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IN THE COMPETITION **APPEAL TRIBUNAL**

Case No: 1284/5/7/18 1290/5/7/18

Salisbury Square House 8 Salisbury Square London EC4Y 8AP

Friday 27 May 2022

Before: The Honourable Mr Justice Michael Green Derek Ridyard Sir Iain McMillan CBE FRSE DL (Sitting as a Tribunal in England and Wales)

BETWEEN:

Royal Mail Group Limited BT Group PLC and Others v DAF Trucks Limited and Others Claimants

v

DAF Trucks Limited and Others

Defendants

<u>APPEARANCES</u>

Tim Ward QC, Ben Lask and Cliodhna Kelleher (On behalf of RM/BT) Daniel Beard QC, James Bourke and Daisy Mackersie (On behalf of DAF) 1

2 (10.00 am)

3 THE CHAIRMAN: Good morning. 4 MR LASK: Good morning, sir. 5 Mr Harvey is giving evidence this morning. He obviously already confirmed the contents of the relevant 6 7 reports last week and we assumed that you would not want him to do so again, but I thought we should just check. 8 THE CHAIRMAN: No. I do not think so, but he probably needs 9 to be resworn. Can we do that? 10 MR JAMES HARVEY (affirmed) 11 12 THE CHAIRMAN: Thank you, Mr Harvey. So once again you are 13 in the witness box, so we can move straight on to 14 cross-examination. 15 Cross-examination by MR BEARD 16 MR BEARD: Good morning, Mr Harvey. So I will try and 17 headline the topics as I go through, but I am just going 18 to start with some questions relating to the global 19 financial crisis issues. I do not have that many points 20 that I wanted to pick up with you and, just to be clear, 21 I am not going to go back through all of the substantive 22 discussion that you had with Mr Ridyard and Professor Neven yesterday. Obviously, we do challenge 23 your approach in relation to the operation of the 24 regression and, in particular, the use of dummies, but 25

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1 there were one or two things you said yesterday that 2 I wanted to follow up in relation to. THE CHAIRMAN: I think we do not need to go back through 3 4 everything we discussed over the last two days, so if 5 you could confine it so far as possible. MR BEARD: That is exactly what I am going to do. I was 6 7 just alerting Mr Harvey to the fact that that is exactly what I am doing. 8 THE CHAIRMAN: Excellent. 9 MR BEARD: Obviously the precise formalities of what 10 11 requires challenging and so on I think to some extent 12 gets slightly set aside when you have a hot tub process, 13 as we have discussed previously. 14 THE CHAIRMAN: Yes, I do not think we require you to put all 15 of your case to Mr Harvey. I think we are fairly clear 16 on what your position is and what his is. MR BEARD: Exactly, and I am not proceeding on that basis. 17 18 THE CHAIRMAN: Okay. MR BEARD: I am trying to actually go on in relation to 19 20 these questions from things that were said in the 21 transcript yesterday so I think that would naturally 2.2 flow. There are some other bits and pieces I am going 23 to come back to --24 THE CHAIRMAN: Yes, of course. MR BEARD: -- but they were things that were not picked up 25

1 in the discussion and perhaps were not the precise topic 2 of questioning. 3 THE CHAIRMAN: Sure. MR BEARD: So we are talking about the global financial 4 5 crisis, so in the context of your approach we are in the during and after analysis which runs from 2003 to 2011; 6 7 correct? Yes. 8 Α. So could we just go to yesterday's transcript, 9 Q. {Day13/5}. Just picking it up at line 5, {Day13/5:5} --10 11 this is you, Mr Harvey: 12 "In terms of how I approached the problem -- [so 13 this is the problem of dealing with the global financial crisis] I think you had a question about what did I do 14 15 first, and the first approach was indeed to include the whole period [so that is 2003 to 2011], include 16 a control for demand. Having observed this, we also 17 18 looked at what happened if we removed that period from the estimation." 19 20 Now, you did not identify the result of that first 21 approach in this section, but if we skip forward to 22 page 8, line 2 -- so picking it up at line 4, {Day13/8:4}, this is Mr Ridyard: 23 24 "Just starting from the beginning, though, what you

25 did first of all is run your regression model with your

1 existing demand controls and --

"MR HARVEY: Yes.

2

3 "MR RIDYARD: -- when you did that, presumably you found you got a zero or very low cartel effect? 4 5 "MR HARVEY: It was low. I think it was of the order of 1% or 2%." 6 7 So what I understand from this is that the first analysis you did was the during and after regression 8 9 that we see in your reports but just using demand 10 controls, not GFC dummies. That is correct, is it not? 11 A. Yes. When I was doing the analysis, we looked at the 12 data as a whole. We knew there would be a potential issue with the global financial crisis and then looked 13 14 at the data on a truncated basis. 15 Q. We will come on to that in a second. Do you remember when you carried out this analysis? Was it sort of late 16 17 2001 in preparation for your first report? A. Late 2000 and ...? 18 Q. 2021, I am so sorry. It would require a degree of 19 20 prescience that was striking! 21 THE CHAIRMAN: Certainly for a during/after. MR BEARD: Yes. 22 23 I cannot remember precisely when we conducted the Α. 24 analysis. Q. But it was part of your process of preparation for 25

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preparing the first report?

A. Yes.

Q. So you carried out this analysis, but we went back
through your reports and you have not mentioned it
anywhere, have you?

A. No.

Q. No. So you did an initial regression analysis which
resulted in a minimal overcharge, but you decided not to
present or even mention it, Mr Harvey?

The choice I had at that time was to consider how 10 Α. Yes. 11 best to -- obviously how best to design the overcharge 12 analysis. I had strong evidence within the data that 13 that period was different so I did not really consider 14 that there was an analysis to present that did not 15 include some form of control or removal of that period. Right. Let us just pause there. You knew that the role 16 Q. 17 of how you treated the global financial crisis might well be an issue in the consideration of the 18 during/after analysis; correct? 19

20 A. Yes.

Q. You knew that the level of overcharge and the regression analysis in relation to any alleged overcharge is at the heart of this case, did you not?

24 A. Yes.

25 Q. So you prepared a regression analysis that showed it was

1 very low but you decided not to include it in any of 2 your reports. That is correct, is it not, Mr Harvey? 3 Α. It is correct, yes. You are aware of the CAT guide, I am sure, even if not 4 Q. 5 the precise language of it, that "an expert witness should never assume the role of an advocate and should 6 7 not omit to consider material facts that could detract from the expert's concluded opinion [as read]"? 8 Yes. 9 Α. 10 Q. You saw, did you not, in Professor Neven's first report 11 and in particular in his reply report, the concerns 12 about the use of dummies by you in relation to the 13 global financial crisis, but still you did not mention 14 that you had carried out that analysis, did you? 15 Α. No. 16 Well, let us just go back to what you did. So your Q. No. starting point was that you do a regression just using 17 18 the demand controls and see what the result is. That is correct, is it not? 19 20 Α. Yes. 21 Q. When you did that exercise, you were of course well 22 aware at that point of the nature of the global 23 financial crisis and so your starting point was just 24 using demand controls is the natural approach; correct? No, I do not think that does follow. As I said earlier, 25 Α.

1 when I looked at the data I could see that that period 2 would be a challenging period to model and I looked at 3 running the regression with the demand control in and 4 with the -- sorry, with the period out. So I do not 5 regard it as the natural thing to do. It depends on the data and the facts at the time, but I looked at both. 6 7 Q. You looked at both but you thought you would only present one of those results? 8 Because I thought that was the most robust. 9 Α. 10 Q. But you did not mention that you had even done it, 11 did you, Mr Harvey? 12 Α. No, I did not. 13 No. Let us just go back to page 5 in yesterday's Q. 14 transcript. As I say, you found that there was a very 15 low overcharge just using the demand controls. We can pick it up at line 8, {Day13/5:8}: 16 "MR HARVEY: ... Having observed this, we also looked 17 18 at what happened if we removed that period from the 19 estimation. What we found was that, indeed, the 20 overcharge that was estimated, having removed that 21 period, was significantly higher." 22 So I think, as you have said again today, you tried 23 the regression without any dummies for global financial 24 crisis, letting demand do the work, you got a low number and so you then removed the whole of that period in your 25

1 next version of the regression; is that correct? 2 That is not how I approach the modelling -- the Α. modelling problem at all. So it was not -- the process 3 4 of looking at the regression without that period is not 5 of itself triggered by the finding that there is no overcharge. It is triggered by the fact that that 6 7 period is different and it needs to be investigated and the results checked against it, so it is not quite as 8 you put it, Mr Beard. 9 I see. So it was not just that it was low that meant 10 Q. 11 you then excluded the period? 12 Α. No. 13 No. Well, let us just go back to the transcript where Q. 14 we left off a moment ago. I think it is at page 5, 15 line 5. Yes, so you then went on to say yesterday, {Day13/5:12}: 16 17 "So that raised several questions in my mind: what could explain that? I think there are three sort of 18 broad candidates." 19 20 So this was your thinking at the time; correct? 21 Α. Yes. 22 Right. So I just want to look at those three candidates Q. 23 but let us just go through the transcript, {Day13/5:15}. 24 "One is that the overcharge fell -- it varied over time and it fell significantly in the 2008/2009/2010 25

period. In fact it would need to be negative to offset,
 as it were, the higher overcharge in the earlier period.
 That is one possibility.

"The second possibility is that the model that 4 5 includes the full-time period with the volume driver is not properly reflecting how pricing decisions were 6 7 actually made in the global financial crisis period. Put another way, if you like, the average effect of 8 volume changes across the entire data set on prices is 9 10 not properly reflecting the effect of the very sharp and 11 steep decline on prices during the global financial 12 crisis period. That is the second possibility.

13 "The third possibility is that that data is -14 I think this goes to the question, Mr Ridyard, that data
15 is sort of instrumental and informative for
16 understanding how pricing works across the period as
17 a whole. The variation in volume is crucial to unpick
18 the underlying sort of pricing model that DAF used
19 across the whole period.

"So they are the three possibilities."

20

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That is what you said; yes?

22 A. Yes.

Q. There is a fourth obvious possibility, is there not,
Mr Harvey, that in fact the GFC period was providing
useful information about the effect of demand on prices

1 and, once your model was able to take that information 2 into account, what you were actually seeing was a lower average overcharge across the period, and you ignored 3 that possibility, did you not? 4 5 No, sorry, I did not. That is what I was trying to Α. express with the third possibility. 6 7 So you are saying the third possibility is in fact there Q. 8 is a low or a minimal overcharge across the period; 9 correct? 10 Α. That is the possibility, yes. Let us just look at the first two then. Dealing with 11 Q. 12 the first possibility, you say the overcharge fell and 13 it varied over time. Then you go on to say -- I think 14 yesterday you said: 15 "I did not have a strong prior that the overcharge should vary over this time period ... " 16 I think you are there referring to the during/after 17 18 period. In other words, what you were saying in relation to the first possibility was that the idea that 19 20 there be a significant variation in any putative 21 overcharge effect was not something that you thought 22 likely; correct? A. Correct. 23 Yes. So essentially you thought the first possibility 24 Q. 25 really was not a runner. So we go on to the second

1 possibility.

2 The reason -- sorry, Mr Beard -- the reason being that Α. 3 to believe that you would need to believe that the 4 overcharge was negative in that period. 5 Well, no, Mr Harvey, you would not, would you, because Q. if your third possibility were correct, you would not 6 7 need a negative overcharge during that period at all, would you? You would just have a low average overcharge 8 throughout the period, would you not? 9 Well, the first possibility is considering whether the 10 Α. 11 overcharge might have changed through the period --12 Q. Yes. 13 -- so the issues are different. Α. But it is also possible, is it not, Mr Harvey, that your 14 Q. 15 approach, as Professor Neven has shown, in relation to 16 the use of dummies actually creates a problem and 17 therefore your assumption that by taking the years out 18 that in fact you were identifying some much higher 19 overcharge at certain points during the during and after 20 period was incorrect? 21 Α. Sorry, Mr Beard, can you repeat the question? 22 So what you did here was you took out the three years --Q. 23 because your initial result was a low or minimal average 24 overcharge; correct? Well, the initial exploration of the data I said I did 25 Α.

1		two things. One was to include the whole period and
2		that result gave a 1%/2% overcharge. I also
3		investigated the exclusion of the period.
4	Q.	If you take out those three years, you got a higher
5		overcharge?
6	A.	That is right.
7	Q.	Correct?
8	A.	Yes.
9	Q.	So what you were doing was you were suggesting there
10		that actually, if you took that period out, you got
11		a higher overcharge for the remainder of the
12		during/after period; correct?
13	A.	Yes.
14	Q.	Therefore, if you are to create the average outcome that
15		you got, you would have to assume that there was
16		a countervailing negative overcharge during the period
17		of the global financial crisis; correct?
18	A.	Yes.
19	Q.	But the alternative explanation is in fact that by
20		removing those years, you are removing information from
21		the model and in those circumstances you do not need to
22		be positing a significant negative overcharge during
23		those years, do you?
24	Α.	That is correct. That is the third possibility
25		I discussed yesterday.

Q. But let us go to the second possibility. I think this
 is the one that you focused on yesterday. I will take
 you to page 6 in the transcript. At line 15,
 {Day13/6:15}, you said:

5 "On the second possibility, we had quite a lot of 6 evidence from the witness evidence suggesting that there 7 was indeed something special about this period, so it 8 referred to this being an unprecedented period of demand 9 reduction, and indeed it was."

10

So this was about demand.

We also learned that, during this period, the approach to pricing was somewhat different with I think all orders being elevated to DAF NV for sign-off in and around this time."

Now, I think, as Professor Neven explained yesterday, if margins are lower, then under the mandate structure it is likely that more deals will go up for sign-off. You understand that?

19 A. Yes.

Q. But let us just -- I want to look at this a little bit further, about what evidence you say was relevant to this analysis. So you talked about the witness evidence. Were you here in court to hear the DAF witnesses, Mr Harvey?

25 A. Some of them.

1	Q.	Some of them. Did you hear the witness evidence of
2		Mr Habets?
3	A.	No.
4	Q.	Have you reviewed the transcript of Mr Habets' evidence?
5	A.	Yes.
6	Q.	Were you in court to hear the evidence of Mr van Veen?
7	A.	No.
8	Q.	Have you reviewed the transcript of Mr van Veen's
9		evidence?
10	A.	Yes.
11	Q.	What about Mr Ashworth?
12	A.	I heard Mr Ashworth's evidence.
13	Q.	What about Mr Borsboom?
14	A.	Yes, I did.
15	Q.	Right. Let us start with Mr Habets. You know that
16		Mr Habets is now the operations director at DAF. He had
17		been the finance director and on the board at DAF since
18		2010 and indeed had in fact in various other roles
19		included the head of economics at DAF. Were you aware
20		of that?
21	A.	Yes.
22	Q.	Yes. Now, he commented on the financial crisis in his
23		witness statement. Shall we just call that up? It is
24		{D/23/16}, please. This is paragraph 65:
25		"We tried to use the IKP target margins to regulate

1 the number of transactions that had to be approved at 2 different levels of the mandate structure. I am not sure that we were always successful in exercising this 3 4 control. As our margins dropped due to market 5 circumstances, particularly around the time of the financial crisis, I recall that more than the intended 6 7 number of orders had to be approved at the highest level." 8

9 Now, you are not suggesting that that evidence
10 suggests that somehow the financial crisis was special,
11 are you?

12 A. No.

25

13 If we could go down to 69, please, paragraph 69 -- it is Q. actually on page 17, {D/23/17}, I am sorry -- this is 14 15 under the heading "The Corporate Approval Memos": 16 "As part of this process [the corporate approval memos process], DAF produced corporate approval memos 17 for consideration by PACCAR. The memos outlined the 18 19 basis on which approval was being requested for 20 a prospective deal. The memos became more detailed over 21 time, and the number of transactions that required these 22 memos increased as our margins started to fall. 23 I remember that volume and margins tended to go 24 together; in a good market we sold more trucks at higher

lower prices. After the financial crisis started in
 2008, more approval memos were needed."

Now, again, you are not suggesting that this
evidence indicates that there was some sort of special
pricing process, are you?

A. In my report the -- I cannot remember whether it refers
to this paragraph -- I did highlight that more approval
memos were needed after the financial crisis had started
and this paragraph does indicate a greater focus on
approvals during that period.

Q. But there is no change, is there, in the pricing process evidenced here? It is just because margins were lower, more needed approving. That is all that is happening, is it not?

15 A. Yes.

Q. Just to be clear, Mr Habets was asked no questions about this and was asked no questions about whether or not there was a special pricing process for the global financial crisis. You noted that in the transcript?
A. I did not, but ...

Q. Now, the other important witness who talks about this is
Mr van Veen. He commented on the financial crisis in
his witness statement, so if we could go to {D/24/8}.
This is paragraph 30. He is talking about the use of
MLO in relation to consideration of deals:

1 "I understand that MLO was more frequently referred 2 to within the Marketing & Sales Department after I left Trucks Logistics and sometime after the financial crisis 3 of 2008. In 2007, DAF was still at the peak of its 4 5 sales, but in the autumn of 2008 the market crashed, demand fell and we went from producing around 200 trucks 6 7 a day to 35 to 50 trucks a day. We still had to get the orders in to keep the production running, but the 8 margins we could make on trucks declined steeply. As 9 10 I understand it, over time, the increasing number of 11 exceptionally low margin deals meant that increasing 12 attention was paid to MLO rather than to IKP [which was 13 the higher cost metric] by the Marketing & Sales Department, including by less senior employees. This 14 15 was because it had become necessary to justify to more 16 senior management at both DAF NV and PACCAR why transactions with tiny margins were being proposed for 17 18 approval, and to understand precisely how low the 19 margins were in comparison to MLO cost rather than the 20 higher IKP value."

21 So again what he is saying here is that if margins 22 dropped in the face of falling demand, more of these 23 deals had to go through the approvals process, and as 24 the margins were lower, more attention was paid to the 25 MLO cost metric; correct?

1 A. Yes.

Q. But that is not in any way a special approach topricing, is it, Mr Harvey?

A. Well, it might be because it says here:

5 "We still had to get the orders in to keep the 6 production running ..."

Q. Right. It might be. That is an interesting answer
because of course Mr van Veen specifically talked about
these matters and was asked no questions about this,
Mr Harvey. No questions were put to Mr van Veen as to
whether or not there was any special approach to pricing
during the global financial --

13 THE CHAIRMAN: I am not really sure that is something for 14 Mr Harvey to comment on. It is the way the case has 15 been put.

16 MR BEARD: It is not something for Mr Harvey to comment on. 17 I was asking if he was aware of that, given the 18 importance that he puts in relation to this second 19 possibility that there was some kind of special pricing 20 approach being adopted.

Let us go to the other paragraph since these are the two senior people involved in pricing. Paragraph 69 in this document, please, page 18, {D/24/18}.

24 "In principle, the process and the logic behind the25 mandate structure did not materially change after 2007.

1 However, as noted at paragraph 30 above, during the 2 financial crisis, demand decreased dramatically and so 3 did the margins DAF was able to achieve on sales. As 4 a result of margins being so low, from 2008 onwards, 5 more transactions had to be approved by DAF ... by reference to MLO rather than IKP. I believe that MLO 6 7 may have become the key metric in the sales approval process at that time." 8

9 Just taking that first sentence, Mr Harvey, "the 10 process and the logic behind the mandate structure did 11 not materially change after 2007", I struggle to 12 understand how you say that there is evidence that there 13 was a special and different pricing process in 2008 14 onwards, which is what you have asserted.

A. So I suppose there is a distinction between the pricing process on the one hand and the pricing decisions that are made underneath that process. So I think the evidence that has been presented -- that is being presented here is suggestive that pricing got harder within that period although the pricing processes that are in place overall stayed the same.

The paragraph that I recall from Mr van Veen's evidence, that I think I refer to in my -- I think it might have been my second report, is where he discusses visibility and that becoming a key factor that is

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important.

2 Q. We are coming back to visibility, Mr Harvey.

3 A. Okay, Mr Beard.

Mr Harvey, you, in relation to this second possibility, 4 Q. 5 said that the reason why you would move away from the demand controls was that what was happening here was not 6 7 properly reflecting how pricing decisions were actually 8 being made. What is being said here is that the process 9 and logic behind the pricing decision process was 10 unchanged after 2007. You understand that, do you not, 11 Mr Harvey?

A. Yes. That is not inconsistent with the pricing
decisions changing. It is just the process in place is
flexible to allow a pricing decision to be different
within it.

- 16 Q. The criteria that are being used, the process and logic 17 for the pricing decisions, the evidence is that they 18 have not changed, is it not, Mr Harvey?
- A. It is, but the criteria of biting more frequently, moretransactions have to be approved.
- Q. Because the prices are lower. That is right, is it not,Mr Harvey?

23 A. Yes.

Q. That would be always true if the prices were lower,would it not, Mr Harvey?

1 A. Yes.

2 Now, if we go on to this issue of visibility -- if we go Q. back to the transcript, page 6 from yesterday, picking 3 it up at line 23, {Day 13/6:23}, I think, you say: 4 5 "Then the third thing that varied was that I understand there was increasing concern with regards 6 7 to visibility, which is the idea that how many -basically how many truck orders do you need to get in 8 for your factories to be operational and to be fully 9 10 utilised, because I think kind of the concern is you 11 have got labour there waiting to do their job and, if 12 you do not have enough trucks, they are idle." 13 So this is the visibility issue you just referred to; correct? 14 15 Α. Yes. 16 As I understand it, you are saying the relevance of Q. visibility was materially different during the global 17 financial crisis period; is that right? 18 19 I do not think I am saying that the relevance of Α. 20 visibility is materially different. It is just that, 21 when visibility is a consideration and visibility 22 gets -- I am not sure which way round it goes -- lower or higher during a period like this, it will bear on the 23 24 decision-making. Q. It will bear on the decision-making? 25

1 A. Yes.

2 But this is all just an incremental process. The same Q. considerations are being applied, are they not? 3 4 Α. Sorry, what do you mean by "incremental process"? 5 In other words, when you are talking about how many Q. trucks you have orders for, which is what I think we are 6 7 talking about when we are talking about visibility and therefore how long your factory is going to be occupied, 8 that is something that varies over time normally, is it 9 not? 10 11 It is. I understand that in this period production fell Α. 12 very rapidly. I do not think it was incremental. 13 Q. Let us have a look at what Mr van Veen says. If we 14 could go back to his statement, which is D/24, and 15 I want to pick it up at paragraph 79, if I may. It is 16 the following page from where we were, $\{D/24/19\}$. This is under the heading "Order Board information and 17 18 visible reports". It says: 19 "When approving transactions during my time at 20 Trucks Logistics, I had access to the order board information." 21 You are familiar with order board information? 22 23 Α. I am, yes. Q. "I believe that the sales units also had access to this 24 information, but in a more limited form. At DAF NV we 25

could look up specific graphs showing a comprehensive
 overview of future orders. We also had a monthly
 meetings during which the sales units were shown the
 order board information."

5 So this is just part of the internal process.
6 {D/24/20}:

7 "Order board graphs presented the production rate (the number of trucks which could be produced in 8 a specific time period), as well as the production fill 9 10 (the extent to which production slots were filled by 11 orders) in weekly buckets at any given moment in time. 12 This was presented in a form of a simple graph ... Order 13 board provided me with information as to how many open production slots [there were]. I would expect that 14 15 a 'healthy' order board would indicate that all 16 production slots were taken for the [coming] 8-12 weeks. I could filter the information and, for instance, look 17 18 up the production fill at the level of a country, 19 production plant or per model."

Then at 81 he says:

20

"During my time in Truck Logistics, visibility
reports were produced in graph form by my department
which were sent on a weekly basis ... and featured in
DAF's weekly management accounting reports. The reports
showed information similar to that contained within the

1 order board ... However, the order board contained more 2 detailed information on production fill ... The sales 3 units also had access to this information ..." 4 So you had a detailed process of feedback. 5 Then:

"Both the order board and visibility reports were 6 7 important in the approval process. Together, that information allowed me to determine DAF's appetite to 8 accept orders resulting in somewhat lower margins. In 9 10 particular, if DAF had a lot of production slots open in 11 the near future, we would be more likely to accept deals 12 with lower margins because we wanted to fill those slots 13 (lost production slots lead to significant costs for DAF in terms of wasted investment and labour). On the other 14 15 hand, when production slots were completely filled and 16 DAF had already secured production for a longer period of time (usually a few months out), then we could be 17 18 more selective and walk away from deals with low 19 margins."

20 So could we just go down to 83 and 84, {D/24/20}? 21 83 talks about the steady situation, what he would 22 consider to be a steady situation, and therefore did not 23 need to take visibility reports or order board 24 information into account so much. You can see that. 25 Sorry, I am just not reading through all of it.

- 1 A. Sorry, I did not see where it says "so much".
- Q. Then if we go on down the page, {D/24/21}. Then it
 says --
- 4 A. Sorry, Mr Beard. You said --
- Q. Please, I was only summarising 83. If we go back up,
 I will read it out, {D/24/20}:

7 "When the production was regular and we had between 8 to 16 weeks of visibility (ie all production slots ... 8 9 were filled), I would consider that to be a steady 10 situation and did not need to take the visibility 11 reports or order board information into account when 12 considering proposed transactions (ie visibility was not 13 at levels which either increased or decreased DAF's 14 willingness to accept deals at low margins, unlike the 15 situations described at paragraph 82 above). However, 16 our industry was often unstable. In principle we aimed 17 for more orders above better margins with a view to growing DAF's market share. However, the balance 18 19 between volume and margin shifted depending on whether 20 production slots were filled (or the other way around 21 when we were not at full production capacity). In such 22 'unstable' situations, visibility information was 23 particularly relevant and we would attempt to regulate 24 the production fill."

