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IN THE COMPETITION
APPEAL TRIBUNAL

Case No: 1403/7/7/21

Salisbury Square House
8 Salisbury Square
London EC4Y 8AP

Thursday 23rd January 2025

Before:
Ben Tidswell
Dr William Bishop
Tim Frazer

(Sitting as a Tribunal in England and Wales)

BETWEEN:

Dr. Rachael Kent

Class Representative

v

Apple Inc. and Apple Distribution International Ltd

Defendants

A P P E A R A N C E S

Mark Hoskins KC, Tim Ward KC, Michael Armitage, Matthew Kennedy, Antonia Fitzpatrick
(Instructed by Hausfeld & Co. LLP) On behalf of Dr. Rachael Kent

Marie Demetriou KC, Brian Kennelly KC, Daniel Piccinin KC, Hugo Leith, Hollie Higgins
(Instructed by Gibson, Dunn & Crutcher UK LLP) On behalf of Apple Inc. and Apple
Distribution International Ltd

Thursday, 23 January 2025

(11.00 am)

MR DAVID HOWELL (continued)

Cross-examination by MR KENNELLY (continued)

THE CHAIRMAN: Good morning, Mr Howell.

MR HOWELL: Good morning.

THE CHAIRMAN: Mr Kennelly.

MR KENNELLY: Mr Howell, we were moving on to developer demand. This is for the alternative payment systems, to orient ourselves.

Can I ask you to go to your first report. That is {C2/4/78}.

It is paragraph 157. Do you see that?

A. Yes.

Q. It is just the first two sentences I want to look at:

"Based on the evidence in Apple's disclosure, I consider that there is demand from iOS App developers for alternatives to the ASPs. Large developers including Epic and Microsoft have attempted to use their own payment support services solutions."

Do you see that?

A. Yes.

Q. So in relation to Epic, can I ask you to turn up, please, Professor Sweeting's first report? That is in {C3/3/106}.

1 You were provided with this report by
2 Professor Sweeting before you wrote your reply report,
3 do you recall that?

4 A. Yes. This is his first report, yes?

5 Q. Yes, his first report. So if you go, please, to
6 paragraph 229, could you read, please, paragraph 229 to
7 yourself. It goes over the page on to page {C3/3/107}.

8 A. Okay. (Pause)

9 Okay.

10 Q. Now, what Professor Sweeting explains here is first of
11 all that a developer on the Epic Games Store does not
12 have to pay Epic anything at all if they switch to an
13 alternative payment provider. That is right, is it not,
14 and yet the vast majority of developers have chosen to
15 stick with Epic's integrated payment system, do you see
16 that?

17 A. I do.

18 Q. In relation to why that is, could I ask you to look at
19 footnote 331. This is an excerpt from the
20 cross-examination of Steven Allison and Tim Sweeney of
21 Epic Games in the US proceedings earlier this year.

22 This is looking at, for the small number who did use
23 their own third-party payment solution, for those that
24 did go for the third-party payment solution, why that
25 was.

1 I must take this slowly because I think, although
2 you have read it before, this is quite dense.

3 In 331, we begin with Mr Allison's cross-examination
4 and it is split between questions and answers, do you
5 see that, Mr Howell?

6 A. Yes.

7 Q. So the first question is:

8 "You have more than 800 third-party developers ..."

9 The answer is actually 1,100.

10 "Question: ... The number who have taken up the
11 option of using an alternative payment processing system
12 rather than Epic direct payment is fewer than ten?"

13 Actually, it is more than that:

14 "... it certainly appears to be less than 50."

15 Do you see that?

16 A. I do.

17 Q. Then we move on. Then Professor Sweeting says that he
18 understands:

19 "... that game developers found using Epic Game
20 Stores' integrated payment processor 'difficult' and
21 'tedious' and made it too difficult for developers to
22 release games quickly. This challenge of implementation
23 would serve to lead more developers to use alternative
24 payment processors rather than the integrated payment
25 processing offered by the Epic Games Store."

1 Then we go on to the cross-examination of
2 Mr Sweeney, and again, the same format, question and
3 answer. Do you see that, Mr Howell?

4 A. I do.

5 Q. "... the impetus for that was some developers could not
6 use Epic direct payment; is that right?"

7 Mr Sweeney answers:

8 "Well, there's two things. Some developers did not
9 want to use Epic direct payment and preferred to use
10 their own, and the other was we realised that we - we
11 were being hurt by these sorts of charges on other
12 platforms, and we wanted to set a new precedent for how
13 stores could unbundle payments for the whole industry."

14 Do you see that?

15 A. Yes.

16 Q. He was asked:

17 "Do you say it was simply the case that some other
18 developers in relation to your first reason, did not
19 want to use Epic direct payment?

20 "Answer: Yes."

21 He mentions two:

22 "Take-Two, with respect to Grand Theft Auto, and
23 Wizards of the Coast with 'Magic: The Gathering' did not
24 want to use our payment service, as well as Ubisoft.

25 "Question: It was not just that developers did not

1 want to use EDP; it was that some of them could not use
2 it ..."

3 "Answer: Well, with respect of the two I'm most
4 familiar with, they couldn't use it quickly. If they
5 had spent more time, they perhaps could have used it,
6 but that, generally, they were trying to press these
7 games out, get them released, and there was no way ...
8 I think he is referring to it would not be possible to
9 do it within the timeframe we aim to release the games."

10 Mr Sweeney is asked:

11 "The truth is that EDP at this time was a difficult
12 and tedious system for users to integrate with, correct?

13 "Answer: Generally it was, yes."

14 He was asked:

15 "... that was the reason why you chose to allow
16 developers to use alternative payment systems for in-app
17 purchases in apps distributed through Epic Games Store,
18 correct?

19 "Answer: That was a contributing factor to the
20 various publishers who did not want to, or could not,
21 use it in the timeframe they wanted that contributed to
22 their - their position on that."

23 Do you see that?

24 A. I do.

25 Q. So, Mr Sweeney there accepts, doesn't he, that for these

1 50 developers who used alternative payment systems, some
2 of them found using Epic's integrated payment system
3 tedious or difficult?

4 A. Yes.

5 Q. Another reason the Epic witnesses gave for why these 50
6 used alternatives is that some of them already had
7 payment systems set up within their games so they did
8 not want to change and insert a second?

9 A. It does say that, yes.

10 Q. Do you see also that Mr Sweeney explains that one of the
11 reasons that Epic offered an alternative option is
12 because they needed to react to those developers who
13 were having issues integrating Epic's own system?

14 A. Yes.

15 Q. He gives a further reason, Mr Sweeney, why Epic allowed
16 the option of third-party payment systems. You saw
17 there he said:

18 "We were being hurt by these sorts of charges on
19 other platforms and we wanted to set a new precedent for
20 how stores could unbundle payments for the whole
21 industry."

22 A. I see that.

23 Q. So Epic's own evidence was one of the two reasons why
24 they allowed developers to use third-party payment
25 systems on its store is partly political, in the sense

1 of putting pressure on companies like Apple.

2 A. I think they are saying that. Yes.

3 Q. Of course it is also partly a response to
4 the difficulties in trying to persuade developers to
5 integrate its own arguably deficient payment system into
6 their apps?

7 A. That is what they are saying.

8 Q. Now, turning to another alternative payment system
9 option, could we turn up, please, Mr Holt's third
10 report.

11 MR HOSKINS: It is expected that the witness gets asked
12 questions rather than just Mr Kennelly reads things out
13 and says "Have you seen them".

14 THE CHAIRMAN: It is a matter for Mr Kennelly how he wants
15 to conduct his cross-examination. You may say it has
16 some consequences, or you may wish to come back to
17 things in re-examination, but I think he is entitled to
18 decide what he asks.

19 MR KENNELLY: I am sorry, perhaps it is my fault. I am
20 asking Mr Howell, just to be clear, Mr Howell, if you
21 disagree with what you are reading -- obviously you are
22 reading it, but if you disagree or if you have anything
23 to add, please do not hesitate to do so.

24 A. You were asking me if I saw it, and I did see it, and I
25 agree that this is what they are stating, what their

1 claim is. There is a lot unsaid in claims that not many
2 people adopted these alternative payment systems, even
3 though they were allowed to.

4 As a developer, I would first want to know how easy
5 is it made to use alternative payment systems here. Not
6 just is it allowed.

7 But if Epic was unable to provide an easy-to-use
8 payment system of their own, I am not confident that
9 they could provide support for easily integrating
10 payments from other providers.

11 Q. Do you have any reason to disagree with what happened in
12 relation to the Epic Games Store?

13 A. What happened?

14 Q. What we have just been reading about, why about 50
15 developers chose the alternative and the reasons, which
16 I have put to you, as to why they did that?

17 A. I think they have stated that one of their goals in
18 offering this was to make a statement for other cases.
19 But we are not hearing what it was like for developers
20 to try to actually integrate those alternative payment
21 systems.

22 Q. But do you have any reason to disagree with what
23 we understand from that evidence we have just seen about
24 the difficulties they encountered, the developers
25 encountered with integrating their own systems?

1 A. I have reason to be sceptical, I would not say explicit
2 reason to disagree.

3 Q. It is coming out of the mouths of the Epic executives
4 themselves?

5 A. Right, and they are trying to claim they made it easy
6 for people to use alternative payment systems, but I do
7 not think they really make that case. They just say
8 they made it possible.

9 Q. But the evidence they are giving, the evidence they are
10 giving themselves is about why developers wanted to use
11 an alternative payment system.

12 This is what Mr Sweeney and Mr Allison are speaking
13 to, is that not correct?

14 A. Yes, they are talking about the fact that it was
15 difficult on their system. But when a developer
16 compares two alternative methods of solving a problem,
17 they need to look at the ease of use and terms of both
18 and all we're hearing about is one. We are hearing
19 it was hard on Epic, but not whether it was easy or hard
20 on the alternative payment systems, and that ease of
21 integration would be not just up to the alternative
22 payment providers, but up to Epic as well. So there is
23 a lot of missing pieces in this puzzle.

24 Q. But Mr Howell, this is one of your two examples of why
25 there is demand from developers for alternative payment

1 systems, the Epic example. Is that not correct?

2 A. Yes.

3 Q. Then it is proper to look at why there might have been

4 demand for alternative payment systems on the Epic Games

5 Store, correct?

6 A. Yes, and they gave one or two reasons. They did not

7 talk about what the relative commissions were between

8 theirs and competing systems, and they did not talk

9 about the ease of integration. So it is hard for me to

10 really make much of this.

11 Q. Going back to Mr Holt's report. This is {C2/10/142},

12 here in this table, 7.4, you see examples of other

13 platforms which do not require the use of integrated

14 payment system. Do you see that?

15 A. Yes.

16 Q. Just taking them in turn, do you see for Microsoft,

17 the Microsoft Store, Windows games; do you see that?

18 A. Yes.

19 Q. I am looking obviously at the fourth column along, which

20 is the one that tells you where there is what the class

21 representative calls a tied in-app aftermarket service.

22 For the Microsoft games store it does not allow

23 the use of third-party payment providers. Do you see

24 that?

25 A. I think so. We are saying it does not have, or it does

1 have tied in-app --

2 Q. But if you look immediately below that, the non-games
3 Microsoft Store does allow the use of third-party
4 payment providers?

5 A. Yes.

6 Q. According to Mr Holt, if a developer uses an alternative
7 payment provider for a non-game app, they do not pay any
8 commission to the Microsoft Store. Do you see that?

9 A. Yes.

10 Q. But there is no evidence, certainly you have cited no
11 evidence at all, about the extent to which developers
12 are taking up Microsoft's offer to use third-party
13 payments for in-app transactions on its non-gaming
14 store?

15 A. This table does not speak to that. It is true.

16 Q. But you do not speak to it, Mr Howell, do you? You do
17 not give any evidence about the extent to which
18 developers are taking up that offer?

19 A. No, I did not refer to this table at all.

20 Q. But you are looking at platforms which offer the option
21 of using third-party payment providers, do you not?

22 A. Yes.

23 Q. It would have been appropriate in respect of this one in
24 particular to ask about the extent to which developers
25 are taking up Microsoft's offer to use third-party

1 payments for in-app transactions?

2 A. It would be relevant. I did not think that it helped me
3 to answer the questions I was being posed.

4 Q. There are two other stores listed in this table that
5 allow developers the option of using third-party payment
6 systems. One is the Samsung Galaxy Store. Do you see
7 that? It is near the bottom of the table.

8 A. Yes.

9 Q. If a developer uses an alternative provider, according
10 to Mr Holt they do not pay any commission at all to
11 the Samsung Galaxy Store. Do you see that?

12 A. I do.

13 Q. Again, you do not cite any evidence, do you, about
14 the extent to which developers are taking up that
15 ostensibly very generous offer to use third-party
16 payment providers for in-app transactions?

17 A. No, I did not talk about the Samsung Galaxy Store at
18 all.

19 Q. If you go to the bottom of the table, you see
20 the One Store. Do you see that?

21 A. Yes.

22 Q. According to Mr Holt again, this is one where you can
23 use an alternative third-party payment provider, and for
24 the One Store, Mr Holt says where that is done, where
25 you take up that option, you pay a 5% commission rather

1 than the 20% commission that the One Store would
2 otherwise charge. Do you see that?

3 A. I do.

4 Q. Again, you do not cite any evidence at all about
5 the extent to which developers are taking up One Store's
6 offer to use third-party payments for in-app
7 transactions?

8 A. I did not speak to the One Store at all.

9 Q. Looking at demand for Apple service, can we go back to
10 your first report at paragraph 143, please? That is
11 {C2/4/69}.

12 You start by quoting from Mr Schiller's evidence
13 about how in-app purchase was developed, and it is
14 quoting from Mr Schiller. Mr Schiller said:

15 "Following the launch of the App Store, developers
16 seeking to monetise their apps (other than through the
17 initial purchase of the app) sought from Apple the
18 ability to sell digital content and features within apps
19 at a point after the initial download."

20 In response to that, Apple announced a new set of
21 API's to provide in-app purchase functionality to
22 the App Store. Do you see that?

23 A. Yes.

24 Q. You say:

25 "In my view, this demonstrates demand from iOS App

1 developers specifically for the services provided by the
2 ASPS that is separate to the demand for the services
3 provided by the App Store."

4 Does not this show what Mr Schiller describes,
5 demand from developers for integrated in-app purchase
6 functionality from Apple?

7 A. No, I remember this survey and I remember the results
8 from it, and there was a bit of a fiasco when App Store
9 launched. Developers had a lot of grievances and we
10 were really happy to be asked for feedback because there
11 was a lot of anger at that time.

12 One of the biggest things was you could sell an app,
13 but you could not sell a discounted upgrade to a new
14 version. What we really wanted was a way to sell
15 version 2, as we had done for the last 30 years, for
16 a lower price.

17 We never did get that, but we got this in-app
18 purchase. I do not think there was any question in that
19 survey about whether we should be allowed to pay through
20 Apple's services or somebody else's.

21 Q. To the extent that there was demand for the option to
22 get -- demand from developers for the option to allow
23 a user to pay after the download as opposed to at
24 the download --

25 A. Yes.

1 Q. -- that demand was being provided by the provision of
2 this IAP?

3 A. I think that may have been Apple's intent. I do not
4 think it really quite gave developers what we were
5 looking for, but it did give people -- developers a way
6 to get additional payments from users.

7 Q. So you accept, do not you, there obviously was some
8 demand from developers for the ability to get
9 the revenue from the user after the download, as opposed
10 to at the download?

11 A. Yes.

12 Q. You are familiar with the extent to which IAP has been
13 taken up by developers?

14 A. Yes.

15 Q. You would accept that that has been an extraordinarily
16 popular option?

17 A. It has.

18 Q. So overall, in terms of the evidence, you do not really
19 point to any evidence of appreciable demand, appreciable
20 demand from mobile app developers for an alternative to
21 the ASPS?

22 A. I did not go into too much depth about that because
23 I think that is why we are here, because of demand for
24 that. But certainly I talk about the fact that --
25 I answer the first question, that there is demand for

1 payments, and then the second part of the question is
2 whether there is demand for alternatives to the same,
3 and elsewhere in here I talk about demand for
4 third-party payment providers.

5 Q. It is only third-party payment providers I am asking you
6 about.

7 A. Right, but the question asked about both. So that is
8 what we have been looking at, that is what I was
9 answering.

10 Q. Hard evidence, data, research, something to back up your
11 claim that there is an appreciable demand from mobile
12 app developers for an alternative to the ASPS?

13 A. So you pointed to Epic, and we talk about Epic's demand
14 for alternative payment systems and alternative stores
15 in this document and in the case in general, and that is
16 what we are referring to, right? Epic's demand?

17 So developers, meaning Epic and Microsoft, are
18 the ones you pointed to and I think that is demonstrated
19 here.

20 Q. So that is what you say about demand in that context.
21 But what you certainly have not addressed at all is what
22 demand there would be if these developers, and we are in
23 the context here of alternative payment systems, what
24 demand there would be if these developers still had to
25 pay Apple some commission for the distribution services

1 and tools and technology that they would receive
2 regardless of how they facilitated in-app purchases?

3 A. One demonstration of that is the fact that Paddle wants
4 to sell payment systems to iOS users, and they would not
5 do that if there were not demand, right?

6 Q. Even in circumstances where the developer still had to
7 pay a commission to Apple for the tools and technology
8 and distribution services?

9 A. Certainly there could be terms that would make it
10 a non-starter. If the terms were so onerous that it was
11 a worse deal for developers to take alternative
12 payments, I do not think they would opt for that.

13 Q. So moving on then to -- actually, before I move on to
14 physical goods, for the same reason ...

15 Actually, I will move on to physical goods. Thank
16 you, Mr Howell, that is probably fine on that topic.

17 You mentioned that third-party providers facilitate
18 in-app purchases for physical goods and services, and
19 you obviously rely on that. But you know that Apple
20 does not provide its IAP for physical goods and
21 services?

22 A. Correct.

23 Q. So the fact that some of these third-party payment
24 providers do facilitate purchases of physical goods and
25 services does not tell us anything about their

1 incentives, their incentives, to enter the market for
2 digital goods and services?

3 A. If I have said otherwise in here, I would like to see
4 it, because I do not think I ever stated that the demand
5 for selling physical goods and services implied anything
6 about the demand for selling digital goods and services.

7 Q. Turning then to innovation and the prospect that
8 developers would switch to third-party payment providers
9 on the grounds of innovation. If we go back to your
10 first report at paragraph 159 {C2/4/80} --

11 A. Okay.

12 Q. Could you read all of paragraph 159? It goes over
13 the page {C2/4/81}. These are examples of how you think
14 third parties might innovate and offer something
15 different to Apple.

16 A. Okay.

17 Q. If you look at your footnotes, on each of these
18 occasions where you are citing points to support your
19 argument, the source for your opinion is the witness
20 statement of Mr Owens. Do you see that in
21 the footnotes?

22 A. Sorry, which footnote are we on?

23 Q. We are back on page 81. I am drawing attention to your
24 own footnotes, Mr Howell. These are the sources of your
25 opinion?

1 A. Yes.

2 Q. If you go down over the page to page 82 {C2/4/82}, we
3 are on paragraph 160 now, you deal with incentives for
4 iOS App developers to use alternatives to the ASPS,
5 namely to access lower prices and greater flexibility.
6 Do you see that? It is at the top of paragraph 160.

7 A. Yes.

8 Q. Again, you cite as support for that Mr Owens' evidence
9 verbatim.

10 A. I do.

11 Q. You do not cite any other evidence, statistics or
12 surveys, going to the question of whether there is
13 appreciable developer demand for different sorts of
14 pricing services?

15 A. I talk about it in general, but as far as citations
16 those are the ones that I have. It is citations to
17 Mr Owens' statement.

18 Q. Overall, Mr Howell, the services and functionality
19 offered by Apple's -- what you call ASPS will be
20 sufficient for the vast majority of developers; is that
21 not correct?

22 A. I would not say that --

23 Q. In terms of --

24 A. (Inaudible) demand was for developers to get discounted
25 upgrades, and we have never seen that. We cannot pay

1 for something that is also useable on other platforms or
2 had not been able to, and now there is the Multiplatform
3 Rule. But there are a lot of restrictions around these
4 things. They change all the time. They are different
5 around the world, and there is a lot of room for
6 improvement.

7 Q. Sorry for repeating myself, Mr Howell, you have no
8 survey or study of the extent to which there is this
9 concern among developers in the UK for discounted
10 upgrades?

11 A. No. Unfortunately, most of the data that you would get
12 for comparative analysis would require that there be
13 a competitive marketplace, and because there is not one,
14 there is really no comparison to be made.

15 Q. I would like to, Mr Howell, again your first report, go
16 to paragraph 154.1. This is {C2/4/75}.

17 Talking about refunds, you challenge Mr Schiller's
18 evidence that refunds would be less seamless if an
19 alternative payment provider were used. Do you see
20 that?

21 A. Yes.

22 Q. Over the page, when you finish Mr Schiller's evidence,
23 you say you do not understand that position:

24 "There is no reason to assume that the process of
25 requesting a refund directly from a developer would be

1 more onerous than the current process from Apple."

2 You say {C2/4/76}:

3 "... although it is now possible for users to
4 request a refund ... the current experience can be quite
5 unfriendly, with the user often receiving conflicting
6 messages from Apple Support and the developer as to how
7 a refund can be obtained."

8 Do you see that?

9 A. Yes.

10 Q. Again, Mr Howell, there is no evidence at all to support
11 that claim?

12 A. What I was doing was refuting something stated by
13 Mr Schiller which seemed really speculative.

14 He said that it would be harder for a third party to
15 do this, and I just did not see evidence of that. To
16 the contrary, my experience with returns in the Apple
17 Store has been, at first, the official policy was no
18 returns on sales in the App Store, and customers would
19 call us and say we want a refund and we would say we did
20 not take your payment, we cannot make a refund.

21 Some companies, you quoted -- somebody quoted Cabel
22 Sasser at Panic in here, and his company, Panic, would
23 actually give refunds to customers even though Apple
24 kept the 30%. So they were out not only the sale but
25 also the commission.

1 Q. So it would be more accurate to say, Mr Howell, that my
2 experience of requesting a refund from Apple can be
3 quite unfriendly? Since you're speaking, it seems, only
4 to your own personal experience.

5 A. The report is my opinion.

6 Q. Sur. But the words "the current experience" might be
7 understood to refer to a much broader experience
8 experienced by developers and users --

9 A. Which phrase?

10 Q. I am looking at where you say:

11 "The current experience can be quite unfriendly."

12 It is about five lines from the bottom of
13 paragraph 154.1.

14 A. Yes.

15 Q. So really what you are saying is your personal
16 experience is that requesting a refund can be quite
17 unfriendly?

18 A. Yes. That is my opinion.

19 Q. But again, you have not exhibited any documents, any
20 emails or anything to back that up, even from your own
21 business or personal experience.

22 A. I stated just my opinion there and I did not provide any
23 extra documentation of that.

24 Q. The problem is that where the question of refunds is
25 arising between Apple Support and the developer, you say

1 that there may be conflicting messages. But if an
2 alternative payment provider like Paddle is used, they
3 will be a merchant of record, right?

4 A. Yes.

5 Q. Normally, merchants of record handle refunds; it is part
6 of their job?

7 A. Yes.

8 Q. So where a merchant of record is used, there is a risk,
9 is there not, this problem will arise anyway, because
10 both the merchant of record and potentially
11 the developer will be dealing with refunds
12 simultaneously?

13 A. You are right, there would be a competitive marketplace
14 and some would have good service and some would have bad
15 service, and the whole point would be to let developers
16 and users to decide which ones they think are better.

17 Q. I am only focusing on your point about conflicting
18 messages from Apple Support, the commerce engine and
19 the developer, as to how a refund could be obtained.

20 Just the conflicting messages point --

21 A. Yes.

22 Q. -- would not a risk arise anyway where you have
23 a merchant of record, or likely to arise, and
24 a developer, both facing refund questions --

25 A. Absolutely, and there could be service providers who

1 made a complete mess of their offering.

2 Q. Next paragraph, 154.2, here you are challenging
3 Mr Schiller's evidence that in the counterfactual,
4 the payment experience will be less convenient because
5 users will be entering their payment details more often?

6 A. Yes.

7 Q. You say the reason for this -- you are challenging it,
8 because you say the apps would not manage payment
9 credentials independently -- this is the very end of
10 paragraph 154.2 -- but would use open source libraries
11 and/or third-party payment support services, APIs.

12 A. Correct.

13 Q. What do you mean by that?

14 A. Somebody other than Apple would be providing a payment
15 service. So there would be a library or framework that
16 developers would use to integrate payments, and that
17 would either be provided by a commercial third party
18 provider or by an open source library that aggregates
19 payment services.

20 So, for example, somebody could write a library that
21 used Paddle, that used various other competitors, Amazon
22 Pay, Google Pay, and it could use whichever of those
23 made sense or was chosen by the users. So if the users
24 signed up for Google pay and wants to use that for an
25 in-app purchase, they could do that. But they would use

1 the same library with the same user experience.

2 Ideally, that library would also use Apple as one of
3 their providers and you would have a single interface
4 that worked with all of those payment providers.

