equally to the three curves we have just looked at?

A. I think it may well do. I think it may well do. My -- to the extent it is a helpful answer to the question, in the hot-tub there was quite a bit of discussion about what were the economic theory principles under different forms of competition and under different types of demand and how might those relate to pass-on.

I tried to assist the Tribunal in indicating that at a broad proposition you can get some simplified models where, you know, under perfect competition and under a monopoly you can draw some findings, and then there are some recognised broader factors that can be taken into account under imperfect competition, and that there were potentially a wider set of outcomes from lower to higher, above 100 or below 50, in those circumstances, and that quite a broad range of factors could be important in that regard, including some of the points that you are putting to me now, such as the nature of the shape of the demand curve.

That is about as far as I am able to really comment on that.

Q. Could we look, please, back in the Commission Guidelines, recital 172 {RC-J1.4/19/36}.

So you have focused in your report on, as

I understand it, convex curvature for demand. This is now looking, at 172, at where the demand curve is concave, as shown is box 15, which is below the box we just looked at.

Then you say -- sorry the Commission says:

"... the demand becomes more sensitive to price changes as the price increases. This could for instance be the case if a substitute of the product affected by the overcharge is available the customer. An example may be the demand for gasoline. At a certain price level, the customers may switch their consumption away from cars using gasoline to electrical cars."

So there are clearly a subset of products, are there not, where the concave nature of the demand curve makes a material difference?

A. I think I agree that the nature of the shape of the curve could make a material difference to pass-on, and this is obviously a hypothetical illustration which I am not sure is necessarily one that is borne out in practice, given the rapid rises in the price of gasoline over time and the generally continuing use of vehicles. I am not saying that I have investigated that in any great detail, but I think this is being put forward as a fairly hypothetical question. It may be that it applies in this sector, but it -- the evidence is --

Q. Your report is focused on convex curvature, rather than concave curvature for demand?
A. Well, I think the footnote did, and the -- it is important to recognise what I am actually drawing from the economic theory in terms of any findings, and I think all I am saying is that I have acknowledged that under economic theory a broad range of factors could affect the empirical assessment, including some of these shape-type issues, but that generally they are not easily observable, and therefore my focus has been on the empirical analysis.
Q. You have chosen to concentrate only on the convex curvature. Can you look, please, at recital 171 on this page, just further up the screen. You say:
"In the case of convex demand, the demand becomes less sensitive to price changes as the price increases. This may be the case if the products or services affected by the overcharge are characterised as essential goods."
So an essential good is more likely, other things being equal, is it not, to have a higher demand in elasticity for the average consumer?
A. That might be one example. Again, I have not tried to go sector by sector and tried to assess what is the shape of the curve, I have, rather, let the empirical

evidence tell me what the ... All factors in the round is telling you about pass-on.

Q. Would something like the Sony PlayStation be an essential good?

A. It may not be. Oh, maybe it depends on who you ask! For the average teenager, it might well fit that characteristic.

Q. Your children are younger than mine, that is all I am saying!

In any event, as you say, what nobody has done here is study the curvature of the demand curves for each of the sectors in issue, have they?

A. No, I think the experts have broadly agreed that the range of potential outcomes could be quite variable according to some of these conceptual issues, but that they are actually not, in practice, something that you can implement, because you cannot easily observe the information you would need to, to actually put it into place in practice.

Q. Similarly, nobody has observed the shape of the supply curve, have they?

A. I think that is correct. I think some experts have commented on their view of the likely long-term nature of the supply curve, but I do not think anyone has sought to measure it in a precise way.

Q. Indeed, if we look, please, at {RC-F/19/60}, which is your eleventh report, at paragraph 126. Picking it up at 126, you state that:

"... the shape of the marginal cost curves affects the extent of pass-on. I do not think it needs to be studied separately for the reasons set out in relation to demand conditions above."

Effectively, it would be very laborious and probably imprecise. Is that fair?

A. Yes.

Q. Now, if we then look at 127, however, on the same page, you then go on to assume, do you not, that given the scale of the cost in question, the extent of any change to the supply cost curve attributable to the MIF would be, at most, 1%?

A. Yes.

Q. So you have effectively treated the supply curve as flat in the long run, have you not?

A. I have made a comment about what the shape of the curve might be, but I have not treated it as such in the sense that it has affected any of my analysis. As I say, I have described in this section what were conceptually factors that could have an impact on pass-on, but not ones that I feel are capable of actually being implemented in a practical framework.