25

Then 84, {D/24/21}:

"I expect that the order board/visibility 1 2 information was similarly an important consideration prior to 2003 and after 2007, as it was a useful 3 indication as to whether a certain transaction would 4 5 ultimately be acceptable for DAF (... I do not have specific knowledge of this)." 6 7 Now, Mr van Veen here is setting out the use and 8 role of order board and visibility reports in the 9 pricing approval process, is he not? 10 Α. Yes. What he is saying here is that, because the industry is 11 Q. 12 unstable, there will be times when visibility reports 13 are important, is he not? 14 Yes. Α. 15 Q. One of those periods we recognise may well be the period of the global financial crisis; agreed? 16 17 Yes. Α. 18 Q. But he is not suggesting here that there was anything special about that period, is he? 19 20 Not about that period specifically, no --Α. 21 Q. No, he is not. -- but it would fall into his special category in this 22 Α. 23 list. 24 Q. Well, he does not say that it is a special category, does he? 25

1 A. No, he does not.

2 Q. He does not say that, does he, Mr Harvey?

3 A. No.

Q. That is you glossing evidence upon which no questions
were asked, is it not, Mr Harvey?

6 A. It is my interpretation of the evidence.

7 Q. I see.

8 THE CHAIRMAN: What are those dates referenced to then? 9 MR BEARD: That is his time when he was at Truck Logistics 10 and therefore, although he --

11 THE CHAIRMAN: It was just his involvement?

MR BEARD: It was his specific involvement, but obviously he was on the board and involved over a much larger period. We can go back to his roles. So what he is saying is, "I was actually doing this 2003 to 2007 therefore I tell that story specifically in relation to that period, but he is also saying, "Although I do not have direct knowledge ..." --

19 THE CHAIRMAN: So he was not involved in it during the GFC?
20 MR BEARD: No, he was not specifically because that is why
21 he says at the end, "I do not have specific knowledge of
22 this". But what he is saying is, "We had the process of
23 applying visibility reports in relation to instability".
24 MR RIDYARD: He queried the words "so much" in your question
25 earlier on and I think you did say he did not need to

1 take into account the visibility reports so much, and 2 the witness questioned whether that was in the statement and I do not think it is in the statement, is it? 3 4 MR BEARD: No, I am sorry. I am perfectly happy to retract 5 that. All I was doing was referring to paragraph -- the 6 start of 83, where what I was saying was that where they 7 had what he referred to as a "period of stability", they did not need to look at the visibility reports so much. 8 I think that is what -- if I did not say that, that is 9 10 what I meant to say. I was just trying to summarise that bit, rather than reading through it all. 11 12 MR RIDYARD: I think he queried whether it says -- does it 13 say "so much" in the ...? MR BEARD: If you go back to 83, {D/24/20}, it says: 14 15 "... I would consider that to be a steady situation 16 and did not need to take the visibility reports or order board information into account when considering proposed 17 transactions ..." 18 19 THE CHAIRMAN: So not take it into account at all. MR RIDYARD: So it is a 1/0 -- I think it is a sort of 1/0 20 21 distinction that is drawn in the witness statement, is 22 it not? He did not need to take them into account when things were fine, but he did take them into account when 23 things were not fine. 24 25 MR BEARD: Yes, but the point I am making is were not fine

1

as to the whole series --

2 MR RIDYARD: I understand that point. I am just saying 3 I think the "so much" slightly mis- --MR BEARD: I am sorry. I really was not intending to --4 5 MR RIDYARD: No, of course not, but it slightly confused the witness. I was just pointing it out. 6 7 MR BEARD: I am grateful. I was really just trying to abbreviate going through the reading of 83. But the 8 9 point is that here we have evidence about how these 10 visibility reports were used, when there were periods of 11 instability, and there is no suggestion that there are 12 different types of instability whereby one should treat 13 the role of visibility reports as being significantly 14 different for the purpose of the global financial 15 crisis. Indeed, if one is to read 83 as creating this 16 binary situation, what is being said is, as soon as you hit any instability, you will be looking at them. 17 MR RIDYARD: Understood. 18 Mr Beard, can we briefly go back to paragraph 82, 19 Α. 20 $\{D/24/20\}$, because I think it is relevant for the 21 interpretation of the consideration of MLO costs. So 22 the text in the brackets that says "(lost production 23 slots lead to significant costs for DAF in terms of 24 wasted investment and labour)".

25 MR BEARD: Yes.

1 Α. So this is related to the discussion that I had 2 yesterday in relation to the interpretation of MLO, 3 which is that in times when there is little demand, 4 there is a potential decision to make as to whether you 5 utilise the labour that is available in your factory or not, so the possibility that in a sense pricing 6 7 decisions could be based on -- if you like, still based on costs, but the MLO costs in their totality may not be 8 entirely reflective of how the pricing decision was made 9 10 because effectively they have got the labour there to be 11 used, whereas in periods where you are full, then it may 12 be that those additional costs of bringing on labour are 13 more important.

So I think -- although I accept that there is some stitching together that I have done there, that sort of statement I think is sort of the statement that was in the back of my mind in describing some of the factors that might influence pricing during this financial crisis period.

Q. "Stitching together" is an interesting metaphor, is itnot, Mr Harvey, here?

22 A. Interpreting.

Q. You are weaving a new cardigan for yourself. This is
not a matter of stitching together because what we are
talking about is the basic proposition that MLO costs do

1		not cover all costs that are borne by a company. That
2		is what he is referring to here, is he not?
3	Α.	Well, labour is included in the MLO
4	Q.	In part, Mr Harvey. That is correct, is it not?
5	Α.	In part, yes.
6	Q.	Not entirely, and other overheads are not included?
7	Α.	Correct.
8	Q.	So what he is saying here is that you will end up with
9		a situation where, even if you are covering MLO costs,
10		you have other costs that you may need to cover as well;
11		correct?
12	A.	I am not sure that is my interpretation, no.
13	Q.	But what he is saying is that you have got significant
14		costs that will be contributed to if you continue to
15		take orders. That is correct, is it not?
16	A.	That is right.
17	Q.	That is a constant state in relation to DAF which means
18		that it will want to hit higher margins; correct?
19	Α.	Yes.
20	Q.	Yes. But what this does not do is suggest that those
21		considerations and criteria were special in relation to
22		the global financial crisis period, does it?
23	Α.	It does not refer specifically to the global financial
24		crisis period.
25	Q.	No, and that is why your stitching together is more than

1 a mere stitching together, is it not, Mr Harvey, because 2 the reason why we are testing this is whether or not you had evidence that the conditions in relation to DAF's 3 4 pricing were special during the global financial crisis 5 period. You understand that, Mr Harvey? A. Yes, and this evidence points to unstable situations 6 7 being treated differently and the global financial crisis was an unstable situation. 8 I see. But there were other unstable situations; yes? 9 Q. Fine. 10 Α. You are suggesting there were not unstable situations? 11 Q. 12 Α. No, I am asking which unstable situation are you 13 referring to. No, I am asking you, Mr Harvey, were there other 14 Q. 15 unstable situations during the period? Well, there are times when demand rises and falls 16 Α. 17 although the reductions are not as deep as they were 18 during the financial crisis period. 19 Q. No. So the financial crisis period, I think we all 20 agree, had greater demand fluctuations -- I am not sure 21 anyone is disputing that -- but there were unstable 22 periods of demand throughout? A. Demand changed throughout, yes. 23 Q. Just to be clear, at paragraph 83 here, {D/24/20}, 24 25 are you taking issue with what Mr van Veen says even

1 though he was not questioned on this? If we go down the 2 page in relation to 83, {D/24/21}, "our industry was 3 often unstable", you are not disputing that, are you, Mr Harvey? You are in no position to do so? 4 5 No, I cannot dispute that. Α. No. Now, I focused on the three justifications you had. 6 Q. 7 You did actually have a fourth reason, so could we go back to the transcript, Day13, page 7. I think at 8 line 6, {Day13/7:6}, you said: 9 10 "Then the fourth thing we heard about was 11 cancellations. I did not fully appreciate, I think, the 12 consequences of that from the witness evidence, but one 13 consequence is the possibility that production has 14 already started for trucks and then the order gets 15 cancelled and you are left with a truck that has not a home." 16 17 I think that was something that Mr Ashworth 18 mentioned in his testimony; correct? 19 Α. I think so, yes. 20 Just two points here. First of all, this point about Q. 21 order cancellations, I think you are fairly saying here, 22 "That did not factor into my thinking about how to 23 approach the global financial crisis when I was 24 preparing my reports"; correct? A. Sorry, the cancellations did because I think that was 25

1

referred to in -- it was in the pricing statement.

2 Q. You are right, yes.

A. It was more the -- what I did not appreciate from the
pricing statement was that production in some cases had
already begun or indeed completed for trucks that were
then subsequently cancelled. I think that was the new
piece of information from Mr Ashworth.

8 Q. You do not have a sense of the scale of that?

9 A. I do not, no.

Q. Thank you. So let us just move on. Those were the four
reasons you gave the tribunal for knocking out -- to
justify the knocking out of 2008/2009/2010.

13 There was a further point I think you seemed to 14 develop at page 9, if we could, in the transcript. 15 Mr Ridyard is asking a question down at line 20, 16 {Day13/9:20}:

17 "Then as regards the effect on pricing conduct, 18 there were various points you mentioned there. I mean, 19 one of them seemed to be that -- if I can sort of 20 paraphrase maybe slightly what you said, DAF suddenly 21 started looking at costs, just looking at avoidable 22 costs, instead of looking at total costs or -- would 23 that be a way of characterising, you think, the change in their mindset?" 24

25

You say, {Day13/10:3}:

1 "I think that could be an indication of what I have 2 said in the sense that they are now -- we have our cost 3 measure, the MLO cost measure, which we are treating for 4 the purpose of the econometric as a cost, which I think 5 makes sense when you are full in a factory. I think 6 when you are not, presumably there is some labour and 7 overheads ..." So I think this is setting out the point you have 8 already referred to; is that right? 9 I think so. Re-reading my own words is always slightly 10 Α. 11 awkward, but, yes, I think that is what I am trying to 12 say. 13 So we have seen in the evidence of Mr van Veen that the Q. 14 unchallenged evidence is that DAF NV was looking at 15 margin above MLO cost during the financial crisis. You 16 are not disputing that? No, and he is also saying that he is looking at those 17 Α. 18 costs very carefully. Yes. You floated yesterday, I think, the idea that 19 Q. 20 DAF's pricing would have been effective in some way by 21 the fact that factories might be under-utilised and 22 there might be wasted labour cost, which is something 23 you have repeated today. You said at page 12 in the 24 transcript that you were sort of putting yourself into the position of someone making a pricing choice, but 25
1 obviously you are not in the position of someone --2 THE CHAIRMAN: Sorry, where are you reading it from? 3 MR BEARD: I am sorry. It is on page 12 of the transcript, I apologise, line 19 -- line 1, {Day13/12:1}, 4 5 I apologise. My note is wrong. You can see that at the 6 top of the page. 7 Just to be clear, there is nothing in the witness statements on this and they were not asked about these 8 matters, were they? 9 10 Α. Sorry, I do not ... You do not know. 11 Q. 12 I think we have probably dealt with the matter in 13 relation to Mr Ashworth and the cancellation so we can move on. 14 15 Α. Perhaps in terms of that phrase I am putting myself into 16 the position of somebody making a pricing choice. Obviously, Mr Beard, you are right, I am not a person 17 making an actual pricing decision for the sale of 18 19 trucks. What I was trying to do was to sort of 20 describe, if you like, the economic forces that might 21 come in play when a firm in this sort of situation is 22 making pricing decisions. Q. Well, I think we will come back to that in due course in 23 24 submissions, given that here we are talking about factual matters. 25

1 I am going to move on, if I may, to some questions 2 in relation to exchange rates. Now, again, as per the initial comments, I am not going to go back through 3 4 everything at all. Indeed I am going to deal with 5 a rather limited amount of material in relation to them. I think, just so we understand where we are, in the 6 7 concurrent evidence session you recognised that you translate all the pound prices into euros. 8 That conversion of it is. 9 Α. You also accepted that doing that has a very significant 10 Q. 11 effect on the way that the regression operates? 12 Α. It does, yes. 13 I just want to focus on that initial step of the Q. 14 transition of pound prices into euros. Now, I recognise 15 you also talk about cost considerations and so on --16 Yes. Α. -- which is why you say the pass-through into euros at 17 Q. 18 the market rate is not complete, but I just want to focus for the moment in relation to pricing. 19 20 Yes. Α. 21 Q. Now, as I say, I leave aside the fact that 22 Professor Neven has explained why this whole approach is 23 fundamentally flawed, but I just want to look at some of 24 the assertions you have made here. So could we go to your first report? {E/IC1/84}, please. Sorry, we are 25

just checking. I thought we understood there was not
 confidential information.

3 Sorry, Mr Harvey, we are just checking whether it is actually confidential because I do not think it is. 4 5 Yes, we can go to it. Thanks very much. At 4.52 you are giving us a justification -- sorry, 6 7 you have got the hard copy so you can see the context that we are dealing with here. Do you see it? 8 I do, (inaudible). It has just come up. 9 Α. 10 Q. It has come up. Thank you. We are in the section under 11 currency here that starts at 4.47 but we will stay with 12 4.52. The key evidence that you rely on here is: 13 "DAF states that the Euro is 'the relevant currency considered by DAF when approving an order', and 14 15 recommends converting price and costs information from 16 DAF's single currency into Euro because of this." So here you are relying on DAF using the euro as 17 18 part of your reasoning for -- or a key part of your 19 reasoning for why you suggest that there should be 20 a euro translation. If we look at the footnote there to 21 the quote you have given, you see at the bottom it says: 22 "Original Guidance Note for the Examination of the 23 MI data, paragraph 56." 24 You do say:

"I note that this no longer appears in the most

25

1 recent versions of these notes. However, DAF have not 2 suggested this is factually incorrect." So just to be clear, the guidance note you are 3 4 referring to is a guidance note that was produced in 5 order to understand the MI data that was provided by DAF which is used for the during and after regression; 6 7 correct? 8 Yes. Α. You are saying you are relying on this comment in the 9 Q. 10 original MI guidance note even though it no longer 11 appears. Could we go to {J2/IC498/3}, please? 12 THE EPE OPERATOR: That is confidential. 13 MR BEARD: Yes, that is fine, I think. Given what we have 14 just discussed, that is okay. Thank you. Thank you for 15 checking. 16 So this is an appendix to a letter from 17 Travers Smith, so DAF's solicitors. You will see the heading under "Appendix 1": 18 "DAF responses to BCLP's questions/requests dated 19 20 30 April 2020." 21 Have you seen this document, Mr Harvey? 22 I cannot remember. I am sure I have at some point. Α. 23 Okay. Well, I do not know whether you want to be too Q. 24 sure whether you have seen this document, but let us 25 just go on. Down to row 2:

"In the updated [number] 'MI Guidance Note', at
 paragraph 54 ..."

3 Now, I think that is a typo. It should be "56". "... DAF states that 'to convert the revenue from 4 5 single currency into Euro, which is the relevant currency considered by DAF when approving an order, one 6 7 needs to (i) multiply the revenue by the budget rate to obtain the original revenue figure expressed in GBP'." 8 9 That I think is the quote you have drawn on in your 10 statement.

11 A. Yes, that is right.

12 Q. I can take you to the original document but I was just13 slightly short-cutting.

14 A. Yes.

Q. So your solicitors were asking a question about that.If you just go down the page, the next page,

17 {J2/IC498/4}:

18 "Please confirm the relevant currency that DAF 19 considered when approving orders for the time period 20 1994 to 2003, inclusive."

21 If we could just go back up the page, do you 22 remember seeing this?

A. No, I am not sure I do.

Q. No, I wondered whether you had not because what this
explains is that the statement you have made and relied

on in your witness statement -- in this report -- is not right because your solicitors specifically asked about which currencies were actually used in this question, as you can see. Then we see the response on the right-hand side, {J2/IC498/3}:

6 "The reference to 'DAF' in paragraph 54 of the 7 MI Guidance Note should be read as a reference to 8 DAF Trucks NV ..."

If we go down the page, {J2/IC498/4}:

10 "DAF Trucks ... (DAF UK) had the authority to 11 approve certain transactions over the period 1994 to 12 2017 (inclusive), without having to seek approval from 13 DAF NV. The parameters that determined which transactions DAF UK was able to approve changed over 14 15 time; as explained in paragraphs 30 to 32, and 51 to 68 16 of DAF's Pricing Statement. DAF UK reviewed and approved orders in GBP." 17

Then it goes on:

9

18

"Prior to October 1998, DAF UK had the authority to approve all of its transactions (whether to dealers or to direct customers) and there was no formal requirement for DAF UK to seek approval from DAF NV for proposed transactions. During the period between October 1998 and December 2003, when DAF's Order Management System ('OMS') was implemented in the UK, only a limited number of proposed transactions had to be (and were) approved
 by DAF NV.

3 "All Truck orders in the UK that were remitted to
4 DAF NV for consideration/approval during the period
5 between January 1999, when the Netherlands adopted the
6 Euro as its official currency, and December 2003, when
7 OMS was implemented in the UK, were considered by DAF NV
8 in Euros. Any Truck orders --"

9 Sorry, that is the ones that were remitted to DAF 10 NV.

11 "Any Truck orders in the UK that were remitted to 12 DAF NV for consideration ... during the months 13 of November 1998 [to] December ... would have been 14 considered ... in ... guilders."

So that is just a little wrinkle, the lastparagraph.

But you see the significance of this, do you not, 17 18 Mr Harvey? Although in your report here you say that, 19 "One of the key reasons I have for choosing the euro is 20 DAF has stated the relevant currency considered by DAF 21 when approving an order is euros" and you said "DAF have 22 not suggested this is factually incorrect", DAF have not 23 only suggested it is factually incorrect but explained 24 this in response to questions from your solicitors. Do you see that? 25

1 A. I do.

2 So I think you would fairly recognise that this has to Q. essentially be withdrawn as a reason for relying on 3 euros as the relevant currency; correct? 4 5 No, not entirely. I agree that this has been clarified Α. and more of the transactions were signed off by UK, but 6 7 in paragraph 4.52 I do recognise that, {E/IC1/84}, "While many of DAF's sales were approved in the UK, 8 Mr Ashworth's witness evidence cited in the preceding 9 10 paragraph makes it clear that the amounts that sales 11 generated in Euro [as you would expect with a euro 12 business] was an important consideration in DAF's UK 13 pricing". So I do accept that this cell indicates that 14 the position has been clarified, but paragraph 4.52 did 15 recognise the broader role of the UK and I do not think this paragraph is suggesting that DAF NV has no role, so 16 I do not think that is quite right. 17 18 THE CHAIRMAN: Is it not just a definitional problem as to 19 which DAF we are talking about? 20 MR BEARD: Well, it is not just -- no. It is a definitional problem in the sense that it is DAF UK, but the point 21 is --22 23 THE CHAIRMAN: Is it? MR BEARD: Well, sorry, it is definitional in the sense that 24 what is being spelled out is that where it says "the 25

1 relevant currency considered by DAF when approving an 2 order", which has been relied on by Mr Harvey as a basis for choosing euros, in fact it is clear that in relation 3 4 to DAF UK it was pounds that were being used. 5 THE CHAIRMAN: But when you are referring to DAF in your report, who are you referring to? 6 7 A. I was referring to -- well, actually it is a good question. I think here I had in mind DAF NV. 8 MR BEARD: Really? 9 THE CHAIRMAN: It looks like it from the second sentence, 10 does it not? 11 12 A. Yes. 13 MR BEARD: Well, it is DAF UK that obviously sells the 14 trucks. 15 THE CHAIRMAN: I think we know that, yes --We know that. 16 Α. MR BEARD: -- therefore it is DAF UK -- when we are deciding 17 18 whether or not in fact the relevant pricing should be 19 considered in pounds or euros, one of the factors is who 20 is actually doing the consideration. Mr Harvey is here 21 saying, "Well, actually, there is no factual correction 22 to the relevant currency being applied being euros", and 23 in fact what has been clarified is that, in relation to 24 DAF UK, it is pounds. THE CHAIRMAN: That is only -- as I read that note, that is 25

1 only in the period prior to October 1998 because after 2 then you are into the mandate structure. 3 MR BEARD: But in relation to the mandate structure, sir, 4 there are very limited numbers that go up to DAF NV and 5 even fewer that go up to PACCAR --THE CHAIRMAN: Okay. 6 7 MR BEARD: -- therefore it is important in this to have 8 a sense of proportion of what is actually being approved and therefore subject to these matters. 9 Yes, I did -- I was trying, with the last part of 4.52, 10 Α. 11 to express some proportion, recognising that some of the 12 sales were approved by the UK. The paragraph 13 beforehand, they do link together the various points. 14 I am not sure I have tried to put one point on a higher 15 ground than another, but in paragraph 4.51, that refers to some of the evidence I think from Mr Ashworth. It 16 17 talks about pricing during the financial crisis and it 18 says: "'In the period prior to 2008 ..." 19 20 I am sorry, it is {E/IC1/83}, paragraph 4.51: 21 "... I had generally been delivering 1.43 [euros] 22 for every £1 that sold in the UK. After 2008, this fell sharply to almost as low as 1 [euro] for every £1.00 --23 24 a substantial reduction in DAF UK's revenues for accounting purposes.'" 25

I Ie, I think from the perspective of DAF NV. '''This, and increased costs caused by the fall in the Pound's value, meant that we had to try to achieve higher prices for trucks, against a background of decreased demand.'"

The "this" there is referring to a reduction in 6 7 revenue, ie euros revenue, I think, because of the change in the exchange rate, so this is sort of 8 reflecting some of the, if you like, euro pricing 9 10 pressure that is put on Mr Ashworth. So when we make 11 statements about the UK pricing, I think we just need to 12 bear some of those observations in mind. It is not as 13 if I think Mr Ashworth is operating in a vacuum from what is happening at DAF NV. 14

Q. We are not suggesting he is operating in a vacuum nor are we suggesting that considerations relating to the euro are wholly irrelevant in relation to this. That has never been DAF's case. I hope you understand that, Mr Harvey.

20 A. I do understand that, Mr Beard.

Q. That is not our position. The question is whether or not you should engage in the exercise you have done in relation to the regression which is moving all prices into euros. Now, there are a whole series of econometric reasons, which we are not going back into, why we say that is fundamentally wrong. I was just
 picking up some of the factual reasoning in relation to
 this.

4 A. I understand.

Q. I think you accept that in fact there has been a factual
correction in relation to the statement that you
referred to, but your point is that does not change your
overall position in relation to your expert report; is
that fair?

10 A. Yes.

MR BEARD: I am just about to move on to a slightly different topic. I do not know, sir, whether or not --THE CHAIRMAN: Still on exchange rates?

14 MR BEARD: Yes, I will keep going on a little bit on

15 exchange rates, but I think --

16 THE CHAIRMAN: You want to have our break now?

17 MR BEARD: Yes, I was just wondering whether --

18 THE CHAIRMAN: All right. A ten-minute break.

19 (11.09 am)

20

(A short break)

21 (11.24 am)

22 MR BEARD: I am just going to carry on with a couple more 23 questions on prices, if I may.

24 So I think during the concurrent evidence session on 25 Wednesday you accepted that you had not carried out any

1 empirical analysis of whether DAF's prices did change in 2 the face of exchange rate shifts. That is correct, is it not? 3 4 Α. Yes. 5 We had a discussion about a pair of trucks comparison Q. and you said, "Well, that might be an exception". I am 6 7 paraphrasing but yes? 8 Yes. Α. But you did have DAF data covering the entire period 9 Q. 10 from 1994 to 2017. That is correct, is it not? 11 Yes. Α. 12 Ο. Could we just turn up {E/35/49}, please? I am sure you 13 are vaguely familiar with this diagram but I am just 14 going to run through it for the benefit of the tribunal. 15 This is in Professor Neven's reply report and it says: "Evolution of exchange rate and average invoice 16 17 price in Euros and Pounds in the AS/400 period ..." So this is AS/400 period going from 1994 through to 18 2005. You see that? 19 20 Yes. Α. 21 Ο. So the yellow line is an average invoice price in 22 pounds. You are aware of that? 23 Yes. Α. 24 Q. The blue line is the invoice price in euros, using a weekly exchange rate. You understand that too? 25

- 1 A. Yes.
- Q. So that blue line is broadly what you say the prices should be going into the regression? Is that broadly right?
- 5 A. Yes.
- Q. Yes. Then the red dotted line is actually that weeklypound/euro exchange rate?
- 8 A. Yes.
- 9 Now, I am obviously very careful that there is a risk in Q. 10 just eyeballing graphs, but when we look at the red 11 dotted line, the way that it comes down and goes up 12 again and the way in which the prices in pounds go along 13 in a broad band, is this not relevant information 14 suggesting that the average prices in pounds are not 15 changing in reaction to these weekly changes in exchange rates? 16
- A. Well, it depends on what else is happening during that
 period both in terms of costs and other control -other, you know, demand factors and so forth and the mix
 of trucks.
- 21 Q. But, on the face of it, unless there are significant 22 shifts in costs and -- composition I think is what we 23 might call the second point you are making -- on the 24 face of it, you would look at this and say, "Well, this 25 suggests that actually there is not a reaction in pound

prices to changes in exchange rates", would you not?

2 Α. Yes. You know that Professor Neven has presented a similar 3 Ο. diagram in relation to the MI period. Do you want me to 4 5 take you to it? If you are going to ask me questions about it. 6 Α. 7 Let us just look at it. I think the question will be Q. the same. {E/IC35/15}. Sorry, it is my fault. It is 8 not IC, it is just E35. I have been overly 9 10 confidentialising my notes. Apologies. {E/35/15}. So 11 this is for the MI period, running from 2003 to 2018. 12 There again I think you would answer in the same way, 13 that the changes in the exchange rate as compared loosely with the invoice price in pounds is not 14 15 suggesting that pound prices are being modified in 16 reaction to weekly changes in the exchange rates; correct? 17 18 Well, I give you the answer that I gave before, that you Α. 19 have to be very careful interpreting these charts 20 without taking account of the other factors that are 21 driving prices during that period. So if you ask me the 22 question eyeballing, maybe, but I am not sure that is a terribly useful exercise, which is why we have done 23 24 the regression analyses.

25 Q. I see. So you just need to be very careful about

eyeballing. I see. We have the answers.

Let me just move on from prices to margins. You explained on Wednesday in the concurrent evidence session that your model is based on assumption or intuition that the truck manufacturers, including DAF, would ensure that their euro margins were kept constant; is that correct?

A. I explained the economic theory that without a local
cost base, that there is no -- the exchange rates do not
put the rivals into a different position and so you
would not expect that to affect margin movements.

Q. Now, you have said you have read the witness statements. Could we go to Mr Habets' witness statement? I think (D/IC23/22). If you go down to paragraph 85 -- so this is Mr Habets' witness statement. You see what he says there:

"When seeking approval for a deal, the management of 17 18 DAF UK would regularly point out that the exchange rate between the GBP and the EUR was somewhat volatile and 19 20 that if the GBP strengthened against the EUR, the 21 transactions may become more profitable. I recall that 22 the profitability of DAF's transactions with UK 23 customers often varied depending on the GBP-EUR exchange 24 rate because those customers were purchasing in GBP, and most of our costs are incurred in EUR, even for trucks 25

produced at Leyland."

	produced at regrand.
	So the evidence that Mr Habets is giving is that
	DAF when it talks about profitability, he is talking
	about the margins here effectively, is he not,
	Mr Harvey?
Α.	I assume so.
Q.	So what he is saying is that actually those margins
	fluctuated depending on changes in the exchange rate.
	They were not kept constant. Do you see that?
A.	Yes, I do.
Q.	So the evidence we have actually from Mr Habets, who, as
	we have already seen, has been at DAF for a very long
	time, is that actually margins are varying and they are
	not held steady. Do you see that?
Α.	Yes, indeed.
Q.	Actually that is something that he repeated I think in
	a question not posed by counsel for Royal Mail and BT,
	but if we could go to the transcript, {Day7/20:12},
	Mr Ridyard asks a question about mechanisms involving
	transfer of value effectively and approvals. Do you see
	the question at 12 to 20? I will not read it out.
Α.	Yes.
Q.	But you see the answer he gives, {Day7/20:21}:
	"It think more important than a margin goal was
	"I think more important than a margin goal was
	Q. A. Q. A.

