Exhibit 12

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

SECURITIES AND EXCHANGE COMMISSION,	§	
	§	CIVIL ACTION
PLAINTIFF,	§	NO. 20-CV-1(AT)(SN)
	§	
AGAINST	§	
	§	
RIPPLE LABS, INC., BRADLEY GARLINGHOUSE, AND CHRISTIAN A. LARSEN,	§	
	§	
DEFENDANTS.	§	

HIGHLY CONFIDENTIAL - ATTORNEYS' EYES ONLY

ORAL AND VIDEOTAPED DEPOSITION OF
[redacted]
FEBRUARY 15, 2022

ORAL AND VIDEOTAPED DEPOSITION OF [redacted] produced as a witness at the instance of the Defendant and duly sworn, was taken in the above styled and numbered cause on Tuesday, February 15, 2022, from 9:28 a.m. to 6:44 p.m., before TAMARA CHAPMAN, CSR, RPR-CRR in and for the State of [redacted] reported by computerized stenotype machine, at the offices of King & Spalding, LLP, 500 West 2nd Street, Austin, [redacted] pursuant to the Federal Rules of Civil Procedure and any provisions stated on the record herein.

Job No. 205589

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1 A P P E A R A N C E S
(Continued)
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A P P E A R A N C E S
(Continued)

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Stu Alderoty, Ripple Labs
Deborah McCrimmon, Ripple Labs (via Zoom)
Reid M. Figel (via Zoom)
Marty Flumenbaum (via Zoom)
Ben Hanauer (via Zoom)
Lisa Zornberg (via Zoom)
Kyle Chermak (via Zoom)
Christopher Fiore, Compass Lexecon

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13 Amended Expert Report of [redacted]

14 (No Bates - 70 pages)

Exhibit [redacted]-2, 265 19

15 Rebuttal Report of [redacted]

(No Bates - 73 pages)

16 Exhibit [redacted]-3, 139 2

Rebuttal Expert Report of Allen

17 Ferrell, Ph.D.

(No Bates - 52 pages)

18 Exhibit [redacted]-5, 173 11

CoinMarketCap price chart of XRP U.S.

19 dollars, October 1st, 2016 through

December 31st, 2016

20 (No Bates - 5 pages)

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21 [redacted]

22 [redacted]

(No Bates - 38 pages)

23 Exhibit [redacted]-15, 274 19

Expert Report of Allen Ferrell, Ph.D.

24 (No Bates - 128 pages)

25

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THE VIDEOGRAPHER: This is the videotaped oral deposition of [redacted]. Today's date, February 15, 2022. The approximate time, 9:28 a.m. Central Standard Time. We're recording and on the record.

THE STENOGRAPHER: Would you introduce yourselves for the record.

MR. CERESNEY: Yes. Andrew Ceresney and Matt Hirsch from Debevoise.

MR. SOLOMON: Matt Solomon with Cleary Gottlieb.

MS. BUNTING: Kristina Bunting with Paul Weiss.

MR. OPPENHEIMER: Bradley Oppenheimer from Kellogg Hansen.

MR. ALDEROTY: Stu Alderoty, Ripple.

MS. GUERRIER: Pascale Guerrier with the SEC.

MS. WAXMAN: Daphna Waxman from the SEC.

THE WITNESS: [redacted], [redacted] [redacted].

[redacted] having been first duly sworn, testified as follows:

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EXAMINATION

BY MR. CERESNEY:

Q. Good morning, [redacted].

A. Hi.

Q. My name is Andrew Ceresney. With me is my colleague, Matt Hirsch. We're attorneys with Debevoise & Plimpton and we represent the defendant, Ripple Labs, in this case.

This is an expert deposition in the case of SEC versus Ripple Labs, which is pending in the Southern District of New York.

Is there any reason why you cannot testify completely and truthfully today?

A. There is not.

Q. Are you taking any medication or suffering any medical or physical condition that would impact your ability to testify today?

A. I'm not.

Q. Okay. You have to wait until I finish my questions to answer. Okay?

A. (Nods.)

Q. We'll try not to talk over each other today.

Please state and spell your full name for

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the record.

A. [redacted].

Q. And what's your home address, [redacted]?

[redacted]

Q. Okay. Your testimony today, [redacted], is under oath. It's being taken down by the stenographer and videotaped by a videographer.

It may be read or played at trial or used for other purposes relating to this lawsuit.

Do you understand that?

A. Yes, I do.

Q. Because the court reporter is taking down all the testimony, it's important that all your answers are verbalized. So please give a spoken answer to any question. No nodding or shaking. Okay?

A. (Nods.)

Q. Yes.

A. Yes.

Q. There you go. Okay. And, again, it's important that you allow me to finish my question before you answer so that we're not talking over

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each other. We're going to take breaks during the deposition. If at any time you need a break, just let me know. And as long as there is not a question pending, we'll break. Okay?

A. Yes.

Q. Have you ever been deposed before?

A. Yes.

Q. How many times?

A. Twice.

Q. What were those cases?

A. It was in the [redacted]. It is listed in my appendix.

Q. It is listed in your appendix?

A. My appendix and report. But it's listed in the appendix to the report, but since the appendix of the report I did a deposition the second time in the same case.

Q. Same case?

A. So there is two depositions in that case.

Q. And what issues are -- what's the issue that you testified about in that case, in a general level?

A. It's regarding a stock drop as a 10(b)(5) case.

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(Reporter admonishment.)

Q. It's a stock drop class action?

A. Stock drop class action. Yes, sir.

Q. And you're representing the plaintiff or the defendant?

A. Plaintiff.

Q. For the purposes of the deposition I'm going to refer to Ripple Labs as "Ripple" and I'm going to refer to the defendants, Ripple, Brad Garlinghouse, and Chris Larsen, either individually or collectively as "defendants."

Is that okay? Do we agree on that?

A. Yes.

Q. Okay. [redacted], you understand that in this case the SEC is alleging that Ripple's sales or offers of XRP constituted investment contracts under the securities laws.

Do you understand that?

A. Yes.

Q. And you understand that the ultimate legal issue for the court or the jury to decide in the case is whether Ripple's sales or offers of XRP constituted investment contracts under the securities laws?

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MS. GUERRIER: Objection.

Go ahead.

A. Yes, I understand that's a matter of the case.

Q. You're not offering an opinion in this matter about whether XRP itself is a security. Is that correct?

MS. GUERRIER: Objection.

A. That's correct.

(Exhibit [redacted]-1 was marked.)

Q. Now, [redacted], I'm going to show you what's been marked as Defendant Exhibit [redacted]-1. I want you to just look at that report.

Is that a copy of the amended report that you prepared in connection with this case?

A. Yes, it is.

Q. And if you look at Page 42, do you see your signature on that page?

A. Yes.

Q. And this report is dated October 13th, 2021. Is this the current version of your report?

A. Yes, it is.

Q. And throughout this deposition I'm going to refer to this as your report. Okay? Just so you

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2 understand that.

3 Can I ask you to look at Appendix C of

4 this report. And I believe that's on Page 54. Do

5 you see that?

6 A. Yes.

7 Q. Do you understand that you're obligated

8 to disclose any facts or data that you considered in

9 forming your opinion in this case?

10 A. Yes.

11 Q. And apart from the information contained

12 in the documents identified in either the report or

13 in Appendix C of the report, did you consider any

14 other facts or data in forming your opinions that

15 are in your report?

16 MS. GUERRIER: Objection.

17 Yes or no.

18 A. I have a general understanding of a lot

19 of things. These are documents that I thought

20 should be cited. So I have a general understanding

21 of a lot of things that I thought didn't -- that

22 don't require citation. So I applied similar

23 standards to citation that I would use in my

24 academic literature, but I have a general knowledge

25 of things. So I'm not going to say like all of my

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knowledge that might be relevant is written in this, but...

Q. I understand that, but in terms of specific documents that you reviewed in connection with rendering your opinion that might have been relevant to that opinion, are all of those documents listed in this appendix?

MS. GUERRIER: Objection.

Go ahead and answer.

A. I believe so.

Q. And in preparing your report did any of the attorneys at the SEC provide you with any documents or information that are not reflected in Appendix C?

MS. GUERRIER: Objection.

And I'm going to instruct you not to answer that question on the grounds of work product.

MR. CERESNEY: You're instructing him not to answer whether the SEC provided him with documents that are not listed in Appendix C?

MS. GUERRIER: Yes, on grounds of work product.

MR. CERESNEY: On grounds of work product?

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MS. GUERRIER: Yeah. So those are documents that are not considered. Right. They're not in --

MR. CERESNEY: So you --

Q. So did the SEC -- so let me ask you a "yes" or "no" question.

Did the SEC provide you with documents that are not listed on Appendix C?

MS. GUERRIER: Objection; work product.

MR. CERESNEY: He can answer "yes" or "no."

MS. GUERRIER: Again --

MR. CERESNEY: He can answer that question "yes" or "no," Pascale.

MS. GUERRIER: Okay. I'm objecting to your question on grounds of work product. You're asking him for documents that are not listed.

MR. CERESNEY: I'm not asking him for the documents. I'm asking him a "yes" or "no" question, are there documents.

MS. GUERRIER: Okay. My objection is that you're asking him for work product information and I'm going to instruct him not to answer.

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MR. CERESNEY: You're instructing him not to answer whether or not there are documents that fall into that category?

MS. GUERRIER: Outside of the documents that are listed in his Appendix C, I'm going to instruct him not to answer on grounds of work product, Andrew.

MR. CERESNEY: Okay. We'll move on. We'll come back to that probably.

Q. Have you reviewed any documents after you completed your report that are relevant to your opinions in your report?

MS. GUERRIER: Objection; "yes" or "no."

A. I stand behind my report and I think these documents are the ones that are relevant.

Q. Okay. I want to -- I want you to look at Page 3 of your report. And you say -- on Page 3 of your report you say in the first paragraph: First the SEC asked me to opine on whether Ripple Labs, Chris Larsen, and Brad Garlinghouse took steps to influence XRP's prices. Second, I have also been retained to opine on the incentives that might have been present for Ripple to attempt to influence the

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2 price of XRP.

3 Are those the two purposes -- the two

4 things, the two issues on which the SEC asked you to

5 opine?

6 A. Yes. The two main issues.

7 Q. Are there any other issues, at least in

8 this initial report, where the SEC asked you to

9 opine?

10 MS. GUERRIER: Objection to form.

11 Go ahead and answer.

12 A. No, this is the major issue. It's

13 obviously a summary of the issue, but yeah.

14 Q. These are the -- these are the two main

15 issues --

16 A. These are the two main issues in the

17 original report. Obviously, as you alluded to,

18 there is a rebuttal report.

19 Q. Okay. I'm just focused on this report at

20 the moment.

21 In connection with this work on -- with

22 your work on this case, have you reviewed the

23 Complaint that the SEC filed in this matter?

24 A. Yes.

25 Q. Now, in looking at Page -- I want you to

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look at Page 6 of this -- of your report and you see there that there are six subsections of Paragraph 9. And I want to just ask you to look at those Subparts A through F. Read those to yourself. And I want to just ask, are these a summary of the opinions that you've given in this report?

A. Would you like me to read them all now?

Q. Read them to yourself. I mean just look at them yourself and I'm just asking you whether these summarize your opinions in the report.

A. (Pause.)

Yes. These are a summary of my opinions.

Q. And beyond the opinions that are listed in the summary, are you offering any other opinions in connection with this report?

MS. GUERRIER: Objection to form.

A. No.

Q. Okay. I want to ask you some questions about your work on this case and [redacted] in general. How much are you being compensated for your work on this case?

A. [redacted] an hour.

Q. Do you generally charge on an hourly basis for your expert witness engagements?

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A. Yes, I do.

Q. Is your compensation in any way contingent on the outcome of this case?

A. No, it's not. At the beginning of every engagement, I make sure that the other party knows that my testimony is not for sale, that I will testify only to the truth, and I will not bend the truth any way and I will speak to the facts of the case no matter where they lead. And if they're not comfortable with that, they -- they can hire someone else.

Q. How many hours have you worked on this case?

A. Approximately, 150 hours.

Q. And your report says that you're the president and owner of something called [redacted] LLC. Is that correct?

A. That's correct.

Q. I'll call that [redacted] for the purposes of this deposition. What is [redacted]

A. [redacted] is a financial economic consulting firm in Austin, Texas, down the street near the university, 180- -- 1801 Lavaca. It works on complex matters and complex securities issues

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often related to misrepresentation or fraud or -- or complex matters.

Q. How many employees does [redacted] have?

A. Approximately, 15.

Q. How long have you been the president and owner of [redacted]

A. Since its inception, around 2010.

Q. And did you found --

(Simultaneous speaking.)

Q. -- [redacted]

A. Yeah, I founded -- I'm the owner and founder of [redacted]

Q. Okay. And of those 15 employees, what do those -- what types of activities do those 15 employees engage in?

MS. GUERRIER: Objection to form.

THE WITNESS: Can I answer?

MS. GUERRIER: Uh-huh.

A. Well, we have, like, analysts that will analyze data. We have directors. We have senior data -- we have data scientists and -- and we have directors and a vice president and a COO.

Q. Does -- are you aware of other [redacted] employees working on this matter?

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MS. GUERRIER: Objection to form.

Go ahead.

A. Yes.

Q. Which ones?

MS. GUERRIER: Objection to form.