Q. Now --
A. So I have not implemented any of these sort of specific findings around economic theory in my framework. All I have done is look to what the economic theory suggests are the important conditions that are measurable.
Q. I do not want to pursue a bad point. If you are saying you are not implying that because the cost is only roughly 1%, to be debated, of the overall cost of a business, it is not likely to have an impact on the supply curve; if that is not the point you are making, I can move on.
A. Well, I think there is -- I am not saying that I do not consider that to be a reasonable statement. All I am saying is that I have not relied on that in my application of the empirical framework.
PROFESSOR WATERSON: Can I just break in here?
Presumably some of the individual studies that you have looked at, I have not checked, but some of them will have estimated these sorts of things, estimated the demand and supply function framework, and so individually they have been able to do this, but it is a shortcoming of the fact that you have limited data and limited time that you have not been able to do this on a broad scale?
A. Professor Waterson, that is a good question. I do not

think it is the case that the general approach in the literature to assessing pass-on is to basically reconstruct demand and supply curves over any particular period of time, but it is often more of an empirical exercise of looking at data, looking at any natural experiments of changes in costs and trying to see what that entails in the data. I think that is the more typical approach.

PROFESSOR WATERSON: Right, okay. I know of some papers that do, but --

A. Yes, sorry, I do not mean to say that none have, and obviously there are some that look at, you know, simulations which make assumptions around shapes of curves, but I think the majority -- let me put it that way -- the general approach has been to look at natural experiments in terms of changes in unit prices of costs to see what impact that had, based on a dataset that included the before and the after.

PROFESSOR WATERSON: Thank you.

MR BEAL: I mean, shortly put, I think I can probably cut through quite a lot of this.

You cannot claim, can you, that the supply curve in the counterfactual is flat simply because the overcharge is 1%?

A. No, I am not claiming any sort of factual position.

I am saying that there are a number of concepts that might be relevant to the assessment of the long-term supply curve, such as what you think about whether it be scale economies or, you know, the amount of constraints in the economy in terms of how much upper pressure there would be on an increase in the amount of units. Those are sort of some conceptual factors that might be relevant.

In the longer term, obviously things like innovation and, you know, pressure to try and identify the most effective way of producing outcomes can put, you know, a mitigating pressure on the upward slope of a short run supply curve.

Q. A significant exogenous shock to the market as a whole would cause an upward shift in the supply curve, would it not, rather than a recalibration of its curvature?

A. Yes, at least for a change in marginal cost, yes.

Q. Even if the supply curve is relatively flat, an upward shift in the entire curve would have a dramatic effect on the quantity demanded, would it not, especially when the demand curve shows that demand is elastic?

A. I think what you are essentially saying is that the pass-on rate can depend on whether the shape of the supply curve -- the interaction or the comparison between the shapes of the two curves, and I agree with that.

Q. The Commission Guidelines that we have looked at, let us pull them up again {RC-J1.4/19/38}. If we look, please, at paragraphs -- recitals 179 and 180.

One of the factors they take into account here, in particular in 180, is not simply imperfect competition and the consequences for that, but also differentiated products, and differentiation can arise either in terms of product characteristics or geography. So that necessarily impacts, does it not, the level of price differentiation on the overall market-wide analysis that you are saying is a relevant factor to take into account?

A. Yes, I think what this is saying is that, having already identified some of the standard perfect competition and monopoly theory approaches, that actually there are a number of types of competition that can arise in between, imperfect competition being an important one, and that under those conditions, some other factors could be relevant to the rate of pass-on.

Q. When you have dealt with the type of competition, so Cournot versus Bertrand pricing, you have generally concentrated in your reports on Cournot, is that fair?

A. I would have to go back and check. Again, my overall approach has been to describe some of the economic principles that the literature has identified, but to reach a conclusion that from a practical and framework perspective for the purpose of the proceedings one can actually recognise that, well, quite a wide range of outcomes could occur, and therefore one really needs to get to the empirical evidence.

Q. Could I then move on to the next topic, which is your implicit channels for pass-on. I do not think we necessarily need to turn up the specific paragraph in your report but let us have it there for assistance. It is {RC-F/19/30}, starting at your eleventh report, paragraph 24(a).

You suggest there are implicit, less visible channels for pass-on. These will be very familiar to you.

A. Yes.

Q. So you have suggested, for example, in 24(a), any expert analysis -- I will pick up the wording specifically.

You say in the last sentence:

"Any argument based on individual cost categorisation would need to be accompanied by a detailed forensic analysis capable of demonstrating that MSCs do not influence prices by means of such possible alternative channels ..."