1 share we had and we had an ambition to grow the share 2 every year, and the margins which we could realise were 3 part of the market and the competitive world around us, 4 so we would drop margins if competitors -- drop our 5 prices when competitors would do it to first hold on to a share and, yes, to ... grow our share." 6 7 So this is further evidence that margins were not being held steady; correct? 8 That is right. That is not inconsistent, for clarity, 9 Α. 10 with what I discussed yesterday however. Well, we would suggest it is evidence suggesting very 11 Q. 12 much the contrary to what you said yesterday and 13 Mr Habets' previous unchallenged evidence that I have taken you to is contrary to that. 14 15 Perhaps I can explain why I have said what I have said Α. 16 then. So the second part of that answer talks about a drop in margins, "-- drop out margins when competitors 17 18 would do it first to hold on to share, to grow our 19 share". The implication of that is, in an environment 20 where exchange rates are moving, this is suggestive that 21 DAF would be concerned and would be put at a competitive 22 disadvantage if it did not respond to those exchange 23 rate movements. So I think that clamour for share does not undermine the point that I made yesterday. 24

25 Q. I was asking -- sorry -- a fairly simple question, which

1		was: it is clear evidence that actually margins
2		variation was part of was an integral part of DAF's
3		strategy, and you accept that?
4	Α.	Yes, and I would expect that, and my model is consistent
5		with margins varying as well.
6	Q.	We will come back to that in closing.
7		Fixed term contracts, just briefly. Have you
8		reviewed or did you see the evidence of Mr Peatey and
9		Mr Giles?
10	Α.	I have, but please take me to it if
11	Q.	I do not think that it matters, but I think you are
12		aware that Royal Mail and BT had long-term fixed price
13		contracts with DAF. You know that?
14	A.	I do know that.
15	Q.	I do not think you have looked at any of those
16		contracts; is that right?
17	Α.	I think I may have seen them, but
18	Q.	Okay. We will maybe come back to one then. But you are
19		aware that those contracts did not include any
20		provisions enabling prices to be adjusted in the light
21		of exchange rate movements, do you not?
22	Α.	That is my understanding, yes.
23	Q.	Yes, and in fact Mr Peatey specifically gave evidence in
24		relation to those matters but I do not think, given your
25		answer, we need to go to that nor the evidence of

1 Mr Giles.

2	The main point is that under these framework
3	contracts DAF could not escape from fixed prices just
4	because exchange rate movements occurred; correct?
5	A. For Royal Mail, yes.
6). And BT?
7	A. And BT.
8	2. You have not looked at further contracts in relation to
9	these matters?
10	A. No.
11). No.
12	Can I just take you to one or maybe two documents?
13	This one is confidential and the reference I think
14	therefore cannot be put up on the screen. I do not know
15	if the tribunal is able to access directly the following
16	reference.
17	THE CHAIRMAN: Yes.
18	MR BEARD: It is {I2/IC189/1} at page 1. Mr Harvey, you
19	should have a bundle of hard copy documents. Fabulous.
20	Thank you to those who have done that. I am going to
21	ask which tab it is?
22	THE CHAIRMAN: Sorry, is it E/IC2, you are saying?
23	MR BEARD: No, {I2/IC189/1}.
24	THE CHAIRMAN: Got it.
25	MR BEARD: If it helps, I can actually provide a hard copy

1 bundle to --

2	THE	CHAIRMAN: Is this October 2, 2009?
3	MR	BEARD: Yes, exactly. It is interoffice communication.
4		If it helps for Sir Iain, because I think there are
5		some glitches with finding it
6	THE	CHAIRMAN: We have got it.
7	MR	BEARD: Okay, fine. Just to assist.
8		Now, I am going to assume you have not seen this
9		document; is that correct?
10	Α.	Yes.
11	Q.	Yes. So this is from Mr Goudriaan, who is the president
12		of DAF NV, he is the president of PACCAR. He is talking
13		specifically about Royal Mail. Do you want to just skim
14		the first paragraph, Mr Harvey, just to give you some
15		context?
16	Α.	Yes. (Pause)
17		Thanks.
18	Q.	Then in the second paragraph you will see that what is
19		being explained here is that, in January 2007,
20		a three-year extension to the original contract was
21		signed, extending the contract to December 31, 2009,
22		committing DAF to supply vehicles to Royal Mail as
23		ordered.
24		Then it is just the next paragraph I will ask you
25		to just read it in your head. I think the numbers may

be confidential. (Pause)

2 A. Yes, I can see that.

3	Q.	So what you see there is not only very negative margins,
4		which we will come back to, but you will see there that
5		the margin has moved, the MLO margin has moved, because
6		of the deterioration of the pound. So you see there
7		that essentially DAF is soaking up a decrease in margin
8		in the real world. Do you see that?

9 A. I see that.

10 Q. That is due to changes in the exchange rate?

- 11 A. It says "Primarily due to the deterioration of the12 [pound] ..."
- Q. Yes, and in those circumstances that is a real world example of DAF not adjusting its prices in order to keep its euro margin constant; you would accept that?
- 16 A. Yes, I would.
- Q. That also continued after the infringement. We see this both during and after the infringement but I am guessing that you would not dispute that there are clearly real world examples where that variation in margin in the light of exchange rate changes occurs. Do you want me to take you to a document?
- A. No. I think I can well envisage that there may be
 contracts where, at the time of exchange rate movements,
 the margins change. The extent to which those can be

1 attributed, on the basis of these statements,

2 specifically to the exchange rate movement and also the 3 implication of those changes for the overall rate of 4 exchange rate pass-through depends on, obviously, what 5 happens either side of these contracts and also the other factors that were changing at the same time, but 6 7 I can readily accept that there will be other documents that say something similar. 8 Let me take you to one. It will be {I5/IC414.2/14}. 9 Q. THE CHAIRMAN: Do we need to find this ourselves as well? 10 11 MR BEARD: Yes, I think we do. The front of the document is 12 "Board, December 2011". 13 MR RIDYARD: Mr Beard, can you give me the reference again, 14 please? 15 MR BEARD: Yes, sure. {I5/IC414.2/14}. Do you have that, 16 Mr Harvey? Yes, the one that says "Board December 2011", 17 Α. {I5/IC414.2/1}, on it? 18 19 Q. Yes. Yes, got it. 20 Α. 21 Q. Unfortunately you are ahead of me. I have just lost my 22 place --THE CHAIRMAN: Starting "Margins", the first bullet point? 23 MR BEARD: Do we have a spare hard copy? (Handed) 24 THE CHAIRMAN: Does it start with "Margins" at the top? 25

MR BEARD: Yes, it does.

2 "Margins on incoming ... truck orders ..." 3 I think it is only numbers that are confidential. THE CHAIRMAN: Just so we know what this document is? 4 5 MR BEARD: Sorry, this is DAF management accounts, December 2011. 6 7 THE CHAIRMAN: December 2008, I think, or not? 8 MR BEARD: No, 2011. 9 THE CHAIRMAN: I was just looking at the front page. MR BEARD: Ah. Are we looking at the same thing? My front 10 11 page is like that. (Indicates) 12 Your reference, sir, to the text was absolutely 13 correct. 14 THE CHAIRMAN: Does yours say "2011"? 15 MR RIDYARD: Yes. 16 THE CHAIRMAN: Mine says "2008". 17 MR BEARD: Sorry about that, sir. 18 Anyway the first sentence on the page is: "Margins on incoming heavy truck orders remained 19 20 unchanged ..." 21 The first number, it starts with an 8. Is that the 22 same? THE CHAIRMAN: The first? It starts with a 9 on mine. 23 24 MR RIDYARD: No, you are not in the right one. 25 THE CHAIRMAN: Okay.

1 MR BEARD: Do you want another hard copy? (Handed) 2 THE CHAIRMAN: It starts with the right word but the rest is 3 wrong, okay. MR BEARD: I think it may well be, sir, just that this is 4 5 a slightly repetitive formulation that is used in these 6 things. 7 THE CHAIRMAN: Maybe I was on -- it is 414.2, okay. I think 8 I was on 414.1. MR BEARD: Yes, that would be the earlier version but 9 10 because these are management accounts --11 THE CHAIRMAN: It follows the same form. 12 MR BEARD: They are not exciting re-reads. 13 THE CHAIRMAN: Thank you. 14 MR BEARD: Just very briefly, the second paragraph on that 15 page, you will see it says: "Margins on incoming light truck orders increased 16 from [X] in November to [Y] in December, mainly due to 17 18 higher margins in the UK resulting from a higher Pound Sterling exchange rate. LF55 orders decreased to [X] of 19 20 total LF orders ..." 21 So the last sentence is just about the composition. 22 The point I was just going to here is that this is 23 not within the infringement period but what you see here 24 is a change in margins generally across light truck orders due to the change in the sterling exchange rate. 25

1 So I think you would accept that this is evidence of the 2 fact that DAF does not maintain its margins in euros 3 constant in the face of exchange rate changes. You 4 would accept that?

5 Well, again, as I said earlier, it depends on the other Α. factors that are moving during this period. I cannot 6 7 see whether there is a breakdown of customer mix or so forth so I would be slightly cautious about leaping to 8 that conclusion. It does say that this is resulting 9 10 from a higher pound sterling exchange rate and that 11 might indicate some delay in the transmission of 12 exchange rates through to prices. I think I accepted 13 yesterday that it may not be immediate.

Q. Well, is that right? You said it might not be the
second day but your regression is carried out on the
basis of weekly exchange rates, is it not, Mr Harvey?
A. It is, yes, and I conducted a sensitivity analysis that
delayed that.

19 Q. Well, I think we have dealt with that with

20 Professor Neven, but your principal regression analysis 21 is on the basis of an almost immediate pass-through, is 22 it not?

A. I do not know what you mean by that, sorry.

24 Q. It is within a week?

25 A. Yes.

1 Q. Yes.

2 The other just brief observation on this document and Α. 3 the relevance of it to the work that we were discussing 4 yesterday is that the time period here that is being 5 considered I think is between November 2011, is it not, and December 2011? It is just worth pointing out that 6 7 the exchange rate movements during that period are really very much of a smaller order of magnitude 8 compared to the exchange rate changes that we were 9 10 concerned with in terms of the identification problem 11 that we spoke about previously. So we said part of the 12 issue is not so much the day-to-day movement of exchange 13 rates that go up and down; the issue for the 14 econometrics really is that you have those three 15 periods, the period before the cartel, during the cartel 16 and after the cartel, where there were really quite profound exchange rate changes, so I think --17 18 Q. That is true for the identification problem, is it not, Mr Harvey? 19

20 A. Yes.

21 Q. What I am really seeing is whether or not your 22 assumption that you have baked into your model is that 23 you can assume that DAF would keep its euro margins 24 constant at DAF NV level, and this is evidence that is 25 not true, is it not?

- A. No, I do not think it is. It depends on the other
 factors that change.
- Q. Right. But you have not looked at any of this otherevidence, have you, Mr Harvey?
- 5 A. No.

I want to move to a different topic but in relation 6 Q. No. 7 to margins still. You have said that, given the difficulties you have, I think we would say, created for 8 yourself with the model you have chosen, you cannot 9 10 accommodate an exchange rate control variable and so you 11 end up attributing any putative exchange rate effects to 12 the infringement. That seems to be due to -- the reason 13 you do that is about your story in relation to DAF's margins. So let us just go to your supplemental report 14 15 where you talk about this. It is {E/IC52/51}, but there 16 is no confidentiality concern.

17It is actually page 52 -- the section starts on18page 51 but it is page 52, apologies, {E/IC52/52}.

I am sorry. The reason I had in my notes 51 is
because on the preceding page -- if we could just go
back to explain this, {E/IC52/51}. It is very unclear:

22 "The issue with controlling for the exchange rate in 23 the model is that doing so 'entangles' the effect of the 24 Infringement with the effect of exchange rates on 25 prices. This is the 'identification' issue that

1 Professor Neven raises."

2 Now, I am not going back over that but let us just go on to 3.63 over the page, $\{E/IC52/52\}$: 3 "To explain this [you say], consider the 4 5 before-during period (the intuition also holds for ... during-after ...)" 6 7 So you are saying same issue on both. "Specifically, there was a 'step change up' in 8 exchange rates that coincided with the start of the 9 10 Infringement ... Controlling for the exchange rate in 11 the model is problematic because it is difficult for it 12 to disentangle whether the increase in Euro prices is 13 caused by the infringement, or caused by the step change 14 in exchange rates, because they happened at the same time." 15 Now, this was a subject of the debate with 16 Professor Neven but we are not getting back into the 17 details of that debate and why he says his model does 18 not suffer from this problem. 19 20 "Similarly, with the during-after period, there was 21 a 'step change down' in exchange rates, so it is 22 difficult to disentangle whether the decrease in Euro prices is caused by the Infringement." 23 24 Then at 3.64 you said: 25 "To illustrate the 'identification problem' in the

1 before-during period, Figure 1 below shows prices in 2 Euros at the start of the Infringement period and the trend in exchange rates. The appreciation of the Pound 3 4 coincided with an increase in Euro prices, but Euro 5 costs remained stable (the intuition also holds for ... during-after ...). Without controlling for the exchange 6 7 rate, my model attributes the increase in prices over and above manufacturing costs to the Infringement." 8

9 So that is all exchange rate changes go to the 10 infringement.

11 "This is because I do not consider that in the 12 absence of the Infringement DAF would have been able to 13 increase and sustain higher margins (which is seen in 14 both Pound and Euro terms), simply because the pound 15 appreciated."

"I do not consider that ..."

16

IT instead consider that any such increase in margins would have been 'competed away' as there would be strong incentives in a competitive market for DAF and the other Manufacturers to reduce their prices as a result of the exchange rate movement in order for their prices to be more attractive to customers ..."

23 So we are back in the territory of you making 24 assumptions about what would happen in relation to 25 margins here, I think. You accepted I think yesterday

1 that you have not done any regression analysis about the 2 potential effect of the infringement on DAF's margins, 3 have you? No, I have conducted a margin analysis. 4 Α. 5 But you have not done any analysis showing what Q. competitive margins would have been, have you? 6 7 Α. No, there is a regression analysis that relates DAF's percentage margins to the infringement and other 8 factors. 9 Your margin analysis, though, here is not concerned with 10 Q. 11 that regression; it is concerned with analysing whether 12 or not the gap that is created, as you say, between the 13 cost and the margins is somehow elevated by reason of the infringement. That is correct, is it not? 14 15 A. Well, the margin regression analysis uses the data to 16 look at whether the margins were elevated, controlling 17 for truck characteristics and other factors, and that 18 shows a sort of similar result to my overcharge -- my 19 core overcharge analysis. 20 Q. That regression, just to be clear, that is a regression 21 where you fix a one-to-one relationship between price 22 and costs, is it not? 23 Well, I calculate the margin, so, yes, that is the Α. 24 implicit relationship between prices and costs. But here you are doing something different, are you not? 25 Q.

1 What you are saying is that you can look at an apparent 2 increase in margins and assume that that increase in 3 margins can be attributed to the exchange rate 4 infringement -- the infringement rather than the 5 exchange rate. That is correct, is it not? With this chart I am trying to illustrate the 6 Α. 7 identification issue and explain, as I did yesterday, why, without the cost route, which in my model means 8 9 that the rate of exchange rate pass-through is not 10 100% -- why we would need to question this exchange --11 this large increase in margins. The regression analysis 12 recognises that there may be some elevation in margins 13 perhaps due to changes in truck mix and so forth and 14 they are controlled out, so that is the role of this 15 analysis and how it links to the work in the sensitivity 16 analysis. I think when you say "the chart", is it the following --17 Q. if we go over the page, {E/IC52/53} -- I think we can 18 19 use it. 20 I am sorry, I am looking at ... It is figure 1. Α. 21 Ο. Yes, it is over the page. 22 THE EPE OPERATOR: Is that okay to display? 23 MR BEARD: Yes, I think that is okay to display. Thank you. 24 Thank you very much for checking. 25 So this is the figure I think you were referring to.

Here you see a greenish line, which is MLO cost in
 euros.

3 A. That is right.

- Q. Then above that you have got a dark-blue line, which is
 the invoice price in euros, and this is using your
 weekly exchange rate to translate pound prices into
 euros; correct?
- 8 A. That is right, yes.

9 Q. Then the dotted line above it is the exchange rate?10 A. That is right.

Q. So I think one of the things that a reader looking at this might well see here is that there is a very close association with the exchange rate measure you are using and this putative margin line that you are establishing; correct?

16 A. Yes.

So the non-refined reader of this might think, "Well, 17 Q. 18 what we are seeing here is the exchange rate driving up 19 the margin effectively because it is the exchange rate 20 which is causing those euro prices to be higher"? 21 Α. Yes, that might be what a non-refined reader might 22 conclude. 23 Q. You say you approach this with a rather more refined eye

and you say you can attribute all of that difference
essentially to the infringement -- the expansion from

1 the period when the infringement starts in 1997 to the 2 infringement; is that right? No, this is really important. My regression analysis is 3 Α. not attributing all of this change to the infringement. 4 5 That is not right. But you are here saying that these margins would have 6 Q. 7 been lower had there not been an infringement effect; 8 correct? 9 Yes. Α. You are saying that any effect of the exchange rate 10 Q. 11 which might have increased those margins is to be 12 ignored and the increase in those margins will be 13 attributable to the infringement; correct? 14 Yes. Yes. Α. 15 Q. Yes, and what you have here --THE CHAIRMAN: Did you want to add? 16 17 So just briefly, Mr Beard, to recap on -- I do not want Α. 18 to go over the conversation yesterday, but just what is 19 going on in the underlying modelling is exchange 20 rates -- the exchange rates change, so let us say the 21 pound gets stronger, as it does here. The first effect 22 is that, without a change in pound prices, euro income will rise. That is the first effect. 23 24 What I am saying is, without any other change caused 25 by costs, the reasoning that I have given in 3.64 would

1 suggest that the pound prices ought to drop because of 2 this no change in rivalry between the competitors. So if we were to put the cost element to one side, any 3 4 increase in margin that is not explained by other 5 factors such as truck mix and so forth would be attributed to the infringement; okay? But my model 6 7 allows for that effect to be diluted to recognise that, from a euro perspective, pound costs have risen in euro 8 9 terms and that reduces the rate of exchange rate 10 pass-through, so --

11 MR BEARD: We recognise that. That is why I have not at any 12 time referred to complete pass-through in any of these 13 questions because I am proceeding on the basis that you 14 have made this case in relation to immediate but 15 incomplete pass-through. It is for that reason I am 16 asking you questions about this plot --

17 A. Yes.

18 Q. -- rather than those matters that were debated
19 yesterday.

20 A. I understand.

Q. We still say that is the wrong approach, but leave that
to one side. What is important here is that you are
making a number of assumptions looking at this graph,
are you not? First of all, the measure of margin that
we are talking about here is invoice price against MLO

- 1 cost, but we know, do we not -- indeed you have 2 highlighted already this morning -- that MLO costs do not cover all of the costs that are incurred by DAF or 3 indeed in production of trucks? 4 5 Yes, I acknowledge that. Α. So this is not in any way an assessment of actual profit 6 Q. 7 margins, is it? It is, I think, the closest measure of profit margins 8 Α. 9 that is relevant for the type of analysis that we are 10 doing here because what we are concerned with is the 11 variable profit margin because it is the variable costs 12 that affect pricing decisions. So although I recognise 13 that there are other costs to be recovered, typically you would look at these costs when thinking about 14 15 whether prices should go up or down. So I accept there are other costs, of course. 16 Q. But let us just take this in stages. You would accept 17 18 there are other costs. You are focusing only on 19 a variable costs margin but you do not have any measure 20 of what a competitive variable cost margin might be for 21 this industry, do you?
- A. Well, the best measure we have is the margin prior tothe start of the cartel.
- Q. So is that the margin 1995 to 1996 or the margin 1996 to
 1997?
1 Α. Well, it would be the margin in 1995 and 1996. 2 Okay. So you are picking one year's margin and you are Q. 3 saying that is the competitive margin for this industry? Well, in this chart we only have the 1995 and 1996 4 Α. 5 margin to examine. I think you referred to it the other day as a "heroic 6 Q. 7 assumption", is it not? 8 Well, it is the best information that we have and of Α. 9 course we have the during/after period to examine as well. 10 Well, let us just stick with this one for the moment. 11 Q. 12 Α. I should emphasise that all of our analyses are 13 predicated on the pre and the after period being 14 reflective of competitive conditions, so I think ... 15 Q. I think, Mr Harvey, you recognise that in competitive markets, margins can vary and picking one year's margin 16 17 as being the competitive benchmark is not a reliable basis for this, is it? 18 Well, in this there are two years and obviously we are 19 Α. 20 not only relying on the before/during but also the 21 during/after comparison, where we have a longer time 22 period to examine. 23 Q. Let us just move on here because in relation to this you 24 have also provided some other material. If we go to {E/IC1/99}, page 100. I am sorry, just a mismatch 25

1		between the hard copy. $\{E/IC1/100\}$. There we are. So
2		here we have actually got the annual margin beyond the
3		period where you looked at and this is
4	A.	This is from my report, is it not?
5	Q.	I am so sorry, did I not say that? I apologise. I am
6		working on the basis that IC1 is your report. I am very
7		sorry, Mr Harvey, it is.
8	A.	So I did look at it.
9	Q.	Yes, I did not ask you whether you looked at it.
10		I think that would be an invidious question to ask.
11		I am assuming you would answer "Yes" to that.
12		What I want to just look at here is that you cut off
13		that figure that you provided in 2003, did you not,
14		Mr Harvey?
15	A.	That was the end of the AS/400 data set.
16	Q.	Yes.
17	A.	Yes.
18	Q.	But there is no reason to think, as you rightly said,
19		that somehow having the more granular data set, the
20		MI data set, changes your annual average percentage
21		margin calculation, does it?
22	A.	Sorry, I do not understand the question.
23	Q.	Well, the point I am going to make is you have said the
24		competitive margin is in 1995 and 1996, which is a very
25		small part of this graph, but actually what we see is,

if you are asserting that, in 2003, 2004 and around 2005
 we are in the same territory of margins as we are in
 1995 and 1996, are we not?

A. Yes.

4

Q. So even if you are assuming that we are at the level of
competitive margins in 1995 and 1996, in fact what your
material is showing is that, even if there is this
supposed spike, in fact you are back at competitive
margins during the supposed impact of this infringement;
correct?

Yes, if you were to make that jump. But what I am using 11 Α. this chart for is to investigate whether -- how the 12 13 margins evolve over time. I observe that the margins were high in the before/during period. I do -- the 14 15 margins in this period could vary for all sorts of 16 reasons, including demand and changes in truck mix, as we discussed yesterday. So I readily accept that you 17 18 cannot immediately read off this chart and say that is 19 a problem, but it gives you a way in to thinking about 20 why are these margins changing and the further analysis 21 that we have done through the regression analysis. 22 Well, when you say "a way in", what you were saying in Q. 23 3.64 by reference to the margin chart that I took you to 24 previously was essentially that that widening of margins 25 beyond the competitive measure was indicative of why it

was you should attribute all of the exchange rate effect
to the infringement variable, if such an effect existed.
Yet, as soon as we extend your plot a little bit further
than the one that you exhibited in figure 1, what we
actually see is a narrowing of the margins even on your
own presentation of the data, do we not?
A. Indeed, but, as I said earlier, I do not accept that

A. Indeed, but, as I said earlier, I do not accept that
paragraph 3.64 draws that conclusion. What it says is,
{E/IC52/52}:

10 "To illustrate the 'identification problem' in the 11 before-during period, Figure 1 below shows prices in 12 Euros at the start of the Infringement period and the 13 trend in exchange rates."

14 Q. Yes, but it is the further part here:

15 "I ... consider that any such increase in margins 16 would have been 'competed away' ..."

17 A. But that is a reference to the modelling, not the chart.

18 Q. "... as there would be strong incentives in

19 a competitive market for DAF and other Manufacturers to 20 reduce their prices ..."

21 What we are seeing, is it not, on your wider 22 account, is actually those notional margins that you say 23 are somehow super-competitive are actually competed 24 away; no?

25 A. I am sorry, Mr Beard, but the sentence before that talks

1 about the modelling that is done. This chart is simply 2 to illustrate an issue. It does indicate quite a large 3 widening of margins, which also happens to appear in my 4 regression analysis, but it is not this chart of itself 5 from which I draw any conclusions, and it says:

6 "This is because I do not consider ... I instead 7 consider that any ... increase in margins [has been] 8 'competed away' ..."

9 That is all correct but it is in the context of 10 using this chart to illustrate the identification 11 problem.

12 Q. What we are doing here is challenging your assumption 13 that you can tell anything from eyeballing that margins 14 chart. We say that you cannot tell anything and indeed, 15 by cutting it off as you did, unfortunately there is 16 a danger that that margins chart could be seen as misleading, Mr Harvey. You understand the point? 17 18 Α. I think if the tribunal reads paragraph 3.64 and the 19 rest of the report, I do not think they will be misled. 20 To the point about cutting off, it is the period of the 21 AS/400 data set and I was providing an example. 22 I see. Let us move on to some questions about emission Q.

23 standards fixed effects. If we could go to your first 24 report, {E/IC1/94}, if we just go down the page to 4.83, 25 you say:

"I have reviewed the evidence filed by DAF, BT and
Royal Mail in these proceedings in order to identify
whether this suggests that DAF's Trucks that were
compliant with the latest emissions standard were
generally viewed as being more desirable ...", such that
they were willing to pay a price premium. This is back
into the questions about willingness to pay issues.

Obviously I am not going to rehearse what was 8 discussed in the hot tub yesterday. I just want to look 9 10 at one or two factual matters in relation to this. You 11 refer at the end of paragraph 4.83 to annex 1 to this 12 report. Whilst we are here, let us just look at that. 13 I think that is $\{E/IC2\}$ and I think it may be page 2 --14 page 70, {E/IC2/70}. This is part of annex 1 to your 15 report. It is in section 2 to it. You just see at the top, 2.96: 16

17 "As described in section 4B of the main report, for 18 my during-after model, I also estimate the additional 19 overcharge associated with the introduction of new 20 emission standards. I outline evidence below that the 21 price premium associated with the introduction of new 22 emission standards is likely to be attributable to the 23 Infringement, rather than ... desirability ..."

I am not going to work through all of this but I just wanted to pick up in relation to Mr Borsboom's 1 evidence that you cite in subparagraph (d) just below 2 that. It is on {E/IC2/72}. You see there that you 3 emphasise Mr Borsboom's evidence that customers expected 4 DAF to meet legal requirements and comply with emission 5 standards, and then if we look at footnote -- sorry, 6 feel free to read it. I am just going to go to 7 footnote 133 at the bottom.