A. There is members of my team that have assisted me with this and then there is -- Pat Doody is also working on this.

Q. And is [redacted] an employee of [redacted]

A. Yes.

Q. Does he have any other jobs other than being employed by [redacted]

A. I don't think so.

Q. Okay. So he's a full-time employee of [redacted]

A. Full-time.

Q. How long has he been a full-time employee of [redacted]

A. About four years.

Q. And how did it come to happen that [redacted] became an expert in this case?

MS. GUERRIER: Objection to form.

THE WITNESS: Can I answer?

MS. GUERRIER: Can you clarify

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what --

Q. I said, how did it come to happen that [redacted] became an expert in this case.

MS. GUERRIER: Okay. Are you asking in connection with his report or --

MR. CERESNEY: I'm asking how -- his knowledge of how [redacted] became an expert on this case.

MS. GUERRIER: My objection stands. Objection --

A. I'm not sure exactly. I think the SEC was contacting people regarding -- interviewed a number of experts and I think that the typical process is that most organizations interview experts and they decide who to take.

Q. Did you have anything to do with -- with [redacted] becoming an expert in this case?

MS. GUERRIER: Objection to form.

A. I think ultimately the -- I think ultimately the SEC decides.

Q. Did you introduce [redacted] to the SEC?

MS. GUERRIER: Objection to form.

A. I don't know.

Q. Did you have any discussions along with

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[redacted] with the SEC?

MS. GUERRIER: Objection to form.

And I'm going to caution you not to disclose any attorney communication.

MR. CERESNEY: It's a "yes" or "no" question.

Q. Did you have any discussions with [redacted] with the SEC, together?

MS. GUERRIER: Again, objection and I'm going to --

THE WITNESS: I'm not sure.

MS. GUERRIER: Let me finish --

THE WITNESS: Okay.

MS. GUERRIER: Let me finish with my objection and I instruct you not to disclose any attorney communication. Go ahead and answer.

THE WITNESS: I don't -- I don't know if I'm -- I don't know if I'm supposed to answer the question or not.

MS. GUERRIER: Well, if you can answer the question without disclosing attorney communication, go ahead and answer. If you cannot answer the question without disclosing attorney communication then, you know.

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Q. I think it's a "yes" or "no" question, at least initially.

A. Can you repeat the question, sir?

Q. I'm asking whether you had discussions along with [redacted] with the SEC, together?

MS. GUERRIER: And I'm going to state my objection again on the record and instruct you to -- not to disclose any communications with the SEC.

MR. CERESNEY: Are you instructing him not to disclose the fact of communications?

MS. GUERRIER: Not at all. I said not to disclose any communications that --

MR. CERESNEY: The substance?

(Simultaneous speaking.)

MS. GUERRIER: (Unintelligible) exactly.

Q. Okay. You can answer the question.

MS. GUERRIER: Yes or no?

A. I'm not sure.

Q. Did you review [redacted] report in this case?

A. I did not.

Q. Have you had discussions with [redacted]

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outside the presence of the SEC about his -- his testimony in -- about his report in this case?

A. Not about his report.

Q. Have you had discussions about this matter at all with [redacted] outside the presence of the SEC?

MS. GUERRIER: Objection to form.

A. Not about -- not about this precise -- not about this precise matter. We -- but he's obviously at [redacted] so we talk about a number of issues but not this case since he's an expert on this case and I'm an expert so we want to -- not discussing the case.

Q. Well, how about [redacted] is he also retained through [redacted]

A. I don't think so.

Q. So there's no connection between [redacted] and [redacted]

MS. GUERRIER: Objection to form.

A. I -- he's -- he may -- I don't -- I'm not sure how he's actually paid, if the SEC pays him through [redacted] or if they pay him directly. I'm honestly not sure. I don't -- he's not an employee --

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MS. GUERRIER: We don't want you to speculate.

A. He's not an employee of [redacted] He's not.

Q. So you're saying it's possible that [redacted] is being compensated for his expert report and testimony through [redacted]

MS. GUERRIER: Objection.

And don't speculate.

A. I don't know.

Q. Back to [redacted]. Do you get any portion of the compensation that [redacted] gets as part of his testimony in this case?

A. I'm not sure.

Q. Do you know how the compensation is split between [redacted] and [redacted]

A. We don't have a precise arrangement on deposition testimony.

Q. Well, the -- is [redacted] being paid by the hour like you are?

MS. GUERRIER: Objection to form.

A. I'm not sure how he's -- ultimately that -- his compensation will be determined by [redacted], and they haven't worked through that

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yet.

Q. They haven't worked through his -- his compensation yet?

A. Not -- I don't -- I don't know exactly -- compensation is -- yeah, we worked through his compensation for last year, but not for his compensation for the next year.

Q. So his expert -- the payments for his expert testimony are going to [redacted] Is that what you're saying?

MS. GUERRIER: Objection to form.

Go ahead.

A. Yes.

Q. And then [redacted] will decide how much to pay to [redacted]?

MS. GUERRIER: Objection to form.

A. I don't -- I don't think that's an accurate characterization saying [redacted] will decide. I mean, that's -- they pay people fairly for their -- for their work so...

Q. Well, you're the [redacted] of [redacted] Right?

A. Yes.

Q. And, ultimately, compensation decisions are made by you. Correct?

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MS. GUERRIER: Objection to form.

A. That's -- it's not a -- I don't make all of the decisions like a dictator.

Q. Okay. So how do you make compensation decisions at [redacted]

A. We sit down collaboratively with the managers, and we discuss these issues, what people think they're -- they're worth and -- and what -- what -- you know, kind of like the law firms would do, I guess, in terms of you guys sit down and talk about things and -- and have iterated discussions what market salaries are and so on.

Q. And who makes the final decision?

A. [redacted] [redacted] and myself.

Q. Okay. And so you are one of the two people who make the final decision on compensation?

A. That's correct.

Q. And so with regard to [redacted] compensation, at the end of the year, in 2022, you and Mr. [redacted] will decide what he's compensated?

A. I guess.

Q. And the payments that are being made by the SEC with regard to [redacted] report and testimony are paid to [redacted] directly?

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MS. GUERRIER: Objection to form.

Go ahead.

A. That's correct.

Q. Okay. You mentioned that you're being paid [redacted] an hour for your work for the SEC on this case. Has [redacted] done other work for the SEC?

A. Yes, it has.

Q. Tell me about that work.

MS. GUERRIER: Objection.

And I'm going to instruct you not to disclose any communications with attorneys.

A. Yeah, ultimately --

MR. CERESNEY: Wait. Hold on, hold on.

What's your instruction?

MS. GUERRIER: We can read it back for you.

MR. CERESNEY: You said not to disclose any communications with the attorneys?

MS. GUERRIER: Yes.

Q. Okay. I'm asking you about the nature of the work you do with the SEC. I don't -- I'm not asking about specific discussions. So tell me the nature of the work you do for the SEC.

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MS. GUERRIER: And I'm going to renew my discussion not to discuss any discussions with the SEC. Go ahead.

THE WITNESS: Sure.

MR. CERESNEY: Wait. Hold on, hold on.

MS. GUERRIER: Uh-huh.

MR. CERESNEY: No communications with the SEC at all, or with attorneys at the SEC?

MS. GUERRIER: Well, clearly, attorneys at the SEC. Okay?

MR. CERESNEY: Okay.

(Discussion off the written record.)

Q. You can go.

A. I can go? Oh, can -- I'm sorry. Can you repeat the question?

Q. I asked you what the nature of your work with the SEC is.

MS. GUERRIER: And I'm going to instruct you not to disclose any communications that you had with SEC lawyers.

Q. Okay.

A. So most of the work I do -- most of the work that [redacted] does at the SEC is to -- is

[redacted] - 2/15/2022

governed by nondisclosure agreements, but I can say just generally that [redacted] consults on matters related to complex financial instruments and -- and does work for the SEC in terms of helping them understand -- helping them understand these securities and potential investigations.

Q. Okay. Let me just understand the -- when you say [redacted] does this work, do you personally do some of that work?

A. Yes.

Q. So you personally do other work for the SEC?

A. Yes.

Q. And you said that some of that work is governed by NDAs, nondisclosure agreements?

A. Well, most of it's governed by NDAs.

Q. And --

A. Well, probably all of it, I guess.

Q. And so you're saying basically today that you're testifying as an expert for the SEC on this matter, and yet you're refusing to disclose the nature of what your other work for the SEC is. Is that what I'm hearing?

MS. GUERRIER: Objection.

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MR. CERESNEY: And is that the SEC's position?

MS. GUERRIER: I'm not sure what -- I'm not on -- this is who you're deposing, not me. I stated my objection that I'm going --

Q. Okay. Tell us --

MS. GUERRIER: I instructed him not to disclose attorney communications.

Q. Okay. So tell us about all the work that you're doing for the SEC.

A. Obviously, I can't --

MS. GUERRIER: Hold on. Again, I'm going to object and -- first of all, to form, and then I'm also instructing you not to disclose attorney communications with the SEC. Okay?

THE WITNESS: Sure.

A. Well, obviously, anything governed by an NDA, I can't discuss that. I don't -- I think most lawyers would understand that. I don't think you violate your NDA with clients either, so obviously I can't opine on -- I -- I can't answer specifics.

I can tell you that we do work for the SEC. And I told you generally what the nature of the work was.

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Q. Okay. Just to be clear, I'm not testifying as an expert in a litigated case, you are, so I understand your point about NDAs, but that's -- this is a different situation. That's not for you to decide.

A. I don't understand how it's different.

MS. GUERRIER: Okay. Hold on. I'm going to object to this. All right. Just ask him the question, but trying to get (unintelligible).

MR. CERESNEY: Yeah.

Q. So you mentioned that your work for the SEC relates to understanding complex products and the financial implications of those products. I think that's what basically you said. Is that correct?

A. Something like that.

Q. Okay. How much have you billed over the last five years to the SEC for those matters?

MS. GUERRIER: Objection to form.

A. I'm honestly not sure.

Q. Can you give me a sense? Is it millions of dollars?

MS. GUERRIER: Objection to form.

Go ahead and answer.

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[redacted]

[redacted]

Q. Okay. [redacted]

A. [redacted]

[redacted]

Q. [redacted] [redacted]

A. I don't know.

Q. So would you estimate it's between [redacted]

[redacted]

A. I'm not sure of the exact amount. I would -- I know it's more than 5 million.

Q. And what percentage -- what's [redacted] annual revenue?

A. I'm not sure exactly.

Q. Can you give me a ballpark?

A. Somewhere around -- somewhere around [redacted]

[redacted]

Q. A year or --

A. A year.

Q. [redacted] a year for how many years has that been the case?

A. I don't know. It varies from year to year. I know last year. It was around 5 million last year.

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Q. Okay. How about the year before? Do you have a recollection, maybe?

A. Probably close or slightly lower. It was slightly lower than that.

Q. Okay. And in those two years, what percentage of that [redacted]-each-year revenue was from the SEC?

A. I haven't calculated that. I don't know exactly.

Q. Do you have a sense for that?

A. I would say it's -- it's -- I would say it's greater than [redacted]

Q. Okay. So more than 50 percent of the annual revenue of [redacted] for the past two years is from the SEC?

A. Yeah.

Q. Would that also be the case three years ago?

A. I'm not sure about three years ago.

Q. Okay. And would it also be more than [redacted], or is it between [redacted] for the last two years?

A. I'm honestly not sure whether it's -- whether it's more than [redacted] or not, no.

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Q. Okay. And what were --

A. I also -- I also should say, in matters related to that, that we also get invitations to work on a lot of things that we decline to work on, and -- because we want to work on matters where we can -- we want to work on matters that -- that -- that -- and clients that appreciate the fact that we're going to tell the truth and are okay with that understanding at the beginning of our engagement. So we -- I -- I probably turn down -- I turn down quite a few engagements every year.

Q. And that's because those engagements, the people who are trying to retain you don't want you to tell the truth?

MS. GUERRIER: Objection.

A. I would say -- or -- or I don't believe in the matter, I don't believe that I could opine on the matter accurately that -- or take the position that they might want to take, I wouldn't feel comfortable taking that position, or don't want [redacted] -- people at [redacted] opining on something that we don't believe is the truth. So we turn down quite a few engagements.

Q. Okay. Back to your revenue for the last

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two years. Now, you said the SEC was [redacted] of that revenue. What are the other sources of that revenue in terms of other entities?

A. Sure. We work for plaintiff firms. We also work for the Department of Justice. We also work for defense -- defense firms. And the other -- other government agencies.

Q. Okay. I want to focus on DOJ and other government agencies. You said the SEC was a little bit [redacted] of your revenue. What percentage of your revenue was from DOJ or other government agencies?

MS. GUERRIER: Objection. Do you want to give him a time frame?

Q. For the past two years.

A. I'm not -- I'm not sure exactly for each client we can go through this, but I'm not sure how much is from the -- from the DOJ. I would say maybe [redacted]

Q. Okay. And then how about other government agencies?

A. Yeah. It may be [redacted] for the DOJ. So it may be [redacted] for the DOJ. I'm not -- so -- yeah -- and some of the

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agencies we work for, I'm not allowed to disclose the nature of the engagement.

Q. Okay. So, again, DOJ, so [redacted] it sounds like, and then other government agencies. Between the SEC, DOJ, and other government agencies, what percentage of your revenue in the past two years, let's just start with that, were from those entities?