Now, are you trying there to reverse the burden of proof that your evidence has to meet?

A. No, I am not saying anything about burden of proof. What I am trying to identify here is to recognise that the underlying incentives that firms will face in relation to an industry-wide variable cost can be the subject of broadly common agreement, I would have thought, because essentially all of the experts accept, I believe, that a common industry-wide and variable cost would lead to a change in the pricing incentives.

What I am saying here is that, in my view, it is not capable of being informative, at least in the long-run answer, as to what is the rate of pass-on, to say, you know, here is a channel by which that can happen, because there might be a range of channels through which this could happen. Some of those channels might be arguably more direct than others, but the underlying incentives would be similar, and the need to react to competitors would also be of fundamental importance.

So what I am saying is that, given the inherent complexities in any firm, which I certainly accept, and I am not ever suggesting that profit maximisation is a simple, you know, supply and demand curve that all of managers have and they get price. I am saying that given the complexity, it would be very difficult, in my view, to come up with a qualitative evidence base that gives you anything truly informative about the long-run rate of pass-on of this type of cost, given what the incentives are.

Q. You understand as a purely economic -- sorry, legal matter, that the burden is on you and your evidence to establish pass-on has occurred?

A. Well, I understand that the defendants --

THE CHAIRMAN: I do not think you meant to say that the burden is on him.

MR BEAL: Well, it may feel like it is, but it is on the team as a whole, I am sure.

A. Well, sorry, I obviously am aware of the general principles around burden of proof for claimants and defendants under different propositions. My understanding is that there are -- the burden can be made out in relation to a number of issues, one being legal causation, one being factual causation, and one being assessing what then is the empirical estimate, given the above.

I obviously have not commented on legal causation, nor really, in any detail, on factual causation. I have essentially identified the economic and factual and proceedings-based considerations that I think are relevant to the assessment of sectoral pass-on.

Q. Can we look, please, in your twelfth report, at paragraph 373 {RC-G/17/125}. It is entirely possible I am reading too much into this, but I would like to see the phraseology you use.

So what we see here, paragraph 373, the last sentence:

"Overall, I have not seen evidence on how other roles are compensated, including executives and senior management and so I cannot rule out that Hilton employees would have an incentive to pass on MSCs more generally."

Now, you would accept, would you not, that that does not in itself prove anything?

A. Yes, I am not saying that my review of employee compensation, which came up with an inability to identify whether that channel in practice existed from -- for this claimant, and I think we are talking about Hilton here, proves either that they did do it or they did not do it, in the case of that particular channel. It should be --

Q. Let me see if I have your argument right. So what you are saying essentially is that firms, by setting pay targets associated with the financial performance of the company, might thereby incentivise the executives to take steps to ensure that the MIF was passed on?

A. Yes, I think alongside any other sort of cost act of

relevant industry-wide variable costs.
Q. So if so, and if the MIF then decreased and led to lower costs, would that mean that executives were incentivised not to reduce prices so that the firm would make more margin?
A. No, because that would not be the sort of profitability incentive that would be relevant if there were such an incentive scheme. The incentive scheme would obviously have to take into account the net outcome of both the change in any margin, but also the impact of any competitive balance that they had relative to the other firms in the market.
So, while, yes, being able to avoid passing on a cost reduction might at first be a nice position, but it is not a nice position if, as a result, you lose sales. So obviously the trade-off is not purely about the margin, it is about the combination of the margin and the impact of the lost sales.
Q. Well, the channels you identify, and I am not going to go into detail with this, you are very familiar with this, but it is things such as performance metrics, EBITDA performance targets and so on. That is one?
A. Yes.
Q. Competitor pricing is a big one for you, is that right, for your evidence?

A. Well, it is a channel identified, and it happens to be one where my review of the evidence as it was seemed to indicate that that was used by all the claimants who put in evidence.
Q. Then employee compensation along the lines we have just been discussing?
A. Yes.
Q. So those are the three.
A. Sorry, and pricing strategy being the fourth.
Q. Pricing strategy is the fourth.
A. Yes.
Q. So which company operating in the modern economic environment is not going to look at the prices charged by its competitors?
A. I would suggest that it would be rare. I would agree that most companies, at least in the competitive environment, would be observing their -- what their competitors are doing, and indeed that is one of the reasons why my earlier -- I mean, obviously in this part of the report I am engaging on this evidence, because it is there, and because the other experts are relying on it, so I want to understand what the evidence says. But my position is that the factors, I will not repeat it, as to what I think is relevant to the framework in a sense would not have necessitated going down this road

because of the clear long-term incentive principles that were already identified.