You see at the bottom it is a reference to 8 paragraph 13 of Mr Borsboom's witness statement. I just 9 10 want to go to that because what you have done is 11 somewhat incompletely quoted Mr Borsboom in 12 paragraph 13, so if we go back up just so we can see 13 that. I want to just re-read that paragraph. THE CHAIRMAN: Sorry, what are we looking at now? 14 15 MR BEARD: I am just looking at this so that Mr Harvey has 16 in mind what he has included because I just want to show him what he missed from the reference in Mr Borsboom --17 18 THE CHAIRMAN: So are we going to Mr Borsboom's witness evidence? 19 20 MR BEARD: I am going to go to that now, yes. I was just 21 giving him a guick chance to --22 We have got it in hard copy, so if we go to Borsboom 1, Α.

23 we have the same comment.

Q. That is great. Thank you. That is helpful, Mr Harvey.
If we go to {D/IC25/4}, you will see there:

"Customers for trucks do not have emotional reasons
 to buy ... They buy ... because they have a business
 case ..."

4 If you read on:

5 "Customers are mainly concerned with up-time (ie reliability) and the total cost of ownership ... (which 6 7 includes other costs such as fuel, insurance, depreciation, repair and maintenance). It is worth 8 noting that without other drastic technology changes to 9 10 the vehicle, meeting the relevant Emissions Standard ... 11 would generally have led to an increase in weight, 12 a deterioration (not an improvement) in fuel efficiency 13 and therefore an increase in total costs of ownership. 14 That meant that DAF's vehicle development projects were 15 complicated by the need to wrap up new legally compliant 16 technology with customer enhancements to the trucks as a whole (including fuel efficiency, attractiveness and 17 comfort for drivers)." 18

Now, here what we have got is Mr Borsboom explaining
that DAF introduced improvements to trucks at the same
time as the new emission standards, is he not?
A. Yes.
Q. That is not what you focused on. You did not quote

those key parts of that evidence, did you, Mr Harvey?
A. It says paragraph (d) -- sorry -- in my report,

1		(E/IC2/72}. It says sorry, does everyone have it?
2	THE	CHAIRMAN: Yes.
3	A.	"'As noted at paragraph 13 above, we also wrap up the
4		legal requirements as part of a vehicle update,
5		including other enhancements to make the new trucks more
6		attractive to customers.'"
7	MR I	BEARD: Yes.
8	A.	So the general point relating to the updates to sweeten
9		the Euro standard pill, as it were, I have referred to
10		here.
11	Q.	I see, but the drastic changes, the drastic technology
12		changes, you recognise they exist?
13	Α.	Yes.
14	Q.	That is obviously key for the consideration of these
15		issues in relation to an assessment about whether or not
16		in fact a premium could be associated with a willingness
17		to pay, is it not?
18	Α.	Sorry, can you put the question differently, Mr Beard?
19	Q.	Well, those drastic technology changes and other
20		developments are critical to the question of whether or
21		not you might expect that customers would have an
22		increased willingness to pay as it is put, an
23		increased premium they would be willing to pay in
24		relation to new model trucks that complied with emission
25		standards, would you not?

A. I think there are two issues here, are there not? There
is the technological change that is associated with the
introduction of the new Euro standard and whether
customers in general were willing to pay for that in and
of itself and we have some evidence from I think
Mr Ashworth and others, at least for Royal Mail, that
they were not.

8 Then the second category of I suppose technological 9 changes relates to the updates that are made to almost 10 make the vehicle more attractive in view of the 11 additional costs that would be associated with buying 12 it. That second -- well, both of those features are 13 reflected in the quotes that I have taken from 14 Mr Borsboom.

Q. Mr Harvey, you could not buy a new model Euro 4 truck that simply complied with Euro 4 technology but did not have a whole collection of other radical changes, could you?

19 A. I do not know.

20 Q. You do not know?

21 A. No.

Q. So you are opining on these issues and you do not know whether or not you can have a Euro 4 truck without all of these project changes that Mr Borsboom is referring to? 1 Α. It depends -- sorry, it depends what other changes you 2 are talking about. I understand, of course, that when 3 you update the emission standard technology, that 4 changes need to be made to the workings of the truck. 5 Obviously I do not know the details of what exactly that 6 involves. I understand from this paragraph that at the 7 same time they decided to include other enhancements, so that is what I take from this. 8

9 Q. Yes, and you could not buy the trucks without the other
10 enhancements, the drastic technology changes, could you?
11 A. I do not know.

12 Well, let us just illustrate this, shall we? Let us go Ο. 13 to {I1/462.2}. Now, I do not know whether it is the sub-editors at Commercial Motor or DAF PR department, 14 15 but there is nothing understated in the headline "Road 16 to Glory". If you want to just look at this, it is to do with DAF's Euro 4 XF winning International Truck of 17 18 the Year, Mr Harvey. If we can just blow up the text on 19 the left-hand side so it is a little easier. Would you 20 like just to read through that? (Pause)

21 A. Yes, I can see that.

Q. If we just scroll down so you can finish off. (Pause)
You probably do not need to read the remainder of
the article, but what is absolutely clear is, in line
with Mr Borsboom's evidence, when DAF launched a truck

1 that was going to comply with the new emission standard, 2 it put forward a new model with a whole suite of 3 developments attached to it. You see that, do you not? 4 Α. I do, yes. 5 That suite of developments, technological, to do with Q. comfort, to do with engine and transmission improvements 6 7 and indeed cost of ownership, were all part of the new model that is said to be emission standard compliant. 8 You understand that? 9 10 Α. I do, yes. We covered yesterday the potential importance of issues 11 Q. 12 like fuel efficiency changes being very significant, 13 potentially, for buyers of these new trucks. A. Yes, we did. 14 15 Q. But other changes, like comfort, like engine capacities 16 and so on, might also be changes that would mean that 17 you would effectively be able to charge higher margins for these trucks, would they not? 18 19 No, that does not follow. That is not inevitable. Α. 20 Does it not depend on, as was discussed yesterday, the Q. 21 extent to which customers value the improvements that 22 are being added to the truck? 23 It depends on that and it also depends on competition Α. 24 and whether other rivals are offering similar improvements. 25

1 Q. Well, as we discussed yesterday, you can have 2 a situation where all margins move up, even in 3 a competitive market, can you not, when you have 4 improvements to products? 5 You can, but it would not be sustained because over time Α. you would have rivalry trying to compete at that margin. 6 7 Q. But you are just assuming these matters, are you not? 8 This is part of your suite of intuitions. You have not 9 actually analysed any of this? Well, I do not think it is an unreasonable assumption 10 Α. 11 because otherwise, over time, margins would just 12 perpetually rise in view of improvements in 13 technological development. But you have not actually carried out any analysis of 14 Q. 15 these aspects of margin change, have you? The only thing that is relevant I think is that the 16 Α. No. 17 truck models, so XF105 and others, are controlled for in 18 my analysis. Yes, but just on that, you control for the particular 19 Q. 20 model type but you do not control for the particular 21 changes in characteristics that come with the new model, 22 do you? That is correct. 23 Α. 24 Yes. Mr Bourke is tempting me to take you through Q. 25 a number of the characteristic changes in the truck but

1 I think I am not going to ask you about your engineering 2 knowledge --A. Thank you. 3 Q. -- and your concerns about fuel efficiency and forward 4 5 collision warning systems. Do you now know what an Intarder is, Mr Harvey? 6 7 A. No, I do not. 8 Q. Right. Engine braking system. 9 THE CHAIRMAN: Are you going to be sticking to your two-and-a-half-hour time? 10 MR BEARD: Yes. 11 12 THE CHAIRMAN: Good. 13 MR BEARD: One or two quick questions on EEV, if I may. EEV 14 standard changes are not actually referred to in the 15 Commission decision but you find in your regression analysis an overcharge in relation to EEV trucks. 16 17 Do you want me to take you to where you do that? It is 18 in your first report. 19 Α. Yes. 20 {E/IC1/9}. You specifically say that you find an 8% Q. emission fixed effect standard premium in relation to 21 EEV trucks; correct? 22 23 A. Yes. Q. You attribute the entirety of that 8% premium to the 24 25 infringement; correct?

1 Α. Oh, hang on. 2 I am so sorry. If you just scroll down the page. Q. There 3 we are. So -- sorry -- which row were you referring to, 4 Α. Mr Beard? Was it the last row? 5 Q. Yes, the last row, EEV. 6 7 A. Yes, so the difference between 14.7 and 6.7 is I think 8 what you were ... 9 Q. Yes. A. Yes. 10 Q. So you are attributing that 8% -- I am sorry, I should 11 12 have spelt that out, but you have the point. 13 I am not going to ask you about the application of 14 the decision to EEV standards but you do understand that 15 EEV standards were voluntary, were they not? 16 Α. Yes. 17 There was no legal deadline to introduce EEV trucks; Q. 18 correct? I think that is right, yes. 19 Α. 20 So that when customers purchased EEV trucks, this was Q. 21 not even an arguable issue about whether it was 22 mandatory; it was because they wanted them? 23 A. I understand, yes. 24 So plainly there was a willingness to pay for those Q. trucks; correct? 25

1 A. Yes.

2 So, in those circumstances, the indication that you have Q. 3 a significant overcharge attributable to that change we 4 would say is not consistent with the remainder of your 5 analysis. You do not accept that, do you, Mr Harvey? 6 Α. No. 7 Q. No. One point of detail that is worth mentioning is that 8 Α. 9 both BT and Royal Mail did not in fact buy many EEV trucks. I think it is in the region of -- I think it is 10 11 less than 100. So that is why -- so the weight that in 12 a sense is attached to this number when calculating the 13 overall overcharge is relatively low, but I realise we 14 are having a different conversation in terms of the 15 interpretation of it, which is important. 16 We are. I do not think we are at odds on the actual Q. 17 numbers of EEV trucks that we are talking about in 18 relation to BT and Royal Mail, Mr Harvey. A couple of quick questions on bodies, if I may, and 19 20 value of commerce. I just wanted to check one point 21 from yesterday where I do not think there is actually 22 any dispute. If we could just go to yesterday's transcript at page 111, picking it up at line 12, 23 24 {Day13/111:12}. This is actually Professor Neven 25 speaking.

"Just one comment, if I may, on the question of
whether there was an overcharge on bodies. I mean,
there is clearly a market for bodies -- okay? -- because
most customers are actually not buying naked trucks and
bodies from the manufacturers. They are actually
procuring the bodies from third parties."

7 Then the chairman asked:

8 "Like BT?"

9 Professor Neven replied:

10 "Yes, exactly, like BT. Actually, as Mr Harvey has 11 indicated, there are very few instances in which DAF is 12 actually procuring bodies on behalf of others or even 13 DAF or even producing these bodies. So the predominant organisation is one in which the customers, the final 14 15 customers, are procuring bodies in the open market and 16 then are asking either DAF or a third party to put the body on the chassis, which means that, you know, you can 17 expect that there will be a competitive constraint that 18 is exercised there." 19

20 Now, I think that is common ground between you; is
21 that fair?

A. Sorry, which part of that is common ground?
 Q. Well, the manner in which bodies are procured in
 relation to trucks purchased by various customers. So
 Professor Neven's characterisation of --

1 Α. The first part, where most procure their own bodies, 2 they do not go to the one-stop shop, that is what you 3 are --4 Ο. Yes. 5 That is my understanding too. I confess I cannot Α. actually remember where I read that now, but I think 6 7 that is my understanding as well. 8 Q. I think yesterday you talked in passing about it being 9 90% of trucks being naked trucks --10 Α. In the data, yes. I can take you to it if you want, but in fact the figure 11 Q. 12 is 94.5%. That would not --That would not surprise me. 13 Α. 14 Q. -- surprise you, okay. 15 Just one further point on this, I think. Could we go to {E/IC1/53}? 3.11, if we could just go down to 16 17 footnote -- sorry, feel free to read this sentence. 18 (Pause) 19 Α. Yes. 20 Then if we just go down to footnote 172: Q. 21 "This dispute is not relevant in respect of BT, as 22 DAF does not seek to exclude any amounts from BT's value 23 of commerce." 24 Then there is a reference to a letter. 25 Now, you said "DAF does not seek to exclude any

1 amounts from BT's value of commerce". Is a more
2 accurate way to put this point that the dispute is not
3 relevant because BT does not actually claim for an
4 overcharge in relation to bodies and tail-lifts;
5 correct?

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6 A. Yes, that is ...
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7 Q. Now, in your reports you gave two reasons to think that deducting prices paid for bodies would potentially 8 result in an underestimate of the putative losses. The 9 10 first is that the chassis was sold as part of a wider 11 package and the second is the estimated percentage of 12 overcharge will be lower if you include the body prices 13 in the prices used for the regression. Now, I am not going to get into the second one because you discussed 14 15 it in the hot tub, but I just want to pick up on 16 a couple of points in relation to the first of those issues. 17

18 You said yesterday that you thought that the price 19 of the bundle could be elevated because Royal Mail 20 bought the truck and body together. Do you want to see 21 the transcript on that?

22 A. No.

Q. So you are not saying that bodies were generally
affected but, rather, that the prices paid by Royal Mail
for bodies might have been affected as a function of the

1

way the bundle price was negotiated; correct?

2 A. Yes.

Q. Just to be clear, I think in putting forward your
position in relation to bodies and value of commerce,
you have not looked at contemporaneous documents which
show how prices were actually negotiated with Royal Mail
to inform your evidence on this; is that correct?
A. That is correct.

9 Q. Sir, I am going to move on to a different topic.

10You and Professor Neven agreed on Wednesday that the11data available to you does not allow the estimation of12a claimant -- a robust claimant-specific regression.

13 I think that is common ground.

14 A. Yes. Yes, it is.

15 Q. We see that through the data limitations, but I want to ask you about something different that you said on 16 17 Wednesday. Can we go to the transcript, Day12, page 69? So picking it up on line 21, {Day12/69:21}, this is you: 18 "... is there good reason to believe that Royal Mail 19 20 or BT would have an underlying higher or lower overcharge estimate? I do not know, but I could not 21 22 point to one."

23

That was your position?

24 A. Yes.

25 Q. I just want to explore slightly what you considered

1		before reaching that conclusion. Your instructions were
2		to consider the extent to which each of Royal Mail and
3		BT were overcharged for trucks; correct?
4	Α.	Yes.
5	Q.	The outcome figures that you are producing in your
6		regression, they are average figures, are they not?
7	Α.	They are market-wide figures.
8	Q.	But that means that they are averages; correct?
9	A.	Yes.
10	Q.	So in the nature of an average, some people will have
11		paid less and some people will have paid more, even on
12		your account; correct?
13	A.	That is possible but not inevitable.
14	Q.	Can I just think a little bit more about the facts you
15		considered when you were thinking about this? If we
16		just go back to we are still there. That is great.
17		{Day12/3}, if we could.
18	THE	CHAIRMAN: I do not think so.
19	MR	BEARD: No, I do not think so either. Sorry, that is
20		a wrong reference. Page 10, {Day12/10}. If we pick it
21		up at line 13, {Day12/10:13}: This is you speaking.
22		"Then, in terms of the steps, the first thing is
23		that all of the modelling that I undertook, I tried to
24		link those decisions to what I knew from the facts and
25		from the witness statements and set them out plainly in

the report. Obviously, part of that is to explain why I have done what I have done, but, in doing that, it sort of forces you to think quite carefully about the link between those facts and your modelling decisions, so it encourages more of those 'Am I right?' questions."

6 But I am not quite sure I understand what actual 7 factual material related to Royal Mail and BT you 8 considered in that exercise. Did you consider any of 9 the material relating to any of the negotiations between 10 the claimants and DAF?

I did consider it. I think we spoke about this at some 11 Α. 12 point over the last two days. So one of the issues was 13 around "the sophistication of the tendering process" and the relevance of that for changes in market prices 14 15 arising from the overcharge and I think I explained that 16 it did not really point in one direction or another. Q. Let us just look at one aspect of these dealings. 17 18 I think we can focus perhaps to some extent on the 19 witness evidence to start with, at least, and then we 20 may come back to some of that other factual material. 21 If we could just go to Mr Habets' statement, 22 {D/IC23/18}. This one is confidential. I want Mr Harvey and the tribunal to look at the table, 23 unfortunately, which I think may be the confidential 24 bit. 25

- 1 A. I have it.
- 2 Q. You have it but I am not sure that the tribunal
- 3 necessarily will.
- I do not know if you have the witness statements
 separately anywhere.
- 6 THE CHAIRMAN: What page is it?
- 7 MR BEARD: Page 18 of Mr Habets' statement.
- 8 THE CHAIRMAN: Yes.
- 9 MR BEARD: I am most grateful.
- 10 THE CHAIRMAN: I have got it.
- MR BEARD: So I do not think you dispute any of the numbers here, do you? You have seen this table previously?
- A. I have seen this table, but I am not in a position todispute them, if you see what I mean.
- 15 Q. Right.
- 16 A. I would need to do the calculations.
- Q. I see. So this sets out Mr Habets' calculation of
 margins on sales of trucks to Royal Mail in 2004 to
- 19 2010. You see that?
- 20 A. Yes, I do.
- Q. You can also see that in a large number of years youhave negative margins. Do you see that?
- 23 A. Yes, I do.
- Q. Yes. So if we look at 2008, you can see on thepenultimate row the average overall margin which starts

1 with a negative number, it ends with .1. Do you see 2 that? 3 I see a number that ends with .0. Sorry, say that Α. 4 again. Sorry, in 2008. 5 Q. 2008, sorry. Yes, got it. 6 Α. 7 I am obviously not giving --Q. 8 No, no, I understand, of course. Α. 9 -- the integers, just so -- to navigate them. I am just Q. 10 making sure that the witness is in the right place. 11 We see the aggregate overall margin in the far 12 right-hand column. Do you see that? Yes, I can. It ends with .0. 13 Α. 14 Yes, and you can see, if you go up, there is an Q. 15 equivalent for BT which ends up .9? 16 Α. Yes. Now, just to be clear, I think you accepted in 17 Ο. 18 cross-examination that you did not consider any evidence about the margins on sales to BT in the context of your 19 20 theory of harm, but presumably that is also true in 21 relation to your consideration of the regression 22 analysis; correct? 23 A. Yes. 24 So none of your reports consider what DAF's margins Q. 25 would have been on Royal Mail and BT if your approach

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were correct in the counterfactual world? You did not consider that?

3 A. Well, the -- no, I am not sure that is right because, in 4 preparing the regression analysis, it is telling you 5 about the difference between the factual and the counterfactual. So I think if the question is did 6 7 I literally apply those numbers and come up with a different margin level for Royal Mail and BT in the 8 factual and the counterfactual, no, but those regression 9 10 analyses tell us what the difference would have been. 11 Well, let us just think about that. I think, taking it Q. 12 in simple terms, you have been suggesting that there 13 could be a 10% overcharge in the actual world and so you would be talking about taking 10% off these margins for 14 15 Royal Mail and BT, would you not? 16 Α. Yes. In a world where we are already talking about 17 Q. 18 substantial negative margins, does that not cause you

18 substantial negative margins, does that not cause you
19 significant concern as to the sense or indeed -- I am
20 going to use the word -- plausibility of your estimates
21 coming out of the regression?

A. I think the start point is in the factual there is
a negative margin for BT and Royal Mail. Then the
question is: well, how do we interpret these -- how do
we interpret that outcome? There are a couple of

thoughts. The first is that, if we took these figures very literally, it would imply that it would make more sense for DAF not to manufacture the trucks at all. Now, I presume that it did make sense for DAF to manufacture the trucks, so that means that there are two possible explanations for these figures.

One is that the trucks did make a contribution to 7 the overheads and fixed costs and actually they were 8 making a pricing decision on a number that was lower 9 The second is that there are other benefits 10 than MLO. 11 that we do not see in these figures that DAF derives 12 from selling to Royal Mail, I do not know, the 13 possibility of having lots of DAF Trucks driving around 14 the UK, and so I do not think you can jump from these 15 figures being low in the factual and rule out that they would not have been lower in the counterfactual. It is 16 not as straightforward as that. We do have --17 18 Q. I was not asking you whether you would rule it out. I was asking you whether you had done a reality check 19 20 and I think the answer was "No". 21 Α. Well, I have not done the calculation that you describe, 22 no. THE CHAIRMAN: Is this not straying back into plausibility? 23 MR BEARD: No, this is for regression too because what we 24 25 are asking is, in relation to the level of regression

1 that Mr Harvey is coming up with: is it reasonable --2 does it cast a question over that regression analysis if vou are already in a world of negative margins and you 3 4 are suggesting that this sort of average margin should 5 apply to Royal Mail and BT -- this overcharge analysis should apply to Royal Mail and BT? So it is 6 7 questioning -- it is placing a sense-check on the regression analysis as a whole but it is also 8 questioning, given that we are dealing with averages on 9 10 a market-wide basis, if there might be reasons why, in 11 fact, even on Mr Harvey's case, the outturn overcharge 12 for Royal Mail and BT could be lower.

13 THE CHAIRMAN: I thought that Professor Neven agreed that it 14 was appropriate to look at the UK-wide market to assess 15 what the overcharge would have been in relation to 16 Royal Mail and BT.

MR BEARD: He certainly said that the appropriate way to 17 18 carry out the regression analysis in relation to 19 assessment of overcharge in relation to Royal Mail and 20 BT was to do it on a market-wide basis, but I did not 21 hear him saying anything other than what Mr Harvey had 22 said, that we are dealing with an average here. At that 23 point we are in the territory of asking ourselves 24 whether there are other factual materials that we could 25 be drawing upon in circumstances where the regression

analysis is obviously carried out by reference to
 underlying data, and that is what these points go to.
 It is right for me to put my case in relation to these
 points to Mr Harvey because it goes beyond the economic
 regression analysis.

6 Mr Harvey, I think you would accept that where 7 manufacturers are dealing with negative margins, the 8 likelihood of them accepting -- the likelihood that in 9 the counterfactual world they would have accepted even 10 more significant negative margins is something that 11 causes -- let us start at the most simple level -- pause 12 for thought; correct?

A. I return to the answer that I gave you earlier, which is
the start point is why are they negative in the factual
and what does that tell us about why DAF was serving the
customer, so I am not sure that, as I say, that of
itself is a problem.

Q. I am not saying in and of itself, but does it cause you pause for thought and make you think, "I need to analyse what reasons there might be why my regression analysis is turning out effectively a conclusion that suggests that Royal Mail and BT -- that they should be paying -that DAF should be earning on their trucks even lower negative margins"?

25 A. Well, I think even if I was to do that analysis, I would

still be left with the same question at the end of it,
 which is: well, does it make sense to have a negative
 factual margin? I am not sure that knowing that it is
 minus 15 in 2008 would allow me to do anything else, if
 you see what I mean, Mr Beard.

Q. I am going to treat that as a hypothetical number,
Mr Harvey, but, yes, you are saying that if you had
significantly negative numbers, then in those
circumstances you are saying the scale of the negativity
in the margin just does not matter?

A. Well, I am saying it does not tell us what to do next in terms of the interpretation of whether the overcharge as applied to Royal Mail and BT makes sense because, if you start from the negative margin being problematic, you are already there, if you see what I mean. So I am not sure that it ...

Q. Well, let us just pause there. You are already in one
place with a negative margin. We are talking about
substantially larger negative margins. Are you saying
that is effectively the same place and it does not
matter how large the negative margin is?
A. I am not sure it does matter for the interpretation of

whether you apply the overcharge to these figures, no.
Q. Let us just look at it in concrete terms, shall we?
I am going to go to a confidential document which is, if

1 you are calling it up electronically, {I2/IC124.1}. 2 THE CHAIRMAN: I thought you said you were going to stick to 3 your time estimate --MR BEARD: I am. 4 5 THE CHAIRMAN: -- which I thought was two and a half hours. MR BEARD: Oh, I am so sorry. I apologise. I was thinking 6 7 about lunchtime. I am so sorry. I have got two or three questions more. 8 I apologise, sir. I completely lost track of the fact 9 10 that we started at 10.00 and I was thinking about 1 o'clock. 11 12 The document reference is {I2/IC124.1}. 13 THE EPE OPERATOR: Is it okay to display that? MR BEARD: No, unfortunately I do not think we can. I am 14 15 going to skip past this, given the time. I will come back to this in due course. 16 17 I think you have made clear that you have looked at 18 some contracts. Could I just go to one contract that it 19 might be just useful to see whether you had seen? 20 I think it is {I1/OC22}. I think we can look at this 21 one. 22 So this is a contract. If you go to page 2, 23 {I1/OC22/2}, you see that is 1996. Do you see that 24 contract start date? A. Yes, I do. 25

Q. If we go down to page 5, {I1/OC22/5}, you see the
 paragraph at the top:

3 "The prices that follow will remain firm for the duration of the agreement and will apply to all orders 4 5 placed during the periods ... December 1996 to ... March 1997 and 1 April 1997 to 31 March 1998." 6 7 So it was a fixed price contract. We can see the prices in that table. 8 Yes. Yes, we can see that. 9 Α. They are for LF 45 trucks with 130-horsepower engines 10 Q. 11 and they are Euro 2 standard. 12 Α. Yes, I can see that. 13 Then if we can just go to {I1/OC31}, this shows us what Q. 14 happened after the original fixed term. The same 15 contract number on the first page and you see actually the start date. If we go to page 3, {I1/OC31/3}, we can 16 17 see it is dated April 1998, so this is now within the 18 infringement period. 19 Α. Yes.

- 20 Q. If we go to page 5, {I1/OC31/5}, you see here in the 21 factual situation there has been a 2.5% price increase.
- 22 A. Yes. Yes.
- 23 Q. You have not seen these contracts before?

A. I cannot remember.

25 Q. No, I see. On your case, as I understand it, what you

1 are saying is that, from 1996 to 1998, rather than there 2 being any increase, what we would have actually seen was a significant decrease in the price of these trucks 3 4 because, on your account, during this period for these 5 type of trucks, you suggest that there is an 11.6% overcharge. Do you recall that? 6 7 A. Yes, I do, yes. 8 Q. So compared to the original price, you are saying that 9 in the counterfactual world we would have moved from 10 a situation where we saw the contract in 1996 before the 11 infringement, but there would have been a 9% drop in 12 price; correct? 13 A. Yes, because this contract renegotiates -- well, there 14 is a price increase in 1998 and the previous setting of 15 the contract was in 1996. 16 Q. Yes. 17 So in the counterfactual a price reduction. Α. 18 Q. Yes, and that would not cause you any pause for thought in relation to your regression analysis? 19 A. I do not think so, no. 20 21 0. No. It is really not credible, is it, that you are 22 talking about a 10% drop in price in relation to this, is it? 23 24 Yes. Α. I see, Mr Harvey. We will come back to these matters in 25 Q.