A. Yeah. If you're going to say like SEC, I would say approximately -- approximately more than 70 percent.

Q. Okay.

A. Approximately [redacted] or maybe -- maybe more.

Q. [redacted]

A. Yeah.

Q. And has that been the case for the last five years?

A. No. It hasn't been the case the last five years. It kind of fluctuates from year to year.

Q. Has it ever gone [redacted] I mean, when I say "ever," in the last five years has it gone [redacted] in terms of revenue that

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you got from government agencies, including DOJ and SEC?

A. Yeah. If you go back at least -- looking back -- looking back over the last six years at least I know that it [redacted] from government agencies in some years.

Q. So that would be in Year 6?

A. I don't know exactly if it was in Year 6 or 7, but I'm saying if you look back at the history of [redacted] I can't remember. All the years are running together as I get the gray hair, but I can tell you that there are some years -- yes, there is private clients have been the majority on some years.

Q. And what -- by the way, have you ever been turned down for an SEC engagement?

A. Yes.

Q. How many times did that happen?

A. I don't know.

Q. Is that -- was that your decision not to take it on or was it the SEC's decision?

A. I'm not sure. I'm not sure in those cases. I have been turned down a number of times.

Q. And I guess my question is you said

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earlier that you don't take engagements where you don't believe in the opinions that you are giving in those engagements.

Have there been times when the SEC has asked you to be an expert and you've refused because you don't believe in the opinions that they're asserting?

MS. GUERRIER: Objection to form.

And I instruct you not to disclose the terms -- communications that you had with the SEC.

Go ahead and answer.

Q. That's a "yes" or "no" question.

A. I'm not -- I'm not sure.

Q. Okay. How many hours -- actually, what's your overall compensation from [redacted] over the last two years?

A. Over the last two years?

Q. Yeah.

A. I would say somewhere -- well, I'm not sure how to answer this because I'm paid directly from [redacted] as -- as an owner, but there is -- I'm paid directly from [redacted] as like a salary, and then I get a 1099 worker, and then obviously I'm

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also a residual claimant, so my salary directly from [redacted] -- directly from [redacted] is somewhere in the nature of probably [redacted] -- probably around [redacted] a year.

Q. Okay. And then how about your residuals for the last two years?

A. That depends on the -- that depends on how -- you know, how much everybody else is -- that depends on what's left over and so forth, and it's often complex how that's paid out. I would say I'm a residual claimant.

Q. Okay. But have you gotten a distribution from [redacted] for the last two years?

A. It's -- not -- not directly. So I don't -- I don't -- I don't want to go into my personal [redacted] I feel like this is like intrude -- if you want to ask me am I the -- am I paid from the SEC if I'm paid, yeah, I'm a residual claimant of [redacted] but I don't -- I don't want to answer -- go into all the details about my personal [redacted]

Q. I appreciate you don't want to. You're testifying today as an expert witness in this case. I am entitled to ask you about your compensation

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from the entity that you are working as an expert for the SEC on.

A. Sure. I'm happy to answer questions about the compensation from --

Q. Distributions includes compensation. And so my question is will you tell us what the distributions you've obtained from [redacted] have been over the last two years?

A. Probably -- probably on the nature of [redacted] [redacted].

Q. And that's total over the last two years?

A. Over the last two years, yeah.

Q. And just expanding it to five years, what's the total over the five-year period?

A. I'm not sure. There was -- the year before that, in Year 3, was close to breakeven.

Q. Okay.

A. It was close to a breakeven year, so there wasn't much in terms of distributions. But I think -- I would say, you know, rough -- the year -- the two years before that may have been around -- so maybe another -- add another [redacted] to that maybe.

Q. Okay. Is it fair to say, just from your

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testimony so far, that your work for government entities has increased over the last five years?

A. I'd say that's generally the case.

Q. Okay. And you're a professor at the [redacted] Right?

A. That's correct.

Q. You get a salary from the [redacted] [redacted] Right?

A. Yes.

Q. How much is your annual salary there?

A. I don't know exactly, but it's somewhere around -- north of [redacted]

Q. Fair to say your income from [redacted] is much higher than your salary as a --

A. That's --

Q. -- professor?

A. -- correct.

Q. And how many hours a week would you say that you devote to [redacted] matters?

A. It varies at different times of the year, but sometimes it's one day a week and at certain seasons it can be two days a week.

Q. Okay. Does [redacted] have government contracts?

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A. Yes.

Q. Do you know the total amount of those government contracts from May 2017 forward? So the last four years, say.

A. No, but one could look them up.

Q. I have actually.

A. Okay.

Q. And it amounts to almost [redacted] Does that sound about right?

A. That's probably right.

Q. And those would be contracts for various government agencies. Correct?

A. That's correct.

Q. That includes the SEC. Correct?

A. That's correct.

Q. Do you know how much of that [redacted] is the SEC?

A. I do not. I imagine one could look it up.

Q. One could.

Okay. By the way, in your prior work for the SEC have you worked with any of the same attorneys that are on this case?

A. I don't think so. I may have worked --

1 [redacted] - 2/15/2022
2 I'm not sure if I worked with Daphna before.
3 Q. Okay. Have you provided services to a
4 client prior to this in connection with digital
5 assets, prior to this case?
6 A. With -- with digital assets?
7 Q. Digital assets, yes.
8 A. Is the question have I worked on it or
9 provided testimony?
10 Q. Well, let's start with testimony. Have
11 you provided testimony in any matters relating to
12 the --
13 (Simultaneous speaking.)
14 A. No. The testimony has only --
15 Q. Have you testified on behalf of a
16 client -- let me ask you -- strike that question.
17 Have you provided expert services in
18 connection to any clients relating to digital assets
19 in the past?
20 A. Yes.
21 Q. Which -- how many instances? How many
22 matters?
23 A. I'm not sure exactly. I would say maybe
24 at least 12 or 13.
25 Q. And have those all been SEC matters or

1 [redacted] - 2/15/2022
2 other clients?
3 A. Other clients as well.
4 Q. Okay. And what generally have those
5 matters related to in connection with digital
6 assets?
7 MS. GUERRIER: I'm going to object to
8 form and also with regards to any matters concerning
9 the SEC, not to disclose any communications with
10 counsel.
11 A. Can you repeat the question?
12 Q. What have those matters generally related
13 to?
14 MS. GUERRIER: And I'll renew my
15 objection.
16 Go ahead.
17 A. Those matters have related to digital
18 assets.
19 Q. What about digital assets? That's a
20 pretty broad category. Can you give me a sense for
21 what other than digital assets -- what relating to
22 digital assets they relate to?
23 A. Yeah. Some issues related to Ponzi
24 schemes, for instance, with digital assets. That's
25 actually a big one, Ponzi schemes. Or in one case

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there was a matter that [redacted] worked on where it was a -- an exchange was accused --

MS. GUERRIER: May I interrupt? Instructed you not to disclose any communications with SEC counsel.

THE WITNESS: Yeah.

MS. GUERRIER: Also anything that's subject to an NDA.

THE WITNESS: Okay.

A. So I was being -- you know, I'm trying to be vague so I'm not violating any NDAs.

But I -- yeah, I think we -- we worked on matters related to digital assets, Ponzi schemes, exchange -- exchanges, solvency of exchanges.

Q. Okay.

A. And -- yeah, in terms of -- in terms of -- yeah, solvency of -- it's solvency of exchanges and -- and also accusations of -- of impropriety of -- of exchanges.

Q. Of exchanges?

A. (Nods.)

Q. Okay. Have any of those prior matters involved trading of digital assets?

A. Yes.

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Q. Okay. Have -- by the way, in this case, is it fair to say that there was no allegation of fraud or misrepresentation against Ripple or the defendants in this case?

MS. GUERRIER: Objection to form.

But go ahead and answer.

A. That's my understanding, securities case, yeah.

Q. In fact, the allegation in this case is -- is the sale of investment contracts in violation of Section 5 of the Securities Act. Is that your understanding?

A. That's my understanding.

Q. Have you ever given testimony in connection with any matter relating to alleged violations of Section 5 of the Securities Act?

A. No, I haven't given testimony.

Q. Have you ever served as an expert on a matter relating to alleged violations of Section 5 of the Securities Act?

A. Yes.

Q. Which matter was that?

MS. GUERRIER: Again, I'm going to instruct you that if it's a matter that's subject to

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NDA with caution.

A. Yeah. I can't -- I can't discuss matters that are subject to an NDA which -- which I can't name entities that were subject to NDAs.

Q. Okay. So you're saying there are potential SEC matters where -- which fall into that category. Is that what you're saying?

MS. GUERRIER: Objection to form.

THE WITNESS: Can I answer?

MS. GUERRIER: Yes.

A. Yes. Potential SEC matters.

Q. Other than the SEC matters which you claim are subject to an NDA and which I assume the SEC -- let me just sort of clarify it for the record. I take it the SEC has taken the position that it cannot talk about those cases.

MR. CERESNEY: Is that the SEC's position?

MS. GUERRIER: I've instructed [redacted]. I cautioned him not to discuss matters that are subject to an NDA and so that's the position that we're taking.

MR. CERESNEY: Okay. I just want to clarify.

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MS. GUERRIER: Okay.

MR. CERESNEY: I can ask him ten more questions, but my point is you're going to instruct him not to answer any question about any matter that the SEC has an NDA with him about.

MS. GUERRIER: I -- correct.

MR. CERESNEY: Even if those matters are related to Section 5 violations.

MS. GUERRIER: If there is an NDA involved, I'm not going to instruct him to violate the NDA.

MR. CERESNEY: Okay.

MS. GUERRIER: Okay.

MR. CERESNEY: Fair enough.

Q. Other than those matters which the SEC has just discussed, are there any other matters that you've been retained as an expert in connection with potential violations of Section 5?

A. I don't believe so.

Q. Now, [redacted] -- by the way, have you -- when did you first become involved in research or other activities relating to blockchain technologies?

A. In 2017.

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Q. And how did that -- how did you get involved in that?

A. I just became interested in the space. It was a space that is growing rapidly. There was a lot of hype around the space. [redacted] was surging. There was interesting questions regarding it. I like to -- I like to research new things.

Q. And when did you first become aware of XRP?

A. I'm not sure exactly when. It would probably have been in -- sometime when I was performing my research in 200- -- in -- it probably would have been sometime in 2017 or '18.

Q. Okay. And when you say performing your research, I take it when you first got involved with blockchain technology, you did research on blockchain technology. Is that fair?

A. I wrote the paper on -- on [redacted]

Q. Okay. Is that the paper called -- "Is [redacted]

A. That's correct.

Q. Other than that paper that you wrote -- and what year did you write that paper?

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A. I wrote the paper in 2018, I believe, was when the first draft came out, but it -- it went through a revision process and we revised it several times. It was published in 2020.

Q. Okay. Other than that one article [redacted] have you published any other articles about digital assets?

A. I've worked on things, but I haven't published anything.

Q. Do you have works in progress, you're saying?

A. I released a -- I released a paper on [redacted] a -- I released a [redacted] on [redacted]

Q. Did you list that in your CV?

A. No. It's not -- it's not a published piece of work.

Q. What's the difference between a white paper and a published piece of work?

A. Well, a published piece of work is -- is one that goes through the academic process and you want to publish it in a journal. This is just something I released through [redacted] and posted it on the [redacted] website.

Q. Why not publish that as an academic work?

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A. It was about one firm, one -- one digital asset and one -- or one digital asset or one token. So, generally, if you're publishing a paper, it needs to be about broader topics. Like, you might want to have, like, a paper about multiple digital tokens or show a pattern that's -- that's relevant to all those. So I decided it was probably not broad enough topic to kind of pursue for -- for academic -- for an academic term.

Q. And what -- what was the -- what was the thesis of the article about [redacted]

A. It looked at -- it looked at a [redacted]

Q. So did it -- did it look at a potential -- is that a fraudulent scheme that you're suggesting or that you were researching?

A. I think -- I don't know if we used the word "fraud." I don't think we used the word "fraud" in the -- in the paper, no.

Q. But a potential manipulation?

A. Potential manipulation.

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Q. Okay. Other than that [redacted] on [redacted] any other publications you've had relating to digital assets?

A. No.

Q. Okay. And you've never published anything related to XRP. Is that fair?

A. The [redacted] has XRP in the paper, but it's not about XRP.

Q. It references XRP?

A. It has -- it -- XRP is one of the digital assets that's in the paper.

Q. But it's not the main topic of --

A. It's not at all the main topic. It just -- it's just in some summary and statistics.

Q. Okay. Now, we talked about some of the cases in which you've been retained as an expert that may relate to digital assets. Is it fair to say that you've never offered expert testimony in a case or an enforcement action involving blockchain technology other than this matter?

MS. GUERRIER: Objection to form.

You can answer.

A. I've worked on many issues related to digital assets. This is the only -- this is the

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only case, at least at this point, that -- that I've given a deposition in.

Q. Okay. And looking at your CV, which I think is at Page 43 of your report, you list, in terms of research interests, cryptocurrencies first. Do you see that?

A. Yes.

Q. How long have you listed cryptocurrencies as the first research interest in your CV?

MS. GUERRIER: Objection to form.

A. I don't know exactly when, but usually, I put my new topics that I'm working on on the front of the résumé like you'll see related to that, like [redacted] listed next and I worked on a paper [redacted] before that. You'll see that I covered the conflicts of interest, I had -- a number of papers were about conflicts of interest as a general term. But, like, [redacted] was listed next. I had a number of papers about C- -- [redacted] and ratings and credit ratings so I've kind of list them in terms of the new papers first, new topics first.