5 Q. Now, just comparing that model to the actual world,
6 it is possible for an iOS device user to link their
7 payment details to their Apple account once, once, and
8 never enter those payment details again? Is that
9 correct?

10 A. Yes. Just like the other services.

11 Q. They will not have to provide payment details to
12 third-party payment providers if they are used?

13 A. I am sorry, can you say that part again?

14 Q. If there are different third-party payment providers,
15 taking it in stages, each of them would need separate
16 payment details from the end user?

17 A. Potentially. Typically, right now we store payment
18 information in the Apple Wallet, so they would not
19 actually have to enter credit card numbers again; they
20 would just select that payment.

21 Q. You mean Apple Pay?

22 A. No, Apple Wallet where they store a set of credit cards.
23 It is really just a collection of credit card
24 credentials.

25 Q. So you are saying to the extent the Apple Wallet is

1 used, there is no need for them to enter payment details
2 separately?

3 A. Correct.

4 Q. For each developer, they sign up with -- sorry, each
5 third-party payment provider.

6 A. So just as right now you enter your payment information
7 once in Amazon, unless you get a new credit card and
8 then you enter that, the same thing would be true with
9 any third party provider. You would enter your
10 payment -- probably multiple methods, one for work
11 purchases, one for home purchases, which you cannot do
12 with in-app purchases by the way.

13 So you can have business purchases, home purchases,
14 joint purchases with your spouse, all kinds of different
15 credit cards entered, and you choose the one that you
16 want for the payment provider.

17 Q. Have you examined, Mr Howell, the extent to which Apple
18 users have used Apple Wallet, the take-up of Apple
19 Wallet?

20 A. Yes.

21 Q. You do not cite those figures in your report though?

22 A. Sorry, the question is I have observed how --

23 Q. The extent to which Apple Wallet is used by Apple users.

24 A. No, I did not mention that. I just mentioned that that
25 is one of the methods available for developers to keep

1 track of payment methods.

2 Q. But to the extent that users do need to enter their
3 payment details separately to the third-party payment
4 providers that would exist, if third-party payment
5 providers require the payment details separately from
6 Apple users and Apple users have to do that where they
7 confront different payment providers, that would be
8 a less seamless option than what they have currently?

9 A. It could, potentially. But Mr Schiller was not saying
10 that it would be equally or more or less seamless. He
11 was saying they would have to enter their credit card
12 information every time they paid something, which just
13 does not make sense to me. I do not know why
14 any provider would make somebody do that.

15 Q. There are obviously security issues on this question.
16 I am not going to put a detailed set of questions on
17 security to you because Professor Lee is dealing with
18 that but I will put a short question to you because you
19 have spoken to it in your report, to the extent that
20 you say that there are no security and privacy concerns
21 in the counterfactual where third-party payment
22 providers would operate an iOS --

23 A. I am sorry, did I say that there were no security
24 concerns?

25 Q. To understand your evidence, Mr Howell, perhaps I will

1 put it like this, it is just not credible, is it, that
2 every possible third-party payments provider will
3 necessarily be as secure as Apple?

4 A. Like I said previously, I think there is a potential for
5 poor providers to be competing in this space and to have
6 a poor reputation, and it is a concern. I think some
7 will be very well respected, banking systems. Visa
8 itself could compete in this space, and I think people
9 would probably entrust their private information to
10 Visa. But Mrs Murphy's payment company, probably not so
11 much.

12 Q. So you are saying the market would sort out the good
13 ones from the bad ones?

14 A. The market or regulators or third parties that have
15 stamps of approval. I do not know really what
16 the method would be, but there would be competition on
17 quality as well as price.

18 Q. I move on now to incidence and this question of marginal
19 costs of developers. Could you go to your second report
20 please, paragraph 17?

21 A. Okay.

22 Q. It is {C2/12/8}. Here, you are discussing the question
23 of whether developers incur substantial marginal costs.
24 Do you see that?

25 A. Yes.

1 Q. You say:

2 "Once an app has been developed, the developer
3 continues to incur costs."

4 But you accept, do you not, that the costs of app
5 updates and compatibility maintenance are generally
6 fixed costs rather than marginal costs?

7 A. A lot of them are, yes. It really depends on
8 the flavour of the app, but as some sorts of apps get
9 more users, they get a more sophisticated infrastructure
10 and you have higher development costs. But in general,
11 those costs do not increase as much as the number of
12 users increase.

13 Q. You have not, again, investigated whether there are
14 substantial marginal costs for the transactions that
15 make up the bulk of the commerce on the App Store?

16 A. I talk about a few specific examples and I have my own
17 experience with apps that we have developed, but I do
18 not do an extensive market survey, no.

19 Q. Or any market survey.

20 A. I did not perform any market surveys.

21 Q. The three examples you give, Mr Howell, are at the top
22 of page 9: service storage, bandwidth and customer
23 support. Do you see those?

24 A. Yes.

25 Q. So just think about an example that comes up a lot in

1 this case, because it is worth a lot of money, IAP
2 transactions in which users purchase digital currency.

3 A. Yes.

4 Q. So none of these three types of costs that you
5 identified is likely to grow materially with those types
6 of transactions.

7 A. No, no. Those are not the sorts of apps that would have
8 that.

9 Q. So for games, the extent to which any of these costs
10 grow with the number or value of IAP transactions is
11 likely to negligible, is it not?

12 A. So, that would depend on the game. There are some games
13 that have -- like bandwidth, they have more and more
14 users on an app that has streaming video. I am not
15 thinking of an example of an app that has streaming
16 video, but a lot of them have processing done on a
17 server and send data to the user in real time, and all
18 of those would have increased band widths when they have
19 increased users.

20 To be honest, a lot of these concerns are more
21 pronounced in non-gaming apps and productivity apps like
22 Dropbox or file storage apps, services that are more for
23 productivity and business.

24 Q. Before we move on to those, when I said negligible,
25 I suppose I should have given you a point of reference:

1 negligible certainly in comparison with the price
2 charged by a games developer, generally?

3 A. Generally. Developers would want to design their game
4 so the digital currency or additional features that were
5 being purchased would cost a lot less than the price.

6 Q. Can we go back to paragraph 17? I think you say that
7 you are telling me to move on from games, that really
8 what is more material is the example you gave, which is
9 a complicated productivity app.

10 On page 9 {C2/12/9}, top of the page, about five
11 lines down:

12 "Depending on the type of app such marginal costs
13 can be substantial."

14 Then you say:

15 "For a complicated productivity app, the developer
16 may incur relatively high costs for technical support."

17 Then you do give the example of additional bandwidth
18 costs, but I will look at the productivity app first,
19 the relatively high cost for technical support.

20 You do not give an example of a particular app that
21 you have investigated and found to have high support
22 costs?

23 A. No, this is opinion based on my own experience in this
24 field.

25 Q. It is just a hypothetical example?

1 A. No, it is based on my own experience in the field.

2 Q. But you do not actually specify what experience is
3 leading you to say this thing?

4 A. Correct.

5 Q. The truth is, again, we have no evidence at all as to
6 whether these marginal support costs are large enough to
7 be material to the pricing decision that developers make
8 for complicated productivity apps?

9 A. No, I think I would have to find it. I think it is
10 actually in paragraph 18 I talk about Dropbox as
11 a specific example.

12 Q. We will come to that in a second. Just dealing with
13 the general point about complicated productivity apps.
14 Would you accept as a general proposition that if
15 the app really was complicated to make, it is likely
16 that the price will be set far beyond the marginal
17 costs?

18 A. I would not accept that premise. There are plenty of
19 very complicated apps that are free.

20 Q. Free in the sense of free --

21 A. Free to download, free to use. They are open source
22 apps that have millions of lines of code, and our own
23 apps sold -- all of them were less than \$20 as
24 a one-time purchase. Some were \$7.

25 Q. Going to the example you do give, Dropbox and Box, that

1 is paragraph 17 at the bottom, and paragraph 18, just so
2 I understand in basic terms, these apps allow users to
3 create an account and upload their documents into
4 a folder stored in the cloud which you can then access
5 from different devices?

6 A. Correct.

7 Q. Both companies offer a free service which provides
8 the user with a particular amount of storage?

9 A. Sorry, both companies, Dropbox and ...

10 Q. Box?

11 A. Yes.

12 Q. They generate their revenue through subscriptions to
13 businesses and individuals who want more storage?

14 A. Yes.

15 Q. Can we go to the form 10K filed by Dropbox Inc? It is
16 in {D1/1688.2/1}. First of all, do you see the front
17 page of the document, Mr Howell?

18 A. I do.

19 Q. At page {D1/1688.2/59} at the top of the page, you can
20 see that they earned 2.3 billion in revenue in 2022 and
21 2.5 billion-odd in 2023. Do you see that at the top?

22 A. I do.

23 Q. We were told by Dropbox that was an increase, if you
24 follow along that blue horizontal bar, an increase of
25 176.7 million dollars?

1 A. Yes.

2 Q. If you skip down to the text immediately below that blue
3 horizontal bar, it says:

4 "Revenue increased [by that amount as compared to
5 the previous year] primarily due to an increase of
6 [about 216 million] from additional paying users ..."

7 Do you see that?

8 A. Yes.

9 Q. It is offset by some FX losses, they say. If we move
10 down the page, the cost of revenue, the next two blue
11 horizontal bars, we are told the cost of revenue
12 increased as well by 34.3 million dollars. Do you see
13 that?

14 A. I do.

15 Q. It includes, if you read along the lines, it says:

16 "... primarily due to increases of 13.4 million
17 dollars in infrastructure costs ..."

18 A. Yes.

19 Q. To see what infrastructure costs are, can you go to
20 page 55 {D1/1688.2/55}, under "Cost of revenue", and:

21 "... cost of revenue consists primarily of expenses
22 associated with the storage, delivery and distribution
23 of our platform for both paying users and free users.
24 These costs, which we refer to as infrastructure costs,
25 include depreciation of our servers located in

1 co-location facilities that we lease and operate, rent
2 and facilities expenses ... network and bandwidth costs,
3 support and maintenance costs for our infrastructure
4 equipment, and payments to third-party datacentre
5 service providers."

6 So that includes the kinds of marginal costs you had
7 in mind?

8 A. That is exactly it. It is the storage and bandwidth
9 costs.

10 Q. If you take it from me, the maths, that 13.4 million is
11 just 6% of the increase in revenue from paying
12 customers, that is the \$216 million we saw earlier?

13 A. Dropbox had the power to maintain that percentage
14 wherever they want just by changing the amount of
15 storage you get for free and changing the incentive for
16 people to upgrade.

17 Q. So for developers like these who have relatively large
18 marginal costs, they are still a small fraction of
19 the revenue they earn from paying customers?

20 A. It can be, for sure. If competitive pressure made them
21 change their pricing structure to give away more for
22 free, for example, or to charge less than that
23 percentage could change. But at the moment in this
24 snapshot of time, it is a very small amount. It is
25 a few per cent.

1 Q. Thank you, Mr Howell. I will move on now to
2 the question of whether a lower commission would be
3 likely to lead to lower prices and increased innovation.

4 If we can go back to your first report, at
5 paragraph 88, this is {C2/4/42}, you say:

6 "In your experience, iOS developers take the
7 Commission into consideration when choosing a pricing
8 strategy for Relevant Purchases."

9 Do you see that?

10 A. Yes.

11 Q. Then you go on to talk in general terms about
12 the approaches you say large and small developers take
13 to setting prices?

14 A. Yes.

15 Q. You say in relation to large developers -- this is in
16 88.1, three lines down:

17 "... the Commission is one of the costs that will be
18 considered as part of that methodology."

19 It is likely to feature, next sentence, in their
20 pricing decisions?

21 A. Yes.

22 Q. In paragraph 90 over the page, you say: {C2/4/43}

23 "If Commission levels were lower, I would expect
24 this to have an impact upon the pricing decisions of iOS
25 App Developers."

1 A. Correct.

2 Q. But again, Mr Howell, you do not provide us with any
3 information at all about the actual experiences you have
4 had in which developers have taken commission into
5 account in their pricing decisions?

6 A. As I state in here, this is in my experience. I have
7 made these pricing decisions for dozens of apps, about
8 60, I believe.

9 I have spoken at conferences and been on panels and
10 talked to thousands of developers, but I did not present
11 the details of those conversations in here. But that is
12 my experience.

13 Q. Do you see the difficulty that places us in,
14 the Tribunal and me? You have not specified any of
15 those experiences, have you, by reference to any named
16 developer?

17 A. I do have citations for a lot of this, but I think for
18 those specific things that you were mentioning just now,
19 I do not think there are citations.

20 Q. There is one point you make in paragraph 88.1, if we can
21 go back to that {C2/4/42}. You say:

22 "If the Commission --

23 88.1 on page 42. It is about halfway down that
24 paragraph:

25 "If the Commission and any incremental costs are not

1 reflected in the prices ... developer will not have
2 a sustainable business model. This could mean setting
3 higher price points for each type of Relevant Purchase
4 to maintain profitability after the Commission is
5 taken."

6 Do you see that?

7 A. Yes.

8 Q. But would you accept that from the evidence we have
9 seen, incremental and marginal costs tend to be nowhere
10 near the level of the price that developers actually
11 charge users?

12 A. We only looked at the one example of Dropbox. But in
13 reality, Dropbox is a highly successful multibillion
14 dollar company, and the vast majority of developers
15 barely breaks even, if that.

16 So for most of us, the cost of running the business
17 is about equal to the revenues. So any imbalance on
18 that is huge to us.

19 Q. Mr Howell, Dropbox is the only example you gave us.
20 That is why we looked at it.

21 A. Yes, the private companies do not generally publish
22 their internal finances. So the only citeable data that
23 is not private to anybody that I could use here is
24 the public information, and those tend to be larger
25 companies.

1 Q. You chose one of the largest?

2 A. Yes.

3 Q. Can we go to the Epic evidence about developers lowering
4 prices.

5 I should say before I move on, did you make any
6 attempt, Mr Howell, to look for a broader range of
7 companies other than Dropbox?

8 A. I was trying to justify that point and to make the math
9 understandable, I was not trying to do a market survey
10 pointing at Dropbox. I was trying to say here is an
11 example of how marginal costs change and can affect
12 the business model.

13 Q. Did it occur to you to look for smaller companies or
14 struggling companies in addition to the Dropbox example?

15 A. No, I liked that example, not because of even the actual
16 numbers that were in there, but just because
17 the illustration of how that is a component in
18 the accounting.

19 Q. Moving on to the Epic evidence about whether developers
20 would lower prices, the only evidence you provide to
21 the Tribunal to support the idea that developers would
22 reduce prices if the commission was lower is a series of
23 emails sent by Mr Sweeney, again, to Apple at the time
24 that it released its Fortnite hotfix.

25 We are in at {C2/4/43} and it is paragraph 19, in

1 particular footnote 94. You make the point about if
2 commissions were lower, this would have an impact on
3 pricing. But all you cite for that in footnote 94 are
4 these emails from Mr Sweeney to Mr Cook, Mr Schiller and
5 Mr Federighi and Mr Matt Fischer. Do you see that?

6 A. Yes, this is a hypothetical. If developer costs were
7 lower, what would they do? My answer is they have a few
8 options. They could lower the prices and pass that on
9 to consumers, or they could reinvest in innovation, they
10 could just be more profitable. There are a lot of
11 possibilities.

12 Q. You say other developers would decrease their prices.
13 That is what you say in the middle of paragraph 90.

14 A. Right. I gave an example of one of those, but the point
15 is that is one of the options for responding to lower
16 costs.

17 Q. Sure, but in relation to your claim that developers
18 would decrease their prices, you cite the Epic example.
19 You will see in your footnotes, the dates of emails,
20 13 June 2020 and 13 August 2020. Do you see that?

21 A. Yes.

22 Q. Now, the Fortnite hotfix that is in issue here when Epic
23 decided not to pay or to violate Apple's restrictions,
24 that was a product of a carefully designed legal
25 strategy, was it not?

1 A. I can only imagine what went on in their machinations.
2 They made the decision after some deliberation,
3 I presume.

4 Q. I can show you the documents, but it was, was it not?
5 You know something about this because you have referred
6 to it in your statement. It was the product of
7 a carefully designed legal strategy that would provide
8 Epic with a springboard from which to challenge Apple's
9 restrictions as anticompetitive?

10 A. It may have been. What I saw was posturing emails
11 between two companies. I never know if that is what
12 they really think or what really happened, or if that is
13 just what they are saying to each other. But I am
14 quoting their emails to each other.

15 Q. Would you accept that based on what you say there,
16 Mr Sweeney wrote these emails anticipating that they
17 would be relied upon in support of Epic's claims against
18 Apple?

19 A. That is a reasonable conclusion. I would not swear to
20 it.

21 Q. It is pretty clear that that is what he had in mind, was
22 it not?

23 A. I do not want to try to read anybody else's mind.

24 Q. But ultimately what the developers would do if
25 the commission was lower is an empirical question, is it

1 not?

2 A. It is a hypothetical. I think developers would respond
3 in all sorts of different ways because their motivations
4 are completely different.

5 Q. A couple of tiny points before I finish and hand over to
6 Ms Demetriou for a short question. Can you go please to
7 {D2/144/1}.

8 Just to be clear, now I am looking at Apple's Family
9 Sharing feature. Do you accept that this Family Sharing
10 feature extends to other kinds of in-app purchases
11 provided they relate to non-consumable content?

12 A. Yes.

13 Q. Can we go now, please, to your first report again
14 {C2/4/40}. At paragraph 85, you say you have observed
15 a shift by large iOS App developers towards
16 the subscription business model.

17 Do you see that?

18 A. Yes.

19 Q. Some large iOS App developers did begin using
20 a subscription-based model, but would you accept that
21 the Apple slide deck you cite in footnote 89 shows that
22 the freemium business model is still dominant overall?

23 A. I would not say still. At first there was no freemium
24 model, there were only paid apps and free apps. Once
25 the in-app purchase was introduced, there has been this

1 gradual progression where the paid apps are now
2 the exception and the freemium or free apps are
3 the general model for most apps.

4 Q. I think you are agreeing that freemium is still dominant
5 overall?

6 A. It is the word still. I would say they are now. It is
7 now.

8 Q. Sorry, a very small point about a very small sum of
9 money. Can you go to {C2/4/41}? This is, again, your
10 first report, paragraph 87.

11 A. Okay.

12 Q. You say at the bottom of that, that the -- talking about
13 price tiers. Next page, please {C2/4/42}, you say
14 the lowest price tier is 49 pence.

15 A. Yes.

16 Q. But would you accept that the lowest price tier is in
17 fact 29 cents?

18 A. I know this has changed a lot over the years. This is
19 in 2015, and in 2017 it went to --

20 Q. I can show you the document.

21 A. Oh, I see. Yes.

22 Q. It is really just a correction. That is not
23 the document. {D1/1351/1}, and if you skip down,
24 please, it should refer to 29 cents. Further down,
25 please? There we go. The penultimate paragraph,

1 halfway down:

2 "... price points - which will start as low as
3 29 cents ..."

4 Do you see that?

5 A. I do.

6 Q. You have no reason to disagree with that?

7 A. I don't.

8 THE CHAIRMAN: That is the second time it appears. That is
9 the reference in 2023, which you treat as being
10 adjusted?

11 A. Yes.

12 THE CHAIRMAN: Thank you.

13 MR KENNELLY: Thank you, sir.

14 Further cross-examination by MS DEMETRIOU

15 MS DEMETRIOU: Mr Howell, I have one short clarificatory
16 question that arose from something yesterday. Can we go
17 to yesterday's transcript at page 178, please, if we can
18 get that up on screen.

19 I realise I should have shown you your second report
20 just to clarify something. If we look at line 8, do you
21 remember, I said {Day8/178:8}:

22 "... taking Steam and Epic Games Store, they are not
23 creating their own operating system?"

24 You say:

25 "They do offer frameworks for game development. I

1 believe Steam makes - I forget which one."

2 So you were a bit unsure at that stage about which
3 one we were talking about.

4 If you just read through -- I am going to show you
5 your reply report -- but if you read through to line 22
6 so you recall the discussion, to yourself.

7 A. Yes.

8 Q. Then if we please go to your reply report at {C2/12/4},
9 paragraph 7, you are referring here to frameworks for
10 game development, and you say this. You say:

11 "... there are only [in practice] two engines that
12 could be considered to provide meaningful support to
13 developers in this regard: Unity and Unreal Engine."

14 Just to clarify, Unity is not produced by either
15 Steam or Epic, is it?

16 A. I am not sure of the ownership of those two things now.

17 Q. Okay. I think that is --

18 A. That is what I meant by --

19 Q. That is what you meant when you were giving that
20 evidence? Thank you very much.

21 A. Yes, so if I misspoke and sounded uncertain of that,
22 I was not.

23 MS DEMETRIOU: Okay. Thank you.

24 That is the only point I wanted to clarify. Thank
25 you very much.

1 Re-examination by MR HOSKINS

2 MR HOSKINS: Mr Howell, I wanted to ask you questions on two
3 topics and then Mr Kennedy will keep you a bit longer,
4 but not much longer.

5 Can we have on the screen {D1/1449/4}. You remember
6 you were shown these yesterday and you were asked to
7 note the difference in values between digital goods and
8 services and in-app advertising. Do you remember this
9 document?

10 A. Yes.

11 Q. Do you want to see the front page again, or do you
12 remember the document?

13 A. I remember this.

14 Q. If we go to page {D1/1449/10} and if we can make
15 the first table larger, you were shown the figures
16 particularly in relation to the UK. Do you remember
17 that?

18 A. Yes.

19 Q. Again, you were asked to note the difference between
20 the figure for digital goods and services and in-app
21 advertising.

22 Then if we could have up yesterday's transcript at
23 page 202 -- I am sorry, this is slightly out of kilter
24 with the version I have.

25 Can we try 212? Bear with me, sir, please.

1 THE CHAIRMAN: I do not think that is the right page. Is
2 this the point about whether it includes in-app or
3 whether it includes purchases through the app stores --

4 MS DEMETRIOU: It is nine pages out.

5 MR HOSKINS: Can we try 211 please? No, it is not coming
6 up. The point that was put to you by Mr Kennelly, he
7 said {Day8/209:16}:

8 "So we are focusing now on the iOS Apps, [there]
9 were, as you saw, \$109 billion, with almost \$27 billion,
10 25%, tied to gaming apps."

11 Then he said:

12 "The short point I would put to you is there is
13 a lot of money being earned through in-app advertising
14 on the App Store?"

15 You said:

16 "... absolutely, and even more on Google Play where
17 the primary way that people monetise is through ads.

18 "Question: By game app developers in particular?"

19 "Answer: Yes."

20 Then a further exchange.

21 The question I have for you is this, if you remember
22 what we are talking about. In relation to sales of iOS
23 digital goods and services, so I am really thinking
24 about Apple here, developers have to pay Apple up to 30%
25 commission, we know that?

1 A. Yes.

2 Q. In relation to in-app advertising on iOS Apps,
3 developers do not have to pay Apple any commission?

4 A. Right, unless they use Apple's iAds, which -- I am not
5 sure if they are still around. But there was a point
6 where that was one of the contenders.

7 Q. So the question is this: why do all developers of iOS
8 Apps not switch away entirely from paid app downloads
9 and in-app purchases to in-app advertising? Because in
10 one leap they would be free of commission? Why do they
11 not all do it? Why have not they not all done it?

12 A. There are a lot of reasons for that. One, it is really
13 not appropriate for some sorts of app. None of our apps
14 could have used advertising. As a matter of fact,
15 we made a free version of Air Display called Air Display
16 Free with the hope that people would pay us in order to
17 make the adds go away. But it was a horrible flop.
18 Nobody wants to see adds in a productivity app. It
19 disrupts their flow --

20 Q. Before you move on, can you give other examples of where
21 it would not be appropriate to have advertising?

22 A. Yes. A banking app does not want ads to be visible.
23 Anything that takes the full screen and plays a movie,
24 there you can use a sort of interstitial ad but it is
25 quite annoying, and although some streaming providers

1 are doing it, I think it is mostly used as a way to get
2 people to pay to upgrade, which really points to
3 the in-app purchase.

4 Q. By pay to upgrade, what do you mean by upgrade?

5 A. To pay to make the ads go away. We used to refer to
6 a certain variety of business software model as
7 annoyware. Annoyware is where you put ads in an app or
8 make people click an extra couple of times and allow
9 them to pay a couple of dollars to make the annoyance go
10 away.

11 Q. So one of the reasons why developers do not switch from
12 paid app downloads, in-app purchases to in-app
13 advertising is it is not appropriate to do so, and you
14 said there were other reasons. Can you move on to
15 the other reasons?

16 THE CHAIRMAN: I think he is just summarising the answer.
17 That is all he was doing.

18 MR HOSKINS: That is absolutely what I was doing. was
19 summarising the answer.

20 A. Another reason you might not want ads in an app is it
21 could be that you are doing something which requires
22 focus, and just the distraction of an ad can take away
23 focus.

24 Q. Anything else you want to add?

25 A. I am not coming up with them on the spur of the moment,

1 but I think I refer to a few reasons in my report.

2 Q. The second question I wanted to ask you relates to
3 whether there would be demand for third-party payment
4 processors on iOS if it were to be permitted.