1 closing. I do not have any further questions for the 2 witness and I am very sorry to have lost track of time. THE CHAIRMAN: Okay. So is there any re-examination? 3 4 MR WARD: Sir, thank you. There is just one question. 5 Re-examination by MR WARD MR WARD: Mr Harvey, at the beginning of this morning you 6 7 were criticised for not presenting an analysis of the during/after period which excluded the GFC dummies. 8 Could I ask you, please, to turn up $\{E/28\}$, which is 9 10 your reply report, page 50, {E/28/50}? Can you explain what this figure 14 is showing? 11 12 A. Yes. This figure is intended to illustrate the 13 difference between the overcharge estimate as calculated by Professor Neven, which is around zero in the 14 15 during/after period, and the 6.7 overcharge estimate 16 that emerged from my analysis, and the bars in between are seeking to break down the causes of those 17 18 differences between the models. So 3.1% is -- 6.7 is 19 attributable to the GFC dummies, 5.3% is attributable to 20 the regression in euros and minus 1.7% is attributable 21 to other differences between our reports. 22 MR WARD: Thank you. I do not have any other questions. MR BEARD: Thank you. Just so the tribunal has it for its 23 notes, Professor Neven did actually do the exercise 24 taking out the dummies. 25

1 THE CHAIRMAN: Yes.

2 MR BEARD: It is just $\{E/35/26\}$, but I will leave that for 3 your notes. THE CHAIRMAN: Okay. Thank you very much, Mr Harvey. That 4 5 is the end of this further round and you are free to go. A. Thank you very much. 6 7 THE CHAIRMAN: Right. So we have got Professor Neven now. I guess we should start this afternoon. Mr Ward, how 8 long do you think you are going to be? 9 10 MR WARD: Well, I will cut my cloth accordingly, sir, so 11 I certainly would like all afternoon. 12 THE CHAIRMAN: Right. Shall we start earlier then? I would 13 suggest -- because we do need to finish in good time 14 this afternoon -- shall we start at 1.40? 15 MR WARD: Yes. Can I ask, are we okay til 4.30 or is it 4.15, just so I can keep an eye on the time? 16 17 THE CHAIRMAN: Well, I think you should aim for 4.15, but I am sure we can carry on until 4.30. All right? 18 MR WARD: I just understood that the transcriber also had 19 20 a hard stop as well as the tribunal so I will do my 21 level best to finish on Friday afternoon as early as 22 I can. THE CHAIRMAN: All right. Thank you very much. So we will 23 24 resume at 1.40. (12.57 pm) 25

1	(The short adjournment)
2	(1.40 pm)
3	THE CHAIRMAN: Good afternoon.
4	MR BEARD: Good afternoon.
5	THE CHAIRMAN: So Professor Neven needs to be sworn in.
6	MR BEARD: Yes.
7	THE CHAIRMAN: Sworn back in.
8	PROFESSOR DAMIEN NEVEN (affirmed)
9	THE CHAIRMAN: Thank you, Professor Neven.
10	MR BEARD: I do not have any questions for Professor Neven.
11	THE CHAIRMAN: Okay. We can go straight into
12	cross-examination then. So we see Mr Ward there on the
13	screen. Hopefully we can all hear each other. Mr Ward,
14	over to you.
15	MR WARD: Thank you.
16	Cross-examination by MR WARD
17	MR WARD: Good afternoon, Professor Neven. I hope you can
18	see and hear me.
19	A. I can see you, yes.
20	Q. Can you hear me as well?
21	A. I cannot hear you very clearly, but I will pay
22	attention.
23	THE CHAIRMAN: I think it is probably because of the
24	croakiness of the voice maybe.
25	MR WARD: It does not help and I will try not to cough at

you, even virtually over the camera. Let us get
 started. Just please tell me if you have trouble
 hearing.

I want to start with currency, please. Now, is it
right that in your main model the only way in which
changes in exchange rates affect prices is through
changes in the euro costs which you convert using the
budget rate into pounds?

9 A. Not quite. I mean, in my main model, I use --

10 Q. The main?

A. The main model, yes -- so the model that is presented in
the first report, not the sensitivity in which
I introduce the exchange rate as a stand-alone variable,
but the main model is one in which I have costs that is
estimated at the budget rate. So, to be precise, this
is the pound cost plus the cost incurred in euro
expressed at the budget rate.

Q. Yes. So that is a "Yes". We will come on to the 18 19 sensitivity, I can assure you. We know that the budget 20 rate is not a real-time exchange rate, is it? It is an 21 average rate for the year before the transaction? 22 I mean, in the MI period it is a rate that is defined by Α. 23 DAF and it corresponds approximately to the average 24 exchange rate of the previous year, indeed. Q. So that is a "Yes" as well. For the period before the 25
1		MI, you have had to construct this, have you not,
2		because that data was not available?
3	A.	That is correct.
4	Q.	Yes. So what all this means, in the main model, is that
5		actual changes in the pound/euro exchange rate are not
6		reflected in your analysis until the following year
7		is that right? actual real-time exchanges?
8	A.	That is correct.
9	Q.	So there is no flexibility in your main model to account
10		for the impact of exchange rate changes that take place
11		within a year?
12	A.	In the main model, no.
13	Q.	So the exchange rate of today in the main model never
14		has an impact on the price today, only on prices in
15		a year's time?
16	A.	In the main model, it does not, no.
17	Q.	So if we could just go to $\{E/35/18\}$. This is your reply
18		report. Just to the bottom of the page, please. Do you
19		have that, Professor Neven? Page 18, please.
20	A.	Of which report? The reply report?
21	Q.	Reply report.
22	A.	Do I have it in the bundle here?
23	Q.	That looks like a slim bundle from BCLP of some extra
24		documents we might be talking about but I have not
25		included your reports in there. I am assuming you would

1 have those in front of you. Do you not have your own 2 reports? 3 A. No, I do not. Well, that is a bit disappointing. 4 Q. 5 THE CHAIRMAN: Okay, I think we are trying to sort it out, Mr Ward. 6 7 MR WARD: I will tell you if I need you to look at that 8 clip, Professor Neven, the one you have just been 9 looking in. Thank you. Which page? 10 Α. Page 16 internal or page 18 of our bundle pagination. 11 Q. 12 Α. Yes. It is the bottom of paragraph 2.21, where you say, last 13 Q. two lines: 14 15 "... I conduct my analysis by allowing for a flexible model of exchange rate pass-through." 16 17 You say there. 18 Α. Yes. What you mean by that is only that you use the budget 19 Q. 20 rate to convert euro costs. There is no other flexible 21 exchange rate control here, is there? 22 No, that is right. I mean the additional flexibility is Α. 23 added when I include the current exchange rate. 24 Q. I promise you we are going to come to that. So in 25 effect what your model assumes is that this budget rate

1 conversion captures all of the impact of exchange rates 2 on prices, does it not? 3 Α. I mean, yes. Yes. On Wednesday you said twice on the transcript that 4 Q. 5 you were not imposing anything in regard to exchange rate. Would you like to see that or will you take my 6 7 word for that? A. Oh, I take your word for that because I said it and 8 9 I remember it. Just for the note it is page 150, line 15, or page 118, 10 Q. 11 line 9. Would you accept that in substance your 12 approach is indeed a restriction? It is a restriction 13 that the maximum rate of exchange rate pass-through is 14 just the cost coefficient, around 0.8, together with 15 a one-year lag? 16 No. I mean, what happens is that if this is not Α. supported by the data, the coefficient is not going to 17 18 be significant or the coefficient is going to reveal 19 that the actual process of pricing is not consistent 20 with this. That is very different from what Mr Harvey 21 does, as we have discussed. I mean, Mr Harvey is 22 actually imposing a coefficient of minus 1 with respect 23 to the exchange rate. So I am not imposing 24 a coefficient. I am letting the data determine whether my pricing model is supported by the data. 25

1 Q. Well, it is certainly a restriction, is it not, even if 2 you are not imposing it, because that is the way that the -- well, it expresses the effect of the exchange 3 4 rate? Any econometric model we have restrictions and in 5 Α. particular restrictions with respect to functional 6 7 forms, so this is not uncommon and -- yes. Indeed. So that is a "Yes" as well. Thank you. 8 Ο. 9 Now, looking at this for a moment from the point of view of DAF NV, not DAF UK, DAF NV's ultimate interest 10 11 here is in the amount of euros it can get, is it not, 12 rather than pounds? 13 I think that DAF NV is interested indeed in the net Α. income in euros, yes. 14 15 Q. There was a bit of a discussion this morning about 16 exactly in what currency DAF UK carries out its deals, but ultimately the interest to DAF NV is how many euros 17 18 it could make, and you will probably remember 19 Mr Ashworth's evidence, that he took into account the 20 exchange rate when he was setting prices. Do you recall 21 that or would you like to see it? 22 I recall the discussion this morning about Mr Ashworth Α. making reference to euros, yes. 23 Q. You would accept, I am sure, that a currency movement 24 between pound and euros could make a big difference to 25

DAF NV's margins?

A. You mean -- it depends on how they adjust the prices, of
course.

Yes, depending on how they adjust the prices. 4 Q. 5 What you also said a number of times on Wednesday was that, when the euro depreciates, you would expect 6 7 DAF to reduce its prices in pounds. Would you like to see that or will you take my word for that? 8 Yes, what I said is that when the pound appreciates, 9 Α. 10 I would expect DAF to reduce its prices in pounds, yes. Indeed I think you even said that it did do. Shall we 11 Q. 12 look at that just briefly? That is on Wednesday's 13 transcript on page 102? THE CHAIRMAN: I think that is Day 12, is it not? 14 15 MR WARD: Day 12, yes. Thank you, sir. {Day12/102}. 16 I will just make sure I am giving you the right reference. Yes, can we go -- we do have the bottom of 17 18 the page here. So this is a question from Mr Ridyard, 19 who says, {Day12/102:15}:

20 "... just to go through a thought experiment. If 21 I am sitting in the euro zone making a product, the 22 pound strengthens against the euro, so suddenly the UK 23 is looking a more attractive market for me to sell at 24 a given pound level. But if my competitors are also 25 sitting in the euro zone with me, they are all going to

1		say, 'Oh, suddenly our euro profits are much higher when
2		we are selling this product for £10, so why do we not
3		sell it for £9.50 instead to gain share'"
4		Then Mr Ridyard said to you:
5		"So would you expect some if the costs are all
6		being incurred in euros and the pound has appreciated
7		the UK, other things equal, is a more attractive
8		place to sell stuff, so you try harder to sell and that
9		brings the pound price down?"
10		You agreed with that.
11	A.	Of course.
12	Q.	You said, {Day12/103:5}:
13		"Down, exactly. This is what is happening. Of
14		course, I mean, if all the competitors are affected in
15		the same way, I mean, you will expect that they will all
16		try to reduce the price in pounds."
17	A.	Yes.
18	Q.	Do you recall that?
19	A.	Yes, I recall that.
20	Q.	Can we look now, please, at $\{E/28/74\}$? This is the
21		second report of Mr Harvey. Can we just scroll up
22		a little bit more, please, so we can see that table?
23		That is perfect.
24		What we see here is a figure from Mr Harvey,
25		figure 19, which is showing average invoice prices and

MLO costs expressed in euros --

- 2 A. Yes.
- 3 Q. -- 1995 to 2003.

4 A. Yes.

5 In fact, if we look at the next chart, which is Q. figure 20, {E/28/75}, just briefly, you can see this is 6 7 expressed in pounds and we can see the invoice prices is at the top line and the MLO costs are on the bottom 8 9 line. In this chart what we can see is that this is 10 just invoice prices, but they are in fact, I think you 11 will agree, just slightly rising through this period. 12 Would you agree?

13 A. You see that -- you mean after the appreciation of the14 pound, you mean?

Q. Just start with the obvious proposition that the blueline is slightly going up.

A. Yes, that is right. It is slightly going up, yes.
Q. If we go to the previous chart again, please, {E/28/74},

what we have here -- this is in euros so this is sort of a reflection of Mr Harvey's analysis. What we can see here is a big jump in margin. You can see these are annual figures in this table. We have got a dot for each year. We have a big jump in margin at the beginning of the cartel which, as you already have observed, coincides with appreciation of the pound. 1 A. Yes.

Q. I think it is fair to say that one of your criticisms of
Mr Harvey's modelling is that he essentially attributes
this increase or at least the increase in prices which
DAF NV is enjoying in euros -- he attributes this to the
infringement.

7 A. Yes.

8 Q. Is that not fair to say?

9 A. That is right.

Q. But what I want to put to you really is Mr Harvey's response to this, which is -- of course, what we are looking at here is the factual, what actually happened, is it not, for the moment?

14 A. That is right. Correct.

15 Q. What we are interested in is the difference between the 16 factual, which of course contained the cartel, and the counterfactual, where we assume that the market is 17 18 competitive. That is elementary. It is what we are 19 here to discuss. Mr Harvey's point is, well, when we 20 look at this here for these early years of the cartel, 21 there is a big leap in margin that is being sustained 22 which, absent the cartel, in the counterfactual, just 23 would not have been sustainable for precisely the 24 reasons that you were giving to Mr Ridyard on the transcript on Wednesday. 25

2

A. Can I just comment on what I said in response to Mr Ridyard?

3 Q. Sure.

4 Α. I think that we have to be a bit more precise and indeed 5 I did not have enough time in order to respond fully to the question from Mr Ridyard. Now, what we are 6 7 considering -- this was actually the counterfactual of Mr Ridyard's question -- is a situation in which there 8 is an appreciation of the pound. All the manufacturers 9 10 in this example are incurring cost in euros, so as 11 a consequence of the appreciation of the pound, the cost 12 expressed in pounds will go down.

13 Then essentially what Mr Harvey is imposing is that the prices in pounds should go down by the full amount 14 15 of the appreciation of the pound, so he is basically 16 saying, in a competitive counterfactual, there would be a full amount of pass-through; that is to say, if all 17 18 competitors incur costs in pounds -- incur costs in 19 euros, sorry, which leads to a reduction in the cost in 20 pounds, it is going to be fully passed on in terms of 21 a reduction of the prices in pounds so that the margins 22 are competitive(?). Honestly, I do not know any model of competitive interaction in which the competitive 23 counterfactual would yield that result except for 24 a model of perfect competition, no product 25

differentiation, absence of any form of product
 differentiation between the firms and a very convex
 demand.

4 So even this idea that in a competitive 5 counterfactual, when all the firms are subject to the 6 same shock in costs, they will adjust their price by the 7 same extent is a fantasy. It corresponds to a model of 8 competitive interaction which features the absence of 9 differentiation and a very convex demand.

Q. Let me just put one further point to you. When you were in the hot tub with Mr Harvey on Wednesday, you will recall him saying that in the competitive counterfactual the pass-through may not be immediate but would be high and fast, so it is fair to say Mr Harvey has met your point at least in part and really I am just putting to you that what we see here --

I am sorry to interrupt. Mr Harvey has not met my 17 Α. 18 point. Mr Harvey is estimating a model in euro in which 19 there is a constraint and estimating a constraint model 20 is not the same thing as estimating a model without 21 constraint. I acknowledge the fact that, on the 22 right-hand side of his equation, he has the exchange 23 rate implicit -- well explicitly he has the exchange 24 rate because he is considering the costs in pounds expressed in euros, so he has the exchange rate -- in 25

1 a very counterintuitive way he has it -- but estimating 2 that model is not the same as estimating a model in 3 which you do not have this constraint on the exchange 4 rate.

5 Let us move on to the topic of real-time exchange rate Q. impacts, real-time as opposed to budget rate. 6 7 Α. Can I just make one comment on what you said earlier because I really wanted to say something about one of 8 the questions you put to me, is that you were saying 9 10 that DAF would be concerned about the margins and the 11 net income in euros and of course they should. I mean, 12 this is the currency in which they are reporting their 13 profits and they have stakeholders, they have shareholders, that will look at their profit in euros. 14 15 So I am not disputing this. But what I am saying is 16 that the fact that DAF has decided to put in place a system such that pricing in the UK is based on cost 17 18 expressed at the budget rate is itself meaningful 19 because it means that that is the way in which DAF as 20 a company has decided that it may be, given the 21 circumstances, the best way of dealing with the exchange 22 rate.

Q. Or is it better -- more realistically DAF has decided
that is the profit-maximising strategy in the round in
order to maximise the profits it is making in euros.

1 A. What I am saying is that -- I mean, DAF, as

a profit-maximising company, has decided that, given the
constraints that it has with respect to pricing, the
best way of dealing with changes in the exchange rate
was to put in place a system in which pricing in the UK
is based on budget rate. This is the interpretation
I am giving, yes.

All of that, of course, is subject to the operation of the mandate structure because we know that when the prices are too low, these prices are referred to DAF NV and possibly to PACCAR. So it is not only that they are instructing Mr Ashworth and his team to price on the basis of cost expressed to the budget rate, it is also that they exercised some oversight.

Q. Thank you. Let us move on. We just talked about the mandate structure and one of the things we know is that partly through the mandate structure real-time exchange rates were important, we agree, and Mr Ashworth explained he took them into account himself even in the UK; yes?

21 A. [No verbal response]

Q. That is a matter that you deal with through your
sensitivities, as you have already said, and I am going
to look at them in detail in a moment. But I want to
start with a point of principle about how these

1 sensitivities work. It is right, is it not -- so 2 sorry -- when you have a control variable of any kind, a control variable, what you are seeking to control is 3 4 a factor that might have influenced pricing in the 5 factual scenario; agreed? A. Yes, that is a factor -- that is right. It might have 6 7 affected prices in the observations that I have, which is the factual, of course. 8 Q. Yes, so, for example, demand. It is looking at the 9 10 relationship between demand and price in the factual 11 scenario? 12 A. Of course, because we observe the factual. 13 Q. So if there is a reason to believe that relationship itself might have differed between the factual and the 14 15 counterfactual, the control will not capture that, will 16 it? A. Well, then you may want to specify your model 17 18 differently and you may want to allow for interaction 19 terms. So you may want to allow for an interaction 20 between the dummy variable that is capturing the infringement and the variable that you think may have 21 22 had a different impact on prices during the infringement and outside the infringement. 23 Q. In the case of currency, in your sensitivities, which we 24

are about to come on to, when you control for the

25

1 exchange rate, you are applying it in the factual --2 Yes. Α. Q. -- and it does not take into account any possible 3 difference that might arise in the counterfactual; 4 5 would you agree? I have not interacted this exchange rate standalone 6 Α. 7 variable with an infringement dummy, that is correct. Q. Good, okay. 8 Actually, as I have explained -- maybe I just continue, Α. 9 yes, okay. 10 11 Q. I was going to ask another question so please finish 12 your answer. 13 A. No, I -- sorry, this was as an answer to a question that 14 Mr Ridyard raised earlier --15 THE CHAIRMAN: I think we should stick to the questions that are being asked of you, yes. Mr Ward. 16 17 MR WARD: Thank you very much. Can we go to your first 18 report, Professor Neven? 19 Α. Yes. 20 E/11, and I want to go to page 81, {E/11/81}. Q. 21 A. Yes, I do not have it in the bundle but it is okay, 22 I will ... Q. You do not have it? I am sure you do --23 24 THE CHAIRMAN: I think you had your expert report bundle, 25 did you not?

1	MR	BEARD: I think tab 5, I am being told by Mr Ward's
2		solicitors.
3	Α.	Okay. Yes, thank you.
4	MR	WARD: I was hoping you would go to page 81.
5	Α.	Yes.
6	Q.	Just help me, Professor Neven, because it is going to
7		help you. In the bottom right-hand corner, does that
8		copy you have have the E number on it, so $E/11/81?$
9	A.	Yes.
10	Q.	Great. Okay. Those are the numbers I am going to be
11		using
12	Α.	Okay.
13	Q.	rather than the internal. This is annex C to your
14		first report, "Controlling for the exchange
15		rate: technical discussion".
16	Α.	Yes.
17	Q.	What you do here is explain some of the difficulties in
18		seeking to control for the exchange rate. I just want
19		to remind you of some of what you said. Starting at
20		C.2, you say:
21		"Considering exchange rate models other than only
22		considering DAF's budget rate and directly standardising
23		MLO costs in GBP, ie, alternative approaches that allow
24		for a more flexible exchange rate pass-through, might
25		introduce a problem of identification of the potential

1 impact of the infringement (mostly due to the absence of 2 cross-sectional variability in the exchange rate 3 variable). Moreover, there could be a multicollinearity 4 problem between the exchange rate and other variables 5 included in the model, such as the infringement variable. In such a case, there could be a difficulty 6 7 in separating the effect of changes in the exchange rate from the effect of the infringement or other events 8 occurring at similar times." 9 10 Do you recall that? Yes. 11 Α. 12 If we turn on two pages, please, to C.8, {E/11/83}, you Ο. 13 add a bit of flesh to the bones here. You say: "Nevertheless, the inclusion of the exchange rate 14 15 variable can be ... problematic. This is particularly 16 the case if changes in the exchange rate are highly correlated with other events or control variables." 17 Then you say: 18 "... consider the period that goes from 1994 until 19 20 2002. If I am to estimate the potential price effect of 21 the infringement adding the market exchange rate as 22 a control, there will be a negative correlation between the infringement dummy (which is equal to 1 from 1997 23 24 onwards ...) and the exchange rate variable."

Then at C.9, C.10 and C.11 you talk about other

1 problems of correlation. Do you recall this? 2 Yes, but can I just comment on C.8? C.8 is an Α. explanation of the problem that Mr Harvey is facing. 3 4 Q. Sure. It may come as a surprise but I am actually going 5 to agree with you on Mr Harvey's behalf because what Mr Harvey says is that you are right to be concerned 6 7 about these problems of correlation in respect of the exchange rate and, in a nutshell, we know there is 8 a strengthening at the beginning of the period of the 9 10 pound and then there is a falling off towards the end. 11 So Mr Harvey actually agrees with you that it is highly 12 problematic. 13 If we could turn on, please, just briefly, to page {E/11/91}. This is just before you present the detailed 14 15 results of your sensitivities. 16 Α. Yes. You say -- D.20, do you have that? Page 91? Thank you. 17 Q. 18 "Overall, changing the way the exchange rate enters 19 the pricing regression tends to reduce the infringement 20 effect and makes it quite negative. This indicates that 21 the benchmark specification is an upper-bound of the 22 possible range of estimates ... " 23 Now, we do not agree with the latter but we 24 certainly agree with the former and we are going to see

25 that in a minute.

Then you say at D.21:

2 "Selecting the best way to identify the exchange rate pass-through is out of the scope of this analysis." 3 4 So what you did at that stage was present a series 5 of sensitivities -- and we are going to come to them in a minute and look at the detail -- but is it fair to say 6 7 that these kinds of problems that you have identified are why they did not form any part of your main model, 8 at least in your first report? 9 10 Α. Sorry, I did not catch the first part of the sentence. You have identified a whole series of problems with 11 Q. 12 controlling for the exchange rate. Mr Harvey 13 respectfully agrees with you on those. Then in sensitivities, but there is no such control in your main 14 15 model, the question is: is that because you were 16 concerned about these problems of robustness of adding in these control variables? 17 18 No, I think that the main model that I am using has Α. 19 a control for the exchange rate because it is using 20 costs in pounds expressed as the budget rate, which is 21 what DAF does, so it has a way of controlling for the 22 exchange rate that corresponds to what DAF UK is 23 actually doing. Now, in the sensitivity I am trying to 24 explore alternative, more flexible ways of controlling for the exchange rate and I -- in the paragraph that you 25

quoted, I recognise the fact that this is challenging. This is challenging because of the reasons that you have pointed to, namely that there is a simultaneous change in the exchange rate and the infringement in the early part of the sample and then there is a challenge with respect to demand in 2008.

Q. Can we look at the transcript, please, of Day 12,
Wednesday, on page 144, where you are discussing the
exchange rate -- the sensitivity. You say here from
line 4, {Day12/144/4}:

11 "Then, instead of solely using the budget rate, 12 which is essentially used in order to produce that cost 13 data, I also add as a stand-alone variable the current 14 exchange rate."

We will see that in a moment.

16 A. Yes.

15

Q. "This is to try to replicate this thought experiment that you had sort of DAF NV up there, which was also insisting on carrying out to the margins in euro. If I do that, I obtain an estimate which is remarkably robust ..."

22 A. Yes.

Q. Professor Neven, you did not regard this as robust when
you carried out these sensitivities, did you?

25 A. I think that you are misinterpreting the paragraph --

what was it? -- D.20. If you look at table 19, there is one which is remarkably robust, which is the result that is quoted here in this -- that is referred to in this exchange, which is regression 3 in table 19. You see it is remarkably robust. I mean, the infringement variable is barely affected relative to my baseline model. So I think that --

Is that all you mean by "robust", that you get an 8 Q. 9 acceptable answer? That is all that means? 10 Α. No, no, sorry. This is not what I mean. What I mean is 11 that this specification 3 here is remarkably robust in 12 the sense that -- I mean, all the coefficients in this 13 regression makes sense. I modify slightly the way in which the identification is performed and I noticed that 14 15 the identification is robust to that modification. That is what I observed. I also observed in the other 16 regressions in that table that, indeed, the 17 identification is not robust to these alternatives and 18 19 I understand why and I explained why.

Q. Let us help the tribunal to understand what is happening
here, if you may, by just backing up slightly. If we
could go now to page 53 in the same report, {E/11/53}.
This is where you explain what the sensitivities are.
We have a short-form table which will do for what we
need for the purposes of our discussion.

4.19 explains what the different tests are and
 I just want to run through them briefly and hope that we
 can all keep them in our minds sufficiently for the
 discussion we are going to have. If anyone has a hard
 copy, this would be an excellent candidate for a yellow
 Post-it note.

I will explain what you call the robustness checks
from (a) to (e), and (a) is where you convert MLO cost
from euros to GBP using the budget rate and, as you say,
that is your main model, the benchmark.

11 A. Correct.

Q. It is not really sensitivity, it is the main model. Then (b) is where you convert MLO cost to GBP using the budget rate, which is what you do in the main model, but then you add -- you can see it in the third line -- the budget rate as an additional explanatory variable.

17 A. Yes.

18 Q. So you have budget version and budget explanatory19 variable?

20 A. That is correct.

21 Q. Then (c), which is the one you like, is:

22 "I convert the MLO cost from EUR ... to GBP using
23 ... budget rate ..."

But then you control for the market exchange rate.A. That is correct.

- 1
- Q. So you are controlling for something different?
- 2 A. That is right.
- Q. Then (d), over the page, {E/11/54}, you convert the
 market rate but you have no control variable, and then
 (e) is market rate conversion, market rate control
 variable.
- 7 A. Correct.
- 8 Q. Agreed?
- 9 A. Yes.

Q. Then we see the results on the next page in table 9, {E/11/55}, and just so the tribunal understands, this is a summary of the much more detailed regression results that Professor Neven was pointing to, starting on table 19 later on in the report -- a lot more detail but I think it is only going to confuse rather than help for present purposes.

17 What we see here, we have got -- across the top we 18 have got the five different sensitivities: (a) cost 19 converted using budget rate; (b) conversion with budget 20 rate and then control budget rate; (c) conversion budget 21 rate, control market rate; (d) market rate; (e) convert 22 market rate and control market rate. Then we have three 23 rows which represent your three different demand 24 controls, do we not?