Q. Okay. Now, going back to the "[redacted]" [redacted] that you referenced earlier.

1 [redacted] - 2/15/2022

2 Can you sort of just sum up for us what the basic

3 thesis of that article was?

4 [redacted]

5 [redacted]

6 [redacted]

7 [redacted]

8 [redacted]

9 [redacted]

10 [redacted]

11 [redacted]

12 [redacted]

13 [redacted]

14 [redacted]

15 [redacted]

16 [redacted]

17 [redacted]

18 [redacted]

19 [redacted]

20 [redacted]

21 [redacted]

22 [redacted]

23 [redacted]

24 [redacted]

25 [redacted]

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Q. Okay.

A. I'm happy to go to -- into any of those things in more detail, if you'd like.

Q. No. That's enough for now, but a couple of questions about it. First, it sounds like the article was [redacted]. Is that fair?

A. That's correct. But we also did investigate -- we also did show that it was -- [redacted]

Q. Okay. Do you understand that bitcoin is not a security under the U.S. securities laws?

MS. GUERRIER: Objection to form.

A. I'm not a lawyer, so I'm not -- I don't know what the U.S. security law is on bitcoin.

Q. Well, are you aware that the former chairman of the SEC, Jay Clayton, stated publicly that he did not believe bitcoin was a security?

MS. GUERRIER: Objection.

Go ahead.

A. Yeah, I -- that's probably the case, then, if he testified that.

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Q. But you generally are aware of that. Is that fair?

MS. GUERRIER: Objection.

A. I'm generally aware that Clayton talked about these matters, but also he did -- he did caveat the way he talked about digital asset space and had a number of -- a number of caveats. So I would have to look carefully at his statement and see exactly what he said. I don't know if I want to be speaking off-the-cuff about what Clayton said. I did meet the guy once, but I don't -- I didn't -- I don't know him well or --

Q. What were the circumstances of you meeting Chair Clayton?

A. He gave a talk at the [redacted] and I think I met him at that time. I was also a [redacted] once at the SEC, but no, I didn't -- I don't think I met him at that time.

Q. Did you actually speak to him when he came to visit the [redacted]

A. I didn't have an in-depth conversation with him. I think I maybe shook his hand.

Q. Did you have any discussion with him?

A. I don't think so.

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Q. What was he speaking about at the [redacted] when you saw him?

A. I'm not sure.

Q. Was he talking about crypto?

A. I actually didn't go to his talk.

Q. Okay. All right. And just so we're clear, you didn't go to his talk?

A. I don't think I went to his talk, yeah.

Q. You didn't think it was that relevant to you?

MS. GUERRIER: Objection.

A. I'm not sure if it wasn't that relevant or I was teaching a class at the time or -- I may have been teaching that semester, in which case I -- you know, I can't just cut class off.

Q. Fair enough.

I want to go back to the [redacted] [redacted] article. Did you ever revise that article after its initial publication?

A. Sure. Not after publication, but after the initial draft we had multiple revisions, as is standard in the review process in terms of we get comments from the referee, from audience participants. We presented the paper at numerous

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places. We incorporated all of that feedback into the paper and revised the paper --

Q. And --

A. -- over time.

Q. And can you just summarize briefly what the nature of the changes you made were?

A. Sure. I think we did a number of [redacted]. I think that would be the best way to describe. We did a litany of [redacted]

But -- and we also looked at whether the paper -- some more precise -- [redacted].

We also did drill down and found that rather than -- we found one particular account address. So we were able to -- [redacted]

1 [redacted] - 2/15/2022
2 [redacted]
3 [redacted]
4 [redacted]
5 [redacted]
6 [redacted]
7 [redacted]
8 [redacted]
9 [redacted]
10 [redacted]
11 [redacted]
12 Q. Okay. Have you ever had any of your
13 articles withdrawn from publication?
14 A. Yes.
15 Q. Tell me about that.
16 A. Well, it was a -- how much detail would
17 you like? I could tell you at a high level, or I
18 can give it to you --
19 Q. How about the high-level version? Let's
20 start there.
21 A. I had a paper that -- I had a paper that
22 was forthcoming at the [redacted] I will
23 point out the paper to you. The -- yeah, the paper,
24 [redacted]
25 this paper, as you can see, won the -- at that point

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had won a -- a [redacted] at an academic conference. It was presented at a lot of conferences. And the [redacted] accepted the paper rather -- rather quickly through one round.

There was also another paper at the time [redacted] that found similar findings, and both of our papers were under review at the [redacted]. They put our paper forward.

And our paper was -- our -- at the time, the disclosure policies at the journals were changing. I disclosed to the journal that I was engaged in consulting and litigation against -- against banks, a -- consulting and litigation against banks, and I disclosed that to the journal.

I also wrote to the journal editor on the -- on the second round noting that I had -- I had gone into consulting on these issues, that -- and I had pointed him to the disclaimer in the paper.

So I -- when the journal editor came to the [redacted] I also said, "I want" -- and the paper was accepted at the journal, I said --

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I also told him, "I wanted to draw your attention to the fact" -- and in my letter to the journal, I said, "if you need more information on these issues, please let me know." But the journal editor came to the [redacted].

I also personally met with him, and he said, "that was a wonderful paper, it was a fabulous paper," so forth. And I said, "Well, I wanted to let you know I'm consulting on these issues, and I don't know what exactly the -- you know, I want to -- I want you to be aware of that in case anybody comes to you and asks you about my consulting."

And he's like, "Fine, yeah. People consult all the time. We understand that."

Well -- and I had disclosed that we were involved in litigation. What had happened is that we filed [redacted] lawsuits against most of the major banks around the country regarding [redacted]

I went to the [redacted] I had -- I had gone to -- I had gone to [redacted] [redacted] independently, first of all, contacted them and said, "I believe you were defrauded. We don't see lawsuits."

And members of my team had reached out to

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most of the major -- a lot of the major [redacted] that we thought had losses and had not pursued their losses, at least according to public -- according to public filings.

I think the [redacted] were, in some cases, apt not to do anything, maybe because they that had relationships with the banks, or maybe it made the managers look bad that they had taken losses. In fact, in some cases, I met with -- it's subject to NDAs, but I got to -- so I won't name names, but I met with [redacted] managers that basically indicated they were apt to filing any lawsuits.

So the -- so the nature of -- we had filed [redacted] lawsuits on behalf of -- so in combination with my friend, [redacted], a firm that's here in town. We were friends before this. We were friends from our church before this.

We filed [redacted] lawsuits on behalf of [redacted] of various states using certain jurisdictions. Most of the jurisdictions were time barred because of -- but there were certain jurisdictions where there was either a long clock or

[redacted] - 2/15/2022

there was some novel laws in terms of the time bar length, and we filed [redacted] lawsuits at numerous places all around the country.

So one of those firms hired a consulting house when [redacted] was forthcoming, and they went to the [redacted] and they said, "Oh, [redacted] done this and that." The [redacted] said, "We don't see anything wrong with what he's done. He's been upfront with everything."

They went to the journal -- they went to the [redacted] said -- asked me why I did not fill out a disclosure form. And they sent me a long disclosure form, and they said, "Members of the MBR, finish -- fill out this disclosure form, and members of the -- and AER submissions, fill out the disclosure form."

And I said, "Well, I'm not a member of the MBR. I didn't present -- I didn't send the paper to the AER. I looked on the [redacted] website. I looked what the standards are. I disclosed in a footnote of the paper, which is what I see other papers doing in the journal."

They reviewed the communication, and they asked me what all -- my relationship, what the

1 [redacted] - 2/15/2022
2 lawsuits were and so forth. They sent the paper out
3 to the referees. They said, "Well, we will
4 re-review the paper." And they sent the paper out
5 to the referees. One of the referees didn't like
6 the paper to start with, so the referee said, "Yes,
7 we should reject this paper."
8 So they sent me a message back saying,
9 "We re-reviewed the paper, and we've decided to --
10 we've decided to rescind -- you're not -- you're
11 not -- you didn't do anything -- we're not saying
12 you did anything wrong, but we have re-reviewed the
13 paper, and we've decided not to publish the paper at
14 this point."
15 So I -- by the way, this is the first
16 time I'm telling this on --
17 THE WITNESS: Sounds like somebody's
18 hand is raised.
19 MR. CERESNEY: No, that's fine.
20 A. By the way, this is the first time I'm
21 telling this on -- in any kind of public forum,
22 because I have decided not to, but I'm not governed
23 by any NDA. I've just decided not to make an issue
24 of it with the journal editors. But I do feel like
25 I was wronged.

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2 So I -- at that point, I wrote the -- I
3 wrote the journal back. I said, "I think this
4 process is completely unfair. Here is the standard,
5 which there is no disclosure form. There was no
6 disclosure form on your website. There was nothing
7 for me to fill out."
8 I told -- I told him in private
9 communication, "Here is the letter that I wrote to
10 the editor, here is what -- I told you I was engaged
11 in consulting and litigation." And they said,
12 "Well, we believe you should have known this" -- and
13 I said, "Ask me more if you want more -- more
14 careful -- more information."
15 So at that -- I also pointed out that I
16 went through the previous like five years. I had a
17 research assistant go through the previous five
18 years of journal publications. And in the -- all of
19 those publications I -- I found something like 21
20 instances where professors have footnoted their
21 consulting activity. Very rare, even though I knew
22 some of those professors were engaged in consulting.
23 And I said my disclosure statement was at
24 least as complete as every single professor that had
25 disclosed consulting activities. But I think

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because there is a lawsuit and they didn't want to be maybe in the middle of it, I don't know what the reasoning was, they said, "well, we're not saying you did anything wrong, we're not offering you for -- we're not going to pursue any like censoring of you in the profession or anything, but we are -- the referee has reconsidered your paper and your paper is no longer forthcoming in the [redacted]

Yeah, I'd like to finish my story.

Q. This was the high-level version?

A. Well, it's an important question about my character.

So at that point I took the -- I mean, I take accusations of my character seriously, so I did take this quite seriously. At that point I took the paper to -- I took the paper and my communications. I turned them over to the [redacted]

Q. And just to be clear, the [redacted] is the [redacted] in the field?

A. It's generally considered to be the [redacted]

Q. Okay.

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A. And I took it to the [redacted] [redacted] I said this is -- oh, and by the way, at the other time I had a second paper, the one that's listed on there, is [redacted]

At the same time they offered me a revise and resubmit at the [redacted] on that paper. They said, "well, we'll let you go forward through the review process, revise and resubmit on this paper. You can publish that one, but we're going to pull this one from the journal."

So I took my communications to the [redacted] [redacted]. They took the team of all their editors. I also talked ad nauseam with at least five former editors of the field. They all believe that I had done nothing wrong in terms of the disclosure standards. They took the paper to the [redacted]. Their editorial team met. They reviewed all my correspondence. They then reviewed the paper themselves and they said -- they came back and said, "I'll tell you what we'll do, we will publish the paper, but we want to public both your papers. Will you pull the other paper that's revised and resubmit from the -- from

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the dubious [redacted] and we can handle both papers. Would you allow us to handle both papers?"

And so I did. I told the [redacted] I was not going to proceed with the revise and resubmit, and I sent both papers to the [redacted]. They went through the review process and they were quickly published. And as you can see, the [redacted] gives a best paper prize every year, and they gave my co-author and I, [redacted], who was a more junior colleague not involved in the lawsuits, had to go through all this, but they gave both of us the [redacted].

Q. Okay.

A. So that's what happened. I'm happy to answer more questions about it.

Q. That's plenty. A couple of other questions and then we'll take a break.

Your CV lists presentations you've given. Right? I think it lists 36 presentations. Does that sound about right?

A. I'm sure I've given more than that probably. That's probably not a complete list of

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all the presentations I've given.

Q. Okay. But those are the -- I counted 36 presentations, does that sound about right, as to what's on your CV?

A. It may be what's on my CV. I imagine I've given a lot more than 36 presentations. I don't necessarily write down -- I sometimes forget to write down all the places I present.

Q. Okay. So your CV, you're saying, is not complete?

A. In terms of the publications I believe it is, but in terms of the -- in terms of like presenting, if I presented -- you know, sometimes what constitutes a presentation is -- is like a formal presentation, like sometimes people ask me, "hey, would you present on Zoom about your paper, would you give us some thoughts about your paper," and I sit down with four people from the Fed or the OCC, and they want to know about [redacted]. I don't consider that a presentation. It's not like a --

Q. Okay. But you list all of you -- what you consider presentations?

A. I may have forgotten some is what I'm saying.

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Q. Okay. All right. Of the 36 presentations you list there, only one of those relates to cryptocurrency. Is that fair?

MS. GUERRIER: Objection to form.

Go ahead.

A. I think that's probably incorrect then because I have presented -- I've presented on cryptocurrencies. I can recall -- where does it say where I presented on cryptocurrencies?

Q. If you look at your presentations, they start on Page 47 and then they go through the next four pages, and I count only a single presentation --

A. Well, if you look at [redacted] -- [redacted]

[redacted]

Q. That's right.

A. That paper.

Q. That's one.

A. I presented it at [redacted]

[redacted]

Q. No, no, no.

A. I presented it at --

Q. I'm asking topics. Okay? I'm not asking number of presentations about the same paper.

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A. Well, you already asked me if I had --

MS. GUERRIER: Hold on a second. Could you please just ask the question again --

MR. CERESNEY: Yes.

MS. GUERRIER: -- so we can get a clear record?

MR. CERESNEY: Yes.