5 Can we go back to your first statement, {C2/4/78}.

6 You were shown paragraph 157 of your statement where
7 you say:

8 "Based on the evidence in Apple's disclosure,
9 I consider that there is demand from iOS App developers
10 for alternatives to the ASPs. Large developers
11 including Epic and [I am going to call them X because
12 that is confidential, we must not say that word aloud]
13 have attempted to use their own payment support services
14 solutions."

15 You were not taken to footnote 192. Now, bear in
16 mind the confidentiality issue in relation to X. Can
17 you read footnote 192 to yourself, please?

18 A. Yes.

19 Q. Can you explain the point you are making in relation to
20 Epic? What is the point you are making there?

21 A. Let us see, where I -- I was giving an example of
22 companies that have tried to use their own payment
23 support services, and this is one where Epic in
24 particular did that in order to benefit consumers with
25 lower prices.

1 Q. On a scale of 1 to 10, how confident or unconfident are
2 you that there is demand from developers to use
3 third-party payment providers on iOS?

4 A. In theory, as a hypothetical, 10. Every developer wants
5 to pay less. So if there are third-party payments for
6 something that costs less, I am absolutely certain there
7 are developers who would want to take advantage of that.
8 If for some reason it costs the same or more, I am less
9 confident.

10 MR HOSKINS: Mr Kennedy has some questions for you.

11 Re-examination by MR KENNEDY

12 MR KENNEDY: Day 8, page 212, and hopefully I have got my
13 numbers right. Mr Howell, if you can read from line 10
14 which is a question starting {Day8/212:10}:

15 "So are you ..." and can you read all the way down
16 to line 22, please?

17 A. Okay. (Pause)

18 Okay.

19 Q. Can I ask you to explain to the Tribunal what a public
20 API is and how it might operate in the circumstances
21 they have adduced here?

22 A. Okay. So public API in the context of the iOS world,
23 all of these different frameworks that Apple provides
24 whether, whether Store Kit or Core Graphics or whatever,
25 every one of those frameworks have public headers and

1 private headers. In other words, there are capabilities
2 of the framework that all developers can use and others
3 ones that only Apple's internal developers can use, or
4 people who have licensed some access, I suppose.

5 But in general, the public ones are the public parts
6 of the frameworks. So the public APIs then are the ones
7 that third party developers can access and leverage.

8 Q. How might a public API work in the context of Family
9 Sharing?

10 A. Right. So the -- and I have not used the Family Sharing
11 APIs, but if there are APIs that allow the developers to
12 say -- I believe the public APIs allow the developer to
13 say is this other user in the sharing group, or they get
14 an enumeration of the sharing group members, something
15 like that.

16 So the public API are those methods and classes that
17 let developers access information about groups.

18 Q. Would Paddle be an example of a developer that could use
19 a public API in that way?

20 A. Yes. If there is an API that gives them what they would
21 need to offer Family Sharing to their users, then
22 absolutely, that would be a thing that would be usable
23 by them.

24 THE CHAIRMAN: Just so we are clear -- sorry to interrupt
25 you -- at the moment there is no public API for Family

1 Sharing? Is that the position?

2 A. I do not know that. I believe there is but I would not
3 testify to it.

4 MR HOSKINS: Mr Howell, the question asked both about
5 parental controls and Family Sharing. I wanted to ask
6 if you have any further comment on parental controls.

7 A. The same sort of thing. With parental controls, if
8 there is a feature an app developer wants to make
9 available only to users who are authorised by a parent
10 or if the whole app should be inaccessible to a parent,
11 a lot of that would happen -- at a gross level, if an
12 app is only allowed to be run by certain family members
13 or purchased or downloaded by certain family members,
14 then that would be completely outside of the world of
15 APIs, public or private, you know. That would be
16 a mechanism that would prevent an app from even being
17 installed on a device without authorisation.

18 So the APIs do not come into play because there is
19 no code to run on those systems that do not have access.

20 MR KENNEDY: Thank you. Nothing further from me, sir.

21 MR HOSKINS: No other questions.

22 THE CHAIRMAN: Good, thank you very much.

23 Thank you, Mr Howell. We do not have any other
24 questions so your evidence is concluded and you are
25 released.

1 A. Thank you very much.

2 THE CHAIRMAN: We should take a break.

3 It is a question for Mr Kennelly. How do you want
4 to proceed? Obviously you have Mr Burelli coming.
5 The question is if we are going to run into the short
6 adjournment, do you want to take a short break now and
7 run for -- would you finish him if we went for an hour
8 or do you think that is not going to happen?

9 MR KENNELLY: It is not going to happen. I think I will
10 need, unfortunately, as I mentioned yesterday, certainly
11 more than an hour. But this is an appropriate time for
12 a break and then with the Tribunal's indulgence, I will
13 go on after 1 as I think you indicated.

14 THE CHAIRMAN: Really it is a matter for you. We are happy
15 either way, I think. But do you want to keep going
16 after 1? If you are not going to finish him, we are not
17 going to go until you finish, the question is whether we
18 finish at 1, start at half past 1 or you keep going?
19 It is just a question of how it breaks up your -- I want
20 to make sure we do not break in an inconvenient way.

21 MR KENNELLY: I am in the Tribunal's hands. If we have
22 a break now, then I will go til 1, and then we will see
23 how we are getting on and at that point I can tell you
24 if we can stop then or --

25 THE CHAIRMAN: Precisely. You can decide. That is helpful.

1 We will come back at 12.30, slightly less than
2 10 minutes.

3 (12.24 pm)

4 (A short break)

5 (12.30 pm)

6 THE CHAIRMAN: Yes, Mr Kennedy.

7 MR KENNEDY: We call Mr Burelli.

8 THE CHAIRMAN: Can you swear Mr Burelli, please?

9 MR FRANCESCO BURELLI (affirmed)

10 THE CHAIRMAN: Thank you. Please be seated. You should
11 have some water there, I hope, and Mr Kennedy is going
12 to get you going.

13 Examination-in-chief by MR KENNEDY

14 MR KENNEDY: The first document you should have is
15 the expert report of Francesco Burelli dated 14 May
16 2024, yes?

17 A. Yes.

18 Q. Is this the first report you have given in these
19 proceedings?

20 A. That is the case.

21 Q. Could you please go to page {C2/6/35}. Is that your
22 signature?

23 A. It is indeed.

24 Q. You should have a second document in front of you, which
25 is the reply expert report of Francesco Burelli, dated

1 15 September 2024?

2 A. That is correct.

3 Q. Is this the second report you have given in these
4 proceedings?

5 A. That is correct.

6 Q. Thank you. go to page {C2/14/9}, please. Is that your
7 signature.

8 A. It is indeed.

9 Q. Can you confirm that these reports set out your expert
10 opinion?

11 A. Absolutely, yes.

12 Q. You confirm that insofar as the facts set out in these
13 reports are within your own knowledge, are those facts
14 true?

15 A. Yes.

16 Q. There will now be some questions from my learned friend
17 Mr Kennelly, I think.

18 Cross-examination by MR KENNELLY

19 MR KENNELLY: I should say, first of all, you must tell me,
20 Mr Burelli, if you cannot hear me. Please do not be
21 embarrassed to interrupt me.

22 A. Sure.

23 Q. The first thing I want to take you to is your own first
24 report, paragraph 57. It is {C2/6/23}?

25 A. 23. Page 23, yes.

1 Q. Here you name in that table, table 2, three merchants of
2 record who you say provide similar payment related
3 services to Apple's so-called App Store payment system?

4 A. Yes.

5 Q. FastSpring, Paddle and BlueSnap?

6 A. Absolutely.

7 Q. If we look at footnote 59 below that, you say:

8 "If I used other [merchants of record] for
9 the comparator analysis, I would be relying on personal
10 experience, or assumptions based on my payment industry
11 experience as to the specifics of what services they
12 provide as there is not detailed publicly
13 available/referenceable information available."

14 A. Yes, that is correct and simply because, in this B2B
15 type of industry, companies tend not to offer public
16 catalogue of their capabilities or their pricing. So in
17 doing the research and looking for comparative potential
18 solutions we had to rely on companies that have the most
19 complete set of information available. So the choice of
20 these three.

21 In reality, there could have been way more, but if
22 I have to document something and reference it, then
23 I need to have a particular quote, and I cannot rely on
24 personal confidential information out of work cases with
25 other organisations, so those I need to leave out of the

1 list, and so these three.

2 Q. There could be more but you have limited it to these
3 three because these are the ones that you could verify
4 and check?

5 A. Simply because for these three I got referable public
6 information that provided me the ability to tick
7 the boxes of those specific capabilities.

8 Q. Thank you, Mr Burelli. You have not offered any opinion
9 on, for example, whether Paddle's sales or analytic
10 service is better or worse than FastSpring's? You have
11 not done that exercise?

12 A. Simply because we have not done a benchmark of any of
13 these, these types of capabilities also evolve over
14 time. There is a lot of analytical platforms.
15 The payment industry is like a Lego game with a lot of
16 bricks, and these bricks are provided by companies
17 themselves or they are provided by specialist providers
18 that integrate within specific set of rules through
19 secured APIs. Capabilities are assembled and developed
20 over time based on market opportunity, demand, ability
21 to commercialise and so on from a different set or
22 combination of setting.

23 There are plenty of analytical dedicated companies
24 out there, including services from the schemes through
25 Mastercard advisers and so on. The analytical offerings

1 coming through now with AI, the widespread use of AI
2 have been even increasing. But as I said, we have not
3 been doing a benchmark, an actual benchmark of these
4 three, and we are not developers so we do not have
5 hands-on experience on the analytics of Apple.

6 THE CHAIRMAN: Mr Burelli, you are speaking quite quickly.

7 It would be fine, but the transcriber has to keep up.

8 A. I will slow down, absolutely. That is a weakness of
9 mine.

10 MR KENNELLY: Not at all, Mr Burelli.

11 Among other things you have said there, you have not
12 conducted any qualitative analysis of how well any one
13 of these companies performs any particular service
14 relative to any another?

15 A. Without performing services to an acceptable degree of
16 proficiency, they would not be in business, simply
17 because customer would not buy them.

18 So, for example, we have not been testing and
19 counting up if Paddle, for example, actually offers
20 services in 200 or 205 type of territories. We need to
21 take that for granted, and it is part of commercial
22 correctness to make a statement that is actually
23 reflecting the capability of the company. Similarly for
24 the rest.

25 Like fraud prevention, there is a fraud prevention

1 capability. If that is based on a neuro network or
2 a rule-based engine or an AI system or a combination
3 thereof, that is something that we have not been
4 benchmarking. They have a declared fraud management
5 capability.

6 Q. Mr Burelli, not in that answer but in your previous
7 answer you talked about how things evolved. But to be
8 clear, your focus is on what these three merchants of
9 record provide now, or at least what they provided when
10 you signed your report in 2024?

11 A. This is what we found as a public reference they provide
12 at the time we wrote the report.

13 Q. So there is no historical analysis of what they were
14 doing in 2015 --

15 A. There is no historical analysis. Companies evolve over
16 time.

17 Q. Paragraph 70 your first report, {C2/6/28}.

18 A. Which number?

19 Q. Paragraph 70. You say:

20 "From a review of publicly available information,
21 I have not been able to locate a merchant of record that
22 is offering its services in Europe beyond Paddle, who
23 has recently published/advertised offering in-app
24 payment functionality in Europe once the DMA reforms
25 take effect."

1 Do you see that?

2 A. Yes, so there are merchants of record that offer
3 services for off-line merchants. In terms of in-app, at
4 the time of the search we found that in Europe there is
5 only Paddle. That is what we found.

6 Q. Are you aware that Paddle has not in fact launched its
7 iOS product in the EU?

8 A. Okay, we found statements that Paddle was due to launch.
9 We relied on what we found and if they have not yet done
10 it, they must have their own reasons.

11 Q. Do I need to show you the transcript where Mr Owens says
12 in this tribunal that he had not in fact launched that
13 iOS --

14 A. I do not challenge your word. I trust it. If you say
15 they have not, they have not.

16 Q. Let us go back to these three companies and see what
17 they charge. But before I do, just to show you
18 something from the transcript about the distinction
19 between payment facilitators and merchants of record,
20 could you go, please, in the transcript to Day 4,
21 page 52, and we are looking at line 6 {Day4/52:6}.

22 This is the examination of Mr Owens from Paddle.
23 I had taken him to a Paddle publication about
24 the difference between payment facilitators and
25 merchants of record, and I said that it reflects his

1 understanding that one can divide merchants of record
2 from mere payment facilitators which offer a smaller
3 stack of services. He said yes because one thing
4 payment facilitators do not do is to take on liability
5 for paying taxes. So you can see his answer.

6 So they are not taking as much of the risk, the
7 payment facilitators. So those payment facilitators
8 will generally charge developers less than companies
9 like Paddle, which offer a fuller stack of services.

10 I said:

11 "... this article reflects your understanding,
12 [Mr Owens], that examples of companies that act as mere
13 payment facilitators include ... Stripe, PayPal, Shopify
14 and Square."

15 Do you see that?

16 A. Yes, I see that. I have to say that out of my
17 professional experience, I partially disagree.

18 So, first of all, it is to be noted that within
19 the industry, there is quite a bit of unclarity in terms
20 of terminology. So the PayFac, payment facilitator, is
21 a broad category of players that are helping merchants
22 to get access to get payment acceptance capability.

23 Within this category, this class, there is a number
24 of different potential roles, and depending on
25 the organisation we talked to, they had their own

1 language. So if we talk to a payment scheme, they may
2 have their own way of classifying it. If we speak with
3 a very large processor depending on the company culture
4 they may use different terminology.

5 We got the merchant aggregator, we got the merchant
6 of record, we got the orchestrator, and these are not
7 clear-cut definitions. There is a lot of blurred, and
8 one company can do one function for some merchants, one
9 function and a bit of another one for another, and so
10 on.

11 In terms of merchant of record, the merchant of
12 record is actually the merchant that is signed up with
13 the acquirer. They represent a number of so-called
14 sub-merchants holding the liability for what is
15 happening within the transaction. So a merchant of
16 record compared to a pure technical facilitator has
17 a risk element connected to it, risk is a cost, and
18 it is obviously priced within the services.

19 Now, there is a lot of permeability between these
20 business models. So Stripe or Square are present maybe
21 deciding not to act as a merchant of record taking on
22 the risk and liability. Tomorrow, their business model
23 may well change.

24 Shopify offers tax compliance services to a variety
25 of merchants. It is not infrequent to buy something

1 online and to have Shopify being the interface on the
2 other side, and Shopify actually is using Stripe as
3 a PSP in order to process the transaction.

4 So my understanding out of these lines, they are
5 partially incorrect simply because if I take evidence
6 just to come up with one case, Shopify provide the tax
7 compliant services.

8 Q. You mention the tax compliant services. That is
9 typically a service provided by a merchant of record?

10 A. That is a typical service --

11 Q. Square, for example, does not provide that service?

12 A. Square does not. But as I said, there is a lot of grey
13 between these definitions and these companies, and
14 moving from one value proposition into expanding it into
15 other services is a very fine line. It depends on
16 market opportunity, it depends on decision, it depends
17 on capability, and this capability can be easily
18 purchased, packed and embedded in supply from a third
19 party as well as if the company is big enough to be
20 developed out of their own right.

21 Q. Mr Burelli, we are moving on now to the fees which these
22 merchants of record charge. Can I ask you to go back to
23 your first report, {C2/6/5}?

24 A. C2?

25 Q. {C2/6/5}. It is at paragraph 10.6. It is your first

1 report.

2 A. Here it is. "Summary of my conclusions"?

3 Q. Paragraph 10.6. You say:

4 "In my opinion, the merchant of record services
5 offered by Apple (via the ASPS) could be (and, in some
6 cases for iOS Apps that are exempted from Apple's
7 restrictions to use the ASPS, are already) provided by
8 a number of alternative merchants of record on
9 a comparable base, such as Paddle, FastSpring, and
10 BlueSnap."

11 Then it says:

12 "The fees for these services vary but range from 5%
13 to 7% of transaction value."

14 A. Okay.

15 Q. Can we then go to page {C2/6/32}, same report, just to
16 explore where you reach that 5 to 7% range.

17 A. Simply it is --

18 Q. Do not worry, Mr Burelli, you will have your chance.

19 I am going to show you the table before I ask
20 the question.

21 Table 5. This is the table where you set out
22 the prices charged by the various different companies.

23 We will start with Paddle. We will take it slowly
24 and you will have a chance to answer the question.

25 In the final column, for Paddle you see the fee

1 structure for the UK. We have the pricing advertised by
2 Paddle for transactions below \$10 and above \$10.

3 Then you refer in that box to paragraph 16 of
4 Mr Owens' witness statement for the proposition that
5 Paddle's average effective commission is 6 to 7%.

6 Can I show you again Mr Owens' statement so you can
7 see it again? Paragraph 16. It is {B1/1/6}. There you
8 see him saying:

9 "Paddle's default fee is 5% of the purchase price
10 plus ... 50 cents ..."

11 They are into bespoke pricing arrangements with
12 certain developers, they will try to lower prices,
13 larger transaction volumes and offers discounted pricing
14 for microtransactions:

15 "... Paddle offers a fee based on a percentage ...
16 typically 10% or lower ..."

17 Do you see that?

18 A. Mm-hm.

19 Q. Mr Owens' oral evidence to the Tribunal, I can show you
20 the reference, Mr Burelli, but the oral evidence was
21 that Paddle would offer 10% for transactions under \$10
22 to mobile app developers. That was the current
23 proposition.

24 A. Mm-hm.

25 Q. Could I ask you then to turn, please, to confidential

1 evidence in this case please. It is Mr Holt's report.

2 {C2/10/139}

3 It is paragraph 380. We must not read out
4 the information coloured in pink, Mr Burelli. That is
5 confidential. What Mr Holt is analysing is the average
6 value of paid transactions on the App Store, and
7 the last sentence gives you his estimate and Dr Singer's
8 estimate of the average value of paid transactions. Do
9 you see that figure?

10 A. I see the figure.

11 Q. Would you agree with me then that when we are looking at
12 Paddle's pricing, the relevant price for most iOS App
13 developers is going to be the 10% figure, the 10% figure
14 for transactions less than \$10?

15 A. It depends on the commercial pricing decision of Paddle
16 at the time that they have access to, or they decide to
17 enter this market. It depends on the comparative
18 pricing of competitors.

19 Pricing is something that is adjusted dynamically by
20 players, and the only key component in pricing
21 consideration typically is cost, and the ability to go
22 above or below cost based on the financial situation of
23 the company.

24 Now, what we got in my report is based on
25 the publicly available information for pricing.

1 Similarly, we had -- we made some assumption in our own
2 calculation about the value of transaction given effect
3 that these have an element of a fixed-plus variable, so
4 there is a pricing curve in terms of percentage versus
5 the value of the transaction, and that has led to this
6 conclusion.

7 If Paddle is going to keep charging 10% in the case
8 of a transaction of [redacted] is hard to say.

9 Q. You must be careful, Mr Burelli. You have just read out
10 the confidential information that I have asked you to
11 not. Do not worry, I have done it myself but you get
12 one go and that is it. Please, we both need to be
13 careful.

14 MR HOSKINS: Mr Burelli should finish the answer that
15 you interrupted, obviously for the confidentiality.

16 MR KENNELLY: Please, Mr Burelli, carry on.

17 A. So in regards to the overall transaction there is a
18 curve with a fixed and a variable transaction depending
19 of the decision of Paddle at the time they will enter
20 the market and they will negotiate a deal with each
21 specific developer. It will be up to them to determine
22 what the actual percentage cost for that specific
23 developer is like.

24 In the acquiring industry, for example, it is
25 customary to price based on the characteristics of

1 the transactions that a merchant is expected to have
2 over time. This is the value, the overall number of
3 the volume, the overall number of transactions in the
4 period, the value of the transaction, the underlying
5 risk of a transaction that is dependent upon the type of
6 goods or services that the merchant provides. So
7 pricing tends to be very dynamic.

8 THE CHAIRMAN: Was that acquiring, you said?

9 A. Yes, acquiring.

10 THE CHAIRMAN: I wanted to understand.

11 A. In general terms, there is the acquiring industry and
12 the acceptance industry.

13 THE CHAIRMAN: I understand that.

14 MR KENNELLY: Mr Burelli, we are just looking at Paddle and
15 your evidence about Paddle's pricing. If, and this is
16 on the assumption that Mr Owens' evidence is that
17 Paddle's current proposal is to charge 10% for
18 transactions under \$10 --

19 A. That would be the case.

20 Q. -- and if that is the average value of paid transactions
21 the figure we have seen?

22 A. That would be the case.

23 Q. So would you agree that if that is the case,
24 the relevant price for Paddle's pricing is going to be
25 the 10% figure and not the 6 to 7 weighted average?

1 A. If that is the case, yes.

2 Q. Can we go back to the transcript again on a different
3 point, about additional costs {Day4/93:7}, looking from
4 line 7 because I asked Mr Owens about additional charges
5 and I took him to Paddle's Master Services Agreement.

6 We will follow it through the transcript. I am
7 happy to show you the Master Services Agreement if you
8 would like to see it. I took him to fees and charges
9 and I noted that Paddle charges a foreign exchange fee
10 of 2% for certain currencies. If you scroll down
11 please?

12 A. Yes, I see that.

13 Q. Then it can go up to 3% for other currencies?

14 A. Mm-hm.

15 Q. If you go down to line 12, the page we are looking at
16 now, there was a further charge where a developer wanted
17 to make an international -- where the payment has been
18 made to the developer using an international bank
19 transfer. Do you see that at line 12?

20 A. Yes.

21 Q. Paddle applied a further charge of \$15, do you see that?

22 A. Yes.

23 Q. At the bottom of that paragraph that I was showing him,
24 if the developer wanted to be paid in a currency other
25 than the one they indicated, Paddle reserved the right.

1 Now, it was not a guarantee but they reserved
2 the right to charge a further fee of 1.5%.

3 A. Yes.

4 Q. I put it to Mr Owens that these were possible additional
5 charges that would be payable on top of the 10% or the
6 5% plus 50 cents and he said yes.

7 A. Yes.

8 Q. I got that from the publicly available Paddle terms and
9 conditions. On that basis, Mr Burelli, if you go back
10 to your table, if you see "General fee structure for
11 Paddle", do you see there you wrote "no additional
12 costs"?

13 A. Yes.

14 Q. So that should refer to those further additional costs
15 that Mr Owens accepted could be paid? It is not
16 a criticism.

17 A. Yes, but we do not know for example how much Apple is
18 charging for the FX conversion. FX conversion
19 surcharges are common by banks, by any type of operator
20 that is doing it. It is a service that has a cost.
21 It is a service that in some cases, players help with
22 the margin, in other cases help with the cost.

23 In terms of general fee structure, yes, it should be
24 placed in there. Do I have a base of comparison? No.

25 Q. Mr Burelli, it is a very simple question. I think you

1 have accepted it --

2 A. Yes, that I accepted.

3 Q. Sorry --

4 A. I was missing that information so it is not in the
5 general fee structure of additional charges.

6 Q. Forgive me, Mr Burelli, I am just going to check what
7 you said.

8 THE CHAIRMAN: I think he said in terms of general fee
9 structure, yes, it should be placed in there, which
10 I think was agreeing with you, and then he went on to
11 make an observation about whether he could compare it.

12 MR KENNELLY: In terms of comparing whether Apple charges
13 additional fees for foreign exchange, can I show you
14 {D2/773/2}?

15 At the top of the page, could we just expand that?
16 That is an Apple document, take it from me, Mr Burelli,
17 describing how payments are handled and Apple says:

18 "Our bank converts payment amounts into the currency
19 of your bank account. The exchange rate is established
20 by our bank and, due to Apple's volume, is generally a
21 more favorable rate than used by your local bank."

22 They describe the rates as the spot rates. There is
23 no reference to any additional foreign exchange fee, is
24 there?

25 A. Okay.

1 Q. Going back to your table back to your statement,
2 {C2/6/32}, we are now looking at the second one after
3 Paddle, Verifone. We are looking at again just prices
4 and the pricing that you have assessed.

5 So the fee structure for Verifone you list as 6%
6 plus 60 cents for standard payment methods like credit
7 cards and PayPal plus a potential 2% foreign currency
8 fee. I am so sorry, and the UK structure as well:

9 "Full plan for 6% + 0.45 GBP for standard payment
10 methods like credit cards and PayPal + potential 2%
11 foreign currency fee."?

12 A. Correct. These are published pricing out of their
13 website.

14 Q. If we take an easy example of an app that costs a pound,
15 a one-pound app, so a micro transaction, do you see what
16 the developer would pay Verifone in the UK fee
17 structure?

18 A. Yes, I see it but it is potentially a generalisation
19 simply because transactions can be bundled together.

20 For example, this is a service that we understand
21 from the evidence that we have been reviewing that Apple
22 does that means that a transaction can be part, not
23 posted through the processing system, can be accumulated
24 and then posted in as a sum of a lot of small
25 transactions. That is a pretty common practice in

1 the value of small transactions.

2 Q. Mr Burelli, we will take it in stages, because I asked

3 you a question about the amount that the developer would

4 have to pay for a one-pound transaction.