25 A. We have three alternatives, yes.

1 Q. Yes, thank you, as alternatives. Then what we see, we 2 see at a glance quite a lot of very negative 3 coefficients for many of them -- not all of them but for 4 many of them. So when we look at (b), (b) is the cost 5 converted using budget rate and then control for budget rate, so that is the sensitivity that actually controls 6 7 for the actual form of currency conversion that you use and the coefficients are dramatically negative, are they 8 not? 9 Sorry, sorry -- I mean, this second regression --10 Α. actually I explained all of that on Wednesday -- but 11 12 this second regression is using budget rate for the cost 13 conversion and is adding the budget rate as a stand-alone variable. 14 15 Q. I am sorry, if I put that in too short a form, that is 16 precisely what I intended to say. 17 Sorry. Α. 18 Q. That is quite all right. What we are seeing is 19 dramatically negative coefficients here, are we not, 20 minus 4.8, but that is precisely a control for the type 21 of exchange rate conversion that you are doing, is it 22 not? No, that is exact -- no. I think that introducing the 23 Α. budget rate to convert the cost plus introducing the 24 budget rate as a stand-alone variable, I mean, does not 25

1 reflect the way in which DAF operates because DAF 2 operated by using the budget rate for expressing the 3 cost and then was expressing concern with respect to the 4 current rate. So it is essentially the third one, the (c), as you said that I like, that expresses the way in 5 which DAF operated. You know, the fact that you get 6 7 this negative coefficient, it suggests that there is an identification problem, you know, and I said that. 8 I mean, there is an identification problem and 9 10 I understand -- that is the important point --11 I understand the source of this identification problem, 12 which is, by the way, also arising in (e). This 13 identification problem is essentially the consequence of what is happening in 2008, in which you have the 14 15 depreciation of the pound at the same time as the 16 financial crisis. In (c), which is the one you like, what you are not 17 Q. 18 doing is controlling out the conversion that you carried 19 out. You convert with the budget rate and you are not 20 controlling for the budget rate, are you? 21 Α. I do not want to because in that specification I want to

11 If do not want to because in that opecification I want to
 22 test whether the -- I want to test your concern. I want
 23 to test whether the current rate has an impact in
 24 addition to the budget rate used in order to express the
 25 cost. It is in regression (b) that I am using the

1 budget rate as an additional stand-alone variable and 2 I see that there is an identification problem and I understand why there is an identification problem. 3 4 Q. What I want to do now is go on and look at what you said 5 about this in your reply report, please, so that is $\{E/35/16\}$. I want to start at page 16. That is your 6 7 next report, Professor Neven. I might not have given the right reference, but let us see. 8 E/35, yes. 9 Α. 10 Q. Sorry, page 16. Sorry it is my mistake. Page 16. Tell 11 me when you have that, $\{E/35/16\}$. Sorry, the previous 12 page. It is $\{E/35/16\}$, please. Could we scroll down 13 a little more, please? That is perfect. 14 This is where you start to look at this in the case 15 of Mr Harvey's model. What you say at 2.18 -- do you have that, Professor Neven? 16 17 Yes, I do. Α. 18 Q. Page 16: 19 "When the dependent variable is converted into Euros 20 [which of course is what Mr Harvey does], there is 21 essentially only one way to isolate the impact of the 22 exchange rate, and that is by including as a control 23 variable the exchange rate that is used for the 24 conversion. The inclusion of the exchange rate variable is an attempt [to disentangle] the change in Euro prices 25

driven by fluctuations in the market exchange rate ..."
Then in the next table, table 1, {E/35/17}, we see
very negative coefficients and your conclusion is at the
bottom of the page, 2.19 at (a):

5 "When introducing the exchange rate variable to the model (and leaving everything ... unchanged), the 6 7 infringement coefficient turns negative and statistically significant. This suggests that the 8 positive and statistically significant infringement 9 effect obtained in Mr Harvey's model is attributable to 10 11 the lack of a proper control for the exchange rate 12 effect."

Then on page 18, {E/35/18}, you say -- if we go on to page 18 -- sorry, page 20 of the bundle numbering, {E/35/20}, you say at 2.26:

16 "The table above shows how my model is robust to the 17 inclusion of the exchange rate variable. The results 18 are not affected materially when I add the market 19 exchange rate to my baseline model ..."

20 What that shows us is your sensitivity (c), is it 21 not? It is (a) and (c) --

A. But this is the one I like, yes. This is the oneI like.

Q. Yes, the one you like. Exactly. So you put in the oneyou like which you say is robust.

A. No -- sorry -- this is the one I like and I understand
 why I like it and I understand why the others, I mean,
 suffer from an identification problem so I have a reason
 to dislike them.

Q. Yes, indeed. When you go back to your sensitivity on
Mr Harvey, which we have just looked at -- but if we go
back to it on page 17, {E/35/17}, what you have done is
you have put in a control for the market exchange rate,
have you not?

10 A. Yes, that is right.

So if we go back then, please, to -- if we go back now 11 Q. 12 to your first report, which is $\{E/11/55\}$, back to the 13 table 9 we looked at, what you have done is you have said your model is robust because you had applied (c), 14 15 which is the middle column, and Mr Harvey's model is not 16 robust because it gets very negative results because the approach you have taken for Mr Harvey is (e), cost 17 18 conversion using market rate and market rate control. 19 What you are doing is exactly the wrong way of doing Α. 20 econometrics. I mean, you want to interpret -- sorry, 21 you want to interpret the effect of introducing a new 22 variable in light of the identification strategy that 23 you adopt. What is happening, the identification in 24 Mr Harvey's model is very different from the identification with mine so this comparison that you are 25

making is a superficial comparison.

2 Well, perhaps it is, Professor Neven, but let me at Q. 3 least make my superficial point, which is that you are 4 claiming an advantage for your model against Mr Harvey 5 but in so doing you are not comparing like with like. Sorry? 6 Α. 7 You have taken the benefit of column (c) for your own Q. model and you have condemned Mr Harvey to non-robustness 8 by taking the approach in column (e)? 9 10 Α. I am testing the two models and I am testing the 11 robustness of the identification strategy in the two 12 models, which does not imply that I necessarily have to 13 use the same variable in order to do that. I mean, 14 precisely a like-for-like comparison requires that you 15 understand the identification strategy. 16 Can we look now, please, at what Mr Harvey says about Q. 17 this in his supplementary report, which I hope you have there, Professor Neven. I am sure someone will help you 18 19 if you do not. It is $\{E/52/65\}$. 20 MR BEARD: Apparently tab 9 in those bundles for 21 Professor Neven, according to BCLP, for which thank you. 22 Α. Yes. 23 Do you have that? Q. 24 Yes, I do have that. Α. Q. We can look at it from 3.101 because what Mr Harvey says 25

is, when he does a like-with-like sensitivity to his
 model, in other words like your letter (c), mixing
 budget rates and market rates, he gets the results
 below.

5 So he has in table 1 "Main during-after model", with 6 coefficients that we are all very familiar with, and 7 then "Main during-after model [with] budget rate 8 control", 6.9 through 14.9, but they are only slightly 9 different. So just like your column (c), he gets 10 results which may not properly (broken audio -11 inaudible) but do appear at least robust.

12 A. Again you are making a comparison which is precisely not 13 like for like because the model of Mr Harvey and mine undertake the identification differently. Actually, 14 15 what is interesting precisely with respect to this table 16 of Mr Harvey, you see that the overcharge is not changing. What he is doing there, it is essentially 17 18 introducing the budget rate as a stand-alone variable in 19 this model in which you have the dummies for the financial crisis; okay? 20

If you have dummies for the financial crisis, if you look at the data, there is no change -- there is only one actually, one change in the budget rate which is happening outside the -- during the period which is used for identification. Okay, let me be clearer. The period that is used for identification here is the period of sales of the Euro 5 trucks, we understand that, you agree. I mean, in the model of Mr Harvey where you introduce dummies for 2009, 2008 and 2010, you are taking this data out, so essentially what you are using is -- I am sorry, are you okay?

7 Q. Thank you. It is quite all right.

So essentially what I am using is -- sorry, what is used 8 Α. by Mr Harvey is the data before 2008 and the data after 9 10 2010. If you look at the changes in the budget rate in 11 that period that is used for the identification, there 12 is only one, so there is no variation in the budget 13 rate. He is not adding anything. So it is not a surprise that there is no change in the coefficient 14 15 because he is not adding anything.

16 Actually, if you were to look at the coefficient that Mr Harvey is not reporting -- okay? -- if you are 17 18 looking at the coefficient of that regression, you will 19 realise that the coefficient of the budget rate is close 20 to zero. Actually it is, you know, a third decimal 21 point. So this is a non-sensitivity. This is 22 a sensitivity in which he is introducing a variable which does not vary in the data that is used for the 23 24 sake of the identification. That is an illustration of my point that, you know, when you look at changes in 25

1		results, you have to always understand them in the
2		context of the identification strategy.
3	THE	CHAIRMAN: I think you might be muted still. Do you
4		want to have a break, Mr Ward?
5	MR	WARD: Thank you, sir. I would rather try and press on
6		with apologies to Professor Neven and of course to
7		the
8	THE	CHAIRMAN: No, no.
9	MR	WARD: Let us talk now about the global financial crisis.
10	A.	Okay.
11	Q.	Please. What you said yesterday, Day 13, line 19 of
12		page 1, {Day13/1:19}:
13		"It is important to control for the global financial
14		crisis because, if you do not, there may be a bias in
15		the estimate of the infringement"
16	A.	A bias
17	Q.	Do you recall that?
18	A.	Yes, yes.
19	Q.	Bias downwards. Your view is that the demand control
20		adequately captures it, is it not, the effect of the
21		crisis?
22	A.	My view yes, that is right.
23	Q.	So would you accept that if the global financial crisis
24		had effects on prices other than in the form of demand
25		impact, your model may not capture it?

1 Α. That is why it is important to consider alternative --2 again, alternative ways of controlling for this demand shock and this is why I am using different demand 3 4 controls. Actually, it is also why I have, at the 5 suggestion of Mr Harvey actually, also implemented a non-linear control. That is to say I have introduced 6 7 these dummies to control for high states of demands and low states of demands. This is an alternative way of 8 controlling for the financial crisis. 9

Q. We are going to come on to that in a moment, I can assure you, but let me try my question again. In your main model, if the global financial crisis had effects on prices other than in the form of demand, your model would not capture it, would it?

15 Α. The thing is that I have no reason to believe that this 16 is the case and there is another, I mean, test that can be performed which is to look at the residuals because, 17 18 when you are estimating a regression -- I mean, there 19 was a predicted value from the regression and there was 20 the actual data, so if you are really missing something 21 important in a particular period, you will see big gaps 22 between the predicted value and the observed value. One of the checks that I performed is to see whether during 23 the period of the financial crisis I really failed to 24 capture something that is important and I do not see any 25

different pattern in that period.

2 I put the question hypothetically. I will give it one Q. more go and then we will move on, I promise you. 3 If the GFC had effects on prices other than in the 4 5 form of demand impact, your model would not capture it, would it? 6 7 Α. Yes, and I give the same answer. Yes, but I have no reason to believe that there are other effects. 8 Well, let us just talk about the evidence. I am sure 9 Q. 10 you were in court this morning when Mr Beard went 11 through some of the evidence with Mr Harvey --12 Α. Yes. 13 Q. -- so I will try and summarise some of it and show you 14 other bits of it, but if you think that my summary does 15 not seem right or fair, you must tell me. Mr Beard will 16 jump up anyway if that happens, I am sure. Although 17 I cannot see him I will hear him quickly enough. The first statement relates to the mandate 18 19 structure. We are all agreed, I am sure, that the 20 mandate structure itself did not change -- the form of 21 it did not change in the financial crisis, did it? 22 A point made by Mr Beard this morning. [Nods] 23 Α. I am going to try to dare summarise a little bit of what 24 Q. 25 I think it does show. What we see is more decisions are

taken by more senior people?

2 A. Yes.

3	Q.	We see there is more focus on real-time exchange rates
4		as a result because we know at headquarters at PACCAR
5		level they are concerned with real-time exchange rates;
6		yes?

A. Sorry, what triggers the operation of the mandate is the
level of prices -- is whether indeed the margins
actually meet the target margins, so it is not the
exchange rate itself.

- 11 Q. No, but once it goes up, the real-time exchange rates 12 are likely to bite?
- A. Yes, I agree with you, but what triggers whether they are being reviewed by DAF NV and eventually PACCAR is a margin that is still computed on the IKP cost that appears in OMS, which is, I mean, just to repeat, the cost which is the cost in pounds plus the cost in euro expressed at the budget rate. That is what triggers the review.
- Q. Well, there are just a couple of aspects to that that we do need to look at. Can we go to {D/22/50}, please? This is Mr Ashworth's statement. We need to go down a little bit further, 194. Can you see that, Professor Neven?

25 A. Yes.

Q. The bottom half of this, paragraph 194:

2 "During the financial crisis after 2008, due to the
3 exchange rate fluctuations, all deals had to be approved
4 by DAF NV."

5 So we get to the position where all the deals are being looked at by DAF NV, apart from, of course, the 6 7 ones that are going up to PACCAR, which I am sure is implicit in what Mr Ashworth is saying. As for IKP, we 8 can see what Mr van Veen says about this, please, if we 9 10 go to $\{D/24/18\}$. I think this was shown to the court 11 this morning. It says, as Mr Beard absolutely rightly 12 drew attention to:

13 "... the process and the logic behind the mandate 14 structure did not materially change ..." --

15 A. Sorry, where is this?

Q. Sorry, paragraph 69 at the top of the page. This is
Mr van Veen's witness statement.

In principle, the process and the logic behind the mandate structure did not materially change after 2007. However, as noted at paragraph 30 above [which we will look at in a minute], during the financial crisis, demand decreased dramatically and so did the margins DAF was able to achieve on sales."

24 That is your point.

25 A. Yes.

Q. "As a result of margins being so low, from 2008 onwards,
 more transactions had to be approved by DAF NV (and
 PACCAR) by reference to MLO rather than IKP. I believe
 that MLO may have become the key metric in the sales
 approval process at that time."

So when we put all of this together -- what I was 6 7 hoping to do shortly, but I will try again -- what we see is more senior people getting involved, more 8 engagement with real-time exchange rates as a result, 9 10 because that is what the senior people look at, and then we have pricing decisions actually being taken by 11 12 reference to a different cost metric, real MLO rather 13 than the artificially created IKP. So I am just making a really short point that ought not be too 14 15 controversial. To that extent what we have at least is 16 a departure from how pricing was being done before the global financial crisis. Would you accept that? 17 18 No, I disagree with this because what this paragraph Α. 19 describes is the operation of the mandate structure. 20 I mean, because it is harder to get good margins in the 21 UK, I mean, more deals are -- you know, fall below the 22 target margins. They are being escalated and we know that, when they are being escalated, what DAF NV does 23 and eventually PACCAR does is to pay more attention to 24 MLO than IKP because they have to approve deals 25
potentially that are less profitable, so they will take into account, I mean, the best estimate of the variable cost, which is the MLO. So the fact that they are paying more attention to the MLO is -- overall across the world is a consequence of the operation of the mandate structure because the operation of the mandate structure actually leads to that.

Q. Okay, I have put my point to you on that. Staying with
Mr van Veen's witness statement, and we will look back
now to paragraph 30 which he just cross-referred to, and
that is on page 8, {D/24/8}, paragraph 30. Can you see
that, Professor Neven?

13 A. Yes.

Q. I am being told that it would be helpful if you would
say "Yes" rather than nodding sometimes --

16 A. Sorry.

17 Q. -- if possible for the transcript.

18 A. Yes.

21

Q. No, no, it would be helpful. I will try to remind youif I notice a bit of nodding.

At paragraph 30 it says:

"I understand that MLO was more frequently referred
to within ... Marketing & Sales ... after I left
Trucks Logistics and some time after the financial
crisis of 2008. In 2007, DAF was ... at the peak of its

1 sales, but in the autumn of 2008 the market crashed, 2 demand fell and we went from producing around 200 trucks a day to 35 to 50 trucks a day. We still had to get the 3 4 orders in to keep the production running, but the 5 margins we could make ... declined steeply. As I understand it, over time, the increasing number of 6 7 exceptionally low margin deals meant that increasing attention was paid to MLO rather than ... IKP by the 8 Marketing & Sales Department, including ... less senior 9 10 employees. This was because it had become necessary to 11 justify to more senior management at both DAF ... and 12 PACCAR why transactions with tiny margins were being 13 proposed for approval, and to understand ... how low 14 [they] were in comparison to MLO ... rather than the 15 higher IKP" 16 This is helpful in understanding, if we can now go forwards, please, to page 20 --17 18 Can I just ask a clarification question? By "marketing Α. 19 and sales department", you mean the UK? 20 Well, obviously you are asking the wrong person. That Q. 21 is certainly not how I understand it, but I think that 22 is more of a question for Mr van Veen, to be fair. THE CHAIRMAN: Well, it cannot be because Mr Ashworth did 23

25 A. Mr Ashworth does not know the MLO, exactly. This is why

not know the MLO.

I am trying to figure out exactly what we are talking
 about here. So we are talking about marketing and sales
 in Eindhoven; right?

4 MR WARD: I think we are, yes.

5 A. Okay, which is the natural interpretation, yes.

6 Q. Yes, I agree.

17

But I was going to show you what was said about the
order board which proved rather contentious this morning
because what Mr van Veen says on page 20, {D/24/20} -if we look at 83, please, page 20:

"When the production was regular and we had between 8 to 16 weeks of visibility (ie all production slots for the next 8 to 16 weeks were filled), I would consider that to be a steady situation and did not need to take the visibility reports or order board ... into account ..."

Then he says, over the page, {D/24/21}:

18 "However, our industry was often unstable. In 19 principle we aimed for more orders above better margins 20 with a view to growing DAF's market share. However, the 21 balance between volume and margin shifted depending on 22 whether production slots were filled (or the other way 23 around when we were not at full production capacity). In such 'unstable' situations, visibility information 24 25 was particularly relevant and we would attempt to

1 regulate the production fill."

2 Now, Mr Beard made the point this morning that he is not specifically talking about the global financial 3 crisis and, indeed, he cannot give direct evidence about 4 5 that, although he is the only witness DAF have put up to talk about this. Really, there is just what I would 6 7 suggest is a very simple common sense point, that this might not be uniquely a factor in the global financial 8 crisis but it is another thing to put into the pot that 9 10 there is inevitably going to be a concern here about, as 11 Mr van Veen puts it, regulating the production fill 12 where orders have collapsed in the way he described in 13 paragraph 30.

14 A. Yes, I think that --

15 Q. Would you accept that?

16 I think that the interpretation of the two paragraphs --Α. first, the interpretation of the first paragraph, it 17 18 just confirms what you discussed previously, namely 19 that, you know, the operation of the mandate structure 20 is such that more deals are being reviewed by the sales 21 department in Eindhoven and of course they look into MLO 22 because they know what the MLO is. So that does not surprise me. 23

24 THE CHAIRMAN: I think it is saying more than that, though, 25 is it not?

- 1 A. Is it?
- THE CHAIRMAN: It is saying that, because of the global
 financial crisis, they switched to using MLO rather than
 IKP.
- No, because I think that DAF NV always knew MLO and 5 Α. PACCAR always knew MLO, so you would expect that when 6 7 the deals were shifted to them, they would take into account the MLO. This was the whole purpose of the 8 mandate structure. If you have someone reviewing the 9 10 deals, potentially the deals with low margins in terms 11 of IKP, to see whether they could be justified in terms 12 of MLO. That is the whole idea of the process.
- 13 MR WARD: Well, professor Neven --
- Just this paragraph, because this is the one you are 14 Α. 15 asking me about, and I think what this paragraph, which 16 makes a reference to the production fill -- I mean the extent to which indeed the production line is likely to 17 18 be busy over a certain horizon -- I mean, this paragraph 19 is capturing essentially the discussion that we had on 20 Wednesday when we were discussing what is happening when 21 there is a fall in demand. When there is a fall in 22 demand, there is a reduction in willingness to pay of some customers, which means that the alternative to 23 refuse an order is not to have an order from someone 24 else. So the alternative -- I mean, to refuse an order 25

1 is to have a production line which is not busy. That is 2 what the financial -- this is what the shift in demand is actually capturing and this is very well explained 3 here by -- this is Mr Habets, is it? 4 5 THE CHAIRMAN: Van Veen. Van Veen, sorry, yes. 6 Α. 7 MR WARD: I just want to pick up something you said there in 8 that answer somewhere about the MLO and I just want to remind you again of what Mr Habets actually says about 9 10 this in paragraph 30. If we go back to page 8 --11 THE CHAIRMAN: I think it is Mr van Veen actually. 12 Α. Van Veen. 13 MR WARD: I am so sorry. Exactly. 14 Halfway through that paragraph he said, $\{D/24/8\}$: 15 "As I understand it, over time, the increasing number of exceptionally low margin deals meant 16 17 that increasing attention was paid to MLO rather than to IKP" 18 Of course. 19 Α. "... by the Marketing & Sales Department, including by 20 Q. 21 less senior employees." 22 So Mr van Veen -- not me but Mr van Veen is making a point that this actually changed, is he not? 23 A. I think he is making the point that the mandate 24 structure works. I mean, more deals are being reviewed 25

1 in the Netherlands and they are being reviewed with 2 respect to the MLO rather than IKP. The only difference 3 I can detect in this paragraph is the "including by less senior employees". So what -- you know, this is the 4 5 only difference that I can detect, is that maybe, you know, deals were accepted by DAF NV by less senior 6 7 employees than before. This is the only difference I detect. Whether you want to attach significance to 8 that is not for me to say. 9

10 Q. Yes, but you are saying we cannot, in all fairness. 11 Let us move on to another point which arose from 12 Mr Ashworth's evidence to the court, and this is Day 7. 13 This was alluded to by Mr Beard this morning but not actually opened. Could we go to the Day 7 transcript at 14 15 I think page 130, {Day7/130}? This is where I was 16 asking Mr Ashworth about a document which you probably have not seen and I am quite happy to show you the 17 18 original, which is in the clip in front of you, but let 19 us start with the transcript and then, if you feel more comfortable looking at the underlying memo, it is right 20 21 there and we will go straight to it. But I think we can 22 save time because it is quoted verbatim. So this is page 130, is it not? Thank you. If you will just give 23 me a moment to catch up. 24

25

I was asking Mr Ashworth about -- if we look at

1 line 18, {Day7/130:18} -- a document from 2 March 2009, 2 so this is right in the middle of the GFC, and it was a meeting of the SMMT CV, which is the Society of Motor 3 Manufacturers and Traders Commercial Vehicle directors' 4 5 meeting. The interesting bit is quoted. I say the participants thought it was interesting. I will leave 6 7 it for you to judge if you think it is interesting. Over the page, {Day7/131:25}, if we go to the bottom 8 of page 131 of the transcript, it starts with the words, 9 "'What was more useful ...'", so this is the note of 10 11 this meeting. 12 "'What was more useful than the meeting itself ...'" 13 I should say it was a competitor meeting. Where is this? Sorry. Which line? 14 Α. 15 Q. Bottom of 131. You can just see it on the screen if you 16 are following it electronically. It is line 25. Do you see that? 17 18 Yes, I see it. Yes, yes, okay. Α. 19 It is a quotation from the document, and say immediately Q. 20 if you would like it. It is on the desk in front of 21 you. 22 "'What was more useful than the meeting itself, was 23 the discussion before, during or after. With the exception of Scania, all Heavy Truck manufacturers 24 openly and firmly dismissed the exchange rate as 25

2

'irrelevant' or 'not applicable' to stock vehicles.'"

Then it says, {Day7/132:5}:

3 "'They openly stated that they are on a mission to
4 liquidate current UK stocks and that they are in "dealer
5 protection and survival mode". DAF and Iveco confirmed
6 openly that they have made funds available and offered
7 dealers financial support ...'"

8 Then they actually trade some pricing information. 9 We will look at that, but it is not really relevant to 10 GFC.

"'They have all received [this is for forward production] ... (MB 3%, DAF 6%, Renault 6.5%, Iveco 5%, Scania 5%). Ian Jones [who I think at this point is at Daimler, he has crossed over] said that we will not find the new transaction price until all stocks are washed through -- he estimated ... 4,000 and 5,000 ...'"

So do you want to see the document or are you happyto proceed with that quotation?

A. Can I look at the document because it is -- I would like
to see the document, yes.

Q. Yes, it is in the file in front of you, the slim file,
and it is tab 5.

23 A. Yes.

Q. It will be familiar to the tribunal. It is {I2/131.7},
if we can get that up on the screen, please. We will go

back to the transcript in a minute. The tribunal will
 remember this document, I hope, from when I asked
 Mr Ashworth about it.

4 So you see it is an email from someone at 5 Mercedes Benz, sent on 2 March. The heading is "SMMT CV 6 Directors Meeting ...", and then there is a cast of 7 high-powered people from all the different 8 manufacturers, including our friend Mr Ashworth, which 9 is why I was asking him about it.

Then there are various topics discussed and then the bit that I have read out -- you have a paper copy, but scrolling down a little bit, it starts with "What was more useful ...", and it is that paragraph that I read out to you. So if you want to read that as well, I hope it matches the transcript.

16 A. Yes. Okay, I see that. So they are referring to17 stocks, yes.

18 Then I want to show you what Mr Ashworth said about this Q. because I asked him about this -- obviously I asked him 19 20 about price increase but for now, if we look back at the 21 transcript, Day 6, page 133, please -- did I say Day 6 22 or 7? -- yes, Day 7, I am so sorry, {Day7/133:1}. So if you look at the top of the page, I say -- I asked him 23 where it said "DAF and Iveco ... made funds available 24 and offered dealers financial support", I said, "can you 25

remember what that was about?", so just asked him for
 his recollection, and he said:

3 "Yes, at the time, as I have just explained, DAF was 4 a build to order company so we took orders and we built 5 trucks. Prior to the financial crisis what was 6 happening is customers started to cancel vehicles. 7 Another point that was relevant, that prior to the financial crisis orders and -- I think we have seen 8 before -- lead times were becoming excessive, so we had 9 10 orders which were placed for trucks with extended lead times. So what we were getting was long lead times with 11 12 confirmed orders that we were planning to build and then 13 suddenly what we had is cancellations at an exponential rate so we ended up buildings lots of trucks with no 14 15 homes to go to, hence the reason for stock, which is 16 very unusual in our business -- in DAF's business."

So the point here, Professor Neven, is that we 17 18 suddenly have -- as a result of the GFC, the build to 19 order model is being disrupted by a sudden glut of 20 trucks. What I would suggest to you is this is another 21 reason -- and you can look at these individually and 22 cumulatively -- to think that the pricing response of DAF may have been different during this period. 23 Would you accept that? 24

25 A. Just out of interest, do you know how many trucks there

were in stocks?