Q. You list a number of presentations here. Right? You list topics of the presentations. Correct? Fair enough?

A. Yes.

Q. Let's just start at the beginning. 2021 you list [redacted]

Right? Do you see that?

A. Yes.

Q. That's one topic. Right?

A. (Nods.)

Q. Then you have a number of places where you presented on that topic. Correct?

A. That's correct.

Q. Okay. And so I count up 36 topics on which you presented. Okay?

And my question is, I see one of these 36 topics [redacted] relates to

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cryptocurrency. Correct?

A. That's correct. As we discussed earlier, my -- the "[redacted]" is the only academic paper I have on the space, but your earlier question was how many times have I presented, and it looks like everything listed under -- "[redacted]" that is a presentation, so [redacted] my co-author presented, but I was there and answered questions.

Q. Let me just stop you. We can read the CV, so no need to go through it.

A. Well, there's at least like 12 presentations --

(Simultaneous speaking.)

MS. GUERRIER: Just complete the answer. Are you stating that the items under the -- what exactly are you --

THE WITNESS: Well, I was asked how many presentation -- the original question that I was asked was how many presentations I have done. And -- on digital assets, and is it true that only one of those is -- and that's not correct. I have one with my co-author, two, three, four, five, six,

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seven, eight, nine --

Q. Let me stop you. I'm going to concede that it's a number of presentations.

A. -- ten, 11, 12, 13. It looks like at least 15.

Q. Okay.

A. Maybe 20. I don't know.

Q. But look at all other topics of presentations in your CV.

A. Sure.

Q. Is there any other topic of any other presentation that relates to cryptocurrencies? That's my question.

A. No. Not in relationship to one of these papers. I may have given talks related to nonacademic papers that are not -- that are not on the topic. I guess I did -- like I gave a talk to the [redacted] conference. In that paper I discussed the [redacted] paper, but I also discussed broader issues with digital assets at the same talk.

Q. The last question and then we'll take a break. Have you ever purchased digital assets?

A. No, I have not.

Q. Have you ever sold digital assets?

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A. No, I have not.

Q. So you're not engaged in any transaction relating to digital assets?

A. No, I have not.

MR. CERESNEY: Now let's take a break.

THE VIDEOGRAPHER: Go off record, 10:44.

(Break.)

THE VIDEOGRAPHER: This is Segment No. 2. We're back on the record, 11:05.

Q. [redacted], one other question on your -- on the digital asset transactions. You said you had never engaged in any transactions in digital assets. Right?

A. That's correct.

Q. Why? Why not, I guess is the more accurate question?

A. I generally -- I generally like to invest in -- in -- I generally like to invest in things that I can -- has cash flows and the fact that it doesn't have cash flows, it's -- it's much more risky.

Q. Okay.

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A. Or has a prospect of cash flow.

Q. Okay. All right. Let's move to questions about your report in this case. One of your conclusions in your report -- and if you want to look, Page 10 of your report in the header.

A. I guess I'd like to clarify my answer from the digital assets --

Q. Oh, sure. Go ahead.

A. I mean, also, a large part of my conclusion on the [redacted] So if an asset had been manipulated, I wouldn't want to get into a situation where I was adverse to somebody manipulating the currency. So, in other words, if there was a lot of randomness driving the variation, it's much more like speculation and less like an investment.

Q. Okay.

A. And also, it means probably if there is a large player in the space that's manipulating the currency, that for every winner, there's a loser so it's -- the odds are -- the odds are a little bit stacked against you.

Q. Okay. And so you come to digital assets

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with some skepticism, it sounds like?

MS. GUERRIER: Objection.

A. I approach life with skepticism so I like to examine things and -- yeah, I -- I approach -- I approach everything with some skepticism and I go where the facts -- the facts lead.

Q. You haven't overcome that skepticism with regard to digital assets, it sounds like?

MS. GUERRIER: Objection.

A. I do -- I don't think it's -- I don't think -- personally, I think it's speculation to -- to put money into most crypto digital assets, given where they trade, who the players are, so forth, issues related to my research so I think it is -- it is more speculative.

Q. Okay. All right. Take a look at Page 10 of your report. You see the header there, one of your conclusions there is that: Ripple coordinated with GSR to buy XRP in a manner consistent with positively influencing XRP prices.

MS. GUERRIER: Objection.

Q. Do you see that on Page 10, the header? I just quoted the header there.

A. Yes, I see the -- I see the header.

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Q. And that was one of your observations in your report. Correct?

MS. GUERRIER: Objection.

A. It's a section header that summarizes -- that summarizes some of the issues discussed in that section.

Q. Okay.

A. Yeah.

Q. And it looks like in this section of your report, Section 4 of the report, you analyzed specific transactions for specific dates and times in five different figures. Am I right about that?

A. That's correct.

MS. GUERRIER: Objection. Let me -- one second. Let me state my objection on the record. So it's objection to form.

Q. So this section of the report contains five different figures. Correct?

MS. GUERRIER: Objection to form.

Q. Actually, let me -- let me amend that. Four different figures. Correct?

MS. GUERRIER: Objection.

A. This section contains four figures and discusses the emails and contacts around those

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papers.

Q. Okay. And then the -- the next section, Section 5 of the report, contains a fifth figure. Correct?

A. That's correct.

Q. Now, I just want to go through those various figures and the times that are -- timing that's covered by those.

Figure 1 covers September 15th, 2016. Right?

MS. GUERRIER: Objection.

A. What date did you say?

Q. I said September 15, 2016.

A. That's correct.

Q. Figure 2 covered November 1st, 2016. Correct?

MS. GUERRIER: Objection.

A. Figure 2 analyzes events on November 1st, 2016.

Q. Okay. Figure 3 analyzes events on September 25th and 26th. Right?

MS. GUERRIER: Objection.

A. That's correct.

Q. And then Figure 4 analyzes transactions

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on April 10th and 11th, 2016. Correct?

MS. GUERRIER: Objection.

A. 10 --

Q. April 10th and 11th, 2016.

A. 10th and 11th. It may have an event right there at midnight, but I'm not sure. Yes. The 12th is listed in the figure, but I think the figure stops right there on the left.

Q. Well, just the header on the figure.

A. Yeah. I'm just looking at the bottom where it cuts off. Yes.

Q. Okay.

A. So it's on the 11th.

Q. But the header on the figure says April 10th at --

(Simultaneous speaking.)

A. That's correct.

Q. Is that -- you have to wait for my question to answer.

Is that correct?

A. That's correct.

Q. Okay. So -- and those four figures are trading by GSR on behalf -- in connection with XRP provided by Ripple. Correct?

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MR. CERESNEY: Objection.

A. I don't know if I would characterize it just like that.

Q. Well, it's trading by GSR?

A. It's traded by --

MS. GUERRIER: Objection -- let me just -- one second. Objection.

Go ahead.

Q. Trading by GSR?

MS. GUERRIER: Objection.

MR. CERESNEY: Pascale, we'll get through this more quickly if -- I will stipulate that if you make an objection, then I ask the very same question, your objection still lasts. Okay?

MS. GUERRIER: Okay. That's fine.

MR. CERESNEY: That will make this go easier.

MS. GUERRIER: That's fine. Yes.

MR. CERESNEY: Okay. So with that stipulation.

THE WITNESS: What was the stipulation? I'm sorry.

MS. GUERRIER: No.

Q. This is trading by GSR.

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2 A. Everything has an objection on it now?

3 Q. Apparently, yes.

4 This is trading by GSR. Correct?

5 A. This is trading on -- by GSR on behalf of

6 Ripple.

7 Q. Good. We're in agreement.

8 So you analyzed six trading days in the

9 2016 period where GSR traded on behalf of Ripple.

10 Is that correct?

11 MS. GUERRIER: Objection.

12 A. In these figures.

13 Q. In these figures, yes.

14 A. Yes.

15 Q. And so -- and you -- and just to be

16 clear, these act- -- these dates are between

17 April 10th, 2016, and November 1st, 2016. Is that

18 fair?

19 MS. GUERRIER: Objection.

20 And I'm just trying to -- which dates

21 are you referring to, Andrew?

22 MR. CERESNEY: I referred to the

23 dates that we just went over, April 10th, 2016, to

24 November 1st, 2016.

25 A. That appears to be correct.

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2 Q. And six days within that period.

3 Correct?

4 A. That appears to be the case.

5 Q. And in this section of the report, you're

6 not offering any view of GSR's trading activities on

7 behalf of Ripple before April 2016. Is that fair?

8 MS. GUERRIER: Objection to form.

9 A. In this section of the report, I'm

10 analyzing events around these dates.

11 Q. Okay. And -- and that's -- that period

12 of time -- and then there is in Figure 5, you

13 analyzed trading that GSR did on behalf of

14 Mr. Larsen. Correct?

15 A. That's correct.

16 Q. And that was for June 3rd through 14th of

17 2017. Correct?

18 A. That's correct.

19 Q. And that's the only time period of GSR's

20 trading on behalf of Mr. Larsen that you analyzed in

21 connection with the report. Correct?

22 MS. GUERRIER: Objection.

23 Go ahead and answer.

24 A. Well, for this particular type of trading

25 activity, obviously, we talk about Mr. Larsen's

1 [redacted] - 2/15/2022
2 activity in the -- in the later parts of the report.
3 Q. You talk about the hop analysis that you
4 did?
5 A. Yes.
6 Q. Okay. Setting aside that hop analysis,
7 this is the only analysis that you did of trading
8 activity by GSR on behalf of Mr. Larsen?
9 A. That's correct.
10 Q. Okay. And we'll get to the regression
11 analysis that you did, which we're going to talk
12 about in some detail.
13 But other than that regression analysis,
14 these analyses of Ripple trading -- of GSR trading
15 on behalf of Ripple, in Figures 1 through 4 -- and
16 actually, I'll add Figure 6 which is on Page 24, so
17 there's five figures that relate to trading on
18 behalf of -- GSR trading on behalf of Ripple.
19 Other than those five figures, which
20 constitute a number of trading days, you didn't
21 analyze any other trading by GSR on behalf of Ripple
22 in this report. Correct?
23 MS. GUERRIER: Objection to form.
24 A. The -- you did mention Table 1. Table 1
25 is a -- is an examination of the whole period.

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Q. Table 1 being the regression analysis?

A. The regression analysis. So the regression -- this is -- these graphs are specific events and the regression analysis is over the whole period.

Q. And just to be clear, on the regression analysis, the regression analysis deals with a separate issue. Correct?

MS. GUERRIER: Objection.

A. I don't -- I don't -- I wouldn't summarize it as such.

Q. Well, Figures 1 through 6 deal with the potential impact of GSR trading on XRP's prices. Correct?

MS. GUERRIER: Objection to form.

A. That's one of the issues it deals with.

Q. Okay. The regression analysis deals with the question of GSR's imbalances in trading after a day after a movement in XRP's prices. Correct?

MS. GUERRIER: Objection to form.

A. I would -- I would like to characterize my own -- I don't know if I would characterize a regression analysis as such.

Q. How would you characterize a regression

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2 analysis?

3 A. Well, I would characterize the regression

4 analysis as looking at whether imbalances -- I look

5 at whether imbalances are related to past returns,

6 so whether GSR is trading in such a way as to -- as

7 such a way to potentially minimize their price

8 impact or even have a positive price impact.

9 Q. But you don't analyze the impact of GSR's

10 trading on the prices. Correct?

11 A. That's correct.

12 Q. Okay. So the only place that you analyze

13 the potential impact of GSR's trading on XRP's

14 prices is in Figures 1 through 4 and 6 --

15 MS. GUERRIER: Objection.

16 Q. -- correct?

17 A. I don't think that's an accurate -- as I

18 alluded to earlier, I don't think that's an accurate

19 characterization of my Figures 1 through 5. If we

20 want, I can go into what the figures are about, but

21 I'm not going to characterize them as that's the

22 main thing.

23 Q. Okay. Well, that's -- we're going to go

24 into specifics on each, so that's fine. Let's put

25 that aside for a moment.

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Can you explain to us how these -- in Figures 1 through 4 how these six days were selected?

A. Sure. I was -- I had a list -- I had some correspondence from -- correspondence that was between GSR -- between executives at Ripple and GSR. I looked for examples of specific correspondence where it was clear -- it was a directive from someone at Ripple to trade -- a directive from someone at Ripple corresponding with someone at GSR in terms of a trading directive. And so I looked at those cases and found examples of those cases.

Q. Okay. Where did you get the correspondence that you looked at for these purposes?

A. From the SEC.

Q. So the SEC selected the correspondence that you reviewed?

MS. GUERRIER: Objection.

A. I don't know if I -- I don't know what process the SEC had.

Q. Okay. But you did not select those for that correspondence. Correct?

MS. GUERRIER: Objection.

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2 A. I did have -- I did have access to

3 broader correspondence, and those are the events

4 that I picked within those correspondence.

5 Q. Did you --

6 A. I don't know that that was a complete --

7 I don't know to what extent -- whether that

8 correspondence was complete or not complete.

9 Q. So the SEC gave you access to a broader

10 group of correspondence than the correspondence that

11 you actually ended up using for these purposes?

12 MS. GUERRIER: Objection to form.

13 THE WITNESS: Can I answer?

14 MS. GUERRIER: Yes or no.

15 A. Yes.

16 Q. And did you list in your Appendix C,

17 which has all of the documents that you relied upon

18 in your analysis, all of the documents that you

19 received from the SEC?