5 A. Yes.

6 Q. They would pay (inaudible) 51p, 51% of that value?

7 A. Yes.

8 Q. If the app was to cost £10, they would pay 6% of £10

9 which is 60p plus the 45 pence, so just over a pound,

10 £1.05, is that right?

11 A. Yes.

12 Q. So that is equivalent to just over 10% of

13 the transaction value?

14 A. Yes.

15 Q. To be clear, you do not name Verifone as one of your

16 three merchants of record that you say provide

17 comparable services to Apple's ASPS, do you?

18 A. Are we talking about comparable services or comparable

19 pricing?

20 Q. Comparable services.

21 A. Yes, indeed.

22 Q. That is because you cannot say whether Verifone provides

23 services comparable to Apple's ASPS; you are not sure?

24 A. In general terms, given the published information, they

25 are a merchant of record and they seem to provide

1 services that are comparable and by that I mean access
2 to payment capability, the ability to collect money,
3 the management of (inaudible) refunds, the disbursement
4 of fees.

5 Q. That bundling you point you made, Mr Burelli, again
6 Apple with its larger scale would have greater
7 efficiencies in terms of the discounts it gets from
8 bundling in that way, is that correct? Efficiencies in
9 Verifone?

10 A. That is correct.

11 Q. The third row in your column is FastSpring. Here, you
12 say, looking at the second bullet point in that column:

13 "Some sources indicate that FastSpring offers two
14 pricing options: 8.95 or 5.9% plus 95 [US cents]."

15 Do you see that?

16 A. Yes.

17 Q. Above that it says "No disclosure of fees". Does that
18 mean you could not find any reliable information from
19 FastSpring about the prices of its services?

20 A. We could not find any official information from
21 FastSpring itself. We found references within other
22 sources like blogs and comments on FastSpring users'
23 networks.

24 Q. But did you make any enquiries of FastSpring itself?

25 A. We did not run any request for information or request

1 for proposal with any company.

2 Q. Why did you not do that? Is that not the obvious thing
3 to do?

4 A. Simply it would have been deceiving for us to go to any
5 of these companies and ask them to disclose pricing
6 without telling them the purpose of the disclosure.

7 I would have expected not to be providing any
8 numbers unless, on the other side, there is a commercial
9 opportunity and it would have been morally wrong from
10 our side to pretend that might have been a commercial
11 opportunity in order to get to those numbers. Hence,
12 the RFI RFP route has not been pursued.

13 Q. Mr Burelli, you could have asked and been honest about
14 the purpose and tried to see if they would give you
15 the information, could you not? It was worth a try, an
16 email?

17 A. It was worth a try, so we have done a project for
18 a payment facilitator. We asked our client if we could
19 have been using the data and the answer was no. So on
20 those bases, we have given up the idea of trying to find
21 additional information.

22 Q. Because of one refusal, you decided not to bother asking
23 any of them for the information directly?

24 A. We relied on whatever is published. If they do not
25 publish it, typically they do not disclose.

1 Q. Looking at the Number X, the last one on this table of
2 yours, you say Number X is charging 5% of the overall
3 transaction value?

4 A. Yes.

5 Q. You do not name Number X as one of the merchants of
6 record providers that offers a comparable stack of
7 payment-related to services, so comparable services.
8 You do not name Number X as one of those, do you?

9 A. No. I do not.

10 Q. That is because you cannot say for sure if it does
11 provide comparable services to Apple's?

12 A. It is because we cannot get into the detail of what
13 Number X does.

14 Q. What does that mean, you cannot get into the detail?

15 A. It is confidential information.

16 Q. You know but you cannot tell the Tribunal?

17 A. We are bound to client confidentiality.

18 Q. Could we have a look at what we have been able to find
19 about Number X, Mr Burelli. Can you go to {D2/753.1/1}.
20 This is where we start.

21 So we have:

22 "Number X is a cross-border merchant of record ...
23 founded in 2022 ... "

24 Do you see that?

25 A. Yes, indeed.

1 Q. If we go, please, to {D1/1506.1/1}, they are service
2 terms that are available online on the Number X
3 website --

4 A. Okay.

5 Q. You see that the group is -- please can we expand that
6 a bit? My sight is terrible.

7 It describes three companies: Number X Limited,
8 Number X Europe OU and Number X LLC. Do you see that?

9 A. Yes.

10 Q. Skipping down about four lines:

11 "USA law is used because of the advanced USA legal
12 system and favourable rules of the game for start-ups,
13 not because the company does business there. Number X
14 Group's software development and services are performed
15 outside the USA."

16 It appears to be telling us that Number X is not
17 doing business in the US, or at least is not based
18 there?

19 A. I would not know -- on the basis of this, I would not be
20 able to say.

21 Q. Can we go to the second page, please, and clause 8(b),
22 {D1/1506.1/2}. Here are the payment limits, it says:

23 "You may be limited to receiving payments equivalent
24 to \$20,000 per month."

25 Then it says the group may:

1 "... request an adjustment of this limit at any time
2 during the period during which these Terms are
3 applicable to you ..."

4 So a limit, even a starting point limit, of \$20,000
5 per month does not look as if this is set up to
6 facilitate the payments of a large gaming developer for
7 example. It is a very low figure?

8 A. I would assume that the payment limit is something that
9 can be negotiated on a case by case basis.

10 It is, again, standard practice within the wider
11 acquiring industry to deal with clients on the basis of
12 expected volumes. It depends on the risk strategy of
13 the company. But this is what they say here. What they
14 actually do commercially, I would expect on the basis of
15 my industry experience to be evaluated on a case by case
16 basis.

17 Q. Let us look at these three companies that are listed in
18 the service terms. We will look first at Number X
19 Europe OU, which seems to be an Estonian company.

20 We found their accounts, again online, a publicly
21 available document. The original is in Estonian so
22 I want to show you an English translation which
23 Gibson Dunn, my solicitors, prepared. That is
24 {D1/1839.2/1}.

25 Do you see, this is the annual report of Number X

1 Europe OU, end of the reporting year, 2023?

2 A. Yes.

3 Q. Can we go, please, to page 3 {D1/1839.2/3} to see their
4 balance sheet, to expand that, thank you? Do you see
5 what the balance sheet is in respect of; current assets?

6 A. Yes.

7 Q. 11,815 euros. If you go to the income on
8 page {D1/1839.2/4} and expand, please, we see sales
9 revenue of 14,618 producing an operating profit of 5,473
10 euros.

11 The total profit before tax, just over 10,000 euros.

12 A. This is obviously a start-up.

13 Q. Well, it was founded in 2022. Yes, to that extent,
14 Mr Burelli, we agree.

15 Can we go please to page {D1/1839.2/5}, and
16 the total labour costs also tell us the number of
17 employees reduced to full-time. Do you see that? It is
18 one single employee.

19 Can we go please to page {D1/1839.2/6}, and we have
20 the signature, the member of the management board,
21 Mr Simion Urman.

22 Were you aware, Mr Burelli, of this information
23 before you signed your report?

24 A. Of the size of the company?

25 Q. Other specific figures that I have just showed you.

1 A. We knew they were a start-up. We did not investigate
2 the figures.

3 Q. I want to show you what else we found out about Mr Urman
4 in relation to these Number X companies.

5 If we go to {D2/753.2/1}, this is an entry on
6 Companies House for Mr Urman, we see he is the sole
7 director and we see his date of birth. If we go up to
8 the previous page, please {D2/753.2/1}, we understand
9 that no accounts have been filed with Companies House
10 for this entity.

11 A. The company seemed not to be active in the UK.

12 Q. If we turn up {D1/1869.3/1}, again, a publicly available
13 document, we found that Mr Urman had applied on
14 3 January this year for this UK company to be struck off
15 the register. Do you see that?

16 A. Yes.

17 Q. Were you aware of this?

18 A. I was not aware of this. This is dated January. So --

19 Q. It is relatively recent.

20 A. Indeed.

21 Q. So all the available evidence suggests that this is
22 a relatively small company, is that right?

23 A. Mm-hm.

24 Q. It did not exist at all until December 2022. Is that
25 correct?

1 A. That is correct.

2 Q. We see it is winding down its UK subsidiary?

3 A. That is correct.

4 Q. This Tribunal should not place any weight at all on
5 Number X as a comparator?

6 A. If they are shutting down from the UK, they are not
7 relevant for the UK market.

8 Q. Let us go to paragraph 84, please, back to your report,
9 first report, paragraph 84 {C2/6/32}.

10 You say here, just to be clear, you refer first to
11 the costs of what you say are Apple's ASPS service,
12 which you estimate to be 3 to 6% of the transaction
13 value, and then you say:

14 " ... and the price to sub-merchants of
15 the alternative MoR providers (outlined in the above
16 table ..."

17 So in working out the price to sub-merchants of
18 the alternative MoR providers, you are referring to
19 the table above, right, and on the basis of the table
20 above, you say that is 5 to 7% of transaction value,
21 correct?

22 A. Correct.

23 Q. Then you say:

24 "I conclude that the cost of the payment-related
25 services within the ASPS to Apple is broadly comparable

1 to the cost of the MoR Services being provided by the
2 alternative MoRs listed above."

3 Let us look at the basis for that 5 to 7% range.
4 Presumably the lower band of that range from the table
5 is Number X's 5%?

6 A. Yes.

7 Q. Well, the Tribunal will work out for itself how much
8 weight it wants to place on Number X as a comparator.
9 You do not claim, as I think you said a moment ago, that
10 that 5% is for the same stack of payment-related
11 services that Apple is providing via its commerce
12 engine?

13 A. We made this comparison on the basis of the available
14 information. I have to say we had a challenge in
15 finding publicly available information that we could
16 reference to for merchants of record simply because they
17 tend not to publish the list of services with pricing.

18 If we want to get to those, we need to engage into
19 a commercial discussion with any of those, and in order
20 to do that we should have pretended to have a customer,
21 otherwise typically there is no engagement.

22 So this list and these samples of these companies
23 listed here are based on the fact that they provided us
24 some data points.

25 Q. That is the lower band of your range. I think you have

1 said earlier you cannot be sure if Number X provides
2 the same stack of services as Apple, it may do, you do
3 not know.

4 Then we look at the upper band for this range,
5 the 7%. You take that from the table above. So that
6 seems to be from Paddle. Since you are taking
7 the figure from the table above, the 7% is from Paddle,
8 is it not?

9 A. Yes.

10 Q. Even though Paddle says that it will charge at least 10%
11 for transactions which have the value that Dr Kent
12 claims is the average value of iOS in-app transactions?

13 A. So that 7% had been calculated on the sensitivity
14 analysis. So we worked out a simple Monte Carlo Excel
15 table with different value transactions calculating the
16 impact on the fixed and the variable, trying to work out
17 an average. We got to the 7%.

18 Q. Mr Burelli, let us look at what you actually said in
19 your report. You said the price to sub-merchants of
20 the alternative MoR providers -- and then you say this:

21 " ... outlined in the above table as around 5 to 7%
22 of transaction value ..."

23 So the 5 to 7% transaction value was coming from
24 the table above?

25 A. Calculation that we did.

1 Q. A separate calculation that you did?

2 A. Yes.

3 Q. That you do not refer to at all? You do not set it out
4 in your report, do you?

5 A. We used it as a validation, a back of the envelope
6 calculation to see if these figures would have been
7 making sense. Hence, they made sense and they are
8 quoted in the report.

9 Q. It did not occur to you to make any reference to that in
10 your report whatsoever, this other calculation that you
11 did to verify this?

12 A. The numbers are matching, the 7% is quoted in the table,
13 we got it down as a reference.

14 MR KENNELLY: Sir, I see the time. This might be an
15 appropriate moment.

16 THE CHAIRMAN: How do you want to handle it?

17 MR KENNELLY: I am afraid -- it is no criticism of
18 Mr Burelli -- it is taking a little longer than
19 expected. I am not halfway through Mr Burelli's
20 cross-examination. I will ask for a short lunch break
21 and I am going to ask the tribunal to sit until
22 5 o'clock, if you are willing to do so.

23 THE CHAIRMAN: Shall we take half an hour, 40 minutes --

24 MR KENNELLY: Half an hour --

25 THE CHAIRMAN: -- more concerned really about the

1 transcriber and obviously Mr Burelli as well.

2 Make it 2 o'clock to start again, Mr Kennelly, and
3 we will just have to manage however it works. We will
4 sit to 5 if everybody is happy to do that.

5 MR KENNELLY: Yes, and I do apologise.

6 THE CHAIRMAN: No, no, I understand. It is fine. We have
7 next week, but I suspect we will be under quite a lot of
8 pressure next week as well.

9 (1.24 pm)

10 (The short adjournment)

11 (2.00 pm)

12 MR KENNELLY: Mr Burelli, just before we broke, you
13 mentioned a validation exercise that you say you
14 undertook to test the range of percentages that you gave
15 at paragraph 84 of your report.

16 Mr Burelli, are you aware of your duties as an
17 expert to the Tribunal?

18 A. Yes, I am.

19 Q. Can I show you please {C2/6/35}?

20 A. Yes.

21 Q. That is your signature there, is it not?

22 A. It is.

23 Q. Can I remind you of paragraph 2 of this declaration that
24 you signed? Please take your time to read it.

25 A. Yes.

1 Q. Do you see a reference there to the Practice Direction,
2 to Part 35?

3 A. Yes.

4 Q. You say that you were aware of the requirements in
5 the Practice Direction to Part 35 and the guidance for
6 the instruction of experts in civil claims?

7 A. Yes.

8 Q. Before signing this declaration, did you read
9 the Practice Direction to Part 35?

10 A. Yes.

11 Q. Sorry, what was your answer, Mr Burelli?

12 A. Yes.

13 Q. Yes, you did?

14 A. Yes.

15 Q. Can I remind you of the content of that, please, and
16 bring up, please, {AB2/7/1}? Is this the document that
17 you read, Mr Burelli?

18 A. Yes, it is.

19 Q. Can I show you page {AB2/7/2} of this document? If
20 we can zoom in, please, on paragraph 3.2. This told you
21 what your report had to contain; it was an obligation.
22 Do you recall reading this paragraph?

23 A. I recall reading this paragraph.

24 Q. Do you recall reading 3.2(2)?

25 A. "Give details of any literature or other material which

1 has been relied on in making the report."

2 Yes.

3 Q. Do you see (5)? Do you recall reading that paragraph?

4 A. Yes.

5 Q. Mr Burelli, you mentioned before we broke that you or
6 your team conducted some form of validation exercise,
7 validation test, is that correct?

8 A. That is correct.

9 Q. But there is no mention of that at all. First of all,
10 do you accept that that is material on which you relied
11 in making your report?

12 A. It is material on which we took a public figure of 6% as
13 valid market wise.

14 Q. You referred to some kind of exercise, Mr Burelli?

15 A. Yes, we did an Excel calculation with it.

16 Q. Validation test?

17 A. Yes.

18 Q. That was material that you relied upon in making your
19 report, you say?

20 A. This is material on taking a public figure as reliable.

21 Q. But you did not give any details of that material in
22 your report, any details.

23 A. Okay.

24 Q. At (5), you did not say in your report who carried out
25 this test or the qualifications of that person, or

1 whether that test was carried out under your
2 supervision.

3 A. I did Excel.

4 Q. You did it?

5 A. I did it, yes.

6 Q. But you did not say so in your report, did you,
7 Mr Burelli?

8 A. But that Excel is purely directional. It is like we had
9 taken public information. Before I use public
10 information, I always validate it, if it makes sense,
11 industry wise.

12 Q. Mr Burelli, please take your time, I do not want to rush
13 you.

14 A. I read it. Yes.

15 Q. So was this a test that you used for the report?

16 A. Where?

17 Q. This validation exercise, was it a test that you used
18 for your report?

19 A. It is a test that I used to assume that that 6% is
20 reliable.

21 Q. Do you accept that you failed to say anything about it
22 in your report?

23 A. I did not deem it material. I did not deem material to
24 have back of the envelope calculations into the report.

25 Q. I am sorry, say that again, Mr Burelli?

- 1 A. I did not deem material to have back of the envelope
2 calculations into the report. There is nothing 100%,
3 how can I say, validated. It is a directional check
4 that that 6% could have made sense. Nothing more,
5 nothing less.
- 6 Q. Mr Burelli, on that basis, I will move on to the next
7 topic which is whether developers would be incentivised
8 to develop a bundle of sources of equivalent quality in
9 the counterfactual?
- 10 A. Sorry, what?
- 11 Q. We are now talking about whether developers will be
12 incentivised to develop a bundle of services of
13 equivalent quality in the counterfactual?
- 14 A. The developers? You mean the software providers --
- 15 Q. The iOS mobile app developers.
- 16 I am so sorry, you are quite right, I mean
17 the alternative payment providers, whether they will be
18 incentivised to develop a bundle of services of
19 equivalent quality.
- 20 A. In my professional opinion --
- 21 Q. I have not asked you a question yet, Mr Burelli. I am
22 just telling you the topic.
- 23 A. Okay.
- 24 Q. Can you go to your first report, paragraph 76.
- 25 A. Okay.

1 Q. {C2/6/29}.

2 It is the end of 76, you say:

3 "... I consider that third-party merchants of record
4 can provide the same MoR Services as the ASPS. Indeed,
5 if Apple's restrictions were removed, I consider that
6 there would be incentives for third parties (including
7 MoRs) to develop an equivalent (if not superior) bundle
8 of services to the ASPS, to offer to iOS App
9 developers."

10 A. Yes.

11 Q. So first I would like to explore the idea that in
12 the counterfactual, where mobile app developers are not
13 required to use Apple's commerce engine for in-app
14 purchases, third party MORs would have the incentive to
15 develop equivalent quality bundles of services;
16 equivalent to those provided by Apple.

17 Just to be clear, when we talk about equivalent
18 bundles of services, you are only talking about
19 the bundles of services that you describe as
20 payment-related services?

21 A. Yes.

22 Q. Now --

23 A. On the acquiring side.

24 Q. Now, would you accept that third party merchants of
25 record as a starting point are unlikely to be as

1 efficient as Apple in providing payment-related
2 services?

3 A. Can you repeat that?

4 Q. Would you accept that third party merchants of record
5 are unlikely to be as efficient as Apple in providing
6 payment-related services?

7 A. I do not see why they would not be as efficient as
8 Apple. There is a play of scale that Apple for sure
9 has, but that is not exclusive to Apple. It is any
10 large organisation may potentially have similar scale.

11 Q. So an organisation of similar scale doing the same
12 service would enjoy similar cost advantages?

13 A. An organisation of scale.

14 Q. Well, can I show you 81.3 of your report, please. At
15 81.3, page {C2/6/31}, you say, second half of that
16 paragraph:

17 "Given the large number of iOS App developers Apple
18 is providing its services to, it is reasonable to assume
19 that its costs of providing these additional MOR
20 services are at the lower end of what I would expect
21 the cost of the provision of such services to be."

22 A. Correct.

23 Q. That suggests, does it not, that on your evidence
24 a third party MoR would struggle to compete with Apple
25 on price in an otherwise competitive market?

1 A. Depending on the scale of that alternative merchant of
2 record.

3 Q. Subject to having the same or similar scale to Apple,
4 that factor is going to mean that third parties will
5 have little, if any, incentive to try and develop and
6 equivalent bundle of services as Apple in this context?

7 A. Sorry, I lost you. Can you repeat that?

8 Q. Subject to the question of scale, having the same or
9 similar scale to Apple, that factor that you have just
10 described is going to mean that third parties would have
11 little, if any, incentive to develop an equivalent
12 bundle of services as Apple in this context?

13 A. Not exclusively.

14 Q. Well, would that factor not operate as a disincentive
15 unless you had the same or similar scale to Apple?

16 A. Scale you develop over time. You do not start with
17 scale from day one. So an organisation might have
18 a plan to achieve scale over a period of time.

19 Q. We will come back to the question of time. But just
20 focusing on the quality of the services, the quality of
21 the services that these alternative merchants of record
22 would offer if they were allowed onto iOS.

23 Can we just go back to your first report,
24 paragraph 75 {C2/6/29}?

25 A. Okay.

1 Q. You say -- I am just reminding you what you said here:

2 "... the quality of the services that an
3 alternative MoR provides [you would expect] to be equal
4 to that provided by the ASPS."

5 You say:

6 "In my opinion," a point you made earlier,
7 Mr Burelli, "no company in the payments industry would
8 be able to retain customers and licensing, and/or avoid
9 regulatory scrutiny without having high quality
10 standards both in terms of performance and security."

11 So with that in mind, Mr Burelli, can I ask you to
12 go to {D1/1792.1/1}.

13 This is a press release dated 1 May 2014, published,
14 as you can see at the top, by the United States Federal
15 Trade Commission, and it concerns BlueSnap, one of the
16 three comparator merchants of record that you rely on.
17 Do you see that?

18 A. Mm-hm.

19 Q. So it says that FTC is taking action against BlueSnap --
20 sorry, I still need the top, please:

21 " ... and senior vice president for credit card
22 laundering, processing payments for known scammer."

23 Can you skip down, please?

24 "The FTC is taking action against ... BlueSnap,
25 along with its former CEO ... and senior vice president

1 ... charging them with knowingly processing payments for
2 deceptive and fraudulent companies. [They] have agreed
3 to a settlement ..." and have to "turn over \$10 million
4 for consumers and stop processing payments for certain
5 high-risk clients ..."

6 The FTC charged them with processing millions of
7 dollars in credit card payments for a company despite
8 substantial evidence that it was fraudulent.

9 The FTC took action against the fraudulent client in
10 November 2022. The director of the FTC's Bureau of
11 Consumer Protection said:

12 "Companies like BlueSnap that knowingly process
13 payments for scammers are breaking the law and making it
14 easier to cheat consumers ..."

15 Do you see that?

16 A. Absolutely, yes.

17 Q. The FTC says they will crack down on firms like that,
18 and over the page you can read the rest of that page to
19 yourself, Mr Burelli. Unless you are familiar with it
20 already?

21 A. I am not familiar with the case. I am not surprised.
22 I mean, the payment industry has specific rules and
23 regulations to prevent and address these cases. But
24 there are accidents and these tend to be addressed over
25 time.

1 Q. Let us take that in stages, Mr Burelli. First of all,
2 you say you were not aware of these issues involving
3 BlueSnap?

4 A. I was not aware of this issue.

5 Q. Did you do any research into BlueSnap's regulatory
6 record at all before coming to the tribunal?

7 A. We did not do due diligence on any of the examples.
8 When we come up with the example, we had a big challenge
9 in coming up with comparative companies with list of
10 services and a price reference published, available
11 publicly, in order to make a comparison.

12 That has been driving the research and the selection
13 of the three companies that we got in the sample.

14 Q. Mr Burelli, you told the Tribunal at the beginning of
15 your evidence today that you selected BlueSnap precisely
16 because they provided public information that could be
17 referred and validated.

18 A. This is what I got in the marketing material on
19 the website. We can reference the source from where
20 we have it.

21 Q. But did you do even a Google search about potential
22 problems that BlueSnap had in the past?

23 A. If BlueSnap had problems in the past and it is still an
24 authorised player right now after this problem had been
25 rectified, that does not disqualify BlueSnap from being

1 a company operating in the market. If that would be
2 the case, Visa, Mastercard, all the various regulators
3 would have taken away the licence.

4 Q. Mr Burelli, let us take it in stages. Did you do even
5 a Google search about whether BlueSnap had any
6 regulatory problems in the past?

7 A. No.

8 Q. Mr Burelli, can I take you back to your first report,
9 paragraph 57, {C2/6/23}.

10 A. Yes.

11 Q. You say to the Tribunal, as an expert, Mr Burelli, an
12 expert in this industry:

13 "I have chosen ... BlueSnap for the purposes of this
14 comparator analysis because they are [an] established
15 and reputable MoR, who provide detailed publicly
16 available/referenceable information about the services
17 they provide."

18 A. They published information about their services. They
19 are still in operation. As such, if they are still in
20 operation, I am relying on the due diligence and
21 integrity imposed by the licensing of the card schemes
22 to start with.

23 Q. Mr Burelli, do you still maintain that BlueSnap is an
24 established and reputable MoR?

25 A. Is BlueSnap in operation right now?

1 Q. I assume, yes.

2 A. Yea, so that means that if they had problems in
3 the past, these problems have been sanctioned and have
4 been rectified. If they were not rectified, typically
5 you end up being subject to an investigation, your
6 processing providers start refusing to deal with you,
7 you get into breach of contract with all the licences
8 that you got.

9 So if there has been a problem in the past and they
10 are still currently in operation, it means that that
11 problem has been rectified.

12 Q. So, Mr Burelli, as an independent expert, your position
13 is that if an MOR has had a series of infractions which
14 have been the result of poor processes, trading with
15 known fraudulent scammers, ripping off customers,
16 provided that they have, one way or the other, held on
17 to their commercial relationship with card companies and
18 their licence from the regulator, you can describe them
19 as established and reputable?

20 A. First of all, I was not involved in that case. I was
21 not involved in that negotiation. It is not unusual to
22 find a processor or an entity that is processing
23 transactions on good faith out of organisations that are
24 not so legitimate. Whenever that is found, typically it
25 tends to be rectified.

1 If it is not rectified, then the entity is at risk
2 of having the licence revoked. If they are still
3 operating and the licence is still valid, I have to rely
4 on the trustworthiness of regulators on the fact that
5 they still got a licence and they can still operate.