Now, I would have, if asked: well, what could be the possible channels? I could have said, well, there might be any number of channels, and obviously firms are very complicated, but ultimately I am interested in what are the incentives, because I do not think that firms and/or entire sectors will diverge in the long term from those incentives.

Q. None of those incentives can be described as providing a direct route, can they, between a cost increase and a price increase?

A. I am not sure I am really able to answer that question because it seems -- maybe let us unpick it.

Q. Well --

A. The existence of a channel --

Q. Let us just take employee performance by reference to financial performance in the accounts, management accounts.

A. Yes.

Q. That is one of the implicit channels for pass-on you have identified.

A. Yes.

Q. It is not going to be possible for you, is it, to say, looking at a particular FTSE 100 company, the remuneration package for the directors and officers of that company is such that I can show that an increase in the MIFs in 2019 -- sorry, 2021, following Brexit, led to the pass-on into downstream customer costs for the products of that FTSE 100 company?

A. I think I would generally agree that that would be very difficult, and the only way that one would be able to make the claim with that degree of precision, that you can see a particular change in the particular MIF having been translated, would be if you had a much broader sort of investigation as to all the factors that could have been taken into account under a wide range of cost changes that actually took place, and then to try and investigate, well, how similar were those to the counterfactual change in the MIFs?

I do not think that that is the exercise that has been carried out. It is obviously a more limited disclosure exercise. So the interpretation I am putting on here in the passage of the report that you are identifying is to understand what are the channels by which the incentives that the firms have, based on my framework, could, and likely, in my view, would have been used in order to actually lead to the long-run outcome that I think is the likely one, albeit that the empirical evidence is what will determine what the long-run outcome is.

Q. Could we look, please, in your twelfth report, at paragraph 187 {RC-G/17/65}.

I think this is the point that you were partially just making. This evidence suggests that these indirect channels may take a relatively long time to impact pricing decisions. Can you see that in paragraph 187?

A. Sorry, which --

Q. The first sentence:

"Some of these channels may take a relatively long time to impact pricing decisions."

So that is your evidence.

A. Yes.

Q. Can we then scroll back, please, to page 64, paragraph 182(c). You then say:

"... it is not possible accurately to estimate pass-on of overheads over the course of the claim period due to data limitations."

So effectively you are saying the datasets do not go far enough. Can you see that?

A. It is not possible to estimate the impact if the MSCs changed. Sorry, is this the signal to noise ratio? I am sorry, I cannot see the --

Q. (Overspeaking) -- basic point that you are complaining about the datasets, and they only go back six years, as

I understand it, is your complaint. Is that right?
A. Oh, okay. Sorry, there is one question about whether it is possible to model the impact of the MSCs, and my view is clear, no, you cannot do that, even if you had a longer dataset, frankly.
As to whether it is easily possible to identify the pass-on of overheads, well, then, I have two points. One --
Q. Forget overheads and the overhead --
A. Fixed costs.
Q. -- distinction for the moment, what we are talking about is indirect channels --
A. Yes.
Q. -- and you are saying these indirect channels may take a relatively long time to impact pricing decisions.
I am now saying to you: how are you going to show an impact of an implicit channel over the long term when you are complaining that the datasets do not cover sufficiently the long term?
A. My view is that ... I am not actually sure that this evidence is capable of being used in that way because of the limits to how much weight you can put on which channels were used and under what exceptions they might have been adopted.
Furthermore, while I think, as you pointed out, it

described that some of the channels might operate over a somewhat longer term, some of them might in theory also operate under a quicker term. So, for instance, a competitive reaction to an industry-wide variable cost could possibly take place more quickly.

The problem with the dataset is that you cannot hone in on what I consider to be the more relevant aspects of the application of those channels in a condition where there is an industry-wide variable cost. If there were proxies of that nature, then I think that might be something you could do, albeit the dataset length is a likely limiting factor, actually, because many of the datasets are only between, you know, six years or so, plus or minus.

Q. Could we then please look at page 66 of this report, paragraph 188 {RC-G/17/66}. Here you say you would expect such channels to exist:

"Profitable businesses must have processes in place that ensure that their pricing reflects their costs, irrespective of how such costs are classified."

What you are essentially saying there, are you not, is that firms must have a budgetary process in place to ensure that they recover their costs in the long-run?

A. Not quite. I am saying that the underlying incentives that firms will face may not be applied on a day-to-day basis through precise economic theory-based profit maximisation principles, but at least over the longer run, and at least given that they have to react to their competitors, firms would have a range of tools and processes and ability to take these incentives into account. That is, I think, really what I am saying there.