I cannot improve on what Mr Ashworth has told us. 2 Q. 3 Α. I see. So we do not know the significance of this stock 4 as far as DAF is concerned. But irrespective of the 5 significance of this fact that we do not know about, I think what this reflects is indeed that this was 6 7 a severe drop in demand and what is being described here can be cast in terms of the discussion that we have had 8 in the last couple of days, is that, you know, the 9 10 opportunity cost is deteriorating. I mean, if you are not selling the truck to the customer that is coming to 11 12 you and is proposing a very low price, well, the 13 alternative is bad and the alternative is indeed that you may not be in a position to even sell the trucks 14 15 that are being anticipated in production because when 16 there was a cancelling of order, of course what you do is that you do not produce the trucks; okay? When there 17 18 is a cancellation of order, except for those possible 19 sorts of stocks, but if there is a cancellation of 20 order, you do not produce the trucks, which means that, 21 you know, the alternative of saying "No" to a customer 22 that is coming to you asking for a low price is deteriorating. So this is a big demand shock. 23

As we discussed yesterday, I mean, possibly these big demand shocks can be captured empirically by

1 allowing in the model a specific effect, what I would 2 refer to as a "non-linear effect", and in response to 3 the chairman's question at the time, a non-linear effect 4 is really an effect such that what happens in the 5 extreme observations is different from what happens in 6 the middle of the observations. So that what happens in 7 terms of the reaction of prices to a change of demand for average states of demand is different from what 8 happens to a change in demand if demand is already very 9 10 low or if demand is already very high. What we have 11 here is a situation in which demand is already very low. 12 That is a non-linear effect that you can capture through 13 the demand variables. Q. Let me put the case to you in short. Firstly, dealing 14 15 with this stocks point, it was obviously significant 16 enough, was it not, for the cartelists to discuss it at a cartel meeting? I mean, that is inescapable, is it 17 18 not? I do not know whether it was significant for DAF. 19 Α. 20 I mean, we have a quote here of 4,000 trucks. That is

for Daimler. I do not know what it is for the UK. I would be surprised because Daimler did not sell that many trucks, I suppose, but ...

24 THE CHAIRMAN: Well, we do not know whether that is overall 25 or just a --

1 A. Exactly. We do not know what it is.

2 MR WARD: But the real point that I am really just putting 3 to you now is that what we see here, looking at all of 4 this in the totality, are enough reasons to think that 5 the effects of the GFC may not be fully captured by 6 demand control and, rather, testing with additional 7 dummies that Mr Harvey did, but testing them does not 8 prejudge the --

9 A. Sorry, you are incorrect when you say that Mr Harvey is
10 testing. Mr Harvey is not testing. Mr Harvey is
11 removing the observations.

12 Q. Well, he is testing --

A. This is not a test. It is not a test. Sorry, it isjust removing the observation.

15 Q. Well, we might be arguing over semantics here.

16 A. No, it is not semantics, no.

Professor Neven, I think it is from the point of view of 17 Q. 18 what I am actually trying to put to you. I quite understand there is a difference in the technicalities, 19 20 but all I am putting to you is that you essentially 21 criticise Mr Harvey for using dummies in a way that is 22 arbitrary, but this evidence is the rationale that 23 justifies their inclusion. As it is, they came up with a statistically significant result. I do not say to you 24 that statistical significance in itself justifies their 25

1 inclusion, but what justifies them is the combination of 2 the rationale and the statistical significance. I disagree with this. I mean, you do not want to 3 Α. introduce dummy variables when you have alternatives and 4 5 when you understand that putting these dummy variables fundamentally changes the identification, which is what 6 7 is happening in this model. Q. Let us look at your alternative, please. Before we do, 8 9 would you accept that even among the most eminent 10 econometricians there may be more than one way to get 11 a job done? There is not just one right way to do 12 econometrics, is there? 13 I think that there is broad agreement on the principles. Α. 14 I mean, there may be sort of differences in judgments 15 about how to apply the matters, but I think that there is broad agreement on the principles. 16 There may be just different solutions to the same 17 Q. 18 problem in econometrics. I mean --19 Α. 20 You do not claim (broken audio - inaudible) right Q. 21 approach, do you? 22 There are different ways of dealing with an Α. 23 identification problem and in principle you want to test 24 them. You want to see whether these alternative ways of dealing with the problem of identification are 25

1 consistent.

2	Q.	Let us look at what you do because of course you took an
3		alternative approach. Can we turn, please, to
4		{E/35/29}? This is your reply report, your second
5		report. We can take this quite quickly because this is
6		now quite familiar territory. It is paragraph 2.50, so
7		can we scroll down just a little bit more? There we
8		are. Perfect.
9	A.	Which page?
10	Q.	It is 29, so hopefully what you will see is
11		paragraph 2.50, I hope.
12	Α.	Yes, that is right.
13	Q.	Got that? Marvellous.
14		This is where you explain your alternative approach
15		and you say:
16		" I compute two dummy variables indicating
17		respectively the highest and the lowest quartile \ldots up
18		
		until but not inclusive of that moment [I am sorry, I am
19		until but not inclusive of that moment [I am sorry, I am not sure what that moment is]. The dummies are defined
19 20		
		not sure what that moment is]. The dummies are defined
20		not sure what that moment is]. The dummies are defined on a monthly basis. The dummy variable indicating the
20 21		not sure what that moment is]. The dummies are defined on a monthly basis. The dummy variable indicating the highest quartile would control for extreme hikes in
20 21 22		not sure what that moment is]. The dummies are defined on a monthly basis. The dummy variable indicating the highest quartile would control for extreme hikes in demand. The dummy [for] the lowest quartile would

1 {E/35/30}, we can see figure 4. Scroll a little further 2 down, please, so we can see the whole figure. The blue 3 are the high and the red are the low, monthly by 4 monthly. The first thing which states the obvious logic 5 of your 25/75 is half of the periods are dummied out by 6 this, are they not?

7 They are not dummied out. This is the -- they are Α. captured by a dummy; okay? They are captured by 8 a specific variable, but the important difference 9 10 between a year dummy and these dummies is that you have 11 variations in the infringement; that is to say you have 12 trucks for each dummy that are sold during the 13 infringement and trucks that are sold after the infringement. That is the important difference. 14 15 Q. When we look at what you have done, we can see in 2009 16 through 2011 the cluster of red dots which shows that --17 that is effectively the period that Mr Harvey is 18 treating as GFC; would you agree? 19 Α. Yes. We see that there are other dots; right? You have 20 other red dots before --

21 Q. I am coming to those.

22 A. Yes.

Q. One step at a time. Sorry, I do not mean to talk over
you but if we can just go one step at a time and try
"Yes" or "No". We have -- 2009 to 2011, you have put

red dots I think on all of the months in that period --

2 A. Yes, that is correct.

3 Q. -- including the second half of --

- A. Actually not in the later months in 2010, if you see.
 If you look at the graph, I think that the first month
 of 2011 has a blue dot and probably the last two months
 of 2010 do not have dots. Actually --
- 8 Q. You may be right.
- -- it is also consistent with the results that I find 9 Α. 10 with Mr Harvey's model, when I removed the dummy for the last six months of 2010, which is already a period where 11 12 demand is picking up. It is hard to see on this graph. It is hard to see if that is right, I confess. It is 13 Q. certainly not (broken audio - inaudible). But the point 14 15 I wanted to make is a different one, which is we can 16 also see a downward spike here, in the order board at least, in 2006/2007 and it is difficult to say exactly 17 18 which months they are just because of the nature of the 19 dots. So you are treating that as equivalent to the GFC here, are you not? 20

21 A. I am treating this as a period of low demand, yes.

22 Q. Just like the GFC.

23 A. (Overspeaking - inaudible).

Q. Similarly, the further period you are treating in the
same way in 2013 and 2014 because we have more red dots.

1 Α. Yes, but I think we are replaying the conversation we 2 had yesterday here. As I have said, I have also undertaken some sensitivity analysis with a lower 3 4 threshold. That is to say the really low demand states 5 are those that are 10% of the bottom of the distribution and the really high, which is the top 10%, and the 6 7 results are unaffected. So this issue that you are raising here with respect to what is exactly comparable 8 to the financial crisis in terms of a demand graph, 9 10 I mean, can be addressed by sensitivity. Q. But what I am really putting to you, though, is that 11 12 what this does not grapple with is the possibility that 13 the GFC has qualities that are not captured by demand. You are just treating it all as if it is only a matter 14 15 of demand. Would you agree? I mean, I consider that the global financial crisis is 16 Α. a drop in demand. I have no reason to believe that it 17 is different. 18 Q. Can I just ask you one follow-up question to what you 19 20 have just said about the sensitivities? Are you able to 21 show us where in your report those sensitivities are to 22 be found? A. I mean --23 Q. I see. So you are referring to something that has not 24 been disclosed? 25

1	A. That is correct. We have not disclosed it. This is
2	something that I have done after receiving the last
3	report from Mr Harvey, where he was drawing attention to
4	this, so, you know you know, finding this evidence
5	is a life project.
6	Q. I see. So that is not something that is in front of the
7	court?
8	A. That is correct.
9	Q. That is the point.
10	A. That is correct.
11	Q. I see.
12	THE CHAIRMAN: Mr Ward, I hope we are making good progress
13	but we do actually need to have a ten-minute break for
14	the transcribers at some point.
15	MR WARD: Yes. That would be extremely convenient for me as
16	well if it is convenient for the tribunal and the
17	transcribers.
18	THE CHAIRMAN: All right. We will have a ten-minute break
19	now. Thank you.
20	(2.59 pm)
21	(A short break)
22	(3.13 pm)
23	THE CHAIRMAN: Yes, Mr Ward.
24	MR WARD: Thank you, sir.
25	Good afternoon again, Professor Neven. I would like

to move on now to emission effects, please.

- 2 A. Yes.
- Q. We will start with where I think there was a measure of
 agreement. I think where we are now is that you and
 Mr Harvey agree that the emission standard premiums
 reveal increased margin on the new emission trucks.
 A. Yes.
 Q. The big difference is interpretation, whether it is pure
- 9 willingness to pay or whether it is cartel; yes?
 10 A. I think that it is rather the opposite. Mr Harvey is
 11 saying it is pure cartel.
- Q. Okay, we will go first with that. But what you said yesterday on page 74 at line 11, {Day14/74:11}, is that customers tended to be willing to pay more for trucks with characteristics like a powerful engine, for example, as a generalisation.

17 A. Yes.

- Q. But of course there is a difference here, is there not, with emission standards because, as you also said yesterday, in the UK, at least, customers were not interested in paying more for the new emission standard by itself because they did not attach value to being green; yes?
- 24 A. Yes.

25 Q. That is why we have heard, and Mr Beard reminded us this

1		morning that what DAF did was package up these emission
2		standards with some additional features.
3	A.	I do not know whether it was the reason, but actually
4		this is what happened, yes.
5	Q.	That is right. I will take that. We can agree on that.
6		What we are looking at, though, is of course those
7		features have costs, do they not?
8	Α.	Yes.
9	Q.	Those costs will be in the truck level individual MLO
10		that we have in the during/after period?
11	A.	In the during/after period, yes.
12	Q.	We should just be clear with ourselves and with the
13		tribunal, we are only concerned here with the
14		during/after period because that is the only period
15		Mr Harvey attributes these premia to the cartel and that
16		is precisely because he does not have truck level cost
17		data for the before/during period; agree?
18	A.	Yes.
19	Q.	Just a matter of common understanding rather than
20		a point we need to argue over.
21		So what we are looking at here is that in the UK the
22		customers have paid an increased price over and above
23		the additional costs of the models, meaning both the
24		cost of the euro emission premia standard,
25		I am sorry and the cost of the extra features

- 1 agreed? -- because that is how you end up with a higher
 2 overall margin?
 - A. Yes, I think there was an imprecision in your statement.
 Customers always pay a price in excess of the cost, yes,
 but here there is an additional effect. I mean, there
 is an increase in the market --
 - Q. So costs of euro emission standard, costs of extra
 features and overall bigger margin -- not just a higher
 price but a bigger margin; yes? I think that stuff is
 all common ground, I hope.
 - 11 THE CHAIRMAN: Do you agree, Professor Neven?
 - A. I do not agree with the last sentence because he
 referred to margin in the last part of the sentence, but
 what is correct is that there is an increase in the
 price which more than reflects the increase in the cost
 so that there is an increase in the margin.
 MR WARD: Well, now, that is what I meant by "increase in
 - 18 margin" and I think I can agree with your formulation 19 even if you cannot agree with mine.
 - 20 A. Okay.

Q. So what I want to do now -- Mr Beard showed the court a press release earlier but I want to look at something a bit more granular that you relied on in your report and that your solicitors prepared for you. This is at the back of your reply report and it is {E/35/120} and

1		it is appendix 1 to your report.
2	MR I	BEARD: Tab 8 in that bundle. Professor Neven is just
3		going to the hard copy bundle, Mr Ward.
4	A.	Yes.
5	MR	WARD: Great. This is on Travers Smith letterhead. Do
6		we have it?
7	Α.	Yes, yes.
8	Q.	Perfect. I think it is up on Opus as well. That is
9		perfect. It is a summary of the changes that were made
10		with each model. I am simply going to take it at its
11		face value rather than interrogate whether or not it is
12		accurate.
13	Α.	Okay.
14	Q.	The first thing we see is Euro 3 emission standard and
15		we see a whole range of enhancements for Euro 3. We do
16		not need to read much of this, but we can see, for
17		example, it says, first bullet this is LF:
18		"In order to bring Euro 3 compliant trucks
19		[they] developed a new LF truck model"
20		Then the second bullet point is it has various
21		updates. We can trace it over the next page,
22		{E/35/121}: a new cab with improved ergonomics, air
23		suspension, a new dashboard and so forth.
24		Now this matters because this is the benchmark
25		truck, is it not, but the euro emissions premia are

- being measured by way of, as it were, uplift as against the Euro 3 truck; would you agree?
- A. In Mr Harvey's model, yes, the default case is Euro 3,
 but actually, in an econometric model, whether you use
 Euro 3 or Euro 5 or Euro 6 does not matter. I mean, all
 what you need is to have a reference category and you
 always estimate difference with respect to that
 reference category, so the reference category that you
 choose actually does not matter.
- Q. No. It only matters for this purpose, that we see that the Euro 3 trucks were already subject to some form of substantial upgrade. That is the point I am trying to make.

14 A. Okay.

Q. What we are looking at is improvements in what I am calling "margin" over and above what was paid on the Euro 3. Let us turn the page and look at Euro 4. This is page 6 now of the schedule, which is 122 of the document, {E/35/122}. That is perfect on Opus, thank you.

21Do you have that, Professor Neven? We are on Euro 422now.

23 A. Yes.

Q. Marvellous. So under the heading of "Euro 4 ...", it
explains:

I "In order to comply with the Euro 4 ... Mr Borsboom explains ... significant technological developments were required ..."

We heard a lot about this in the first week of the trial. It is about SCR or EGR. They went for SCR and it all cost a lot of money, I think it is fair to say; agreed?

8 A. I am reading the document like you.

9 Q. Okay. I am asking you to agree that this would have
10 been a substantial cost element. I think Mr Beard
11 emphasised that only this morning.

12 Then what I want to look at is what are the actual 13 upgrades that were provided. We will look at some of 14 this but perhaps not all of it, but for LF and CF65, it 15 says they were developed at Leyland and then there were 16 a number of new features. We can see what they are on 17 the next page, {E/35/123}, including a remodelled cab, increased engine power, related axle modifications, 18 automated gearboxes, a new gearbox, extended service 19 20 intervals and a longer-life clutch.

21 We are going to look at that in a bit more detail 22 but we can see for CF and XF it says in the second 23 bullet:

24 "Compared to the previous model, and in addition to25 the emission technology, [it] included [some] enhanced

1 features including updates to the driveline, and new 2 vehicle electronic architecture with cab and chassis controllers and an exterior design update." 3 4 Then it says for the XF 95 in particular it had an 5 improved cab and storage and a new steering wheel 6 design. 7 What I want to do now, having got the flavour of this, is just look at -- start by looking at what here 8 is actually controlled for in the model. In your case 9 10 I think it is right to say you controlled for 11 horsepower, which is the engine power, cabin type and 12 rigid versus tractor. Does that sound right? 13 Yes, I think it is right. Α. Would you like to --14 Q. 15 No, that is correct. Α. 16 Thank you. Mr Harvey controlled also -- did Q. a sensitivity for some extra items. Can I just show you 17 18 that to remind you of that? That is in Harvey's first 19 report, so it is $\{E/1/104\}$. I do not know if you have 20 a hard copy of this, Professor Neven --21 Α. No, but I remember what he does. He uses weight, he 22 uses the type of gearbox and he is also using another 23 one --It is fine. It is not a memory test. We will just get 24 Q. it on the screen so we can all see it, I think, if we 25

could. Thank you. That is exactly what we want. If
 you can see it on the screen. So this is the
 during/after model.

4 "I have examined the sensitivity of the model to the
5 inclusion of additional characteristics, namely ...
6 weight, horsepower, cabin type, gearbox type, number of
7 axles, and configuration ... This produces similar but
8 slightly higher overcharge results ..."

9 He says -- he declines the gift horse of the 10 slightly higher overcharge, no doubt to the 11 disappointment of my clients, and says:

12 "This produces [a] slightly higher overcharge ...
13 with limited increase in explanatory power,
14 which I consider justifies the exclusion of these
15 variables ..."

But the point I am making here is simply that he has controlled for those features. So if we now go back, please --

A. Can I just say that I disagree with that statement
because you are -- what you are doing when you are
introducing the truck characteristics is indeed to
control for the type of gearbox, for instance, the way
Mr Harvey has done or for the different types of cabins.
I mean, you know there are three types of cabin. But
what you do not control for is the increase in the

quality of these items which is taking place at the time of the introduction of the new emission standards. So there is additional variation there that is not captured by these dummies, so you are not actually capturing, you know, the improved ergonomics, for instance. There is no dummy that is capturing the improved ergonomics in the cab.

8 THE CHAIRMAN: Does yours?

9 A. No, of course not. I cannot. This is not observed.
10 This is why these emission standard dummies are
11 interpreted as premia for characteristics that we cannot
12 control for. That is precisely because these things are
13 not observed.

I mean, we are not measuring the improved ergonomics 14 15 in the cab. All what we have is three types of cab. 16 You have sleeper, you have day and you have super-comfort or whatever it is. But when DAF is 17 introducing better ergonomics, a better mattress in the 18 19 sleeper version, you know, it is not controlled for and 20 this could be picked up by the emission standard 21 dummies.

MR RIDYARD: If these extra items are in Mr Harvey's
equations, then, to the extent that they attract
a higher price, will that not be factored out?
A. No, because he has only three categories of cabs, for

1		instance, and these three categories of cabs are
2		constant across the entire sample, but what you are not
3		controlling for is the change in the characteristics of
4		these particular characteristics.
5	MR	RIDYARD: I see.
6	Α.	Yes.
7	MR	WARD: To take the example of horsepower, though, for
8		example, the higher horsepower is controlled for in the
9		model, is it not?
10	Α.	Oh, higher horsepower is controlled for by the model,
11		yes.
12	Q.	Good. We will at least agree on that. If we go back to
13		the table, please, and we look now at page 9 [sic],
14		which is page 125. Sorry, we need to go back to
15		$\{E/35/125\}$. Do you have that?
16	Α.	E/35, page 125, yes.
17	Q.	Euro 5 EEV, and you will see that it says there are no
18		features at all that it identifies for Euro 5 EEV. Do
19		you see that?
20	Α.	Yes. Where is this? Yes, that is right, in 9.
21	Q.	In normal sorry, please do.
22	A.	Yes, that is right.
23	Q.	In your model not Mr Harvey's but in your model,
24		Euro 5 EEV attracts I think the biggest premium of all.
25		If we look at page 43 of the same report, $\{E/35/43\}$

2

45, my mistake, {E/35/45} --

A. Yes.

Q. -- there are the various emissions premia or
coefficients. Euro 5 EEV I think is -- well actually it
is not the absolute biggest but it is one of the
biggest.

7 A. Yes.

8 Q. So there are no features now, are there?

9 A. Yes, I agree with that, and actually Mr Harvey has
10 a similar result, that there is a very high premium for
11 Euro 5 EEV.

12 I honestly think that this particular dummy is not 13 well identified and the reason is that we actually have few EEV trucks in the sample and, I mean, the EEV trucks 14 15 is introduced just before the end of the infringement, 16 I think it is sort of within less than a year before the 17 end of the infringement, and then there are, you know, some EEV trucks that are sold after the infringement 18 until the introduction of Euro 6. I think that there 19 20 are too few Euro 5 EEV trucks to properly identify that 21 dummy, so -- what reassures me is that if I remove the 22 dummies, it does not affect the identification of the 23 overcharge. But I agree with you that both my model and Mr Harvey's model have a surprisingly high premia for 24 the Euro 5 relative to others. 25

Q. I think you did not disown that premia in your actual
 report, did you, in the way you just have or belittle
 it?

I did not write this, that is right. That is correct. 4 Α. 5 Rather as Mr Beard did this morning, I just note I am Q. not going to engage with you on those sensitivities that 6 7 we discussed in the hot tub, but what I want to do, though, is just talk to you about fuel efficiency where 8 9 Mr Ashworth has evidence which I would like to just show 10 you, and that is $\{D/22/36\}$. Last one on the page, it 11 says:

12 "The new Emissions standards impacted price 13 aspirations, as developing trucks compliant with the new 14 emission standards led to substantial cost increases. 15 The more difficult a given emission standard was to 16 achieve, the greater the cost of implementation, which 17 led to DAF UK seeking increased prices. At the same time as it introduced [them] ... DAF introduced other 18 19 improvements. [They] could also be unrelated to 20 compliance with the Emissions standards (eg ABS). 21 Generally, there were also improvements that had the effect of improving fuel efficiency, mitigating the 22 23 impact of the emissions reduction technologies ... " 24 So what he is saying here is that the emissions technology did not itself give rise to the fuel 25

efficiency, but, rather, there was another layer of
 engineering that DAF did on top. Do you see that?
 A. Yes, I see that.

So where we are, then, is we have got the costs of the 4 Q. 5 emission standard, the costs of what Mr Ashworth is describing as "mitigation measures", like somehow 6 7 increasing the fuel efficiency, then we have got the costs of all these marvellous features like improved 8 steering wheels and all the rest of it, and then over 9 10 the top of all of that we still have to conclude that 11 customers are willing to pay not only all those costs, 12 not only the cost of the emission standard they do not 13 want but an actual increase in DAF's margin as well. That is where we end up, is it not? 14

15 Α. Yes, and it is very sensible. I mean, it is very 16 sensible when you introduce a differentiated product which has new features, which has better features. 17 18 I mean, you can attract different margins. This is 19 happening all the time. This is happening all the time. 20 This is also what we discussed yesterday. I mean, this 21 is what economists describe as "price discrimination". 22 You are exploiting the fact that there are some 23 customers that have a higher willingness to pay for specific trucks. That is what this is. 24 Q. That is right, but there is an elephant in the room 25

1 here, as I described it the first time we spoke, which 2 is of course there is a cartel. There is a cartel. 3 Under the cartel we know there is collusion over timing 4 and passing on of costs and the price for emission 5 standards. Your clients have admitted it. It carried 6 on for year after year through emission standard and 7 emission standard. Would you not accept that the cartelists would only have done this if they were 8 actually getting something out of it? 9

10 Α. Well, I mean, we had that discussion last week. I mean, 11 indeed we have the Commission decision so let us not 12 replay that one as well. The Commission's decision is 13 what it is. It refers to an agreement. We are here in order to assess whether there is an effect. The test 14 15 that I have performed that we discussed yesterday, 16 I mean, suggests that -- I mean, this is certainly the interpretation of Mr Harvey, that these emission 17 18 standards are only related to a coordination effect is 19 not supported by the data.

20 Q. What I am suggesting to you is that the manufacturers 21 who are in this cartel, at least DAF, have received 22 a remarkable result, remarkable. They are in a market 23 which would otherwise have been competitive and they 24 managed to help themselves to these super-impressive 25 margins despite selling something to customers that at

1		the end of the day they did not want. Anyone in
2		a competitive market could only stand back in
3		admiration, could they not?
4	Α.	This is your view but I have data that supports the
5		opposite conclusion.
6	Q.	Okay, and that was what was discussed yesterday.
7	Α.	Exactly.
8	Q.	I want to just talk about one aspect of your
9		sensitivities which arises actually out of something you
10		said yesterday. I am not going to go back and forth
11		over the detail which was dealt with in the hot tub but
12		there is one point, please, and these are the
13		sensitivities which are in your reply report. So it is
14		$\{E/35/43\}$. I am afraid (inaudible) and indeed the
15		tribunal, it is slightly technical.
16		Page 45. I am sorry, it is 45 of the bundle,
17		$\{E/35/45\}$. This is your sensitivities where you remove
18		various different combinations of emission premia. So
19		we have got column 1, which is they are all in,
20		column 2, which is they are all out, column 3 is Euro 6
21		only and column 4, they are all out again. I want to
22		look at part of what you say in terms of rationalisation
23		for this. For that we go back, please, to 41,
24		$\{E/35/41\}$, I think this is where you are setting up your
25		sensitivities, I think it is probably fair to say.

You say at 2.78:

2 "To conduct this test in a rigorous way I need two conditions to be verified: (1) first, I need to control 3 4 for changes in production costs and technical 5 characteristics of the trucks; (ii) secondly, I need to ensure that the reference category over which the 6 7 emission premia are calculated is unaffected by the infringement. The second requirement stems from the 8 need to have a clean counterfactual for the emission 9 premia ..." 10

11 That is what I am going to ask you about. You 12 explain what you did on page 44, {E/35/44}. We just 13 want to look at (c) and (d) in the interests of time.

14 So you say at (c) -- you say what your result is, 15 which is removal does not seem to make a difference. 16 Then you say -- and Mr Harvey explained why he thought 17 that was the case yesterday:

18 "One could claim that part of this result is due to 19 the fact that the Euro 6 trucks are considered to be 20 part of the control group, but according to Mr Harvey 21 these could still be affected by the infringing 22 conduct."

23 Of course the reason why Mr Harvey thinks that is 24 a possibility is that we know that the decision actually 25 says there was collusion over Euro 6 even though they
1		were not actually put on the market until after the dawn
2		raids brought the cartel to a halt. So that is the
3		basis for that insight.
4		Here you are at least tolerating that as
5		a possibility rather than endorsing it. I can see that.
6		So you say yes, sorry, could you just say "Yes"
7		again? You were nodding.
8	Α.	Yes.
9	Q.	History needs to know!
10		"In the third column"
11		So we are now column 3 on the next page, but let us
12		read the text and then we will look at it.
13		"In the third column I thus replicate the same test
14		but include a Euro 6 dummy, which effectively excludes
15		the Euro 6 trucks from the identification and
16		computation of the infringement coefficient."
17		Then you say:
18		"The same result holds"
19		If you just glance at the next page, please,
20		briefly, $\{E/35/45\}$, we can see that is column 3 and down
21		towards the bottom, Euro 6, there is indeed a control
22		a Euro 6 dummy. So you are saying that way I am clean
23		with Euro 6.
24	Α.	Yes.
25	Q.	Then if we go to the previous page, {E/35/44}, you say:

1 "The last column estimates the same model as in 2 column 2 but where the infringement variable takes the value of 1 for all trucks with an emission standard 3 4 introduced during the infringement. Basically, this means that I assume that all Euro 5 and Euro 5 EEV 5 trucks are affected by the infringement, even when sold 6 7 after ... January ... Nevertheless ... under this assumption, the infringement effect is around zero and 8 not statistically significant." 9

10 So what I am suggesting to you is that you have two 11 different sensitivities here but they both appear to 12 have unclean trucks in them, if I can put it that way. 13 A. Appear to have what? Sorry, I did not hear.