6 What happened in the past has happened in the past.
7 I look up the current state of a company right now.

8 Q. Let us look at the current state of the company right
9 now, Mr Burelli. Can you turn up {D1/1867.1/1}. This
10 is a press release from November 2024. Have you seen
11 this document before?

12 A. A couple of days ago.

13 Q. Were you aware of the matters that it describes before
14 a couple of days ago?

15 A. No.

16 Q. This refers, you will see, to the Central Bank of
17 Ireland taking enforcement actions against BlueSnap
18 Payment Services Ireland Limited for safeguarding
19 failures. Do you see that?

20 A. Yes, I see that.

21 Q. Can you skip down, please. You see reference to
22 the fine. It was authorised by the Central Bank in
23 Ireland as a payment institution. The PSR, third
24 paragraph, these are obviously familiar requirements to
25 you, Mr Burelli?

1 A. Mm-hm.

2 Q. "... safeguarding requirements for payment institutions
3 that provide payment services ..."

4 If you skip down to the next page, please,
5 {D1/1867.1/2}, and zoom in please:

6 "When a firm applies to the Central Bank for
7 authorisation ..."

8 "The Central Bank views the protection of customers'
9 money as a core part of the role that payment and
10 e-money institutions play ..."

11 Do you agree with that?

12 Second paragraph:

13 "When a firm applies to the Central Bank for
14 authorisation, the information it provides in its
15 application is fundamental ... the integrity and
16 accuracy of information it provides to the regulator
17 underpins it's decision to authorise a firm."

18 A. Yes. That is the procedure.

19 Q. Firms should be able to demonstrate on an ongoing basis
20 that they meet the assurance and commitments.

21 Then there is BlueSnap, your comparator, Mr Burelli,
22 breached the requirements because it:

23 "Did not deposit its customers' funds in BlueSnap's
24 designated safeguarding account.

25 "Mixed its customers' funds with other funds."

1 It:

2 "Delayed informing the Central Bank once it became
3 aware that it was not following the safeguarding
4 procedures that BlueSnap had set out to the Central Bank
5 in its application for authorisation."

6 Those are:

7 "... deficiencies in regulatory awareness and
8 understanding," BlueSnap's own regulatory awareness was
9 deficient, "in addition to inadequate oversight and
10 monitoring by BlueSnap of safeguarding operations ..."

11 They say they have remediated it. Do you see that?

12 A. Yes, I see that.

13 Q. BlueSnap did this notwithstanding the 10 million-dollar
14 fine and very severe criticisms ten years earlier from
15 the FTC.

16 Does that strike you as the conduct of an
17 established and reputable firm?

18 A. If they have a made a remediation and they are still in
19 operation, I have to rely on the fact that the Central
20 Bank of Ireland has deemed appropriate to leave them in
21 operation, otherwise they would have been shut down.

22 Q. Sorry, I misread the date. The FTC comment was from
23 2024. I apologise to you, Mr Burelli, I misled you.
24 It was not in the distant past. It was last year.

25 A. It is recent, 2024.

1 Q. The FTC penalty. It is not a question of a firm that
2 did a bad thing long ago and has mended its ways, this
3 is a recent problem. But you maintain for the purposes
4 of your current analysis, because you said this is
5 a current analysis --

6 A. BlueSnap is still in operation. They had an accident.
7 The licence is still there, they still operate. I have
8 to rely on the judgment of the Central Bank of Ireland
9 or the Central Bank of whatever jurisdiction where they
10 operate, otherwise they will be suspending operations.

11 Q. Mr Burelli, I am going to give you one last chance,
12 because my focus, just to keep you focused, is on your
13 evidence BlueSnap was an established and reputable
14 merchant of record, nothing else.

15 I am giving you a chance to revisit that evidence if
16 you want to: BlueSnap is an established and reputable
17 merchant of record.

18 A. It has been around for a number of years, so I cannot
19 say that they have not been established. In terms of
20 reputable, given what I am seeing, I would do
21 a due diligence before engaging with them if I did it
22 for a customer. They are still in operation and they
23 have been operating for a number of years. That is
24 everything I can say.

25 Q. Sorry, you would do due diligence for a customer but you

1 did not do any due diligence for the Tribunal?

2 A. I think there is a bit of a misunderstanding around
3 the three examples that we have got here.

4 The three examples are here because these are
5 the only three companies for which we found public
6 references around the list of services and pricing.

7 If there would have been 20 in the market, there
8 would have been a table with 20 of them. So we have
9 been operating on the basis of limited amount of
10 information in order to provide a reference that in
11 principle there are alternatives providing the same type
12 of services.

13 Q. Mr Burelli, the question that you are addressing in your
14 report is whether companies like BlueSnap are
15 incentivised to produce services of equivalent quality
16 to those of Apple. We are just focusing on the quality
17 of the services they provide.

18 Should you have done due diligence as to whether
19 BlueSnap has been providing services of good quality?

20 A. I mean, it is not -- I am not proposing FastSpring as an
21 alternative to developers. I am just saying that there
22 are alternatives and there could be more. These are
23 those where we found information, nothing more, nothing
24 less.

25 Q. So BlueSnap is not an example of one that would supply

1 services of equivalent or better quality than Apple's
2 ASPS?

3 A. It depends. But yes, okay, I agree with that.

4 Q. In terms of payment providers incentivised to develop
5 a bundle of services of superior quality, your report
6 again has no analysis of whether there are any third
7 parties who have developed bundles of services which are
8 superior in quality to those provided by Apple?

9 A. We have not done comparative due diligence. Paddle has
10 a published iOS list of services. They are referenced
11 in the report and we looked at them.

12 In terms of superiority, I think that that is once
13 again a generalisation. Right now, there is no
14 commercial opportunity because the services are locked
15 in. Without having a commercial opportunity, no company
16 will ever invest to develop a value proposition that is
17 inferior, equal or superior to that of a market that is
18 locked.

19 Q. Mr Burelli, Paddle has come forward, for what it is
20 worth, and said we would be interested in doing it.
21 It is possible for companies to say they are planning to
22 do it and would like to do it?

23 A. It is possible for companies to say they would like to
24 do it, of course.

25 Q. You have not gathered any evidence of such companies

1 apart from Paddle, those kinds of companies that have
2 plans to do so; (inaudible) superior services?

3 A. These type of companies have -- so if any company is
4 entering or thinking of entering this type of
5 organisation, it is part of strategic plans and these
6 strategic plans tend to be highly confidential. They
7 are not published, they are not declared publicly.

8 In terms of services, the superiority has a number
9 of different parameters to it. It could be a pricing
10 element, it could be a speed of disbursement element,
11 there could be an element of fraud prevention, quality.
12 There are a lot of difference parameters in that
13 superiority.

14 Q. Yes, but you do not have a specific example of any of
15 those in your report, have you, from a company on any of
16 those parameters saying, "That is what we do if iOS were
17 open to us"?

18 A. No, we do not have that.

19 Q. Can I move on then to switching costs and your first
20 report, paragraph 86 {C2/6/33}.

21 Here, you say that MOR services provided by the ASPS
22 could be provided by third parties:

23 "In light of this conclusion ... the only benefits
24 [you say] to iOS App developers of using ... the ASPS
25 arises from the fact that the ASPS is the single

1 integrated supplier within the iOS ecosystem of all the
2 MoR Services and Non-Payment Related Services."

3 A. Correct.

4 Q. You accept that this could lead to lower -- so using
5 Apple could lead to lower administrative costs. So if
6 the ASPS is not used, you would have to have
7 a relationship with an alternative full service merchant
8 of record or combination of entities which could lead to
9 increased administrative costs to the developer. Yes?

10 A. That is correct. The more suppliers I have, the more
11 contracts I have to manage, the more account invoices
12 and so on I have to deal with.

13 Q. Then similarly, sticking with Apple means lower third
14 party integration costs because a third party MoR may
15 charge the iOS App developer fees for the integration of
16 their services?

17 A. Regardless of whether they may or may not charge, there
18 would be still a distinctive integration effort to be
19 paid by the developer.

20 Q. Let us explore those points with you.

21 You go on to say at paragraph 87, you make a series
22 of points where you say those switching costs might not
23 be as bad as they first seem.

24 First, you say there is a possibility for iOS
25 developers to choose between two or more suppliers of

1 the services that could potentially benefit developers
2 with best of breed services or simply the ability to
3 negotiate a lower cost.

4 For the reasons we have been exploring, it is
5 unlikely, is it not, that developers will be able to
6 obtain the same or better services at a lower price than
7 Apple provides?

8 A. Currently, there is no market because the market is
9 locked. As long as the market is locked, no provider
10 will have any incentive of interest to develop a value
11 proposition that is inferior, equal or superior to that,
12 to the existing one.

13 In an open competition, what we have seen in
14 a normal payment -- in other parts of the payment
15 industry, developers coming up with new technologies,
16 different fraud prevention engine --

17 Q. I am just talking about price for the moment.

18 A. In terms of price, it is a matter of --

19 Q. Price. My question was it is unlikely that developers
20 will get the same or better services at a lower price
21 than Apple provides?

22 A. That is an assumption. That I cannot say.

23 Q. Well, you do say. Let us look at your report. You make
24 a point that is relevant to this. On your evidence,
25 paragraph 84, Apple's cost of 3 to 6% of transaction

1 value, this is your evidence, and we know that for
2 the kinds of transactions we see on the App Store, that
3 the relevant rate, the relevant price that will be
4 charged is Paddle's 10%.

5 A. These are relatively small players. Should the market
6 be opened up to other competitors, what would prevent
7 a much larger organisation that has economies of scale,
8 ability to negotiate lower price and so on, to come in
9 with a value proposition?

10 So currently we can only compare what we got in
11 terms of pricing that are those three companies that are
12 listed in the report. But in terms of market
13 opportunity and potential future competition, should
14 the market be open, I would not exclude that other
15 players -- and this means large companies that are
16 operating within the sector, within the PayFac sector,
17 to look at the opportunity to expand into the in-app
18 payment industry.

19 Q. I think that is the point you are making in the second
20 part of this paragraph. You say:

21 "I consider the intrinsic scale dependent nature
22 within the payment industry and the large scale of
23 the App Store would imply that any investment in
24 integration by an alternative MoR," not a PayFac,
25 Mr Burelli, a merchant of record, "however initially

1 expensive, would likely have sufficient scale over time
2 such that it would likely have low, if negligible,
3 impact on the fees charged to iOS App developers by
4 alternative MORs --

5 A. All dependent, it is dependent on scale. There is an
6 initial investment in systems that get depreciated over
7 time. There is an OPEX in maintenance of these systems
8 but as the volume goes up, the equivalent cost
9 allocation to every single transaction decreases.

10 Q. To break that down, you say that competing with Apple --
11 this is your evidence -- competing with the App Store
12 payment system is going to require some upfront
13 investment by third-party merchants of record,
14 significant upfront investment?

15 A. It will require an investment.

16 Q. Well, you say "expensive".

17 A. It is not going to be cheap, but it is not going to be
18 impossible.

19 Q. You say that the third party MoR can be so confident --
20 this is in your evidence -- that it will have sufficient
21 scale over time such that this large upfront investment
22 cost will not affect the fees that it will charge?

23 A. We see new entrants coming into the processing industry
24 that is very much dependent on scale on the basis of
25 platforms that are designed to be superior in some sort

1 of feature within the processing industry.

2 We have seen that for the last 20 years I have been
3 in the industry. I would not consider this subsection
4 of the industry to be any exception to that. It all
5 depends on the market opportunity.

6 Q. Your evidence is they would have to win sufficient
7 market share from Apple to make this investment
8 worthwhile?

9 A. Yes. I mean, it is not unheard of, of players that have
10 been able to enter even consolidated markets and develop
11 a significant meaningful position out of different type
12 of strategies, either based on pricing, based on
13 processing capability, based on commercial tactics.

14 There is a number of different strategic variables
15 within a market enter strategy.

16 Q. It is all very general, Mr Burelli. You have not tried
17 to estimate what sort of upfront costs that we are
18 actually talking about that this alternative MOR would
19 have to incur, have you?

20 A. No, we have not been doing it within the context of
21 this, but we work in the industry.

22 Q. You have not tried to estimate the sort of market share
23 that you think these alternative providers --

24 A. I have not developed an entry strategy into this market.

25 Q. But you are giving evidence as to the fact, you say,

1 that MORs will do this, notwithstanding the initial
2 expensive integration costs because they will likely get
3 sufficient scale over time. This is your evidence,
4 Mr Burelli?

5 A. Evidence straight: Paddle may not have entered Europe,
6 but they have an iOS value proposition. It is available
7 online. The fact that they have decided to activate it
8 or not in the market depends on their own commercial
9 considerations --

10 Q. Mr Burelli, do you not think it would have been useful
11 to estimate the kind of market share that you think
12 would have been sufficient?

13 A. That would have been too hypothetical, because it would
14 have been based on the assumption of a specific set of
15 technology, a specific set of pricing, a specific set of
16 incentives, a financial structure of a company that is
17 very different, if we look at a very, very, very small
18 start-up that may disappear tomorrow to a private equity
19 backed organisation, to an established processor, to
20 a very large scale payment facilitator and so on. It
21 would have been a very hypothetical exercise.

22 What we have seen over and over in 20 years of me
23 operating in this industry is new players coming in,
24 identifying a competitive advantage and entering market,
25 some of them successfully, some of them not. Those

1 successful end up achieving their own economies of scale
2 either within intended segment or an intended space.

3 Q. Mr Burelli, you have referred to your experience. You
4 have not even given examples of that so we can see if
5 they are comparable to the situation.

6 A. Well, one example is Square. Square did not exist
7 15 years ago. There is a number of different companies
8 that have managed to reshape, for example, the acquiring
9 industry, and this is common knowledge.

10 I mean, if you operate in the industry, this is
11 ongoing evolution; it is something that is happening
12 completely all the time. I did not deem it relevant to
13 state the obvious. I mean, this is a market where right
14 now players cannot operate. If they were to operate,
15 it is highly likely, as we have seen in all other parts
16 of the acquiring and acceptance industry, that some
17 player would step in. Everything is driven by market
18 opportunity.

19 Q. I want to move on to the advantages of the integrated
20 Apple payment system and explore your evidence on this.

21 If you turn to your second report on this,
22 paragraph 20, {C2/1/7} you note here what
23 Professor Sweeting says about the three things that
24 iOS Device users benefit as a result of Apple offering
25 an integrated App Store and payment system. Do you see

1 that?

2 A. Yes, I see that.

3 Q. Three things: subscription management, Family Sharing
4 features and "Ask to Buy".

5 Let us talk about subscription management first.

6 Let us imagine a counterfactual world in which
7 different, different developers can and do, on iOS,
8 choose different payment service providers. One chooses
9 Paddle, one chooses Verifone and so forth. Some of
10 those providers might provide a service where users can
11 manage subscriptions purchased through that system.
12 Others might not do; they might offer a bare bones
13 system.

14 But the ones that do offer that service will only
15 offer it in respect of those transactions over which
16 they have visibility.

17 A. Yes.

18 Q. So you are likely there to see a fragmentation of
19 subscription management services where different
20 providers are offering it in respect of the transactions
21 over which they have visibility?

22 A. Okay. So in this part, there is a generalisation that
23 can be very deceiving, simply because, taking a step
24 back, the payment industry has a let us call it an
25 issuing side and an acquiring side.

1 The issuing side is the bank that gives me a card.
2 They hold my account, the account of my kid. All
3 the rules that I got, for example, in the way they can
4 use their card, if they are authorised to go into a
5 purchase in a shop selling alcohol and so on, all those
6 rules are part of the so-called wallet on the issuing
7 side.

8 The acquiring side is purely the receipt of an
9 authorisation request, the processing of that,
10 the receipt of funds and the disbursement.

11 The two in this case are bundled up together. So
12 there is a number of different wallets and solutions out
13 there that offer similar type of proposition. If we got
14 in a world where each merchant of record would have to
15 develop his own wallet, yes, we would get into
16 fragmentation. But if we make just a comparison: I can
17 use my Apple Pay to get into the Tube. Apple Pay is
18 connected to an account. That account is not
19 dissimilar, in my professional experience, to what would
20 be the rules and regulations on the Apple account that
21 is holding, that is storing my card information adding
22 an authorisation for my son to use it for a specific set
23 of transactions and so on.

24 So if I am a wallet provider and I want to retain
25 and preserve the security that I give to my users, I can

1 easily enable Apple Pay to operate in an in-app
2 transaction. That would offer the same type of
3 capabilities.

4 Q. We will come back to what Apple Pay can do. We are
5 talking about subscription management, Family Sharing
6 and parental control.

7 Let us just deal with what Apple is doing in
8 the actual world. So iOS users are able to manage all
9 their digital content subscriptions in one place, and
10 that system is obviously more convenient for iOS Device
11 users than one where there are several different
12 services that may or may not cover all of the same
13 ground. That is because -- that is a benefit which iOS
14 users get because Apple ensures that all digital content
15 subscriptions, for example, are facilitated through
16 the App Store payment system?

17 A. Yes, but they not unique. Visa launched a similar
18 service recently and is starting to offering to banks
19 that will take it to market for banks to offer it to
20 their cardholders so they can manage all
21 the subscriptions on their account in one single
22 interface.

23 There are dedicated applications handling
24 subscription management. Apple Pay has the same.

25 Q. Mr Burelli --

1 A. There is an advantage in adding everything into one, but
2 they are not unique.

3 Q. Just to come back, fragmentation is a concern. You
4 mention Visa may be developing something, but that is
5 only going to be available to Visa cardholders, correct?

6 A. Mastercard has its own position.

7 Q. Where is the evidence of that, Mr Burelli?

8 A. Mastercard has an application called In Control that was
9 available for prepaid cards about ... It was launched --
10 I need now to think back how old I was when I saw it
11 the first time. I had hair in those days! If I am
12 wrong, it was early 2000, 2005, about that time.

13 That application was specific for prepaid cards, and
14 a dedicated feature for cards that, for example,
15 a parent could have given to a kid in order to enable,
16 I do not know, a student living away from home to
17 operate and to work. That application was able to
18 control which merchant categories I was able to spend my
19 card on, to review the transactions, to authorise
20 transactions above a certain level and to monitor --

21 THE CHAIRMAN: I am sorry to interrupt you, but your answers
22 are getting quite long and we are under some time
23 pressure.

24 A. I am sorry.

25 THE CHAIRMAN: Mr Kennelly is trying to focus you. I want

1 you to be able to respond, but you are giving us a very
2 long answer. We get the point, I am sure, if you make
3 it more shortly.

4 A. Apologies for that. Unfortunately, the devil is in
5 the details. This is a complex industry.

6 THE CHAIRMAN: I understand, but if you do your best just to
7 focus on the question and answer it as it is put to you.

8 MR KENNELLY: You mentioned Apple Pay. In a scenario with
9 in open iOS, Apple would only allow in these third-party
10 payment providers if they were transacting with a user
11 with Apple Pay, that would be worse for consumers than
12 the status quo?

13 A. Can you repeat that?

14 Q. You say Apple Pay is a solution. Let us start with
15 that. Let us say that where you say Apple Pay is used
16 but only Apple Pay is used, third-party payment
17 providers can operate on iOS. You accept in that
18 scenario that would be far worse than for consumers than
19 the status quo?

20 A. That could be an option. Why does it have to be
21 exclusive?

22 Q. On your argument, partly because of the particular
23 qualities of Apple Pay.

24 A. It does not mean that it needs to be exclusive. I can
25 have other wallets.

1 Q. In terms of the ask to buy function, if we look at your
2 statement, please, it is {C2/14/8}. Paragraph 23, going
3 back to the issuing point you made a moment ago, you
4 say:

5 "In my experience [about four lines down], I would
6 expect that alternative providers on the issuing
7 side ... could and do provide this sort of service."

8 This ask to buy functionality, and you give
9 the example where banks will commonly provide
10 functionality where parents can place purchase controls
11 on bank cards issued to their children?

12 A. Yes, that is the case.

13 Q. But your bank example would not apply to an iPhone given
14 to a child where a parent had loaded their own bank card
15 as the preferred payment, would it? Not on this
16 example?

17 A. If they load their own card, it is -- it would not be so
18 advisable to be true. But if somebody chose to do that,
19 no, they would see the transaction, probably depending
20 upon the organisation, they would see a SMS message
21 every time a transaction is taking place. But --

22 Q. Not every third-party payment provider, not every bank
23 offers this kind of functionality?

24 A. It is becoming way, way more common depending upon
25 the market. It is becoming a very common security

1 feature. But there could be some markets that do not
2 have it. I have not been living in the UK for some time
3 so I do not have the full visibility of where it is in
4 the UK. I can tell you that all the banks in Dubai have
5 that.

6 Q. In Dubai?

7 A. In Dubai. It is coming up in different markets, like
8 whenever you have a practice that prevents fraud to
9 happen or can limit exposure, typically it is copied
10 across all the various markets; just a matter of time.

11 Q. As things currently stand here, it is not inevitably
12 the case that parents will be able to extend this sort
13 of control over every conceivable purchase their child
14 might make on an iPhone or iPad?

15 A. It depends on the characteristics of the wallet, of
16 the provider.

17 Q. We are talking about the bank, the bank example.

18 A. Yes. Banks have wallets too.

19 Q. Yes. So you are on banking wallets on this point.

20 A. Yes, there are banking wallets, yes.

21 Q. Under iOS, parents can place a restriction across any
22 in-app purchase that their child might make on an
23 iOS Device through one integrated feature?

24 A. Okay.

25 Q. That, again, is something they can only enjoy because

- 1 everything is routed through the single commerce engine?
- 2 A. Every single payment method, let us take a prepaid card
- 3 within In Control would have one single interface where
- 4 you control whatever that card can do.
- 5 Q. In terms of fragmentation, because you accept that if it
- 6 is relying on a particular card issued by a particular
- 7 bank, it will depend on what the particular bank is
- 8 offering and which customers hold that card?
- 9 Please say yes for the transcript.
- 10 A. Yes.
- 11 Q. In Apple's integrated payment system, any iOS user who
- 12 wants to purchase an app will make an in-app purchase
- 13 provides Apple with their preferred payment method?
- 14 A. Yes.
- 15 Q. That is linked to their Apple account, and then
- 16 the device user never again has to enter their payment
- 17 details for future purchases?
- 18 A. Yes, that is how wallets works.
- 19 Q. So that is completely seamless?
- 20 A. Yes, that is now wallet's work.
- 21 Q. Yes. A single wallet in this context.
- 22 A. There are other wallets --
- 23 Q. Sure, but this is a single -- if you are talking about
- 24 wallets, it operates like a single wallet?
- 25 A. Mm-hm.

1 Q. You accept that generally, the more seamless a checkout
2 experience, the more conversions you will achieve,
3 customers who complete rather than abandon the checkout
4 process?

5 A. That is typically the rule. There is a bit of
6 controversy in that, in the sense that impulse
7 transactions have side effects, but this goes beyond the
8 purpose of --

9 Q. From the developers who want to make money.

10 A. From the developer who wants to make money, yes, of
11 course. The seamless the transaction ...

12 Q. Another benefit of integration is that users know they
13 only need to contact Apple, one person, to obtain
14 a refund for the transaction?

15 A. They need to contact whoever is handling. In the case
16 of Apple, they contact Apple. If they had a different
17 provider, they would contact the different provider.

18 Q. Or several different providers?

19 A. If they use several.

20 Q. They would have to contact several?

21 A. If I am a developer, why would I use several?

22 Q. I am talking about users now, Mr Burelli. Users seeking
23 refunds. It is possible in this counterfactual they
24 could have several different providers and they would
25 need to contact several different providers for the

1 refund?

2 A. Yes.

3 Q. If they had that fragmentation of payment providers to
4 contact for refunds, they may be confused about
5 the position with refunds and who they should be
6 contacting for refunds?

7 A. That is, again, an assumption.

8 Q. The users, I mean.

9 A. I may be a user and decide to use and announce, I do not
10 know, universal Google Play or PayPal wallet where
11 I handle my transactions. Everything I buy with my
12 PayPal account, if there is a refund, I go into PayPal
13 and that is where I initiate -- It all depends on
14 the payment decision and the preferences of consumers.

15 I may prefer to segregate, to have some transactions
16 on a wallet and other on another.

17 Q. In terms of making it easy for consumers, some
18 developers might deliberately try to make the refund
19 process obscure to make it harder for consumers to get
20 refunds?

21 A. Refunds are, as far as I know, there is a commercial
22 code of conduct that is applicable in different
23 countries where there is a specific time where you are
24 entitled to a refund.

25 In terms of a chargeback from the payment industry,

1 that is ruled by the rules and the so-called --
2 the rules of Visa and Mastercard. They are defined
3 within the characteristic of the payment that you are
4 settling the payment with.

5 Q. Briefly, Mr Burelli, as a payment expert, which you say
6 you are, you must accept that some developers in this
7 context, in this counterfactual, may have an incentive.
8 Some unscrupulous developers may have an incentive not
9 to comply with the spirit as well as the letter --

10 A. Some might, yes.

11 Q. Moving on to the efficient collection of commission, you
12 accept that third party merchants of record typically
13 deduct their fees from funds they receive from end
14 consumers before remitting the remainder to
15 the developer?