Q. Are you suggesting that the MSC levels are explicitly taken into account when setting executive pay?

A. The evidence I have been able to review does not in all cases allow one to make that conclusion, "yes" or "no". I think in some cases, and speaking a bit more broadly about the different channels, I have identified that it appears that is not --

Q. (Overspeaking) Just sticking for a moment with the executive pay.

A. Okay.

Q. Can you tell me, if necessary by an oblique reference rather than a specific name, of an individual example where you can show that MSC levels have explicitly been taken into account when setting executive pay?

A. I cannot recall. In Holt 12 I have a section which summarises the evidence. I am -- what -- I cannot -- I cannot recall whether the evidence relating to executive pay explicitly related to MSCs or did so by analogy due to the fact that it was within a cost stack that was specifically covered. So essentially I was looking at both situations: (i) were the budgetary pricing or other processes directly referring to the MSCs; or (ii) were they directly referring to MSC -- a cost stack that included MSCs? If either of those two points held, then I would identify that as a channel through which a change in MSCs could have had an impact on pricing in the way that the underlying incentives might have indicated.

If I did not find evidence, then I tried to make a comment that would either say this was -- because there really was not much evidence to look at, so I really cannot form any view at all. Or in some cases I said the evidence I saw did not indicate that they used that particular channel, and so I did not come to a view that every channel was always used by every firm. I identified that some channels were used. The competitive reaction channel seemed to be used by every firm. Then there was a mix of different channels used by different firms. Some used pricing strategy, such as -- I do not know if I can name Travix, WorldRemit, Allianz, others. All of them, as I say, used competitive reactions, and a mix and a subset used the other two tools. Quite a few used margin targets, perhaps a somewhat smaller number used executive compensation.

Q. Could we turn to margin targets, seeing as you have mentioned it. That is Holt 12, please, 191(b), page 67 of this report {RC-G/17/67}.

You refer there to various people. Their names are confidential, so we will ignore the fact you have just read some of them out.

A. I am sorry.

Q. That is all right. Essentially, what you are saying is the overall profitability has to be taken into account when setting margin targets. Is that what you are saying?

A. Which paragraph, please?

Q. (b) at the top of the page. You say:

"Documentary evidence confirms that overall profitability is or may be taken into account when setting margin targets."

A. Yes.

Q. How is that different from the business looking at its overall costs in a budgetary or management process?

A. I think it is just a more specific way in which specific decisions might be made about margin targets, according to the evidence, and what factors might be taken into account. That is all.

Q. If you are saying that it is enough to show that an overall change in the overall cost stack would lead to an impact on profitability, there would not be any case where pass-on would not be established, would there?

A. I think I disagree because -- well, sorry, if -- because it would need to be on the basis of whether the mechanism was one that related to MSCs.

Again, this is all essentially in the alternative framework to my preferred one, which is that this evidence is not really particularly informative, but I am engaging on it, given the approach adopted by the -- some of the experts.

Q. General cost recovery as an economic concept does not establish pass-on, does it?

A. I agree that nothing in my approach relies on general cost recovery and, as I say, I do not -- I do not agree with the suggestion that all costs must be recouped in the long-term because some of them might be firm-specific, and also the rate of recoupment may not be complete in any event even if it was industry-wide.

Q. Do you accept the evidence, some of which we have heard, some of which we have read, that merchants will closely monitor their gross margins?

A. I am sure merchants would be likely to do that.

Q. That gross margin is the difference between sales prices and the COGS?

A. Well, I am not sure I can reach a generalised view on that. I think that is one of my concerns about going down this route, is that one makes statements about how firms operate, and then makes a statement such as all firms look at price relative to COGS.

I do not have any basis to say, "yes" or "no" to that. I am not sure, looking at the evidence base that has been put forward in this case, one can reach that finding. Obviously I cannot remember how many of the 13 claimants submitted much evidence, and obviously there is a great variation in the amount of evidence that was put forward. So there is only a subset of the claimants submitting data that provided much evidence at all.
I just do not think you can read across from that very modest sort of -- and non-representative sample of the entire retail economy what all firms are doing.

Q. Well, I perfectly accept that as a proposition.

Let us take a very plain vanilla example, if we may. So we heard evidence in the hot-tub about T-shirts, a pack of five becoming a pack of four, part of shrinkflation.

A. Yes.

Q. So let us imagine there is a t-shirt re-seller on the high streets of Great Britain who has imported those

T-shirts from a producer in the Far East. They are likely to be concerned primarily about two thing, are they not, the wholesale cost of the T-shirt and the price they can sell it for on the high street?