20 A. No. I listed the documents that I relied

21 upon in this report. I didn't rely on those -- on

22 those other -- I didn't -- if those other documents

23 didn't have specific directives from Ripple execs to

24 GSR, they -- they may have just been discussing

25 issues related to the bot or something like that, so

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2 they weren't relevant to this analysis.
3 Q. And how many documents did you initially
4 receive from the SEC for this -- the purposes of
5 this analysis?
6 A. I'm not sure --
7 MS. GUERRIER: Objection -- hold on.
8 THE WITNESS: Okay.
9 MS. GUERRIER: I'm going to instruct
10 you to -- documents that you considered, you can
11 answer with respect to that.
12 MR. CERESNEY: Are you -- is the SEC
13 taking the position that if he reviews a document
14 and then decides that it's not something he's going
15 to use in the report, that that is not something he
16 considers or relies upon for the report?
17 MS. GUERRIER: That's not my
18 instruction. So I have asked him to disclose the
19 documents that he considered that the SEC provided,
20 and that's all that I've asked him to do.
21 Q. Well, did you -- let me ask you this, let
22 me ask you a different question. Did you consider
23 all of the documents that the SEC provided you in
24 the course of your analysis?
25 MS. GUERRIER: And I'm going to

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object to the form.

But go ahead and answer.

A. I'm not sure.

Q. Well, you reviewed the documents, didn't you?

MS. GUERRIER: Objection.

A. I'm not sure if I reviewed every document in some folder. A lot of times, there is folders with documents that get lost. I mean, I think anyone that's part of the legal context knows there's lots of documents.

Q. Okay. So you're saying the SEC might have provided you documents you just didn't look at?

MS. GUERRIER: Objection to form.

A. Members of my -- members of my staff reviewed various documents, and the directive for that was to look at documents --

MS. GUERRIER: Objection -- actually, I'm going to instruct you not to disclose any SEC communications.

THE WITNESS: Yeah, this is -- okay.

A. Directives that I gave to members of my staff was I wanted any documents related to communication between -- between trading activity,

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2 directives to trading on -- directives to GSR on
3 trading.
4 Q. And the instances and correspondence that
5 you include -- the correspondence that you include
6 references to in your report, were those all of the
7 documents that your staff provided you?
8 MS. GUERRIER: Objection to form.
9 A. I believe there were other documents.
10 Q. Okay. How many other documents were
11 there?
12 A. I'm not sure.
13 Q. Did you perform any analysis of the
14 trading in connection with those other documents?
15 MS. GUERRIER: Objection.
16 And to the extent that this is
17 information that you have obtained from the SEC
18 that's not included in your appendix, I'm going to
19 instruct you not to answer.
20 MR. CERESNEY: Oh, hold on a second.
21 You're instructing him if it's not included in his
22 appendix. My question is what did he consider.
23 MS. GUERRIER: Right. And he already
24 told you that it's included in the appendix, so --
25 MR. CERESNEY: That's not what he

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said.

MS. GUERRIER: All right. Let -- let's clear this -- have him answer, but my understanding is you're asking him what he considered outside of what's included on the appendix.

MR. CERESNEY: No. What I'm asking him is what he considered. Put the appendix aside for the moment.

Q. In connection with your report, in deciding what to include in your report, you said that you received a broader set of documents than the ones that you cited in your report. Correct?

MS. GUERRIER: I'm going to object and also instruct you not to disclose documents, communications with the SEC that include documents outside of the ones listed on Appendix C.

MR. CERESNEY: You're instructing him not to discuss anything that he received from the SEC, even if he considered it?

MS. GUERRIER: No, I did not -- that's not my --

MR. CERESNEY: Okay. That's what you instructed him.

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MS. GUERRIER: That -- that is not. I can -- we -- I can read you what I instructed him, if you would like.

Q. Going back to the -- the documents that you received from your staff, pursuant to your instructions, did you perform any analysis on the instances of trading that were referenced in those documents, other than the ones that you cite in your report?

MS. GUERRIER: I'm going to renew my objection and instruction.

A. One issue with constructing the analysis is that one has to have the relevant trading identity, as I describe in the appendix.

So the reason 2016 is examined here is that there is GSR -- most of GSR trading is on the blockchain. It's a publicly available source, and it has relevant data on that.

So there are actually six events that -- relative to my five, there is actually six events. There is one other event that's very similar to Figure 3, and so it was -- it's essentially showing the same pattern in Figure 3, so I didn't find that that was relevant to include.

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Q. Okay. Fair enough. So you had another instance that was similar to Figure 3?

A. Yes.

Q. Any other instances similar to that, that you did not include?

A. No.

Q. Okay. So, basically, there were six instances, and you included five of them?

A. That's correct.

Q. And other than those six instances, you did not review correspondence that suggested that Ripple had instructed GSR to do certain types of trading?

MS. GUERRIER: Objection to form.

A. That's a -- that's incorrect summary of what I said earlier. I said part of the -- part of the limiting factor with this analysis is that one had to have relevant data over the period. So the analysis -- that's why the events are in 2016, because of the -- because of the data constraints.

Q. So the SEC --

A. So there may have been -- there may have been correspondence -- that's -- I'll just leave it at that.

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Q. Okay. The SEC did not provide you any trading data that GSR might have produced to the SEC for the period after 2016. Is that what you're saying?

MS. GUERRIER: Objection.

And also my instructions are not to disclose any communications with the SEC outside of what's on your Appendix C.

A. My -- my understanding -- more than just having some trading data, the data has to be complete, and it has to overlap with emails and so forth. So this is the set of data that had complete data to examine.

Q. Okay.

A. I think that there -- I believe there may have been other data, but I think it had holes in it. (Unintelligible.)

Q. Okay. So fair enough. So I just want to just establish, your -- your opinion on these issues is solely related to 2016. Right? You're not asserting an opinion for any period, other than the 2016 period. Is that fair?

MS. GUERRIER: Objection to form.

A. I disagree with the premise.

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2 Q. Why do you disagree with that premise?

3 A. Well, my regression analysis is broader

4 than that. It's over the whole period.

5 And then, also, the examples I know are

6 over this period where there is relevant data, but

7 to the extent that this is a characterization or a

8 relationship that that -- that occurs, oftentimes

9 that relationship is broader than just a one-off --

10 one-off thing.

11 In other words, if somebody has a -- if

12 you've employed a firm like GSR and they're trading

13 on your behalf, and it continues to trade on your

14 behalf, I'm not sure why the relationship would --

15 would change.

16 Q. Do you have any basis at all in facts for

17 that assertion you just made?

18 MS. GUERRIER: Objection.

19 Q. Other than your common sense or your

20 speculation?

21 MS. GUERRIER: Objection.

22 A. I wouldn't call it speculation. I would

23 say common sense is a good -- that people do employ

24 firms and they generally keep those -- if they're

25 using a trading firm. I've analyzed -- I've

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2 analyzed NASDAQ trading over six years and generally
3 when I found a relationship in Year 1, it continued
4 to Year 6.
5 So I do have a basis for that. I had
6 NASDAQ data, I analyzed it, and then oftentimes
7 relationships or trading patterns would persist for
8 long periods of time.
9 Q. Did you, in your report, include any --
10 any opinion or any assertion, just like you made
11 here, about a period outside of 2016?
12 MS. GUERRIER: Objection.
13 Q. Show me in your report where you include
14 such an assertion.
15 A. I have a regression that talks about the
16 whole period.
17 Q. Okay. Setting aside the regression
18 analysis -- and we'll get to that -- but setting
19 aside the regression analysis, do you have any part
20 of this opinion that references anything beyond
21 2016 --
22 A. My analysis is focused on --
23 MS. GUERRIER: Hold on. Objection;
24 go ahead and answer.
25 A. Again, my analysis is focused on

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2 particular events where I have relevant data and I
3 analyze those events.
4 Q. Okay. And so your opinion here is
5 related to those events only. Is that fair?
6 MS. GUERRIER: Objection; and asked
7 and answered.
8 Q. You can answer it.
9 A. I think that's an unfair characterization
10 of my report.
11 Q. Where in your report do you make the
12 assertion that the facts that you set forth or that
13 the -- strike that.
14 Where in your report do you make the
15 assertion that the opinions you are offering on 2016
16 trading by GSR apply beyond 2016?
17 MS. GUERRIER: Objection.
18 Go ahead.
19 A. In the regression analysis.
20 Q. Okay. Fair enough. Other than the
21 regression analysis, do you make that assertion in
22 your report?
23 A. Well, that's like saying --
24 MS. GUERRIER: Hold on. Asked and
25 answered.

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Go ahead.

A. In the regression analysis I analyzed that.

Q. In the regression analysis, which we'll get to, relates to trading and balances by GSR. Correct?

MS. GUERRIER: Objection.

Go ahead.

A. Yeah. Trading of balances and buying and selling are very related concepts.

Q. Okay. But the impact on the XRP price, that is not covered by the regression analysis. I thought we covered that.

MS. GUERRIER: Objection.

A. I don't want to characterize my figures in the way you're characterizing them, in terms of -- you're trying to say my figure's about --

Q. Okay.

A. -- about something it's not. So I'm not sure what you're trying to characterize my figures, but I would like to not have my figures characterized for me in terms of what they show and don't show. We can talk about them specifically. And I'm happy to go over what they show or don't

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show.

Q. Let me just try this one more time.

I want to set aside the regression analysis, which we're going to deal with.

Other than the regression analysis, is there any place in this report that you're offering an opinion on a period of time beyond 2016?

MS. GUERRIER: Asked and answered.

Go ahead.

A. Yes. In the later parts of the report I also look at periods beyond 2016.

Q. Show me where in the report.

A. Well, Figure 7, Figure 8, Table 2, Table 3, Figure 9, Figure 10, Figure 11, 12.

Q. Okay.

A. And the appendix just talks about --

Q. Okay.

A. -- those matters.

Q. Any of those figures that you've just cited relate to GSR trading on behalf of Ripple?

A. The -- the figure let me review it to see.

Q. Take your time.

A. (Pause.)

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The -- Table 1 regards to GSR trading on behalf of Ripple.

Q. And Table 1 is the regression analysis?

A. The regression.

Q. Okay.

A. And Figure 7, 8, and Table 2 regard transfers to Ripple, not GSR trading -- I'm sorry. Transfers regarding direct and indirect transfers.

Q. Figures 7 and 8 relate to Mr. Garlinghouse and Mr. Larsen, don't they?

MS. GUERRIER: Objection.

Q. Not to Ripple?

MS. GUERRIER: Objection.

A. That's correct.

Q. Okay. So I was asking about Ripple. So do you want to revise your answer? Is it just Table 1?

MS. GUERRIER: Objection.

A. I don't know what question I'm being asked. The original question I was asked was, was there any part of my report that doesn't deal with 2016. That was the question I was asked. So when I answered that question, I pointed to all the other figures that I have that are outside of 2016.

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Now, if we're modifying the question, I'm happy to answer a modified version, but the question I was asked, which I could be wrong in what I was asked, but I thought I was asked whether any part of my report was about anything outside of 2016, other than Table 1.

Q. Right. And then I modified the question to relate to GSR trading on behalf of Ripple.

A. Okay.

Q. And then you answered "Table 1," which is the regression analysis.

A. Yes.

Q. And I just want to make sure that's the answer.

A. I think so.

Q. Okay. That's it.

Now, [redacted], we're going to go through the various figures in a moment, but before we do that, and go in-depth into each one -- before we do that, I want to just ask you.

In terms of the methodology that you used here, which is looking at specific trading days and activities on those days, were there any other methodologies that could be used to analyze the

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impact of GSR trading on XRP prices over time?

MS. GUERRIER: Objection to form, and also foundation.

A. If one looks at the assignment of my report -- let me read from the assignment of my report.

It says: The SEC has retained me to independently analyze and comment on two areas. First, the SEC has asked me to opine on whether Ripple Labs (Ripple), Chris Larsen, and Brad Garlinghouse took steps to influence XRP prices. Second, I've also been asked to opine on the incentives that might have been present for Ripple to attempt to influence the price of XRP.

So the first examination was whether they took steps to influence the prices. I'm not opining on whether the price -- the price was influenced.

Q. I see. Okay. So your opinion is just whether Ripple took steps to influence the price through GSR's trading and not on whether, in fact, the price was impacted. Is that fair?

MS. GUERRIER: Objection.

A. I do state in my report that the price on certain events moved in a manner consistent with --

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consistent with the -- what the steps that Ripple took. So I do -- I do say that the price moved in such a manner on those specific dates.

Q. Well, this is important, though. You say it moved in such a manner consistent with being impacted by the trading. That's a different matter than saying it was impacted. Is that fair?

MS. GUERRIER: Objection.

A. My report is not analyzing what caused the -- what caused the price movement. That's not the subject of my report.

Q. And is there a reason why -- could you have opined on that?

MS. GUERRIER: Objection.

And I instruct you not to disclose discussions with SEC lawyers.

Q. Okay. I'm going to ask you a different question. I don't want to hear anything about your discussions with SEC lawyers. I want to know whether you could have analyzed the impact of GSR's trading on Ripple's prices during particular periods of time.

MS. GUERRIER: I renew my objection and my instruction.

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Go ahead.

A. The analysis of pricing -- price impact is a much -- is a very -- is a much -- is a very difficult thing to examine because one has to have -- one has to have not just the trades, but when the orders were submitted, the nature of the orders, the order book, how the order book moves prices, the players that were involved, and moving that.