16 A. Yes.

17 Q. One reason to do that is it is more efficient than
18 the alternative?

19 A. Absolutely. It is common standard industry practice.

20 Q. Because the alternative would be the MoR invoicing
21 the sub-merchants, having to make payment, chasing for
22 money, litigation?

23 A. Absolutely.

24 Q. It is possible in that situation, that bad situation,
25 where it was not remitted automatically, as you say,

1 the MoR might have to react by increasing its fees.

2 It was incurring all of those (inaudible) costs and
3 chasing for money and litigation to get it, it might
4 have to increase its fees for everyone to ensure it is
5 maintaining the same level of profitability?

6 A. This is a hypothetical situation that I have to say
7 I have not seen applied anywhere.

8 So, hypothetically, yes, if you split the two you
9 have more activities, you have more risk. Would that
10 happen? Probably not. I mean, I would be surprised,
11 out of my professional experience, to see something like
12 that.

13 Q. You are not suggesting that every third-party payment
14 provider will definitely provide this service to Apple
15 where they will be remitting money back to Apple?

16 A. No, I am not suggesting that.

17 Q. The efficiencies where Apple collects its commission in
18 this way are particularly important for Apple because of
19 the huge amount transactions that it processes, and they
20 would be lost, those efficiencies, where Apple was not
21 able to impose its Payment System Restriction?

22 A. Not necessarily.

23 Q. I am talking about the efficiencies to Apple.

24 A. I understand. But there are technologies called APIs.

25 APIs integrate different systems. I do not know if you

1 ever heard of the concept of embedded finance which is
2 how the industry is developing right now.

3 That means that I have multiple players
4 collaborating on the same interface. APIs are
5 connecting different systems. There are events that are
6 shared through APIs in a highly automated manner from
7 one system to the other. So the existing automation
8 would not be lost; it is just a matter of creating the
9 connectivity.

10 Q. Who would create this connectivity?

11 A. Apple and the selected third party provider.

12 Q. Who would pay for Apple creating this connectivity?

13 A. That would be a decision of Apple if to charge third
14 parties or not.

15 Q. They are making for the third parties to facilitate
16 their business, so who would pay?

17 A. It is a commercial decision. They may charge the third
18 party or they may absorb the cost.

19 Q. Can we go to Mr Burelli's second report, {C2/14/6}.

20 Paragraph 17. It is your third point. We are
21 dealing with collection. Again, same point, collection
22 of commission if the alternative payment providers are
23 used. You say:

24 "The operation of alternative payment providers in
25 foreign jurisdictions demonstrates to me that

1 the tracking and collection of Apple's Commission is
2 entirely achievable when alternative payment providers
3 are used."

4 Do you see that?

5 A. Sorry, which paragraph?

6 Q. Point (3), the third point in your paragraph 17. Then
7 you cite in footnote 19, which you are relying on, you
8 go back to your first report at paragraph 89.

9 A. It is the closing paragraph:

10 "It is inferred --

11 Q. It is the very last part of that:

12 "Further, that Apple has allowed alternative payment
13 systems --"

14 A. (Reads to himself).

15 Yes, absolutely.

16 Q. So what you are saying there is the mere fact that Apple
17 has allowed alternative payment systems to operate in
18 other jurisdictions shows that collecting its commission
19 is achievable?

20 A. That is the case. I mean, they are collecting their
21 fees.

22 Q. But what you are not addressing, there is no evidence as
23 to whether these alternative payment providers in
24 foreign jurisdictions are offering this service of
25 collecting and paying over commission to Apple.

1 A. Sorry?

2 Q. You are distinguishing between whether they will collect
3 and pay it over to Apple, or whether Apple has to chase
4 them for the money.

5 Now, you say that the commission is being recovered
6 in these foreign jurisdictions, but you do not show us
7 any evidence as to how these alternative payment
8 providers in foreign jurisdictions are paying over
9 commission --

10 A. That information is not public. Whatever mechanism,
11 the contractual agreement there is between these payment
12 operators and Apple is confidential. It is information
13 that is not available and was not included into any of
14 the evidence that we have seen.

15 Q. So you do not know either way?

16 A. I do not know either way, but the evidence that I got is
17 how the rest of the industry works. Through API, you
18 got easy realtime exchange of information at the time
19 when an event is happening.

20 So if I want to invoice, I can know by capability of
21 technology that a transaction is happening at a specific
22 moment on a specific app.

23 Q. I am going to move on to security and privacy related
24 benefits, Mr Burelli, and see if there are any to be
25 gained from Apple's requirement that developers use its

1 commerce engine to facilitate in-app purchases.

2 So we are imagining a counterfactual in which
3 developers are both able and willing to pay a third
4 party to facilitate purchases of their apps instead of
5 Apple.

6 We have been over the point that it is not likely
7 that every developer will use the same payment provider,
8 and even if some payment providers store users' payment
9 information in their own systems and some payment
10 providers accept digital wallets, there is still going
11 to be more fragmented transmission of user payment
12 details than we have currently.

13 A. This is the reality of the commerce and payment industry
14 right now.

15 Q. I want to look at the take-up of digital wallets over
16 the Relevant Period, because you say, Mr Burelli, that
17 digital wallets may be the solution to security
18 concerns.

19 I am going to show you {D1/1043/1}. This is
20 a JP Morgan global e-commerce trends report. It was
21 produced in 2021. You can take that from me for
22 the moment.

23 If you can go to page 112, it says insights into
24 the United Kingdom in particular, and page 113, top
25 left-hand corner, you see that, right-hand side

1 {D1/1043/112}:

2 "Cards are used in just over half ... of all
3 e-commerce transactions, with digital wallets the
4 second-most popular payment option, used in 28 percent
5 of all online sales."

6 It is reasonable to assume that there was a smaller
7 market share than that in 2015? This is from 2021.

8 A. Yes. Smaller market share you mean for cards?

9 Q. No, for digital wallets.

10 A. For digital wallets, of course, it was smaller in those
11 days.

12 Q. So the majority of purchases over the claim period just
13 from 2015 did not benefit from digital wallets?

14 A. You mean the in-app transactions?

15 Q. Yes.

16 A. We got -- we received statistics with a split for
17 the type of or the payment method used within the in-app
18 transactions, and if I remember correctly, there was
19 a specific figure, and I am not naming it because now
20 I am not even sure if it is a sensitive information,
21 with a share of card transactions and another one for
22 the wallets where the wallets, for the absolute vast
23 majority, settle a transaction on a card.

24 I open an up a wallet, I store my card in
25 the wallet. Hence, the settlement rail that I got at

1 the back are for the vast majority of cards.

2 Q. Are you sure it is cards, Mr Burelli? But we are
3 talking about how many consumers are using digital
4 wallets over the claim period, and it is definitely not
5 the majority, is it? It was 28% in 2021?

6 A. Yes, it is not the majority even if I look at
7 the statistics.

8 Q. So you make the point that the different entities
9 involved in these transaction chains are likely to be
10 PCI DSS certified.

11 For the Tribunal's benefit, that stands for Payment
12 Card Industry Data Security Standard.

13 A. Absolutely.

14 Q. It is a set of security standards and best practices
15 around securing data handling processes --

16 A. Setting the encryption for the sensitive information.

17 Q. Can we go to {D1/1568/1}. This is a document from
18 RiskOptics describing what PCI compliance is.

19 Can you go to page {D1/1568/2}, please, under
20 the heading "What are PCI DSS", and we see that -- well,
21 you can read that to yourself, please.

22 Just the first three paragraphs are fine.

23 A. Yes.

24 Q. Then if we go to page {D1/1568/3}, there are different
25 levels of PCI compliance depending upon the number and

1 size of transactions and entities dealing with it. Is
2 that correct?

3 A. Yes.

4 Q. Level 1 is the most stringent. Level 4 is the least
5 stringent, is that correct?

6 A. That is correct.

7 Q. Now, if we go to page {D1/1568/6}, please, businesses in
8 obtaining this standard can claim, self-certify, to be
9 levels 2, 3 or 4 compliant. That is right, is it not?

10 A. Yes.

11 Q. They complete a self-assessment questionnaire?

12 A. I mean, I am not a PCI technical expert, so it is not up
13 to me to come up with -- to tell you exactly how
14 the PCI DSS certification is done.

15 I can point you to experts for that. This is
16 a niche within the industry. You have very, very
17 specialised people operating only in this sector. I am
18 not a PCI DSS expert.

19 Q. Fair enough, Mr Burelli. Take it from me, let us assume
20 that businesses can self-certify because they get their
21 PCI DSS compliance by filling out a self-assessment
22 questionnaire. That opens up the possibility that
23 companies claim to be PCI DSS compliant when in fact
24 they are not.

25 A. Again, yes, but on the other side, if I look at

1 the practise that Apple has applied to enable for
2 providers on the system, these have been authorised. So
3 it is not random. It is not that somebody comes up and
4 says I want to provide services to developer X. There
5 is a number of due diligence and steps in between.

6 So, in principle, with a very, very level 1, based
7 on what you say I can self-certify. Would I be able to
8 go very far away in the industry with
9 a self-certification? Question mark how far I go.

10 Q. Of course, and you may want to bolster yourself by doing
11 more. But for the PCI DSS for levels 2, 3, and 4 you
12 comply by completing a self-assessment questionnaire,
13 and PCI DSS is not a guarantee that user data will be
14 safe or secure, is it?

15 A. It is robust enough for the industry to rely on as
16 a base of monitoring and setting up a standard.

17 If there are breaches, and breaches sometimes
18 happen, they are investigated and remediated or
19 the licences and approvals are taken away.

20 Q. But there are regular breaches by holders of PCI DSS
21 compliance?

22 A. I do not know -- there are breaches. They are not
23 regular. I would not say that this is common practice
24 in the industry, in particular by large players.

25 Q. Can I show you just two documents. {D1/1228/3}.

1 A. Yes.

2 Q. If you skip down, please, next page, please, next page,
3 please. Do you see that list?

4 A. Yes.

5 Q. These are eight companies involved in eight different
6 breaches where they were PCI DSS compliant. Would you
7 accept that these are large companies?

8 A. These are large companies. To be true, there is no
9 exception to this.

10 Q. You just said large companies are less likely to have
11 a problem?

12 A. Everybody has a problem. The smaller companies are more
13 vulnerable. The larger ones continue to invest in
14 security, but no company is immune to this.

15 In 2024, last year, there was -- and I remember
16 reading this on newspapers and advising my sister to
17 update her phone -- iPhone iOS 14 was flagged as
18 vulnerable by security experts and requiring a patch
19 that was released in September, and that patch was
20 creating a vulnerability potentially exposing sensitive
21 data out of iOS.

22 There was a breach, if I remember correctly, in 2015
23 with malware --

24 Q. None of this is in your report, Mr Burelli. How are
25 we supposed to check if what you are saying is right or

1 wrong?

2 MR HOSKINS: He is answering the question.

3 MR KENNELLY: That is fair enough. Carry on, Mr Burelli.

4 A. Going back to this, no company is absolutely safe.

5 Well, you are as safe as you keep investing in

6 technology and keeping it updated, you monitor it for

7 vulnerability and you address the vulnerabilities.

8 Complete immunity from fraud does not exist, and there

9 is no company big or large that has that, absolutely

10 none.

11 Some players are more resilient, or they have been

12 luckier so far. Others have been unluckier. There have

13 been cases of ... but it is a reality of fact.

14 Q. We are just talking about PCI DSS, Mr Burelli.

15 A. PCI DSS is a security standard that protects to

16 vulnerability. It can be bypassed.

17 Q. Violations are not uncommon. Violations of PCI DSS are

18 not uncommon, are they?

19 A. How many happened to Equifax, how many happened to -- it

20 is not that they happen every day to every single

21 company around.

22 Q. When they do happen -- let us look at Equifax,

23 Mr Burelli, since you have mentioned it. {D1/1228/6}.

24 Just thinking about it from the consumers' perspective

25 for a second, when these breaches do happen and big

1 companies fall victim, look at the harm.

2 So Equifax, maybe it does not happen very often, but
3 look at the extent. It affected 145 million Americans,
4 the equivalent of 45% of the US population, 80% of those
5 who had a credit report.

6 A. This is an unfortunate occurrence. It happens. But at
7 the same time, for example hypothetically, what if
8 the security expert would not have been spotting
9 a vulnerability within iOS 14, or whatever number
10 it was?

11 It is every single piece of technology out there is
12 vulnerable. It is not that one company is more
13 vulnerable than another or safer than another. It
14 depends on their ongoing investment, on the number of
15 different variety, that there are companies that so far
16 have not exposed any breach. Equifax is not the only
17 company operating into the sector.

18 Q. Can we look at the page {D1/1323/12}, please.

19 Again, just trying to tie you down a little bit on
20 PCI DSS. This is Stripe, a company you have mentioned
21 a few times. Stripe's webpage.

22 A. Of course, PCI is part of the security, but it is not
23 the full security style.

24 Q. It is not the case, is it, that all third-party payment
25 providers in your counterfactual will provide equivalent

1 levels of security and privacy, is it? There will be,
2 even in your counterfactual, different levels of
3 security and privacy provided by these payment
4 providers?

5 A. I would assume that this is the reason why Apple, for
6 example, in Korea has not taken in every single MOR
7 available on the market, but they have been subject to
8 approval. If I was them, I would do exactly the same.

9 Q. So your evidence is not that we can trust that all
10 the third-party payment providers will achieve equal
11 levels of security and privacy as Apple?

12 A. Not all third party providers will prove to be fit for
13 purpose under investigation and under due diligence.
14 Some would, some would not. The question is are there
15 alternatives or not? That is something for the market
16 to determine.

17 Q. Can we turn to the question of privacy in particular?
18 {C2/14/5}. Paragraph 13, second report. You say in
19 the first --:

20 "Professor Sweeting's statement ignores
21 the significant, highly sophisticated and wide-spread
22 antifraud and security measures (in addition to PCI DSS
23 compliance) that currently operate across every aspect
24 of the payment industry and have done for many years."

25 A. Absolutely.

1 Q. Are you saying that he is ignoring the protections which
2 currently exist?

3 A. Yes.

4 Q. They would apply, you say, to any third-party payment
5 provider, yes?

6 A. Yes. They apply throughout the transaction value chain.
7 There are fraud monitors --

8 Q. I have not asked you a question yet.

9 A. Okay.

10 Q. Just to carry on through your statement, you mention
11 Visa and Mastercard. You give the examples of the two
12 card schemes, and you mentioned there anti-fraud
13 measures already, and it is true that companies like
14 that do their best to trawl through their financial data
15 to spot fraud patterns?

16 A. Absolutely.

17 Q. But you are not suggesting that the anti-fraud measures
18 deployed by acquirer or issuer banks are so effective
19 that there is no added value offered by the fraud checks
20 conducted by Paddle or Apple?

21 A. In terms of banking and payment industry, without
22 effective payment fraud prevention and security measures
23 we will see massive breaches on a massive scale
24 continuously.

25 Q. Sorry, can you answer my question, please, Mr Burelli?

1 You accept, do you not, that Paddle and Apple add value
2 to whatever security protections Visa and Mastercard and
3 their issuing and acquiring banks are undertaking?

4 A. Every single player in the payment industry adds value.

5 Q. In terms of the value that Apple adds, it will have
6 verified in the actual, the current position,
7 the identity of every developer enrolled? Every single
8 developer will have had its identity checked?

9 A. Yes. That is standard practice. You validate
10 a customer when you are signing on.

11 Q. Apple will spot if there are any unusual billing
12 patterns or activity associated with a given app?

13 A. That is common practice, for example, in the acquiring
14 industry.

15 Q. Apple will receive reports directly from consumers
16 flagging any issues that arise with payments?

17 A. Yes. That, again, is happening in other parts of
18 the industry.

19 Q. To the same extent as Apple?

20 A. To the same extent. It is pretty pervasive. If I have
21 got a transaction which is not recognised, I flag it
22 with my issuer. The issuer routes it straight away
23 through the scheme. Through the scheme it reaches the
24 acquirer, the acquirer identifies the merchant and then
25 investigates. One party or more parties, but the

1 process is the same.

2 Q. I understand. That is an important process, the fact
3 that the reports are delivered directly from
4 the consumer to the payment provider to alert them as to
5 any problem, and you say that is relatively common?

6 A. It is a choice of the consumer. I may report it to
7 Apple. I may report it to Barclays.

8 Q. But it is important the report is made?

9 A. Unless a report is made for the transaction and there
10 are also automated checks that pick up out-of-pattern
11 behaviours, out-of-value behaviours and so on.

12 There are a number of different checks that are
13 applied throughout the transaction processing stage. In
14 particular on the issuing and acquiring side,
15 the acquiring side has a control DPSP as a control of
16 what happens on the merchant. If I have got
17 a transaction for £10,000 in a flower shop, it is
18 flagged as suspicious. On the other side, when my
19 issuer sees a transaction with Francesco paying
20 something in the UK now and in New York five minutes
21 later, that is flagged straightaway and is blocked.

22 So there are systems within the transaction
23 processing stage that address this type of perceptions.

24 Q. Yes, and those kind of communications are also important
25 when they come directly from the consumer to Apple, or

1 the payment provider as the case may be?

2 A. There are different ways of instigating this, yes.

3 Q. At your footnote 11 on this page, you say, on the same
4 page -- this is the support for the point you have made
5 about widespread security and privacy protection.

6 You say:

7 "These are in addition to society wide ... privacy
8 and security regulations and checks that also need to be
9 complied with by most (if not all) of the participants
10 in the payments industry, such as the General Data
11 Protection Regulation (GDPR) regulation in Europe ..."

12 A. Absolutely.

13 Q. "... and similar regulations in most other jurisdictions
14 around the globe."

15 A. Absolutely.

16 Q. So what aspect of GDPR has that effect in terms of
17 security?

18 A. You can -- the use of data, of the data that you collect
19 is intended only for whatever the customer authorised
20 the data to be used for. So the customer has to provide
21 consent if data can be shared with third party, used for
22 advertising, or not.

23 Q. But what is the security? How is that relevant to
24 security? I can see a privacy point, but what is
25 the link to security?

A. The security point is the more you keep information limited to a less number of entities, the least you expose it to potential, for example, technology breaches.

THE CHAIRMAN: Mr Kennelly, how are you doing?

MR KENNELLY: I have one last point.

THE CHAIRMAN: Are there further questions from your side after that?

MR KENNELLY: No.

THE CHAIRMAN: I imagine there may be a bit of re-examination?

MR HOSKINS: Two questions.

THE CHAIRMAN: In that case, how long do you think you will be, Mr Kennelly?

MR KENNELLY: Five minutes.

THE CHAIRMAN: Let us take a 10-minute break.

(3.20 pm)

(A short break)

(3.33 pm)

MR KENNELLY: Thank you. Last point on the relevance of data.

Would you accept in a counterfactual where Apple is no longer facilitating every in-app purchase through its IAP system, that will lead to Apple having fewer data points about those transactions?

1 A. Yes. There is a depend.

2 Q. That fragmentation of information will render Apple's
3 fraud detection tools and technology less effective?

4 A. Not necessarily.

5 Q. Because it will be getting information from someone
6 else?

7 A. Because you can get services from other parties.

8 I mean, Apple, from what I have understood, evidence
9 from the Australian case, is using services from third
10 party applications, and those third party applications
11 have their own fraud and security checks and so on.

12 Secondly, there is an element of scaling data that
13 drives the analytics that you do in it. How much scale
14 do you need to lose for those analytics to become not so
15 effective? That is something for a data scientist to
16 address. But if you got large scale from there to lose
17 completely control of the value of the data, the sample
18 should have to become way smaller.

19 Q. This is not your field of expertise --

20 A. I am not a data scientist.

21 Q. But the extent of data point loss that Apple would have
22 to suffer for there to be material prejudice to its
23 fraud detection tools, you are not able to say?

24 A. Not necessarily. They can outsource it, they can buy
25 better services, they can integrate it. There is a

1 number of different -- there is plenty of incredibly
2 good fraud prevention technologies out there and others
3 are being developed.

4 Q. But again, that is not your area of expertise?

5 A. In terms of fraud prevention?

6 Q. Security and privacy.

7 A. Security and privacy is not my area of expertise. I get
8 exposed to it so I know what is out there in
9 the industry and what is happening. It is simply not my
10 field because I am not a security and fraud specialist.

11 Q. Final topic, the Apple Pay point that came up earlier.

12 I am going to ask you to imagine something quite
13 strange, so bear with me.

14 I want you to imagine a world in which Apple says to
15 developers you are permitted to use a third-party
16 payments provider like Paddle for in-app purchases but
17 on the condition that Paddle only accepts payments
18 through Apple pay.

19 A. Okay.

20 Q. Now, in the actual world, iOS users have a wide choice
21 of payment methods that they can use to link up to their
22 accounts, do they not?

23 A. Yes.

24 Q. It has Apple Pay, but it also includes debit/credit
25 cards --

1 A. Debit/credit cards, PayPal. I think that they are
2 the same on the Apple Pay account.

3 Q. It is also the Apple account that has gift cards,
4 PayPal, mobile phone billing, carrier billing. That is
5 something that is not on Apple Pay, is it?

6 A. Yes. But these are six payment matters, six or seven.
7 If I look at other MoR, they have potentially hundreds.
8 If I sell applications into, I do not know,
9 Thailand, I want my customers to use maybe PromptPay.

10 Q. Let me show you Mr Schiller's statement, paragraph 141.
11 It is {B2/5/38}. At (c), Mr Schiller says:
12 "IAP enables consumers to pay quickly in 44
13 currencies ... 200 payment methods ..."

14 A. Okay.

15 Q. If we think about how things would be different in that
16 strange counterfactual I outlined to you where
17 third-party payment providers are only allowed if they
18 accept payments through Apple Pay, from the perspective
19 of the iOS Device user who is trying to make an in-app
20 purchase, they would have less choice than they
21 currently have if that were the position?

22 A. Absolutely not necessarily.

23 Q. What, if a third party --

24 A. Assuming I got a third party provider, third party
25 provider has said Visa, Mastercard, whatever are

1 the solution, and Apple Pay, Google Pay and so on.

2 Q. No, no. Not Google Pay. They can only use Apple Pay.

3 A. If they only use Apple Pay, yes?

4 Q. Then they will have less choice than they have currently

5 to make an in-app purchase?

6 A. I am not incredibly familiar with Apple Pay, simply

7 because I do not use -- I am not an Apple user. But on

8 the other side, enabling or disabling any single of

9 these payment methods is just a commercial decision and

10 a system adjustment.

11 Q. I am asking you to imagine a rule where the third party

12 provider is not allowed on iOS unless they use Apple

13 Pay, nothing else.

14 A. Okay. Then they are bounded to whatever Apple Pay

15 accept as a settlement method.

16 Q. From a user's perspective, that gives them less choice

17 than they have currently?

18 A. That would give them, I have to assume, less choice.

19 Q. Because some iOS users will not have Apple Pay on their

20 iOS Device, for example?

21 A. Their choice.

22 Q. So --

23 A. Everything here is a commercial decision and a consumer

24 preference.

25 Q. Let us go to {D2/219/1}. Let us just see what data

1 Apple does and does not see when a user pays by Apple
2 Pay. This is important, because there is a suggestion
3 that Apple Pay could be used for subscription management
4 and other functionalities like that. Okay, Mr Burelli?

5 So this is how Apple Pay works. It says, if we go
6 to the third paragraph, it is the one that begins:

7 "Apple Pay is also designed to protect your personal
8 information ..."

9 So:

10 "Apple does not store or have access to the original
11 credit, debit or prepaid card numbers ... and when you
12 use Apple Pay, Apple does not retain any transaction
13 information that can be tied back to you."

14 A. So they are outsourced to a third party provider. That
15 card information is stored somewhere. If Apple does not
16 have it, somebody else is doing it on their behalf.

17 Q. The transactions are between you, the merchant and
18 the bank. Apple Pay does not give Apple that
19 transaction information.

20 Now, under the heading, can you skip down, please,
21 "When you use Apple Pay within apps or on the web",
22 page {D2/219/2}, please.

23 Can we zoom in on when "When you use Apple Pay",
24 second paragraph. Let us see what Apple Pay is
25 retaining:

1 "To securely transmit your payment information --"

2 You can read that yourself, Mr Burelli.

3 A. Okay.

4 Q. Third paragraph:

5 "Apple retains anonymous transaction information,
6 including the approximate purchase amount, app developer
7 and app name, approximate date and time, and whether
8 the transaction completed successfully. Apple uses this
9 data to prove Apple Pay and other products ..."

10 Okay? So the Apple Pay system is designed so that
11 Apple does not retain and store transaction information
12 that can be tied back to the specific user, correct?

13 A. It is designed, based on what I am reading, this is the
14 current architecture.

15 Q. To the extent that Apple does store any transaction data
16 under Apple Pay, that data is entirely anonymised within
17 Apple. So Apple, as matters stand today, has no ability
18 to use Apple Pay transaction data to offer services that
19 require visibility over what transactions any given user
20 has made?

21 A. It is the current architecture decision. They must have
22 had a logic taken to this. There could be historical
23 reasons in the way this the systems have been developed,
24 they may change and evolve over time. This is
25 the current snapshot.

1 Q. It shows that the idea that Apple Pay can be used to
2 provide subscription management or Family Sharing is
3 just impossible, based on the current architecture?