A. Yes, I can see that those are certainly important factors.

Q. Their gross margin is therefore going to reflect the revenue they derive from sales, pitched against the wholesale price of the key component of the product they are reselling?

A. Yes, and I can imagine that that might be something they take into account, and they might take other things into account as well. I am not ruling in or out other things that they might take into account.

Q. So where a merchant in that situation is trying to set a gross margin target, it is looking at the core cost of effectively the key component that goes into its sale and the revenue it is likely to derive from that sale?

A. Well, this is one example where, by construction, that is being put forward. My point is that I cannot generalise from an example which is illustrative, such as this, or even from the very limited amount of evidence from a small number of retailers, to generalise out to, well, do all firms in the economy tend to operate all of their budgeting, pricing, management incentives overall?

Q. You are not in a position, are you, to go behind the evidence we have heard that MSCs are generally not a direct input or -- full stop, not a direct input -- into the prices that the merchants are charging?

A. Well, let us sort of try -- let me answer that question. So the limited evidence that has been put forward would -- from a small number of merchants seems to indicate that at least three and possibly four of that small set do that. I mentioned some. I will not repeat that error.

Q. I am going to come to deal with individual merchants at the end because I want to go into closed session.

A. Yes.

So of a small number, a subset of them do seem to do that, and two other points.

(i) the amount of evidence overall put forward by many of the claimants makes it very difficult to reach a definitive view as to what they would do you under all sorts of different potential hypothetical and counterfactual circumstances because there has been, in my view, a fairly limited attempt to go down that potentially very detailed forensic route that you would really need to do in order to reach such a definitive view.

In my view, that is not necessary or proportionate or relevant to my methodology, but if you were going down that route, I think that is -- the information we have is not what you would need and, in contrast, and where I am not sort of overweighting this evidence but the European Commission, in the post-IFR study that it carried out after implementing the IFR, looked at what retailers were telling it about the impact of the reduction in the MIFs and it said that a majority of them had pricing strategies and many of them took the payment -- cost of payments into account.

Q. I am going to come back and look at that study with you on Thursday, but in the meantime can we establish some broad propositions.

A. Sure.

Q. One of the implicit channels that you refer to is profitability measures, such as EBITDA; correct?

A. Yes. So I think more -- somewhat more precisely, whether changes to such measures could trigger changes in margin targets as an example.

Q. EBITDA is broader than the gross margin so I am now contrasting gross margin, which we were just discussing, with EBITDA which covers a wider range of costs; correct, as a margin?

A. Well, it is before the wider range of costs. It is

before.
Q. Because we have heard some of the evidence being that you have the top line and then you have the next line down and then you have different calculations for gross margin versus the EBITDA margin.
A. Okay.
Q. Do you accept that evidence or --
A. Sorry, I am happy to proceed on it. Again, I am not sure I have been able to form definitive views as to what firms do on the basis of the amount of evidence that I have seen.
Q. You would accept, because you cannot do anything but, that the evidence that we have heard, and I appreciate you are going to make your point about this as a self-selecting range of claimants, etc, but the evidence we have heard is that these firms categorise costs as being typically overheads or typically cost of goods sold?
A. Sorry, that is a general point about they just put costs into either of those two buckets, is that right?
Q. Yes.
A. I understand that at least of them, perhaps, have said that. I also understand that there is a recognition that within either of those buckets there can be a range of different types of costs and, furthermore,

I understand that when you look at some of the individual statements, the fact that something is in a general bucket, i.e. say overheads or COGS, is not determinative as to what they do with it; in other words, sometimes they treat some of those costs differently within the overhead category than other costs.

Q. A number of the points that were put to the witnesses by Mr Jowell for Visa was to the effect that the overheads would be used in the calculation of an EBITDA margin. Do you remember that evidence?

A. I cannot say I recall that precise evidence, but I think this is the general proposition that it is possible that a range of variations and costs could be taken into account in EBITDA, yes, in setting of targets, yes.

Q. So that particular margin must necessarily encompass not simply COGS but also overheads as well?

A. Yes.

Q. As a margin range?

A. Yes.

Q. Now, if the firm is already setting prices as a profit-maximising level, then increasing prices will decrease the EBITDA margin, will it not, all else being equal?