And one would -- there -- there could be other -- in this case over this period there is other exchanges that are traded on which -- on which the security -- on which -- on which there is other platforms where XRP traded. And so the combination -- the combination of all those things would make an analysis quite difficult.

Q. And you didn't look at any of those other things that you just listed. Correct?

MS. GUERRIER: Objection.

Again, do not disclose any communications or anything done at the direction of the SEC.

Q. I'm just -- I'm not asking about communications. I'm asking whether you did that as

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part of your analysis in this case.

MS. GUERRIER: And I'm renewing my objection and instruction.

Q. Did you -- did you look at any of those other factors that you just listed that are important to determining whether GSR's trading actually impacted the price?

A. My --

MS. GUERRIER: Same objection.

A. My opinion is that the data and the nature of -- of this would make -- would make it -- would -- the data -- the data limitations would make such analysis -- I -- such analysis difficult.

Now, as part of the rebuttal -- as part of the rebuttal report in response to Professor Ferrell, Professor Ferrell looked at some things related to this, and I did examine his methodology, what Professor Ferrell used and what he claimed his result.

Q. And -- well, we'll get to Professor Ferrell in -- in a few minutes, but you did that analysis after you submitted this report?

MS. GUERRIER: Objection.

A. What -- I don't know what analysis you're

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referring to.

Q. What you just referred to, your analysis, of Professor Ferrell's analysis. When did you do the analysis?

A. I didn't say analysis -- I don't -- I didn't mean to say analysis of Professor Ferrell's. I said analyzing Professor Ferrell's analysis. I looked at Professor Ferrell's analysis.

Q. Okay. And did you take any action in connection with that analysis?

MS. GUERRIER: Objection. And, also, instructing you not to disclose anything you've done at the direction of the SEC --

MR. CERESNEY: Wait a minute. Hold on.

MS. GUERRIER: -- outside of --

MR. CERESNEY: Go ahead.

MS. GUERRIER: -- outside of the work that you've done for your report and subject to the disclosures in your report.

MR. CERESNEY: I'm asking about work that he's done since reviewing Professor Ferrell's rebuttal report. Are you instructing him not to answer the questions about that issue?

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MS. GUERRIER: Work product. Yes, if it's -- if it's done at the direction of the SEC, absolutely.

Q. Well, let's explore this. Did you do any work on behalf of the SEC in connection with Professor Ferrell's rebuttal?

MS. GUERRIER: Objection.

Q. Yes or no?

MS. GUERRIER: You have a time frame? Like --

Q. Since Professor Rebuttal (sic) submitted his -- since Professor Ferrell submitted his rebuttal report, did you do any work on behalf of the SEC in connection with that report?

MS. GUERRIER: I'm going to instruct you not to answer on work product grounds.

MR. CERESNEY: Yes or no. I can ask a "yes" or "no" question. Are you instructing him not to answer "yes" or "no"?

MS. GUERRIER: Yes.

MR. CERESNEY: And you're claiming work product over a disclosed expert who's looking at a report of another expert that was rebutted?

MS. GUERRIER: No. You asked him

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whether he did any work -- let me make sure I get your question -- after the rebuttal was submitted.

MR. CERESNEY: Yes.

MS. GUERRIER: And I'm instructing him not -- he didn't -- he didn't provide a report after the rebuttal was submitted so I'm instructing him not to disclose -- not to answer because this is work product. You don't have a report from him after the rebuttal.

MR. CERESNEY: It's not work product if he doesn't produce a report. Are you claiming any -- any analysis he did of Professor Ferrell's rebuttal --

MS. GUERRIER: Anything that's done at the instruction of the SEC is work product. So, yes, I'm instructing him not to answer.

MR. CERESNEY: This is a disclosed expert witness who's testifying as an expert for the SEC. If you had him do analysis of that report, that's going to be disclosable.

MS. GUERRIER: That's work product and I'm not saying that if -- any instructions that the SEC gave him after the fact is work product.

MR. CERESNEY: Are you going to let

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him testify to anything relating to Professor Ferrell's rebuttal report?

MS. GUERRIER: Of course. When you asked him about Professor Ferrell's report, he can testify to the extent that there are no privileged issues. Absolutely. But you're -- you're asking him for stuff that he's done outside of the report and I've instructed him not to testify about anything that the SEC has instructed him to do.

MR. CERESNEY: I don't understand the distinction you're drawing. I'm asking him about work that he did on Professor Ferrell's rebuttal report. You're saying you're going to allow him to testify to that.

MS. GUERRIER: Uh-huh.

MR. CERESNEY: And so I'm only asking what work he did that he can to testify to.

MS. GUERRIER: Do you want to give a time frame? I mean, you know --

MR. CERESNEY: After -- I've given a time frame. After Professor Ferrell's rebuttal was submitted, what work did he did to -- do to analyze that report.

MS. GUERRIER: Yeah, I think that

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we're going to have an issue here because this is work product.

So I'm instructing you not to answer.

MR. CERESNEY: Let's go off the record.

THE VIDEOGRAPHER: Off the record at 11:45.

(Break.)

THE VIDEOGRAPHER: Segment No. 3. We're back on the record, 12:05.

MS. GUERRIER: We're going to mark the transcript as highly confidential.

Q. So I was asking you before the break about an analysis that you had conducted of Professor Ferrell's rebuttal report.

Did you conduct any analysis of that rebuttal report once you reviewed it?

MS. GUERRIER: I'm going to give you the same instructions that I gave you prior to this.

A. I read his report and analyzed what -- looked carefully at what he was criticizing me in and can -- I'm happy to talk about that.

Q. Did you do -- thank you.

Did you do any analyses of the analyses

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that he did in his rebuttal report? In other words, did you do any data analysis of those conclusions?

MS. GUERRIER: Same instructions.

THE WITNESS: Should I say I can't answer, I guess?

MS. GUERRIER: If you can -- I mean, anything that was done at the direction of the SEC is work product so I'll instruct you not to answer.

Q. So you can't answer that question?

A. I guess I can't answer that question.

(Discussion off the written record.)

Q. By the way, [redacted] do you understand what a factor analysis is?

A. Yes.

Q. Can you explain your understanding of what a factor analysis is?

A. Sure. It's actually a subject that [redacted] in my Ph.D. [redacted]. So there is different -- there is different ways to -- to do it. I think that the term and the way you're describing it is -- is not exactly the way that Professor Ferrell did it.

But the factor analysis, basically, it's similar to principal components analysis. One looks

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2 for covariation patterns in returns and one can
3 determine if there -- how many factors there are in
4 returns and -- and one can look at the -- basically,
5 there was -- original asset pricing would do factor
6 analysis and they would say, well, there's, like,
7 three factors or five factors or six factors in
8 returns and that would be because they -- they're
9 basically analyzing the covariance factor and seeing
10 how many common factors or how many systematic
11 sources of variation there is in returns. That was
12 kind of the original Phase 1 of factor analysis.
13 And then Phase 2 of factor analysis -- or
14 I'm saying Phase 2, Phase 1 lightly. There was
15 still overlap between the two methods, but the
16 second method would be that they would pick
17 macroeconomic factors like Chen and --
18 Chen-Roll-Ross' 1986, for instance, was a seminal
19 paper that started picking macroeconomic factors and
20 run those -- run those factors to control things. I
21 have [redacted]
22 [redacted], so forth. So -- so,
23 basically, when you're in a factor analysis, you're
24 asking what percent of the -- are these -- which
25 factors are important testing those factors.

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Q. Would a factor analysis be an appropriate methodology to determine the causes of changes in the price of XRP?

A. One could control for changes in the prices of XRP, but I -- I do not think that -- I do not think that Professor Ferrell's factor analysis is -- is relevant to -- to the matter -- to the matter here.

Q. Why not?

A. Well, the question is not whether there is covariation in returns. Obviously, all crypto assets move together.

The -- the question that I'm seeking to answer and the -- and the -- the -- what I was asked to opine on was whether the Ripple Labs took steps to influence the price of XRP. So -- so I'm answering the question of whether they took steps to influence the price of XRP or another way to phrase that is I'm looking at whether Ripple Labs -- actions at Ripple Labs is related to XRP.

One could -- as I point out in my rebuttal report, one could perform a factor analysis of Apple stock, for instance, and one would see that if you perform a factor analysis of Apple stock,

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2 whether you perform a market factor analysis or
3 three factor, five factor, I've written papers
4 talking about criticizing number of factors and how
5 many factors are appropriate and criticizing the
6 various factor models. But whether one takes that
7 approach, all the questions you're going to answer
8 is, is there covariation in returns.
9 Now, we know that Apple moves up and down
10 with the market, and so Professor Ferrell looks at
11 that and says, "Well, XRP moves up and down with the
12 market, therefore, XRP is related -- XRP is related
13 to the price of bitcoin." Yes, that's correct.
14 That's nothing new. Everybody knows that, that
15 cryptocurrency assets are very related.
16 But you would never point to that and
17 say, ah-hah, Apple moves with the price of the
18 market, therefore, Tim Cook has no say -- therefore,
19 Tim Cook has no influence on the price of Apple, or
20 managers of Apple have no influence on the stock
21 price. So that piece of evidence really has no
22 bearing on this case, as far as I'm concerned.
23 Q. Would you have expected to see -- if
24 Ripple had an impact on the price of XRP, would you
25 have expected to see an alpha in connection with the

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analysis?

MS. GUERRIER: Objection to form.

Q. Do you know what I mean by alpha?

A. Yes, I know what you mean by it.

Q. What do I mean? What do you understand alpha to mean?

A. Yeah. So there is various -- I do [redacted] PHC-level asset pricing, so I can talk about alpha. [redacted]

So that's one way one could look at it and say, Okay. Is -- does the stock have positive or negative alpha? Usually, one looks for positive or negative alpha around particular events. One could do an event study, look at particular events. One could see that if you have an alpha.

But, in general, just saying that there is an alpha over a period doesn't -- doesn't necessarily tell you much. Because when the asset pricing literature looks at alpha, they're talking about groups of stocks, portfolios of stocks. And so they're looking at whether the portfolio and you can earn an abnormal return on that portfolio

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relative to some other portfolio, so, like, whether you have a trading strategy that's making money.

But if you looked at Apple and you calculated the -- the alpha on Apple, one would say, okay, Apple does have a positive alpha over the last five years. It probably has a pretty positive alpha. That doesn't -- or it could have a negative alpha. Other stocks can have negative alpha.

But that is -- I don't see how that's related to the question that I'm opining on here.

Q. Okay. I'm not asking about the question you're opining on. I'm just asking where you would expect in your analysis if Ripple had an impact on the price of XRP -- if Ripple's actions had an impact on the price of XRP, you would expect some sort of alpha in your analysis. Correct?

MS. GUERRIER: Objection to form.

A. The -- there is a lot of factors to go into that. Whether the alpha -- how you measure the alpha, when you're looking, if -- if the firm is trading in a way to minimize alpha, that could minimize the impact of alpha. So -- so if one ran a regression over the period and had a positive or a negative alpha, I don't think that would have any

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bearing on whether it took steps to influence.

Now, depending on the way the test was set up and so forth, there could be a scenario where it could be related, but just -- if we're just talking about, okay, over a five-year period, and XRP had a positive or a negative alpha, I don't think that really tells us anything.

Q. Well, wouldn't it tell you, if there was a positive alpha, that Ripple's actions may well have had an impact on the price of XRP?

MS. GUERRIER: Objection to form.

A. It could -- there's -- there could -- it could be completely random, the reason they had a positive alpha, or it could be -- there is many reasons you could have a positive or a negative alpha. So I don't -- again, I don't think that that's the appropriate test to look at in this context.

Now, there could be -- there could be context where it's important, and I would need to study those contexts. But just looking at an alpha over a whole period -- just looking at an alpha over a whole period, I mean, you could have a scenario where the alpha is negative, and that could be --

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that could be that -- that could be because alpha could be negative on alpha -- on Apple, and it could be because maybe -- maybe cell phone industry changed, or that Apple had a new competitor, they could have a negative alpha.

Or they could have a positive alpha because Tim Cook is a smart guy, and they have a good computer team.

So I think there is many reasons why stocks can have a positive and negative output, but --

So I'm not -- yeah, I'm not ruling out the possibility that it could be considered as -- considered, but I don't know exactly where you're leading with that question.

Q. Okay. One last thing. You said, "Obviously, all crypto assets move together."

Is that a fair statement?

MS. GUERRIER: Objection to form.

Q. That was -- I'm just quoting you, you said that.

A. I -- as a general statement, crypto assets generally move together. Now, obviously, there is periods of time where certain crypto assets

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diverge, and over a short run, they're less correlated than they are over longer intervals.

Q. But over the long-term, crypto assets are correlated. Is that fair?

A. There is --

MS. GUERRIER: Objection.

(Simultaneous speaking.)

A. -- there is papers that look at the correlation of crypto assets.

MS. GUERRIER: Hold on. Let me state the objection.

THE WITNESS: Yep. Sorry.

MS. GUERRIER: I'm sorry. Objection (unintelligible).

But you can answer.

Q. You said there is papers that look at --

A. There's papers that show that there's correlation among crypto -- among crypto assets that can be -- that can be analyzed, yes.

Q. Okay. Let's look at Figure 1 in your report, which is on Page 13 of your report. You got that in front you?

A. Yes.

Q. I want to just establish what this shows.

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So you see the red and blue bars in the -- in the figure. Those represent GSR's trading active on behalf of Ripple during each hour. Is that fair?