4 A. Current architecture? Again, we are talking about Lego
5 bricks. They can be rehandled in a lot of different
6 ways.

7 Q. That is the user. Now we are looking at the perspective
8 of the third-party payment provider in this
9 counterfactual, this strange counterfactual.

10 Paddle, for example, they would not be able to
11 compete really with Apple for developers' business,
12 because Apple would be able to accept a wide -- Apple
13 could offer developers transactions through lots of
14 different payment methods. Paddle would be restricted
15 to Apple Pay?

16 A. In that case, Paddle would be limited to be nothing
17 more, nothing less than a payment processor, receive an
18 encrypted transaction routed to the acquirer.

19 Q. So in that situation, it is unlikely developers would
20 want to switch to Paddle in those circumstances, switch
21 away from Apple, if they could?

22 A. If they could. It depends on -- there could be pricing
23 elements, I do not know, because we are in
24 a hypothetical world.

25 Q. It is a pretty big obstacle to Paddle being competitive

1 if they were only allowed to trade with iOS users --

2 A. If it is Apple, but if it is a bigger player.

3 Q. But if it is just Apple Pay.

4 A. If it is just Apple Pay, if we are talking about the
5 cost of transaction and in an open environment a third
6 party offers a cheaper service, a developer is not out
7 of reason to consider that a developer may opt for
8 a cheaper solution that offers the same thing.

9 The transaction is to be processed in any case, because
10 otherwise it is not completed.

11 Q. Even if that developer could only get transactions from
12 consumers that had Apple Pay, because that would be
13 the effect of retaining Paddle in this counterfactual?

14 A. It all depends on economics. Literally, we are talking
15 about a very hypothetical situation here.

16 MR KENNELLY: It would not be very attractive for Paddle or
17 the developer, would it?

18 THE CHAIRMAN: Mr Kennelly, I think you have put your case.

19 MR KENNELLY: No, you have been very patient and I am
20 grateful for that. I have nothing further for
21 Mr Burelli. Unless there is something from my learned
22 friends, that concludes my cross-examination.

23 Re-examination by MR KENNEDY

24 MR KENNEDY: Can we have the transcript for today up,
25 please, at page 122 [draft]. You were being asked some

1 questions about PCI DSS, and if you could just read from
2 line 13, which is where the question starts and down to
3 line 20, please. Sorry, please read to line 25. I made
4 a mistake.

5 A. Okay.

6 Q. I am just going to show you two documents and ask you if
7 you have any comments on those documents, okay?
8 {D2/491/1} on the EPE, please?

9 Can I ask you to read the title and just familiarise
10 yourself with -- Have you seen this document before,
11 Mr Burelli?

12 A. I think I did, yes.

13 Q. If we go to the bottom of page {D2/491/2}, can you
14 scroll up, perhaps, over the page, please, the EPE.
15 Then if we go back one page and read from the bottom,
16 Mr Burelli. So you see number 3, "Enter your payment
17 processing information". Do you see that?

18 A. Yes.

19 Q. If we go over the page and pick up the text, can I ask
20 you to read that paragraph, including the first bullet
21 point, please, Mr Burelli?

22 A. Sorry, what?

23 Q. Can you read the heading text which starts "enter" and
24 the first bullet point, to yourself, Mr Burelli.

25 A. Okay (Pause)

1 Yes.

2 Q. Have you read the first bullet point as well?

3 A. Yes.

4 Q. Do you have any comment on that?

5 A. So, as I mentioned earlier on, any PSP is subject to
6 a number of different checks, not just the PCI
7 compliance. There is a licence from the scheme, they
8 are subject to due diligence from their card processors.
9 So if I am a card processor and I decide to sign up
10 the PSP, I do my own checks. This means that within
11 the current requirement stated in this document, PCI
12 level 1 is deemed to be sufficient.

13 Q. Thank you. Can I show you another document on this
14 topic, Mr Burelli, and then we will go to a second
15 topic.

16 It is {D2/203/1}. Sorry, both of these documents
17 are Apple documents from Apple's website.

18 A. So, in that case, Apple is deeming PCI level 1 to be
19 sufficient.

20 Q. I am asking you -- this is the Apple developer website,
21 if you look at the title and read the first paragraph
22 here?

23 A. Yes.

24 Q. If we go to page {D2/203/8}, it is about halfway down
25 the page. Sorry, it is probably page {D2/203/9}.

1 I might be one off in each case.

2 Sorry, can you go back one page? Internal page 8?

3 I am not sure where. If I could ask you to read, if you
4 see the heading "Submitting your app for review in
5 the App Store connect"?

6 A. Yes.

7 Q. Can I ask you to read the fourth black bullet point,
8 including the two sub-bullets.

9 A. Once again, they are accepting level 1 PCI DSS as part
10 of the security standard.

11 Q. Thank you. You will recall you were asked a number of
12 questions about BlueSnap, yes?

13 If we can go to {D2/147.1/1}, again, this is
14 a printout of an Apple developer webpage, and if we go
15 to page {D2/147.1/2} and if we could zoom in on the
16 heading in the first paragraph?

17 A. Yes. PSPs, yes.

18 Q. Can I ask you to read the first paragraph so you
19 understand what this document is talking about?

20 A. Absolutely. So these are the authorised third-party
21 payment providers, so companies that provide some sort
22 of processing within the transaction processing stage.

23 These are demonstrating at least ... yes,
24 absolutely. These are authorised by Apple.

25 Q. Can I ask you look at the first column on the left-hand

1 side?

2 A. Yes, there is BlueSnap in the middle.

3 MR KENNEDY: Thank you, Mr Burelli. No further questions
4 from me.

5 THE CHAIRMAN: Mr Burelli, thank you very much for your
6 evidence. We are all finished with you so you are
7 released from the witness box. Thank you.

8 MR KENNEDY: The class representative calls Dr Wenke Lee.

9 DR WENKE LEE (affirmed)

10 Examination-in-chief by MR KENNEDY

11 THE CHAIRMAN: Good afternoon, Dr Lee, please do sit down.
12 You should have some water there, I hope, if you need
13 it. We will get you a clean cup.

14 MR KENNEDY: Dr Lee, you should I hope have copies of each
15 of your expert reports there. So the first one you
16 should have should be your expert report dated 14 May
17 2024. Do you have that?

18 A. Yes.

19 Q. Is this your first report in these proceedings?

20 A. I am sorry?

21 Q. Is this your first report in these proceedings?

22 A. Yes.

23 Q. Can we go to page 97, please?

24 A. I have it labelled 96 but that is 97. Yes.

25 Q. Is that your signature?

1 A. Yes.

2 Q. Can we look at your second report? It is dated 15
3 September 2024.

4 Do you have a copy of that? It should be expert
5 report of Dr Wenke Lee, yes?

6 A. Yes.

7 Q. Is that your second report in these proceedings?

8 A. Yes.

9 Q. Please go to page {C2/13/82}.

10 A. Yes.

11 Q. Is that your signature?

12 A. Yes.

13 Q. You should have your supplemental expert report of
14 Dr Wenke Lee dated 29 October 2024. Do you have that?

15 A. Yes.

16 Q. Is that your third report in these proceedings?

17 A. Yes.

18 Q. Please go to page 20.

19 A. Yes.

20 Q. Is that your signature?

21 A. Yes.

22 Q. Can you confirm that these reports set out your expert
23 opinion?

24 A. Yes.

25 Q. Can you confirm that insofar as the facts set out in

1 these reports are within your own knowledge, are those
2 facts true?

3 A. Yes.

4 MR KENNEDY: There will now be some questions from my
5 learned friend, Mr Kennelly.

6 Cross-examination by MR KENNELLY

7 MR KENNELLY: Good afternoon.

8 A. Good afternoon.

9 Q. Dr Lee, I want to begin, if I may, with the analysis of
10 the nature of security, safety and privacy threats. We
11 will take each in turn, beginning with security.

12 The nature of the security threats facing an
13 iOS Device user are wide ranging, are they not?

14 A. Yes, I agree.

15 Q. One example is an app which is infected with malware?

16 A. Okay, yes.

17 Q. You define malware as malicious software designed to
18 infiltrate or damage an application or an operating
19 system without the user's consent?

20 A. Yes, in general that is the definition.

21 Q. It is software created for malicious purposes?

22 A. Yes.

23 Q. One thing that malware might do is enable an attacker to
24 steal the user's data or information?

25 A. That is one of the utilities of malware, yes.

1 Q. Or it might enable the attacker to conduct unauthorised
2 surveillance over the user, like tracking their location
3 or conversations?

4 A. That is possible.

5 Q. This type of malware is sometimes called spyware?

6 A. Yes, for the purpose of stealing information, yes, it is
7 spyware. But not all malware is spyware.

8 Q. Of course, and malware might also affect
9 the functionality of the device itself?

10 A. In what sense?

11 Q. Where malware is designed to block access to a system
12 until the user has paid a particular sum of money like
13 ransomware, you cannot use your device until you have
14 paid the money?

15 A. Yes, sure, in that case you are basically blocking some
16 utilities or some software on the device, but not
17 the hardware.

18 Q. In relation to malware, the association between malware
19 and pornography.

20 I want to show you an article from Kaspersky from
21 2018. It is {D1/495.1/1}?

22 A. Is this in my report?

23 Q. No, and the document itself will only be on the screen
24 in front of you.

25 A. Okay.

1 Q. But it is from Kaspersky, do you see at the top, Dr Lee?

2 A. Yes.

3 Q. This is an organisation that you do mention in your
4 report?

5 A. The Kaspersky team, yes.

6 Q. This is an article explaining that they decided to do
7 research into the security risks facing those who use
8 pornography.

9 If you go to page {D1/495.1/5}, you see the key
10 findings at the bottom, and if you go to the next page,
11 please, "Threats to mobile users" {D1/495.1/6}.

12 Do you see in the first bullet point:

13 "In 2017, at least 1.2 million users encountered
14 malware with adult content at least once. That is 25.4%
15 of all users who encountered any type of Android
16 malware."

17 A. Okay, I see that, yes.

18 Q. Do you have any reason to disagree with that finding?

19 A. I do not have the context to disagree. Okay, that is
20 what they say. Yes.

21 Q. What you see is that Kaspersky says that over 25% of all
22 Android users who encountered any malware that year
23 encountered it alongside adult content?

24 A. I think what I read is that among the users who
25 encounter any type of Android malware, 25.4% of them had

1 encountered malware with adult content.

2 But I do not know whether these two numbers, how
3 they are actually put together in the sense that, yes,
4 I can still believe the number is the same. Maybe they
5 found out 1.2 million users encountered malware with
6 adult content and then they have a total number of users
7 who actually encounter any malware and that is how they
8 show their conclusion, okay.

9 Q. If you go, please, to page {D1/495.1/38}, same document,
10 we look at the conclusions and recommendations. Can
11 we just scroll up, please?

12 "... adult content serves as a tool for cyber
13 criminals to lure victims into fraudulent schemes
14 involving phishing PC and Android malware."

15 A. Sorry, can you tell me where you are reading from?

16 Q. I am reading under "Conclusion and Recommendations".

17 A. Okay, but this whole paragraph, which line?

18 Q. The whole thing, I am reading it to you, and it says:

19 "The outcome of such involvement is loss of
20 financial data ... money loss and compromised privacy.
21 It would be fair to say that the very same consequences
22 come from any other type of malicious attack, whether
23 they use adult content or not. The difference is that,
24 in general [says Kaspersky], victims of porn malware,
25 especially the most severe scareware types of it ..."

1 Pausing there, do you know what scareware is?

2 A. I mean, I do not recall the official definition. I know
3 different companies have different definitions of
4 scareware.

5 Q. Would you volunteer a definition for us, Dr Lee?

6 A. They could say, hey, your machine has been compromised,
7 you have downloaded this, you know, antivirus software
8 to scare you, but that antivirus software could very
9 well be malware.

10 Q. So it says here:

11 "The difference is, in general, victims of porn
12 malware --

13 A. Sorry, I am having a hard time actually following where
14 you are reading.

15 Q. Why do you not read that paragraph to yourself, Dr Lee,
16 and take your time, and when you have finished, we will
17 go over the page.

18 A. Okay.

19 Q. The point that Kaspersky is making, Dr Lee, is it, that
20 unlike other types of malicious attack, the difference
21 with the victims of porn malware is that they are
22 unlikely to report the crime to anyone because they
23 would have to admit that they were looking for or
24 watching pornography?

25 A. Okay, so what is your point?

1 Q. That is why pornography is an attractive accompaniment
2 or vector for malware?

3 A. So, to me, as I think I said in my first report and
4 second report, objectionable content, including
5 pornography, in and of itself is not a piece of malware;
6 only when it carries malware, then of course it becomes
7 a threat.

8 I also said in my report that there are multiple
9 other media that you use, including Microsoft Word.
10 I have colleagues who were actually studying early 2000,
11 who to this day refuse you sending a Word document, and
12 that may be a surprise to you. And PDF documents are
13 known to contained malware. We have done research in
14 that as well.

15 So to me, are those things objectionable content
16 just because they are malware, we should ban them all?
17 I will not take that position.

18 That is why I say in my report I say that
19 objectionable content becomes a security threat when it
20 carries malware. But in and of itself, it is not
21 malware.

22 Also, in my second report, I did say that -- if you
23 allow me or you want to, I can point you to a recent
24 report that says the top ten threats, they do not even
25 list, you know, porno contents.

1 Q. Let me pick up your first point there. You mentioned
2 malware being carried in Word documents or PDF
3 documents, correct? Did I understand you properly that
4 you mentioned that?

5 A. Let me explain. So my point is that you cannot look at
6 one type of content only, because one time it has
7 malware, that means categorically it is a security
8 threat.

9 My point is that you can point to Microsoft Word
10 documents, even PDF documents, there are incidents where
11 they contain malware. Like I said, we have done
12 research in that field as well. So my point is you
13 cannot say, well, just because it is malware, in and of
14 itself that is a security threat. You do not.

15 Q. But relatively speaking, relatively speaking,
16 pornography, porn apps, are more likely to be
17 accompanied by malware than PDF documents or Word
18 documents or Excel documents?

19 A. So you are assigning Kaspersky's report as one report
20 but like I said in my second report, the reply report,
21 I did say it needs another industry report to say that
22 is not even in the top ten. So, again, I do not have
23 a data point to agree with you or disagree with you.

24 Q. Let us look at what you did cite, Dr Lee.

25 Shall we go to Lee 2. This is {C2/13/54},

1 paragraph 88. You address this report and you make
2 the point that you have just made. Then you make
3 the point, about four lines from the bottom:

4 "Malware attackers are known to use other forms,
5 such as Microsoft Word and Excel, and PDF documents, to
6 trick users into downloading malware ... "

7 Do you see that?

8 A. Yes.

9 Q. You cite at footnote 217 a document. If we scroll down,
10 we can see the link.

11 A. Yes.

12 Q. "Can PDFs have viruses? Keep your files safe."

13 Do you see that? It is an Adobe link.

14 A. Yes.

15 Q. I come back to the question I asked you a moment ago,
16 Dr Lee. Would you accept that relatively speaking, I am
17 not talking about absolute numbers, but relatively
18 speaking, porn apps are more likely to be accompanied by
19 malware than PDF documents?

20 A. So like I said, the only report that seemed to suggest
21 that. But again, like I said, even the Kaspersky report
22 only says about, yes, 25% seems to be a lot, but maybe
23 there is another category of either, I do not know, any
24 type of malware that is even more than 25%.

25 So without reading the whole report, I cannot say,

1 well, pornographic has the highest percentage of chance
2 to carry malware. I just do not know enough. You did
3 not provide me with any other data points --

4 Q. I will give you another data point, Dr Lee. Can you go
5 to {D1/889.1/1}. It is on the screen again.

6 It is another Kaspersky report. This time it is
7 from 2020, and if we go to the second page, please,
8 {D1/889.1/2}, I am looking at the bottom of the second
9 page.

10 Again, they are looking at the link between malware
11 and pornographic content.

12 A. I am sorry, which paragraph should I be reading?

13 Q. The very last one in bold:

14 "Mobile porn-related threats are growing, while
15 PC-focused malware and potentially unwanted applications
16 are becoming less appealing to cybercriminals."

17 A. Okay.

18 Q. The number of mobile users attacked by reference to
19 mobile porn-related threats more than doubled between
20 2018 and 2019.

21 A. Okay.

22 Q. So that shows you that it is a growing problem, this
23 association between malware and pornography?

24 A. Ok, that's what it says, yeah.

25 Q. And that pornography is one category of content that has

1 a particularly significant degree of association with
2 malware?

3 A. Again, the report did not say compared with other types.
4 It only says that for pornographic content, the number
5 of malware seems to be double. But it did not compare
6 with other type of either content or medium, whatever.

7 So ... I do not know that I can support your
8 statement that pornographic content has the most likely
9 chance of carrying malware.

10 Q. That is not the question, Dr Lee.

11 A. Sorry, I missed your statement then. Can you repeat
12 that?

13 Q. The question was just that pornography is one category
14 of content that has a particularly significant degree of
15 association with malware?

16 A. How do you define particularly significant?

17 Q. More than normal, more than usual.

18 A. Okay, what is usual in the context? What numbers are
19 you comparing?

20 Q. Dr Lee, let us look at your example of the likelihood of
21 accompanying malware in a PDF document.

22 Do you accept that there is a greater association
23 between porn, relatively speaking, porn and malware
24 rather than PDF and malware?

25 A. Possibly, but I have not done a survey or I have not

1 seen a report that compared the numbers.

2 Q. You do not know either way?

3 A. I do not know either way.

4 Q. Would you not think it likely from your professional
5 expertise that there is more likely to be an association
6 with porn than with a PDF document?

7 A. First of all, I do not watch porn on my phone, so I do
8 not go to porn. To me, the most likely content I would
9 normally be in contact with is PDF and Word.

10 So really my own personal experience is I cannot
11 associate porn with malware because I do not deal with
12 pornographic contents.

13 Q. Dr Lee, that will not do. You are a highly esteemed
14 expert in the area of online privacy and security. This
15 is your area of expertise. You do not need to speak to
16 your personal experience.

17 A. I would say that from my own experience dealing with web
18 security, malware, I have not heard that pornographic
19 equals malware, or pornographic is likely is going to be
20 associated with malware.

21 In fact, on the history of web security, do you know
22 who started SSL or HTTPS? Pornographic websites. Why?
23 They were the first businesses that charged people with
24 credit card transactions. They want security. So to
25 me, another thing that we learn in cyber security is

1 that I am not sure you can say, hey, because that
2 content has malware, that means that content is bad.

3 The content, like I said in my report, in and of
4 itself is nothing to do with malware. But the fact that
5 somebody uses it for malware, like I said the same
6 attacker can use it for Word, for some image.
7 Remember -- I do not know, this famous tennis player --
8 I forgot her name ... something like Kournikova, you
9 know, very good looking young tennis player who was very
10 famous, that if you click on her picture, you get
11 infected.

12 So the point is that attackers, they have all kinds
13 of ways to send you contents that contain malware. So
14 what do you do? Ban all the contents, including Word
15 and PDF? You do not. You basically do a good job of
16 scanning the content, running Sandbox, whatever, to see
17 if it contains malware. That is what I said in my
18 report.

19 Q. This is something that you have not actually analysed in
20 any scientific way, the association between pornography
21 and malware?

22 A. Not pornographic stuff, no.

23 Q. So you do not actually know either way in any scientific
24 sense?

25 A. Like I said, I also have not seen it in any credible

1 academic reports about pornographic contents.

2 Q. Have you looked, for the purposes of your report, for
3 any credible academic reports addressing the association
4 between pornography and malware?

5 A. I did not specifically look for academic reports, but
6 I can tell you that I go to all the top security
7 conferences. I am associated with organising many of
8 them. I just do not recall any academic papers that are
9 worth our attention that specifically address
10 pornographic contents being used to carry malware.

11 But like I said in my report, if you allow me I can
12 find it, I actually cite a recent industry report, I
13 think that is a 2024 report, that does not even list
14 pornographic as a top ten threat. So, again, I did my
15 own study to find the industry report.

16 Q. We will not finish today, Dr Lee, so you will have an
17 opportunity over the weekend to look for the report and
18 find it for Monday.

19 A. Okay.

20 Q. But finally on this, to the extent that we have seen
21 articles published by experts, you have seen what
22 Kaspersky said about the very significant association
23 between pornography and malware?

24 A. So that is one industry report.

25 Q. Sure. Do you think they are wrong?

1 A. Again, I would rather have multiple industry reports.

2 So that is why, like I said in my own report, I cited
3 a different industry report.

4 Q. Dr Lee, do you think they are wrong or do you think they
5 are right, or you do not know?

6 A. Like I said, there are reports that did not even list
7 pornographic contents as a top ten threat.

8 It seems to me that even within industry, there are
9 different opinions, different observations. So I am not
10 in a position to say, hey, do you agree with this
11 particular opinion or not? I am not ready for that.

12 Q. I will move on to social engineering attacks. Another
13 form of security threat facing an iOS Device user are
14 social engineering attacks. I think you can accept
15 that?

16 A. Yes, I agree.

17 Q. One type of social engineering attack might be
18 a developer who tricks the user into thinking the app
19 does something which it does not do, like a fraudulent
20 app pretending to be a legitimate banking app?

21 A. Okay. Yes, you could consider social engineering, yes.

22 Q. Another type of social engineering attack would be an
23 app which persuades the user to grant the app access to
24 certain functions, like the camera or photographs, and
25 then uses that to steal the user's data in some way?

1 A. Yes. It seems to me that you use a very broad
2 definition of social engineering, which -- I am fine
3 with that.

4 Q. It might involve persuading the user to give up
5 information which is then used for an illegitimate
6 purpose?

7 A. Okay, that is possible, yes.

8 Q. Again, like tricking a user into providing their banking
9 authentication information to enter an alleged
10 sweepstake, which is then used to access their bank
11 account?

12 A. Yes.

13 Q. You say that social engineering attacks are seen more
14 frequently than, what you refer to as technical exploits
15 such as malware?

16 A. Can you point --

17 Q. It is your second report, Dr Lee. {C2/13/4}. I am
18 using the numbering, Dr Lee, from the bottom right-hand
19 corner, and it is paragraph 6 that I am asking you to
20 see.

21 I was really asking you to confirm what you wrote
22 there. Sorry, third sentence on paragraph 6.

23 A. Yes, I did say that they are more frequent, yes.

24 Q. One of the reasons why they are more frequent is, as you
25 say, they are less resource intensive for attackers to

1 deploy than technical exploits?

2 A. I did not say that was the reason. I just said they are
3 more frequent and less resource intensive. I did not
4 say that because they are less resource intensive, that
5 is how they become more important. I did not do this
6 cause/effect thing, I just say, hey, these are two
7 characteristics.

8 Q. But would you accept that in general a social
9 engineering attack is likely to be less resource
10 intensive for an attacker than a technical exploit?

11 A. Thank you for the clarification.

12 If I was attacker, I would find attacks that most
13 likely people would fall for. Resource intensive?
14 It really depends. I mean, like, you have a ton of free
15 cycles on your phone, why is resource so important?
16 Most of the time it is not.

17 Q. If it were less resource intensive to set up a social
18 engineering app, that would be a lower barrier to entry,
19 would it not, than constructing a technical exploit?

20 A. So all things equal, of course the easier thing you
21 would do, including resource. But my point is, as an
22 attacker, the first goal is what are the targets? What
23 victims do you want to target? How likely is it that
24 your attack will succeed. Those things are more
25 important than what would cause a CPU drain.

1 Q. I mean resource intensive for the attacker, because
2 the attacker is a business. So if it is cheaper to do
3 it, that is a factor in favour of doing it, no?

4 A. Again, it depends on the attackers. Some attackers
5 allegedly are sponsored by nation states, they have a
6 tonne of resources. They do not worry about resources.

7 Q. Just in general, even excluding nation state attackers?

8 A. Well, even if you are not a nation state, it is very
9 easy to actually rent a bot. So botnet stands for
10 network of bots. A bot is a compromised machine.

11 Do you know how cheap it is to rent a bot per day?

12 A dollar. That was 15 years ago. Now, probably
13 10 cents. So in terms of the resource you need, it is
14 easy as an attacker. You can get hundreds of thousands
15 of compromised machines at your finger. So basically
16 you can have a supercomputer to do whatever the hell you
17 want. Sorry, for my language.

18 Q. Dr Lee, that is fully understood.

19 Would you agree it is not possible to come up with
20 a reliable figure of what percentage of attacks overall
21 can be classified as social engineering attacks, but
22 they are one of the most prevalent forms of security
23 threat facing iOS Device users today?

24 A. I would say that the term social engineering is now very
25 broadly defined, so that is why you could say it

1 encompasses a lot of attacks, a huge percentage. I can
2 agree with that. Yes.

3 Q. If we move on to the question of safety, because you
4 draw a distinction in your report between what you would
5 term security issues on the one hand -- I am not
6 pointing to a particular phrase, just in general,
7 Dr Lee, I think you draw a distinction between what you
8 term security issues on the one hand and safety issues
9 on the other. Is that fair?