A. Well, I think -- I think if a firm is already setting

a price at a profit-maximising level, then, by definition from that statement, any change to the price would be moving away from the profit-maximising level. I do not think that is the relevant question. I think the more relevant question is: if a cost change, in my view most relevantly an industry-wide and variable cost change, has occurred which means that you are no longer at your profit-maximising level, what are you likely to do and over what period and exactly how you might do it.
Q. The classic profit-maximising theory would say that if you can identify that marginal costs have increased, it is economically rational to increase prices. That is part of your case, is it not?
A. Yes, I mean, that is sort of at the most -- sorry, if marginal costs have increased, then that would often lead to a change in your profit-maximising price. Again, it actually does depend on the circumstances. If it was a firm-specific increase in marginal costs and you are subject to close competitive tension from rivals who did not experience that --
Q. Again, that is not your case.
A. -- then you might not --
Q. You are saying this is industry-wide. I am going to come on to industry-wide.
A. Okay.

Q. Assume it is an industry-wide increase in marginal costs, it would be economically rational to increase prices?
A. Yes.
Q. Of course the individuals who are taking the decision-making would then need to be aware that the relevant increase in costs was an increase in marginal costs?
A. No, I disagree with that because that implies a sort of conscious consideration of all costs. What I am saying is that there would be a range of pressures in the competitive environment and through the ownership models to sort of optimise the position and that they would over time move in line with what the profit-maximising level would be in the longer run.
Q. We have established that EBITDA and the target that is being set is profit-maximising, absent an identified change in marginal costs, and so if you cannot identify the change in marginal costs you are risk of making the wrong pricing decision for the profit-maximising level, are you not?
A. Well, I accept that any individual decision can be made with a forecast error or you might not be fully aware of all of the information. So, yes.
Q. Let me put it another way: if all that they know is that

the EBITDA margin has fallen without knowing how the
costs have changed, it is a stab in the dark, is it not,
to increase their prices in response?
A. Well, in my argument I think it would be relevant to
understand whether the nature of the change in the
EBITDA margin was stemming from something that closely
affected your rivals or not. So my view is that that
would be the most relevant consideration and that you
would differentially treat the costs that fit that
characteristic when taking into account your
profit-maximising position.
Q. But if the main measure of variable costs, COGS, has not
changed and they do not identify the change in the MSC
specifically, then they have no reason to think that
their profit-maximising rate that they have set already
needs to be adjusted, do they?
A. Well, that is the -- that is where the debate as to,
well, how might that happen over time and that is where
I think the different channels come into it, one of
those channels being pressure through the competitive
environment.
Q. It is even starker, is it not, if we look at
a counterfactual situation of an increase in EBITDA
because the MIF drops to zero. Why would a firm seeing
an increase in its EBITDA margin drop prices?

A. In my view, it would react to that because of the change in the industry-wide variable cost and I accept that if the proposition is that it has observed a change in EBITDA margin, but those individuals have not sort of investigated what the cause of that was, then that would be the sort of thing that might lead to some adjustment factor, i.e. some timeframe over which the inbuilt pressures associated with the change in incentives might actually come to fruition. It might come through a range of other mechanisms. It might come through, you know, the competitive reaction as just one example.
Q. So if what we are dealing with is a very small increase in a cost, which does not move the dial for the management and they have no reason to attribute it to a particular type of cost, whether it is overhead, COGS, or anything else, the reality is they would be mad to increase or decrease their prices, would they not?
A. Well --
Q. Given that they have already set at the profit-maximising level.
A. Well, I think, as new information comes to light and over time and given the competitive pressures and the pressures of ownership, I would expect that they would investigate this. You mentioned the counterfactual. The counterfactual is a widespread, economy-wide change

in the setting of the MIFs, i.e. --
Q. But that is a tiny sum, is it not?
A. But it is --
Q. Changing from 0.2% of the revenue to --
A. I am not saying that it is necessarily large, but, on the other hand, as I think Mr Coombs' report identified, it is not -- you know, it is a fairly material proportion of an operating margin that a typical European firm has earned and --
Q. It is a tiny proportion of the operating margin compared to total COGS, is it not?
A. It is -- well, yes, total COGS, almost by definition, must be higher than the operating margin because if operating margins are only 3%, your net profit takes into account all costs.
Q. But you are suggesting we should be taking into account total COGS as a proxy for this particular cost change?
A. Yes, because it is the most relevant in my view. In some cases there are some alternatives to it, but it is the most relevant indicator of a firm-wide -- industry-wide variable cost.
Q. Can I deal now with competitive pricing, which is another of your implicit channels. Your case is that Sainsbury's might implicitly pass on a MIF overcharge when pricing for its cleaning products if it monitors