Q. Well, neither of them are completely clean because
number 3 you leave in the Euro 5 trucks and in column 4
you leave in the Euro 6 trucks.

A. Yes, but you cannot have both because, if you have both 17 of these controls, then you do not have any trucks which 18 19 are untainted, so the only way to run this regression --20 I mean the fundamental hypothesis of this econometric exercise is that you can identify the infringement by 21 22 comparing prices of trucks that were tainted from those that were untainted. Now, if you are controlling both 23 for Euro 6, excluding them by saying, "Okay, they could 24 be tainted", and then you are considering that all 25

- Euro 5 trucks up until the introduction of Euro 6 are
 also tainted, then everything is tainted so there is no
 way you can estimate this model.
- Q. Professor Neven, that is exactly my point. This is
 why -- you said this was the essential condition of your
 sensitivity and what you are now telling the tribunal is
 it cannot be met.
- A. What I am saying is that technically it is impossible to 8 9 estimate this model without assuming that some trucks 10 are untainted. I mean, you need to have some untainted 11 trucks in order to estimate a price difference. You 12 know, if you are saying that all trucks are untainted, 13 then this regression exercise, you know, is useless. Q. Let us move on and talk a little bit more about Euro 6 14 15 trucks. It may be we can save a lot of time here 16 because there is obviously discussion in the expert reports about Euro 6 and Mr Harvey thinks they might be 17 18 tainted. You gave an answer yesterday which possibly 19 cuts through this because Mr Ridyard was talking about 20 whether there is some possibility of us, as it were --21 I am sorry, I am paraphrasing. I do not have the 22 transcript exactly in front of me. I hope Mr Ridyard will not think I am doing violence to the point -- but 23 there was some sense that possibly one could use 24 something that was after the cartel to see as a clean 25

period experiment about what the willingness to pay was
 for new emission standard trucks.

3 You said on the transcript yesterday, page 83,
4 line 18, {Day13/83:18}:

"... we cannot assume that ..."

6 There is a bit of ellipsis here.

5

7 "... we cannot assume that ... whatever premium we
8 observe for Euro 6 ... reflects willingness to pay ...
9 [for] the Euro 5 or Euro 4 [trucks]."

10So is it your case that it is just not instructive11to look at Euro 6 trucks?

12 No, I should have been more precise. It is instructive Α. 13 of course to look at the premia for Euro 6 and Euro 2. These were two types of trucks that were introduced 14 15 outside the infringement period and you see that these 16 premia are positive, so that certainly validates the 17 hypothesis that willingness to pay probably has a role 18 to play. If it has a role to play for Euro 2 and 19 Euro 6, you would expect that it might also have a role 20 to play with respect to the others, so that is a useful 21 indication.

22 What I said in response to Mr Ridyard is that 23 I would be concerned about paying too much attention to 24 the magnitude of the premia that I observed, for 25 instance, for Euro 6 or Euro 2 because exactly of the

1 point that you were trying to make by looking at this 2 table in annex 1. These trucks have been introduced at different points in time with different types of 3 4 improvement. So I cannot say that because I observe --5 I measure a premium of 5% for Euro 6 trucks, assuming that it is untainted, I can also assume that out of the 6 7 7% of the premia that -- the 9% of the premia that I observe for Euro 5 EEV, there is 6% that is due to 8 willingness to pay and the remaining that is due to 9 10 infringement. I just cannot do that because I cannot 11 control for the specifics of these products improvement. 12 This was the essence of my response to Mr Ridyard. 13 Thank you. I want to ask you a little bit more about Q. 14 Euro 6 in that context. The first thing is we have 15 already discussed that we cannot say with confidence 16 that Euro 6 trucks are truly clean in the sense that there was undoubtedly collusion over Euro 6; agreed? 17 18 The Commission decision said that there was an agreement Α. 19 on -- I do not think they are using an agreement term --20 anyway, they refer to coordination on Euro 6. 21 Ο. Do you recall Mr Harvey made the point that Euro 6 22 trucks were completely new models? Do you recall that? 23 Would you like to see what he said? Perhaps I will just show you. If we go to $\{E/1/95\}$. 24

25 A. I do not think I would agree with that actually.

1 Q. We will see how we do. Let us take it in stages. 2 Page 95, Mr Harvey says -- 4.86, yes. We can see the bit that I want. He says: 3 "I considered whether it was possible ..." 4 5 Sorry, are you with me, Professor Neven? 6 Yes, I am with you. Α. 7 Q. "I considered whether it was possible to assess the 8 extent to which standards-related price increases were related to the Infringement or any price premium in the 9 10 market outside of the Infringement based on a comparison 11 with the prices of Euro 6 Trucks, which were sold 12 outside the Infringement Period." 13 Sorry, where is this? Α. 14 THE CHAIRMAN: 4.86. 15 Α. Sorry, yes. 16 MR WARD: Okay. Do you want to just read the first four 17 lines? Then I do not have to read them out again. I have it now. 18 Α. 19 Q. Thank you. Then he says: 20 "However, this is not possible because the 21 introduction of Euro 6 Trucks coincided with the 22 introduction of new Truck models (corresponding to Truck series CF66, CF76, CF86 ... ", and so forth. 23 24 Whereas I think I am right -- I think I have learned through this case they were previously numbered 65, 75 25

1 and so forth.

2		So Mr Harvey says we just cannot disentangle the
3		impact of what were essentially completely new trucks
4	A.	Yes, I think that I disagree with that actually.
5	Q.	You disagree with
6	A.	Sorry, this has to do with the way in which you define
7		the truck series. I mean, Mr Harvey and myself, we
8		defined the truck series differently. There is
9		a hierarchy in the code of DAF and essentially I am
10		using the first digit of the hierarchy in the code and
11		Mr Harvey is using the first two digits of the code.
12		That is essentially the difference between how he
13		defines the series dummy and how I do it. If I define
14		the truck series the way I have done it, using the first
15		level in the hierarchy, then I can estimate a Euro 6
16		dummy.
17	Q.	Yes, but what that involves is airbrushing out the fact
18		that the 65 has become the 66, does it not?
19	A.	No.
20	Q.	It does not take into account the fact we have
21		a completely new model here.
22	A.	Well, it just defines a new model differently. I have
23		a new model defined by, you know, one level in the
24		hierarchy; he has one that is defined by two levels in
25		the hierarchy. It is just a matter of definition.

Q. The press releases, which are in your clip actually in
front of you -- just so we can get a sense of what was
going on here. The slim bundle that came from my
solicitors, Professor Neven, the one you started the
afternoon with, can you find that? We will also put it
on the screen. The slim bundle with just a handful of
documents in it.

8 A. Yes, yes.

9 Q. Perfect. Thank you.

If we can go up, please, {I2/452.3}, please. This is tab 3 of your bundle. This is a PACCAR press release. Lovely. There are some very nice coloured pictures as well.

14 "DAF Launches New LF and CF Euro 6 Vehicles." 15 Obviously I invite the tribunal to read all the 16 detail of this at their leisure, but just above the pictures is a quote from the president of DAF. He says: 17 "The launch of the new DAF LF and CF vehicles today 18 and the introduction of the new DAF XF model last year, 19 20 provide a complete range of exciting Euro 6 vehicles ... 21 These new DAF Euro 6 vehicles and engines represent the 22 largest, most comprehensive development program in DAF's 23 85-year history."

24 So he is making the case here that these are new 25 trucks, as Mr Harvey says.

1 If you go to the next document in your clip, 2 Professor Neven. It is at {I2/452.4}. This is 3 Mr Schippers again talking again about these excellent 4 new trucks. This I think is a trade press article. 5 Underneath the bold type -- the bold type says: "DAF ... introduced its new Euro 6 LF and CF models 6 7 at the Birmingham Truck Show ... " Then he is quoted, saying: 8 "With the launch of the new LF and CF models, DAF 9 10 has introduced a complete new range of efficient Euro 6 vehicles." 11 12 Then there are lots of bullet points about what they 13 contain: "New and efficient drive lines: 14 15 "Entirely new generation of state-of-the-art ... 16 engines ... "New designs ... ", and so on and so forth. 17 18 There are lots more exciting new things. There is 19 even one with a big reveal that has not yet quite 20 happened. 21 All I am really putting to you is that these trucks 22 were obviously completely new vehicles and the 23 willingness to pay for these trucks, whether or not 24 affected by the cartel, is just not indicative of what we see by way of upgrades in the Euro emission standards 25

that we are here to debate. That is the short point.
 Would you accept that?

3 A. Sorry, I do not understand your point.

- Q. This is a completely new truck and, whatever willingness
 to pay for this was, it tells us nothing about, for
 example, the willingness to pay for Euro 5 EEV, which
 included no new features, or even Euro 4, which seemed
 to be upgrades on a more limited scale.
- 9 A. But -- okay, it is a new truck, yes, it has -- okay.
 10 I mean, what is a new truck relative to a truck of
 11 a previous generation? It is a truck that has added
 12 features so I am not sure what is the significance of
 13 this discussion.

Of course you would expect this sort of marketing 14 15 material to, you know, enhance the new features of the 16 truck. It is interesting actually they do not refer to the particular series at the two-digit level. They just 17 18 say that they are Euro 6. So I am not -- really not 19 understanding what you are trying to say here. You are not saying Mr Harvey is wrong about that, 20 Q. 21 are you, that they would have given new digits? 22 What I am saying is that it is legitimate to define Α. 23 truck series dummy at the level of one level, the first 24 digit, the first level in the hierarchy. I mean, it has the benefit that if you do that, you can actually 25

identify the Euro 6 and you can actually identify the
 willingness to pay for Euro 6. The strategy that is
 used by Mr Harvey to define the truck series dummy at
 a final level thus prevents him from doing that. It is
 a different identification strategy.

Q. Okay. I want to move on briefly now to the question of
the before/during model. I see it is 3.50 and everyone
will be delighted to know I do not have a lot more to
do, so this will not take long.

10 You talked about this at the beginning of your time 11 in the hot tub and I want to explore really some of the points made about the before/during data. What I am 12 13 going to suggest to you is that your concerns about this are, if you like, unduly pessimistic. Now, the starting 14 15 point is what we are trying to investigate here is 16 a period that goes back almost 30 years, are we not --17 Α. Yes.

Q. -- because, by the time we have got the before period -the secret cartel started in 1997 so we are looking at some pretty ancient history. So it is not surprising, is it, if the data is not perfect?

22 A. Of course not.

Q. In fact we might consider ourselves fortunate that we at
least have data on the individual trucks which involve
their individual characteristics even if we have not got

1 the truck level cost data. Would you agree? 2 Yes, I think it is better to have truck characteristics, Α. indeed. It is remarkable that DAF kept that data. 3 4 Q. Indeed. You pointed to two possible mix effects on 5 Wednesday that I wanted to just pick up briefly. For this we need to go to your rejoinder -- sorry, your 6 7 third report in $\{E/62/24\}$. This is a point about bodies that you made. 8 MR BEARD: Tab 12. 9 MR WARD: This is the worry about whether bodies give rise 10 11 to a mix effect, page 24. 12 Α. Okay. 13 Are we there? Q. Yes, I see it on the screen, yes. 14 Α. 15 Q. Super. You talk about the bodies and at 4.9 you say: "If indeed, the share of trucks with bodies is 16 correlated with the start of the infringement, the 17 18 proportion of trucks for which there is a measurement error (because of the absence of ... information on the 19 20 body) will change with the infringement, causing an 21 estimation based only on the before-during period to be biased." 22 23 It is easy to understand that concern at 24 a theoretical level, but, Professor Neven, there is not any evidence at all, is there, to suggest that the 25

1 proportion of trucks with bodies did change in this way? 2 Yes, I actually mentioned one possibility which --Α. sorry? Yes, I mentioned one possibility yesterday in 3 4 relation to one of the interpretations of the 5 coefficient of Mr Harvey's model. You remember that Mr Harvey's model has a very strange -- well, has 6 7 a surprising coefficient for the dummy that picks up direct sales. You know, it is very high in the AS/400 8 data and it is very low -- actually it is negative in 9 10 the MI data. I sort of ventured a possible explanation 11 which is that this sort of reversal in sign and 12 magnitude could be due to the fact that indeed there has 13 been a change in the proportion of trucks sold with bodies. But this is a speculation. I do not have --14 15 you know, it is speculation. I do not have, you know, direct evidence. Of course if I had direct evidence, 16 I would use it to control for the presence of bodies. 17 18 I mean, I do not have evidence on the proportion of trucks that were sold with bodies before 1997 and after. 19 Q. Okay. Let us talk about options as well because here 20 21 there is some information which is in figure 2 which you 22 have on the next page. Yes. 23 Α.

Q. I want to be clear about what this is actually showing.
Sorry, it is the page after. My fault. Page 26,

1		$\{E/62/26\}$. What we have here is the figure shows the
2		total list price of options as a percentage of chassis
3		list prices, does it not?
4	Α.	That is right.
5	Q.	So just to understand what that means for people \ldots so
6		if the chassis was, say, 100 and the options cost 2,
7		this would show 2%, would it not?
8	Α.	The list price the list price is not cost, it is the
9		list price.
10	Q.	Sorry, I meant the list you are quite right. Let me
11		try that again. If the chassis list price was 100 and
12		the options list price was 2, it would show as 2%?
13	Α.	That is right.
14	Q.	So it is not showing the options as a percentage of the
15		total price
16	Α.	That is right.
17	Q.	which are lower.
18		We are only interested here I think in the $AS/400$
19		period, are we not, for this purpose?
20	Α.	Yes.
21	Q.	So the graph could come to an end at the end of 2003,
22		where again, I am not absolutely sure which dot is
23		which on your graph, which point is which, but something
24		like the answer is somewhere between 6% and 7% for
25		the end of 2003?

- 1 A. Something like that I suppose, yes. Yes.
- Q. Okay. Now, this is average prices over time, is it not,
 what we are looking at here?
- 4 A. These are quarterly averages.
- Q. Quarterly averages. So in the MLO period we have
 average costs as well, do we not, over time? We do not
 have truck specific costs. That is the whole problem.
 Yes?
- 9 A. That is right.
- Q. The average costs are going to pick up changes in thecosts of the options, are they not?
- 12 A. Yes, but the whole point is that -- because you have 13 a higher share of option, is that it is more likely that 14 you will have variation around the average. That is the 15 whole point. Because you have variation around the 16 average, the identification is impaired.
- Q. For this to be a problem you would have to have evidence that the small increase in the amount of options being purchased actually gives rise to some kind of effect on margin beyond what is being picked up in the cost data, would you not?
- A. But, look, I mean, this is a limitation of the data. We
 have average cost and we know that the average cost is
 going to reflect the option content, but the thing is
 that we do not have the cost at the truck level so we do

not know actually around the trucks that are making up
that average which are the trucks that have a high level
of options and those that have a low level of options.
Of course the higher is on average the proportion of
options that can lead to noise in the data -- I mean,
the more likely that indeed there will be problem of
identification.

Q. The short point is simply this: there is no evidence to
9 suggest that this is actually a problem in practice.
10 Would you accept that? It is another hypothetical
11 concern, not one grounded in the evidence?

12 A. But how could you -- what I observed is that the average 13 cost is picking up this -- the options. What I observe is that the options are becoming more important because 14 15 I do not observe the truck level cost that would reflect 16 these options. I mean, I cannot test these variants. I mean, that is for sure. Of course, what Mr Harvey 17 18 could have done, interestingly, is actually to use that 19 information to try to control for the variants around 20 the average, now that you mention it, but anyway. 21 Q. The other issue that is prominent in your concern is 22 about the lack of granularity of the cost data, and you 23 are aware that Mr Harvey has carried out two 24 sensitivities which address this. We will see if we can 25 agree what they are rather than going to them. The

1 first one was to add additional truck characteristics 2 into the before/during model and his point is that -into the before/during model. 3 4 Α. Okay. 5 Shall I show you? If you are doubtful, I certainly do Q. not want to --6 7 Α. Okay. Go on, yes. So he adds additional truck characteristics and his 8 Ο. point is that, even if the cost coefficient remains low, 9 10 that improves the explanatory power of the model. Would you accept that as a matter of principle? 11 12 Α. I do not remember this particular table but I would not 13 be surprised that if you add characteristics -- I mean, it slightly improves the fit of the model so that does 14 15 not surprise me. You know, what is also interesting 16 about what you say is that it does not change the coefficient of the cost, and that is essentially because 17 in the before/during model the coefficient of the cost 18 19 is essentially estimated by the time series. So you are 20 adding some cross-section variation. You know, you are 21 not affecting the identification of the cost, which is 22 done by the change of the average cost over time. Q. But this is precisely Mr Harvey's point, that it does 23 24 not improve or does not alter the level of the cost coefficient, but what it does is address the same 25

problem by a different route. It adds variation through
 the means of the truck characteristics. You do not
 accept that?

Adding truck characteristics helps, that is for sure, 4 Α. 5 but the extent to which it helps is very marginal. What 6 you also see, by the way -- the main problem of 7 Mr Harvey's model is the very low coefficient on cost. I remember -- you know, I am quoting out of memory but 8 I think in this model of Mr Harvey it is around .3 --9 10 okay? -- so the average cost is really not playing 11 a very significant role in explaining the prices in the 12 before/during model.

13 Q. But that is why adding in the -- if you add in the 14 additional truck characteristics, you pick up a great 15 deal more variation in the trucks?

16 A. No, you are not picking up a great deal more, no.

Q. Let me show you a sensitivity that Mr Harvey -- I do not know if you will agree it is a sensitivity -- an experiment that Mr Harvey ran in his first report. Can we go to {E/2/44}? So this is the annex to Mr Harvey's first report.

22 MR BEARD: Tab 3, we think.

23 MR WARD: $\{E/2/44\}$, please. Do you have that?

A. No, not yet.

25 Okay. All right. Which page? 44, yes.

Q. 44. This is where he is considering the usefulness of
 these truck characteristics, and he says -- do you have
 that?

4 A. Yes.

Q. "For Truck characteristics to be a perfect substitute
for Truck-level costs in my before-during model ... it
should explain all of the variation in costs between
Trucks."

9 If it was to be perfect. But of course we are not 10 in a perfect world, we do not have that data, and he 11 says:

12 "To examine how well Truck characteristics do, in 13 fact, explain the variation in costs between Trucks, 14 I run a regression of Truck-level MLO cost on Truck 15 features recorded in the MI dataset ..."

Because of course he has just got more detail, and he says:

18 "I am able to do this because I have Truck-level 19 costs in the MI dataset, as well as the equivalent Truck 20 characteristics variables that I use for my 21 before-during model. Table 7 below [shows] the results 22 of this regression. Importantly, the R2 of the model is 0.925, which shows that the vast majority (92.5%) of the 23 24 variation in Truck-level MLO cost is captured by [these] characteristics." 25

1 So the point Mr Harvey is making or at least I am 2 going to make is: look, this may not be perfect, but 3 given the lack of granular cost data, this is an 4 effective and practical way to address the issue in the 5 model.

There is only one acid test for this and that is to 6 Α. 7 introduce the same information in the regression and see whether it affects the coefficient. So the only acid 8 test to see whether the truck characteristics really are 9 10 substituting for the truck cost level is to use the 11 during/after model with truck characteristics and then 12 introduce the characteristics. If you see that the 13 characteristics are picking up the same thing as the truck level cost, then you should see a big change in 14 15 the coefficient of the costs in the regression. That is 16 the only way to test whether you have the same information, is to see whether, when putting these two 17 18 pieces of information together, they fight in order to 19 explain the prices. If you do that, which I think is 20 the only relevant test, you actually see that actually 21 these two pieces of information are not substitute.

You know, any other test by adding and removing characteristics I think are misleading because the average cost is estimated by the time series and the characteristics are picking up some cross-section

1 variation, so these results are not surprising and of 2 course the truck characteristics will pick up something. But the only way to really test whether the truck 3 characteristics are playing the same role as the 4 5 truck-specific cost is to do this test that I was mentioning earlier, which I did and which is reported in 6 7 my report. Q. The point Mr Harvey made -- if you look at Harvey 1, 8 9 {E/1/106}, "Other Sensitivities", where he says -- this in the before/during this time: 10 11 "I have estimated the overcharge in the ..." 12 "... during-after", yes. Α. 13 Q. Let us just be clear. 14 "I have estimated the overcharge in the during-after 15 data, using the same specification as my during-after analysis ..." 16 Actually I think he means "before-during". 17 18 Α. Yes. Q. "... including both annual average MLO costs and 19 20 additional Truck features ..." 21 The point is that he has used truck characteristics 22 here instead of MLO data, which is the -- that is 23 actually explained in the joint expert statement. It is 24 a little bit confusing. But what he says is: 25 "This results in an average overcharge for all

Euro 3, 4, 5 and 5 EEV emissions standard trucks in the model due to the fact that average rather than truck-specific costs data is used. The estimate of the overcharge in this model is 9%, compared with a range of 6.7% to 14.7% ... [therefore] The implied overcharge of this model is [well] within the range."

7 What I am putting to you is that this is really the 8 acid test, that the addition of these data in place of 9 the truck-level data does provide broadly comparable 10 results --

11 A. No --

12 There is nothing to -- it is not so outwardly biased. Ο. Again, I mean, I think that in terms of the information 13 Α. content, the only acid test is the one that I described. 14 15 But here we have an interesting observation. We have 16 that the estimate of the infringement is similar if you are using cost specific -- truck-specific costs, sorry, 17 18 versus average cost plus truck characteristics. I think 19 that, again, you have to understand this result in the 20 light of the identification strategy of Mr Harvey. 21 I think that Mr Harvey's identification strategy 22 actually uses costs in order to pick up something which 23 is different from cost.

24 You see that in all of the estimation of Mr Harvey 25 because the coefficient on the cost, when he is using

1 truck-specific cost, is always above 1. You know, that 2 does not make a lot of sense. I mean, to have a coefficient on cost which is above 1, it means that if 3 4 you increase costs, it means that, I mean, there is 5 going to be an increase in the price which is above and beyond, so there is going to be a pass-on which is above 6 7 1. You know, honestly, that does not make a lot of 8 sense.

So I think that you have to interpret this result in 9 10 light of the fact that the cost in Mr Harvey's 11 identification strategy is picking up something else. 12 If you have a coefficient of 1, you are picking up 13 something else than the cost and, as I have explained in the course of the last couple of days, he is either 14 15 picking exchange rate or he is picking up demand. 16 I think that, in the during/after model, he is actually picking up both. 17

So I think this test from my perspective is a non-test because you have to think about it, again, in terms of the identification strategy.

Q. Would you accept this at least gives comfort that the
before/during estimate is not an overestimate?
A. No, it does not give me any comfort because
I understand, you know, why he gets that. It is just

25 because cost is not playing the role that it is supposed

1 to play in this model. 2 MR WARD: Thank you. I have no more questions for Professor Neven. 3 THE CHAIRMAN: Thank you, Mr Ward. 4 5 Any re-examination? MR BEARD: Yes. No more than an hour! 6 7 THE CHAIRMAN: Perfect! Re-examination by MR BEARD 8 MR BEARD: A couple of quick questions, Professor Neven. 9 There was some discussion about truck 10 characteristics and control for truck characteristics in 11 12 the context of emission standards, emission fixed 13 effects. Do you know whether Mr Harvey controlled for 14 fuel efficiency amongst the characteristics he looked 15 at? I do not think so. 16 Α. Q. Okay. This actually goes back to a point that was 17 discussed yesterday. Mr Ward touched on this idea that 18 19 there might be trucks tainted post the infringement 20 period, including Euro 5 trucks. Did you do any tests 21 as to whether or not any post -- there was an indication 22 of tainting of trucks post infringement? A. Yes. I mean, this is one of the tests that was 23 24 discussed earlier in the context of this table in which 25 I allow an identification of the infringement by

1	assuming that all trucks sold during the infringement,
2	including all Euro 5 trucks sold after the infringement,
3	were tainted.

Q. Thank you. We can go back to the hot tub, concurrent
evidence material in that context.

Just towards the end of the cross-examination, you
referred to a table in your report looking at whether or
not the technical characteristics had a material impact.
I just want to check that I am understanding which table
you are referring to. Could we go to {E/62/29}?

11 A. So which one is that?

Q. So this is your reply report -- supplemental. It is
tab 12 apparently in your hard copy bundle.

14 A. I do not have tab 12.

15 Q. Ah. I think it is on the screen in front of you.

16 A. Okay.

Well, I do not know whether it is on the screen in front 17 Q. 18 of you. That is the question. Is that the right table? It is table 1, but this is table 1 in my reply model 19 Α. 20 which is an estimation of Mr Harvey's model. So it is 21 Mr Harvey's model with and without. Actually you see 22 here, you know, the fact that with truck-level data he has a coefficient which is above 1. 23

Q. I just have one final question. Could we go to
(E/35/96)? We can just have it on the screen, I do not

1 think you need to hunt it down. I think there was 2 a discussion about EEV trucks. Can we just go down to footnote 157? Because I think Mr Ward put it to you 3 that you had not referred to any basis on which you were 4 5 concerned about the robustness or accuracy of the EEV --Α. That is right. 6 7 Q. -- materials. Is this a different point or is this --A. No, I mean, I mention the fact that the Euro 5 EEV 8 9 trucks is not well identified because we have few trucks. This is what I said I think this afternoon but 10 11 this is supported by this footnote. 12 MR BEARD: It took me very much less than an hour. THE CHAIRMAN: Well done. 13 14 Thank you very much, Professor Neven. 15 Well, we have got to the end, five minutes early. Excellent. Well done particularly to Mr Ward for 16 surviving the afternoon. 17 18 MR WARD: Thank you, sir. THE CHAIRMAN: We wish you and Ms Kelleher and anybody else 19 20 who is suffering from Covid a speedy recovery. 21 MR BEARD: Absolutely. 22 THE CHAIRMAN: We have next week off so hopefully everyone 23 will be fighting fit for our return the following week 24 on 6 June, where we have used trucks and another hot tub 25 session.

1 MR BEARD: Yes.

2	THE CHAIRMAN: I understand we are getting some questions or
3	potential topics from you today.
4	MR BEARD: That is the plan, yes.
5	THE CHAIRMAN: We will return the favour I think at some
6	point next week. All right.
7	MR BEARD: I am not sure there is an absolute time but we
8	will try to make sure we get something to you early next
9	week.
10	THE CHAIRMAN: All right. Thank you.
11	Well, it has been a very hot session in here today.
12	We have come out of the hot tub into the sauna! Thank
13	you very much, all. We will see you in a week's time.
14	(4.12 pm)
15	(The hearing adjourned until
16	Monday, 6 June 2022 at 10.30 am)
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