10 A. Yes, I think in my -- I think I summarised it in both my
11 first report and second report. I also included
12 the joint report from me and Dr Rubin. I kind of
13 clarify that my definition or the definition, actually
14 I got it from an Apple document, is that safety, we are
15 more referring to the kind of physical actions or
16 possible physical harms to the user, and security means,
17 you know, something different.

18 Q. When we talk about safety issues in the context of
19 mobile apps, we are talking about protecting users from
20 apps that might expose them to some kind of physical or
21 mental harm.

22 A. Okay.

23 Q. An example is an app that purports to give medical
24 advice which has not received regulatory clearance.
25 That would be a safety issue, among other things?

1 A. Yes, if you caused -- if the app caused the user to take
2 the wrong medicine, yes, that is a physical harm. Yes.

3 Q. Another example, and it is actually a real world example
4 given by Mr Federighi, of apps using blue whale imagery
5 which encouraged users to commit suicide. Have you
6 heard of that blue whale app?

7 A. Yes, I think I remember something like that, but you can
8 point to the report where I cite it. But yes, these
9 things seem to be pretty crazy. I mean, even if
10 I believe that they exist, I would not say those kind of
11 things you run into too often, at least not in the world
12 that I live in. I am not aware of many instances like
13 that.

14 Q. And --

15 A. Sorry, but the example is so extreme. It would cause
16 you to commit suicide. That is a crazy thing. But
17 anyway.

18 Q. We will go to something less extreme but still
19 potentially harmful.

20 A. The medicine example is less extreme, yes. I could
21 believe that is probably more prevalent than the suicide
22 example.

23 Q. But also some kinds of pornography can cause mental harm
24 to young people?

25 A. Again, I am not an expert in child development and all

1 that kind of thing. I am just -- okay. I do not have
2 any sort of insight and I do not know any report that
3 says that.

4 Q. Just to clarify what you meant, can you go please to
5 {C2/13/9}. This is actually a report, your second
6 report.

7 A. Okay, page 9.

8 Q. At paragraph 19, you say:

9 "... while a pornographic image or other
10 objectionable content can be considered inappropriate,
11 it does not by itself cause any harm to an iOS Device or
12 its user."

13 A. Yes.

14 Q. But you must accept that there are certain categories of
15 pornography that would cause of themselves mental harm
16 to users, young users in particular?

17 MR KENNEDY: I am sorry to interrupt, but perhaps you could
18 read footnote 15?

19 MR KENNELLY: I intend to. But maybe Dr Lee can read that.

20 Dr Lee, just in fairness to you, you said in
21 footnote 15:

22 "... I should clarify ..."

23 When I talk about mental harm, Dr Lee, I am talking
24 about extreme, extreme pornography:

25 "... I should clarify that I assume the relevant iOS

1 Device user [the person whose watching this extreme
2 pornography] is an adult, or a child under
3 the supervision of an adult, who has actively chosen or
4 been allowed to access the pornographic image, or that
5 the pornographic image does not cause harm in terms of
6 the security of the iOS Device."

7 Do you see that, Dr Lee?

8 A. Yes.

9 Q. You are not seriously suggesting that if a child is
10 watching certain forms of extreme pornography, even if
11 an adult is supervising them, there is no risk to their
12 mental health?

13 A. Like I said, there are a couple of things here.

14 First of all, I am not a mental health expert and
15 I do not know if there is an academic study that I can
16 cite to basically support your statement that it is
17 going to cause some mental harm. I do not know stuff
18 like that.

19 The second thing is that the context here assumes
20 the user is an adult or a child under the supervision of
21 an adult. So it is a similar situation as a parent
22 allowing the kids to watch, let us say, an R rated movie
23 in America, which contains pornography or violence.

24 So I will say a parent probably has more idea about
25 how the child can handle this kind of thing, or the

1 parent may be able to guide or maybe advise the child on
2 how they process the information.

3 So, again, like I said, this is not an area that
4 I know, so that is why I make this assumption clear to
5 say, hey, when I make this statement, I assume there are
6 some safeguards there, and also, remember, I am
7 a security expert. I am here to comment on security.
8 So really, my expertise in security is not necessarily
9 on safety, mental health and all of that. That is why
10 the purpose of -- that is the purpose of footnote 15.

11 Q. Just to make sure that I understand precisely what you
12 are saying, Dr Lee, the point I am making to you is not
13 about R rated movies, it is about the safety issues that
14 arise when confronted with certain types of extreme
15 pornography. Is that clear?

16 A. Again, like I said, the parallel is an R rated movie
17 that promotes violence. Why is that less serious than
18 pornography?

19 THE CHAIRMAN: Mr Kennelly, I am struggling a little. I do
20 not want to interrupt your cross-examination. I am just
21 struggling about how this fits in. Is it a credibility
22 point or --

23 MR KENNELLY: No, it fits in because -- it is important
24 because Dr Lee, in fairness to him, has put in a report
25 saying that in the counterfactual, the levels of safety

1 that would be secured will be equal or superior to those
2 currently secured on the App Store, and Dr Lee has been
3 very clear that although he distinguishes between safety
4 and security, and correct me, Dr Lee, if I am
5 misrepresenting your evidence, he is giving evidence
6 about safety also, and he is giving evidence about
7 the levels of safety that are currently secured -- in
8 his reports, the levels of safety currently secured on
9 other app stores and on Android, and what he predicts
10 will happen in the counterfactual.

11 I am just testing to understand with him what he
12 understands safety to be and what his understanding of
13 that concept is, since he is speaking to it directly in
14 his evidence.

15 THE CHAIRMAN: I had actually understood him to have dealt
16 with this already in his first report and, indeed, in
17 footnote 14.

18 So I do not want to take you away from
19 the cross-examination, it just does seem to me there is
20 a risk of confusion about, as Dr Lee says, his role as
21 a security expert and then there is the question of
22 safety.

23 I am not entirely sure -- it was not clear to me,
24 and I am not entirely sure it was clear to Dr Lee
25 either.

1 MR KENNELLY: Forgive me. In fairness to Dr Lee, Dr Lee,
2 you accept that safety encompasses physical or mental
3 harm to the user?

4 A. To an extent there is a direct causal relationship
5 between the content and the harm which, like I said,
6 some of these things are more obvious than the others.

7 I am not an expert, for example, in mental health.
8 I am not an expert in parental control/guidance. So
9 that is why I put in this footnote 15, to just caveat my
10 opinion.

11 Q. I am obliged.

12 I will move on now to privacy. But Dr Lee, this is
13 an opportunity for you to say, if you want to, that you
14 are not engaging really with the question of safety at
15 all in your evidence because it is outside your area of
16 expertise.

17 A. That is not true. I mean, I say that you know my
18 expertise is in security but I did say that in
19 the counterfactual, by opening up, it does not really --
20 there is no evidence or from my opinion, that it would
21 cause you know the iOS ecosystem to be let us say less
22 safe, but like I said, there are a lot of kind of
23 I would say caveats in terms of what I mean.

24 Like I said, you said, hey, what about this
25 objectionable contents may cause safety issues? To me,

1 okay, specific examples I can relate to but
2 categorically, I think I need expert opinions in terms
3 of the actual causal relationship.

4 Q. I will move on to privacy. In relation to privacy
5 threats, this is really about ensuring a user maintains
6 control over how their data is accessed and used?

7 A. Yes, I think I gave a definition. Like I said, in both
8 my first report and second report and also in the joint
9 report, essentially privacy means that personal
10 information or device information cannot be gathered
11 without the user's consent and knowledge in general.

12 Q. Including things like usage statistics; what websites
13 they are looking at and for how long?

14 A. That is actually a pretty tricky question. I mean like
15 Facebook, Apple, Google, they are known to be collecting
16 them for a long time. Now, finally, they say when you
17 let us say bring up a -- let us say I read the news and
18 they bring up article, they will say, "Oh, I am going to
19 track the following" and some of them you can deny.
20 That is always the option I would choose but some of
21 them, you cannot reject anything.

22 THE CHAIRMAN: Sorry to interrupt you now but I think that
23 the question was simply whether you would consider that
24 to be a privacy matter. I think that is all that
25 Mr Kennelly was asking. He just wants you to confirm

1 whether or not you think the tracking of data in that
2 way is a privacy issue, and falls within the privacy
3 question. That is the question.

4 A. Yes. I mean generally yes but the point is that --
5 maybe I am jumping ahead to say everybody that I know of
6 bar (inaudible) some kind of privacy consent of users.

7 MR KENNELLY: You accept there is a degree of overlap
8 between security and privacy threats, a degree of
9 overlap?

10 A. Sometimes.

11 Q. In fact you describe these threats as interconnected
12 because one sort of threat can lead to another. Can
13 I show you your first report {C2/5/21}?

14 A. Okay.

15 Q. Paragraph 21, last sentence:

16 "... digital platforms face growing threats to
17 safety, privacy, and security ..."

18 A. Okay.

19 Q. You see here, Professor Lee, you are distinguishing in
20 your evidence between safety, privacy and security.
21 Yes?

22 A. Yes, my definition is that they are different.

23 Q. Yes. Different but interconnected threats, that one can
24 lead to or aid another?

25 A. Yes. So I say these threats can be interconnected;

1 it does not mean they have to be interconnected.

2 Q. If you go please to paragraph 22, second bullet point
3 and third bullet, you are agreeing with Mr Federighi?

4 A. Yes. Second bullet and third bullet, I agree with
5 the definition of Mr Federighi, yes.

6 Q. So take an example of a social engineering attack that
7 again looks like a legitimate banking app but gets
8 unauthorised access to a user's data. That is
9 a security issue and a privacy issue?

10 A. Sorry, can you repeat that question again.

11 Q. It is the one I have mentioned twice. Well, forget
12 about it being social engineering. Just an attack where
13 an app is impersonating a legitimate bank to get
14 unauthorised access to a user's data.

15 A. Okay.

16 Q. That is a security problem and a privacy problem?

17 A. Yes, but on the other hand, if a user is using
18 a legitimate banking app, they know that somebody's
19 personal information will be obtained by the bank so
20 that is already in a sense, to me, the attack is
21 essentially impersonating a banking app.

22 My point is that it is more than the social
23 engineering side that is interesting but the thing is if
24 the user believes it is a banking app, then of course
25 the user will allow the banking app to access any

1 information that relates to banking. So to me, is that
2 yes? It ends up violating the privacy but in terms of
3 attack methods, it is more like social engineering.

4 Q. Let us go to the Zimperium report. Before I do, let me
5 make sure you are oriented. Paragraph 90 of your first
6 report {C2/5/55}.

7 A. All right.

8 Q. You say the extent of these threats, safety, privacy and
9 security, is increasing.

10 A. Hold on.

11 Q. Please do read paragraph 90 to yourself.

12 A. Okay.

13 Q. In your report, you cite a report by an organisation
14 called Zimperium about how these threats, security
15 threats, are becoming more prevalent in particular.

16 Do you recall the Zimperium report that you cited?

17 A. The same paragraph of the report I think I cited from
18 Mandiant.

19 Q. This is a different part of your report but going to
20 the same question.

21 A. Okay, where?

22 Q. Page {C2/5/24}, please, footnote 26.

23 A. You said page?

24 Q. Page 24.

25 A. 24, in the same report?

1 Q. If you go to paragraph 26, you say these security
2 threats are becoming more prevalent, you refer to an
3 increase in malware and a rise in ransomware and
4 phishing from mobile and you cite the Zimperium report
5 in footnote 26.

6 A. Yes.

7 Q. Can we look at that, please, {D1/1368/1}.

8 Do you recognise this report?

9 A. Yes, I suppose, yes.

10 Q. Can you go to page 3, please? {D/1368/3}.

11 Just read those first two sentences, under
12 "The Emergence of Mobile-First Users", just the first
13 two sentences please.

14 A. You mean the first sentence of the first paragraph?

15 Q. The first two sentences of the first paragraph.

16 A. Okay. (Pause) Okay.

17 Q. Do you agree with this report's description of society
18 becoming a mobile-first society?

19 A. Yes, by and large, I agree. Yes.

20 Q. Technological developments mean there is an increasing
21 incentive for app developers to try and get access to
22 those users' data?

23 A. Yes, in general, yes. That is true.

24 Q. That 60% of e-commerce purchases being done by mobile
25 apps, does that reflect your understanding?

1 A. Are you looking at the second paragraph?

2 Q. No, it is further down. Second paragraph, second last
3 sentence:

4 "Mobile apps now account for 60% of e-commerce
5 purchases."

6 Does that sound right to you?

7 A. I am not sure. At least, that is not how I buy things
8 online.

9 Q. I understand but does this sound right to you for
10 everybody else?

11 A. So again, I do not know. I have not asked around.
12 I always buy things using my Mac laptop. I may browse
13 things using my mobile phone. On mobile phone,
14 the screen is too small for me.

15 Again, I do not know the percentage, which
16 percentage actually is correct or reasonable but I do
17 agree that everybody has a mobile phone now, they use
18 them all the time. That I agree.

19 Q. Thank you. Let us go to page {D/1368/4}, same document,
20 second paragraph down. Now, this is about security
21 teams needing to adapt to this mobile-first society:

22 "The consequences of [any] ... vulnerability gaps
23 can be devastating."

24 You see it says losses from online payment fraud
25 cost \$41 billion in 2022 and will grow and one report

1 found 70% of digital fraud now occurs on mobile devices.

2 Again, does that reflect your understanding?

3 A. So, again, I do not have any sort of specific numbers or
4 percentages. Yes, I mean sure. If they say that a lot
5 of people are using mobile phones to transact and end up
6 being defrauded, okay. I have no basis to say otherwise
7 but on the other hand, like I said, I have not spent
8 enough time looking at different reports.

9 Q. Can you go to page 24 {D1/1368/24}, please?

10 A. 24 of my report?

11 Q. Hopefully, you will be shown it now.

12 The first paragraph, can you zoom in, please?

13 This is about "Constantly Evolving Reverse
14 Engineering Technology":

15 "Reverse engineering via techniques like hooking,
16 scripting, and hiding techniques remains a real concern
17 for app developers. While the development of reversing
18 technologies offers opportunities for innovation, it
19 poses challenges for enterprises relying on security
20 solutions. The cat-and-mouse game between attackers and
21 security solutions often renders detecting and blocking
22 techniques outdated by the time they are deployed
23 leaving enterprises vulnerable to sophisticated
24 attacks."

25 Do you agree with that?

1 A. I agree with this since day one of cybersecurity. It is
2 always a cat-and-mouse game.

3 Reverse engineering, actually when I was an
4 undergrad, was taught. That was in the 80s. So really
5 nothing that is said here is anything new. Like I said,
6 it is basically a constant state of cybersecurity, cat
7 and mouse. So nothing that this paragraph says is
8 a surprise to me or is unique to a mobile platform at
9 all.

10 Q. In the next paragraph, it talks about "To address that
11 challenge, security solution providers need to do
12 research and rapidly deploy fixes, stay ahead of rapidly
13 evolving techniques or deploy proactive tools which
14 address the methodologies used by reversers" and then
15 this:

16 "Ideally, these fixes should seamlessly integrate
17 into existing solutions without requiring an enterprise
18 to re-apply and redeploy apps."

19 "Ideally"?

20 A. Yes, I agree. Again, that is generally a true
21 statement, a true requirement, for all security products
22 from day one.

23 Q. Just below that, "Shortage of Security Engineers";
24 again, from your own expertise as a security expert,
25 it says here:

1 "The shortage of security engineers has significant
2 implications for organizations."

3 Is this something that you have seen, a shortage of
4 experienced security engineers which means organisations
5 are outsourcing security issues or taking a reactive as
6 opposed to proactive approach?

7 A. Actually, I can take forever trying to explain this.

8 Q. Very high level.

9 A. There are two kinds of security engineers. One of
10 the engineers will build products. The other engineers
11 administer those products for your network for your
12 organisation. In fact, they actually require
13 a different set of skills so, yes, there is a shortage
14 but again, what is the main concern? It really depends.

15 Q. Now paragraph 64, please, in this report, under
16 the heading -- page 64. We will still in the Zimperium
17 report, the report you cited in your first report.
18 Page 64, please {D1/1368/64} under the heading
19 "Third-Party App Stores & Malicious Profiles", you see:

20 "As a general rule, malicious actors would opt to
21 pursue their objectives by having their malicious apps
22 installed by a victim. While mechanisms may be created
23 that can directly exploit a mobile device, these
24 approaches tend to be much more difficult and far less
25 reliable."

1 Then this:

2 "To achieve their objectives, malicious actors try
3 to get victims to download malware from unsanctioned
4 third-party sites. To do so, they develop apps that
5 violate Apple's terms of service but are sought-after by
6 many people," Look at the examples, Dr Lee, "apps for
7 gambling, pornography and crypto-currencies."

8 Do you see that?

9 A. Yes.

10 Q. It is true, is it not, that Zimperium have given those
11 three examples -- gambling, pornography and
12 cryptocurrencies -- because those are apps which have
13 relatively speaking a greater association with this kind
14 of malicious action?

15 A. Yes, those are examples but they did not say they are
16 the most prevalent techniques. They are examples.

17 Q. They chose those three for a reason, did they not,
18 Dr Lee?

19 A. I do not know. I do not know the reason is because they
20 are more prevalent than the others.

21 Q. We will move on to the consequence of these threats.
22 The potential effect of all these threats are serious
23 for all users, are they not? I think we can accept
24 that.

25 A. Can you repeat the question again?

1 Q. The consequence of these safety, security and privacy
2 threats can be very serious for users?

3 A. Yes. That is an open-ended question. Yes, if you
4 download malware, then malware can supposedly do a lot
5 of things.

6 Q. The threats may also have adverse consequences for
7 Apple's reputation to the extent that the problems
8 happen on an Apple device?

9 A. Yes, I agree.

10 Q. Because Apple's brand is very closely bound up with
11 the safety and security of its platform?

12 A. That is how they advertise themselves, yes.

13 Q. Now, one of the points you make in your second report --
14 actually, just give me a second, I am seeing if I can
15 cut something to save time.

16 One of the points you make in your second report is
17 that it is rare for the average consumer to be affected
18 by a security attack {C2/13/10}.

19 A. Which paragraph?

20 Q. Paragraph 20.

21 A. All right.

22 Q. About halfway down, you say:

23 "With regards to the potential effects on iOS Device
24 users, I note that it is rare for security attacks to
25 affect average consumers as they are likely to be found

1 by developers and reported to Apple ..."

2 Do you see that?

3 A. Yes.

4 Q. You then say:

5 "... Apple can act to secure its systems to remove
6 the vulnerability."

7 You mention that the CMA received evidence to that
8 effect in its Mobile Ecosystems Market Study. That is
9 the evidence that you are citing for that statement or
10 the source?

11 A. Yes, and I agree with that statement from the CMA, also
12 from experience as a security researcher, particularly
13 for mobile devices.

14 THE CHAIRMAN: I think just wait until you are asked
15 a question.

16 A. Okay.

17 MR KENNELLY: If you go to the next page, please, {C2/13/11}
18 and see the footnote you cite for that proposition.

19 A. Which footnote?

20 Q. It is footnote 23. You cite paragraph 72, appendix N.
21 So let us go to that at {AB6/39/17}.

22 Could you read paragraph 70 through to 72. 72,
23 obviously, is the paragraph you cite.

24 A. Okay.

25 Q. So the first point is, this is talking about

1 vulnerabilities in the software developed by Apple or
2 Google which Apple or Google then patch. Those are
3 referred to as zero day vulnerabilities?

4 A. That means new bug. Yes.

5 Q. Just to be clear, what it is not talking about are
6 security attacks which are perpetrated by the app
7 developers themselves using infected apps or social
8 engineering attacks deployed through apps?

9 A. Let me see ...

10 Well, it did not exclude that either so you could
11 download the app, basically if the app knows it is zero
12 day, it can exploit that.

13 Q. Then paragraph 72 draws a distinction, does it not,
14 between high-value targets on the one hand and consumers
15 on the other and the point is that the zero day attacks
16 tend to harm the high-value targets rather than
17 the individual consumers?

18 A. Well, let me --

19 Q. It is at the very end of paragraph 72.

20 A. I do not know. They do not actually mention zero day
21 specifically here. They only say high-value
22 vulnerability. So I am going to take back my statement
23 to say that I agree with you that high-value
24 vulnerability means zero day. Of course zero day can
25 potentially be high value but I do not think paragraphs

1 from 70 to 72 explicitly mention zero day.

2 Q. Have you read the end of 72?

3 A. Okay.

4 Q. "As a result, severe attacks that depend on high value
5 vulnerabilities tend to be reserved for high-value
6 targets ..."

7 A. Yes, I see that.

8 Q. Do you understand "high-value targets" to refer to
9 companies or other entities with large financial
10 resources?

11 A. Those are high value but again there could be some other
12 high-value targets.

13 Q. Would you accept on the basis of this, someone is being
14 harmed by these attacks?

15 A. Yes. Somebody is harmed by any attack. Yes, any attack
16 would harm somebody.

17 Q. Paragraph 73:

18 "The main security issue faced by users of app
19 stores is malware ... there are a number of risks that
20 come from insecure and intentionally harmful apps ..."

21 Then paragraph 74 and 75, you can read to yourself
22 about the ways in which malware might affect apps
23 downloaded by individual consumers.

24 A. I have read these two paragraphs, yes.

25 Q. The CMA is not saying that mobile device users are

1 rarely affected by security issues?

2 A. Can you read the statement again?

3 Q. The CMA is not saying, is it, that mobile device users
4 are rarely affected by security issues?

5 A. I go back to paragraph 72, right? It talks about ...
6 it is rare that an attack will affect the average
7 consumers and there is a technical reason behind this
8 I can explain, if the panel agrees.

9 Q. I think for the moment I am just going to draw your
10 attention to the limiting factor in this paragraph
11 before you explain. We are focusing on the attacks
12 beginning at paragraph 72 which exploit software
13 vulnerabilities. Do you see that?

14 A. Yes.

15 Q. We are just looking at the attacks which exploit
16 the software vulnerability, which is why I thought you
17 meant a zero day attack.

18 A. Again, like I said, not all software vulnerabilities are
19 zero day. Zero day is one kind of software
20 vulnerability.

21 Q. If we are only looking at attacks which exploit software
22 vulnerabilities, the CMA is saying here that for those
23 kind of attacks, average consumers are rarely affected?

24 A. I still agree, yes.

25 Q. But they are not saying that for mobile device users

1 generally, they are generally rarely affected by
2 security issues, by general security issues not just
3 the ones that are limited to exploiting software
4 vulnerabilities?

5 A. That is correct. The CMA did not say what you just
6 described. Yes.

7 MR KENNELLY: Thank you. I have now finished that topic.

8 THE CHAIRMAN: You have finished the topic. That is
9 probably a convenient moment.

10 MR KENNELLY: Yes.

11 THE CHAIRMAN: Monday. We need to finish with Dr Lee on
12 Monday.

13 MR KENNELLY: Yes.

14 THE CHAIRMAN: As we know, next week is pretty tight anyway.
15 I think the original objective was to try and find some
16 extra time for the accounting experts because it was not
17 quite tight as it was on the timetable, as I recall.

18 MR KENNELLY: Yes.

19 THE CHAIRMAN: So I do not know whether you can have a bit
20 of a think over the weekend. I appreciate some of
21 the difficulties you are encountering but there are
22 perhaps ways of approaching it slightly differently.

23 MR KENNELLY: Absolutely. I will have time to do that and
24 I will do so but may I ask the tribunal to sit from 10
25 on Monday? May we do that?

1 THE CHAIRMAN: That might be a little bit risky.

2 What we might do is instead try and find you some
3 time during the day, either have a shorter short
4 adjournment or do the same thing as we have done this
5 evening. I think there are some limits as to how much
6 extra time we want to sit every day because of the
7 burden it places on the transcriber and also on the
8 witness as well, so we want to be careful about that.

9 MR KENNELLY: I understand, and I have already been indulged
10 by the tribunal and the tribunal staff.

11 THE CHAIRMAN: We started late and so it is only fair that
12 you have had extra time. Anyway, let us see how we go
13 but I have got the message that we do need to finish
14 with Dr Lee on Monday.

15 MR KENNELLY: That is clear.

16 THE CHAIRMAN: Dr Lee, we are now going to adjourn until
17 Monday morning at 10.30. While you are out of
18 the witness box between now and Monday morning, you are
19 not to discuss your evidence with anybody else and
20 I mean anybody else, whether it is in your personal
21 life, your social life or your work life. Please do not
22 talk about your evidence in this case until we see you
23 again at half past ten on Monday morning.

24 A. I understand.

25 THE CHAIRMAN: Good. Thank you very much.

1 (5.00 pm)

2 (The hearing was adjourned until 10.30 am

3 on Monday, 27 January 2025)

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19

20

21

22

23

24

25

INDEX

MR DAVID HOWELL (continued)1

 Cross-examination by MR KENNELLY1

 (continued)

 Further cross-examination by MS DEMETRIOU44

 Re-examination by MR HOSKINS46

 Re-examination by MR KENNEDY51

MR FRANCESCO BURELLI (affirmed)55

 Examination-in-chief by MR KENNEDY55

 Cross-examination by MR KENNELLY56

 Re-examination by MR KENNEDY149

DR WENKE LEE (affirmed)153

 Examination-in-chief by MR KENNEDY153

 Cross-examination by MR KENNELLY155