Tesco's cleaning products?
A. I mean, that might be one way. I mean, obviously --
Q. Or is it all goods --
A. -- there is a virtually infinite range of ways in which this could happen. It could be through promotions or discounts or, you know, updating the price matching policy. You know, I think one of the challenges with going down this qualitative evidence is that it is really not capable of actually accounting for all of the complexity and ways in which the underlying incentives would potentially operate. So I think that was one way it might happen, but there are many others.
Q. Let us focus on *Sainsbury's* for a moment because we know, for example, there is a binding finding from this Tribunal, that has not been overturned on appeal, that Sainsbury's did not pass on any of its MIFs over a certain period. You are saying for Sainsbury's you could infer that Tesco must have priced by reference to the MSCs that it was charged and therefore Sainsbury's, by following Tesco pricing, has also passed on. Is that what you are suggesting?
A. Sorry, I am just reading because I was not sure I understood the question.
Q. Well, ignore the slightly jury point I made about Sainsbury's having failed to establish its case. Let us

just take Sainsbury's and Tesco as two competitors.
A. Sure.
Q. You are saying you can show that Sainsbury's has passed on a particular increase in the MIF by reference to the fact that Tesco is inferred to have passed on an increase in the MIF and Sainsbury's must follow Tesco in its pricing?
A. That is not quite what I am saying. What I am saying is that there are important incentive implications of a change of cost that we are describing and that in a competitive environment monitoring competitors' reactions is one mechanism by which changes of that type of costs could take effect, even if the firm is not --
Q. Well, how --
A. -- explicitly monitoring that cost.
Q. How is that going to happen if Tesco have not in fact factored in an increase in the MIF into their pricing?
A. Well, it might be -- I mean, firstly, it may not be that they have done so in a direct way. It might be that there are indirect mechanisms. Secondly, it might be that there is sort of a chain of causation that some other retailer has done that and both of these are competing with Aldi who has done. I think that is one of the --
Q. I was going to use Morrisons but you have beaten me to

it with Aldi.
A. You could use Morrisons. Any of them could potentially have done this and caused others to sort of react in the market.
Q. If I have your evidence correctly, what you are saying is you can infer that Sainsbury's have priced by reference to an increase in the MIFs because you can infer that Tesco have priced by reference to the MIFs because they have priced by reference to Aldi?
A. Well, I am not reaching any specific inferences as to what logically must follow. What -- that overstates my position. My position is that, once it is identified what the nature of the cost change is, and in my view that -- and I think the other experts agree -- in principle changes the incentives. There is disagreement as to what the visibility and pricing strategy might be, but the change in the incentives is clear.
My view is that, given the change in incentives, there are a broad range of ways in which those incentives can in fact be implemented. How quickly? Some might be very quick. Some might take a bit longer. But I would not expect any persistent deviation from those incentives.
The customer reaction response is one mechanism by which all of this might happen. I am not saying that

here is some evidence that Aldi did it and here is a reaction by Tesco to Aldi and here is a reaction by Sainsbury's to Tesco. All I am saying is that that is just one illustration of a myriad of ways in which the underlying incentives could have actually led to a change in the medium to longer term.

Q. If you can establish as a matter of fact that one of my clients passed on, let us say it is a supermarket, the MSC to an internal pricing mechanism, you do not need to rely on this implicit mechanism of competitor-based pricing, do you?

A. I think it depends on what you are seeking to do with this type of evidence. My view is that it does not so much matter which of the mechanisms can be specifically identified because in the longer term one or multiple of them is likely to have adopted. Otherwise you have a persistent deviation of a firm from where it is leaving money on the table and the industry is essentially out of equilibrium for a persistent period of time, which I think is unlikely.

Q. More generally, supermarket pricing depends on all sorts of factors, does it not, such as the reaction of the customer to overall changes in the basket of goods, perception of value, changes in perceived demand and so on?

A. I entirely agree that there is a huge amount of potential complexity and probably actual complexity around how many large organisations determine pricing, and that is one of the reasons why a fairly limited information exercise trying to cover all that complexity I think is not particularly meaningful.

MR BEAL: That may be a convenient moment to pull up stumps for today.

THE CHAIRMAN: Yes. All right, well, you have the day off tomorrow, but you are still in the witness box so you can just relax and --

THE WITNESS: I am not sure that is how I will put it.

THE CHAIRMAN: We will see you and everyone else at 10.30 on Thursday.

THE WITNESS: Thank you.

(4.30 pm)

(The hearing adjourned until 10.30 am on Thursday, 28 November 2024)