A. That's correct.

Q. And the red bar indicates a net buy during that hour. Right?

A. That's correct.

Q. And the blue bar represents a net sale during that period. Right?

A. Yes.

Q. And the scale on the right side of the Y axis shows there's millions of XRP. Correct?

A. Yes.

Q. The black line in the middle of the figure shows the price of XRP measured against U.S. dollars. Correct?

A. Yes.

Q. And the -- on the left-hand side, there is the price of XRP in U.S. dollars ranging from six one-thousandths of a penny -- I'm sorry -- six one-thousandths -- let me make sure.

A. Six-tenths of a percent?

Q. Six-tenths of a percent. So what would that be? That would be six-thousandths of a penny?

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Is that what that is?

A. No, that's --

Q. Six-hundredths of a penny?

A. -- that's one -- that's six-tenths of a penny.

Q. Six-tenths of a penny. Okay. And so it's ranging from six-tenths to a penny to around nine cents -- nine-tenths of a penny?

A. That's correct.

Q. Okay. And the timeline across the bottom of that is September 15, 2016, at 6:00 a.m. to September 16, 2016, at 12:00 noon. Is that accurate?

A. That's correct.

Q. So that's a 30-hour window of time. Correct?

A. Yes.

Q. Okay. And based on the title of Figure 1 -- and I think you said this earlier, by the way, when you talked about GSR data that you had available to you -- isn't it -- is it correct that the analysis here is limited only to GSR's trading on the XRP ledger?

MS. GUERRIER: Object to form.

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A. The analysis is limited to the trading on the XRP. The analysis is limited to the trading on the XRP ledger.

Q. And are you aware of whether there was off-ledger trading by GSR on this date?

A. I'm aware there was off-ledger trading by -- off-ledger trading, but not on this date.

Q. So you don't think there was off-ledger trading?

A. I don't know.

Q. You don't know?

A. Yeah.

Q. Okay. So just to be clear, so the record is clear, you don't know one way or the other whether there was off-ledger trading on the dates covered by Figure 1 by GSR?

A. That's correct.

Q. Okay. And are you aware whether other market participants traded XRP off ledger on this date?

MS. GUERRIER: Objection; form.

A. I believe they did.

Q. Okay. So would off-ledger trading activity be relevant to your analysis and

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conclusions in Figure 1?

A. No.

Q. And why would it not be relevant?

A. Because I'm looking at whether they followed the directives -- of whether they followed the directives of Ripple, and whether they, in fact, traded in a manner as directed.

So if -- I'm showing that they traded in such a manner consistent with that. And I suppose if -- if they had another bot that exactly -- was -- if they had another bot that was exactly -- or had another trading algorithm that exactly unwound that at another exchange, then it would be relevant. But in terms of just analyzing what they did on the GSR ledger, my -- that's what I did here.

MS. GUERRIER: (Unintelligible.)

A. I'm sorry. XRP ledger.

Q. And you don't know, just to be clear, whether they had some other bot that was unwinding this trading on some other off-ledger venue. Correct?

MS. GUERRIER: Objection.

A. All I know is that the communication does not describe such activity.

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Q. Okay.

A. So the communication seems to indicate -- the communication seems to indicate that this is the -- this is the bot that they're trading. So based on the communication, I would infer that this is the major place that they're trading at the time.

Q. Okay. But you -- but other than the communication, you have no basis for that determination?

MS. GUERRIER: Objection.

A. I think the communication is important, but I don't -- I'm not -- again, I'm not sure what activity they may have placed on exchanges on this date.

Q. Okay. And just to be clear, again, you're not analyzing the impact that the GSR trading had on the price, only that they followed the direction that the communication gave to GSR, that the Ripple communication gave to GSR?

A. Yes, I do -- I do make -- I do note that the price did increase at the same time that GSR was net buying, that the price had a large increase, and it stayed above that point.

Q. Okay. You note that, but you are not --

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you don't analyze whether there was any causation of the trading on that price. Correct?

A. I'm not opining on whether there is causation. That's beyond the scope of my assignment.

Q. Okay. Now, it looks like in Figure 1, right before 6:00 p.m. UTC is when there is the highest volume of GSR net buys. Is that right?

MS. GUERRIER: Objection.

A. Can you rephrase the question or repeat the question? Sorry.

Q. Yeah.

18 -- if you look at 18:00 on 9/15. Right? Do you see that point in the X axis there?

A. Yes.

Q. Okay. And that was the point where GSR had the highest volume of net buys during this period. Correct?

MS. GUERRIER: Objection.

A. The -- it's the window prior to 18:00, I believe, that had the highest, the hour from 17 to 18:00 that had the highest amount of net buy.

Q. And the price of XRP rose at 18:00 to above .009 at that time. Correct?

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A. That is correct.

MS. GUERRIER: Objection.

Q. But in the hour after that, the price of XRP dropped. Right?

MS. GUERRIER: Objection.

A. The price did -- the price did fall after that, but at no point did the price go below the $0.06 starting point in this graph.

Q. At no point in this graph did it go below the $0.06 starting point, the .006 starting point.

Correct?

A. That's correct.

Q. It's not $0.06, it's six-tenths?

A. Six-tenths.

Q. So is it fair to say that the increase in the price of XRP, soon after the net buy by GSR -- I'm sorry -- strike that.

Is it fair to say that the price of XRP began to decline after the net buy between 17:00 and 18:00 hours?

MS. GUERRIER: Objection.

A. It appears from the graph that the price did decline slightly from 18:00 and then it fell to approximately 19:50, and then the price rebounded --

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then the price rebounded close to the nine cents and then the price drifted downward and then flattened out later in the day.

Q. Okay. And did your analysis assess the impact of this activity beyond the 30-hour window represented in this figure?

A. My analysis did not assess the impact. My analysis analyzed whether GSR traded in a manner consistent with the direction from Ripple executives in the email.

Q. Okay. But you didn't look outside the window that's included in this figure. Fair?

A. This figure only reports this window because I thought this was the relevant -- the relevant window.

Q. Okay. And just to be clear, we're talking here about the difference between six-tenths of a cent and just above nine-tenths of a cent. Right?

MS. GUERRIER: Objection.

A. Yes, it's going from six-tenths of a cent to nine-tenths of a cent.

Q. So the price moving here was essentially between three-tenths and four-tenths of a cent.

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Correct?

A. It was a 50 percent movement in the price in a six-hour window.

Q. In absolute terms it was tiny. Correct?

MS. GUERRIER: Objection.

A. In absolute terms it was quite large if you consider the total dollar amount of XRP tokens. And if you consider the total dollar -- if you consider the total amount of XRP tokens and the supply of XRP tokens, then the dollar amount was quite large. The absolute value is quite large.

Q. Are you saying that three-tenths of a penny is a large amount?

A. Yeah. If you trade --

MS. GUERRIER: Objection; form.

A. -- if you trade a million dollars at three-cents (sic) of a penny, that's quite a bit. Three-tenths of a penny -- three-tenths of a penny, if you trade enough, that's a lot of -- if you're talking about the value of the tokens, that is quite large.

Q. Well, how much -- if you take a million dollars, three-tenths of a penny, how much is that?

A. Well, if you took 30 percent, that would

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be 300,000. If you took one penny, that would be 30,000. So it would be $3,000.

Q. So -- thank you. $3,000. Okay.

A. If there was a million dollars. I -- yeah.

Q. Okay.

A. In this graph, though, you can see the volume -- the net buying was actually many more times that on the -- that's not the total volume even. What I was talking about, absolute value, what matters is the total value behind things.

So anyway I reject the premise that three-tenths of a penny is -- three-tenths of a penny is irrelevant. One could talk to Citadel or I had a friend that worked at D.E. Shaw, and that was their whole business, was fractions of a penny, and the firm's worth billions.

Q. Yeah. I wasn't claiming it was irrelevant, to be clear. I was claiming it was a tiny number. And that's --

A. A tiny number. Yeah, I reject that economically it's necessarily a tiny number because it matters how much the volume is, how much is being traded.

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Q. Let me direct your attention to Page 12 of your report, Paragraph 18.

And you wrote there in that paragraph: By analyzing transactions publicly available on the XRP ledger, I can confirm that GSR did, in fact, follow Ripple's directives to purchase XRP and that the activity appears successful as the price increased dramatically.

Do you see that?

MS. GUERRIER: Take your time to read that.

A. Yeah. Which paragraph? I'm sorry.

Q. Paragraph 18. And I want to focus on the language "the activity appears successful."

Do you see that?

A. (Pause.)

Yes.

Q. And just to be clear, you are not opining here that GSR's activity, in fact, caused the increase in price of XRP. Correct?

A. As I said in my report, it appears -- the activity appears successful as the price increased dramatically.

Q. Okay.

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A. I'm not opining on causality. That's beyond the scope of my report.

Q. And you didn't look at the activity of other market participants in the market at that time. Correct?

MS. GUERRIER: Objection.

A. Well, I do look at the activity of other market participants in the sense that for every net buyer there is a net seller.

Q. Okay. But other than these transactions --

MS. GUERRIER: I'm sorry. I don't think he was done with his answer.

Go ahead and finish.

A. So for every net buyer there is a net seller. So on net, that means the rest of the market -- the rest of the market was a net seller. The rest -- if GSR is a net buyer on this period, the rest of the market on the ledger was a net seller.

Q. There were other market participants on the ledger other than that are not transacting with GSR. Correct?

MS. GUERRIER: Objection.

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A. Sure. There are other participants -- there may be other participants that are not transacting with GSR, but, for instance, if Apple -- if a hedge fund goes out and purchases a million shares of Apple securities, for instance, then -- and that hedge fund is a net buyer over a -- over a window, over a one-hour window, let's say, and they buy a million shares of Apple, the rest of the market is a net seller of Apple securities.

Q. Let me just understand what you're saying. You're saying that you can tell what the rest of the market is doing by simply the transaction that Apple is doing in that circumstance you just described?

MS. GUERRIER: Objection; mischaracterizes his testimony.

But go ahead.

A. I feel like I'm teaching a Finance 101 course. I'm sorry. But when you buy -- for every buyer there is a seller of a security. So for every buyer there is a seller.

Q. Yeah.

A. So when a hedge fund goes to the New York Stock Exchange and they purchase a million shares of

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Apple securities, someone has to sell them those shares.

So if that hedge fund is a net buyer of Apple securities, the rest of the market, on net, is a net seller of Apple securities.

[redacted]

So on net, the rest of the market was a net seller of XRP during this window that they bought.

Q. Here is the problem I'm having with your statement. If -- let's just take an example of GSR going into the market and selling a million dollars' worth of XRP.

On the other side of the transaction there is going to be other parties buying that million dollars. That's your point. Right?

MS. GUERRIER: Objection.

A. The other parties are always on the -- there's parties on the other side of a transaction.

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Q. Okay. Now, isn't it possible in that scenario that there is going to be 100 other parties engaging in buys and sells in the market during that same period?

MS. GUERRIER: Objection.

A. The question that was asked -- the question that was asked to me is you can't -- you said I can't tell anything about the rest of the market. And the truth is, yes, I can tell. I'm answering the question you originally asked. And the question was I can't tell anything about the rest of the market. And I think that is incorrect. I can tell that the rest of the market was on average net sellers.

Q. You're saying that the -- you're -- let me phrase the question this way.

Other than the counterparties to GSR in these transactions, can you tell anything or did you analyze -- let me strike that.

Other than the counterparties to these transactions that you analyzed with regard to GSR, did you analyze any other market participants at the time of these particular transactions?

MS. GUERRIER: Objection to form.

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A. The -- the rest of the market -- the rest of the market is on the other side of -- of the trade. So this analysis is by the rest -- is analyzing what -- this graph -- if GSR is a net buyer the rest of the market, by construction, is a net seller. It has to be the case. It has to be the case. This is a -- unlike Apple securities, where somebody could potentially borrow the stock and not have a share, this is a ledger activity. So for every buyer, there has to be a seller --

Q. I agree.

A. -- to be controlled -- to be -- for the -- for the transaction to be recorded on the ledger, it has to be verified on the -- on the blockchain that they actually bought -- they own the security and they sold it to them.

Q. I completely agree with that.

My question is, other than the net -- the person who is buying from GSR -- I'm sorry?

If GSR is buying, the person who was selling to GSR during that period, other than those people, there could be other transactions in the market that are not between GSR and those purchasers?

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A. Sure. I never said that --

MS. GUERRIER: Hold on. Hold on. Objection to form and also asked and answered.

Go ahead.

A. Okay. I never said that the -- there were -- there could -- there could be other counterparties in the market that were trading at that time. In fact, the -- yeah, there could be and some other -- there could be other counterparties that were trading. In fact, we know that there must be other counterparties that were at least taking the other side of GSR's trades.

Q. At least taking the other side. But there could be counterparties that were not taking the other side and that were trading in XRP separate and apart from these transactions. Correct?

MS. GUERRIER: Objection to form.

A. I've already explained this. Obviously, yes, there's other parties that are trading GSR data.

Q. And you didn't analyze the trading of those other parties that are trading in GSR other than the GSR transactions themselves?

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MS. GUERRIER: Objection to form.

A. I analyzed the net trading of GSR and the rest of the market is -- by construction, is the converse of that. So I -- the rest of the market is a net seller over the period where GSR is buying and vice versa.

So I would not characterize it as -- I can't say anything about the other counterparties. This -- so I'll just leave it at that.

Q. But you just analyzed the on-ledger trading by GSR. Correct?

A. That's correct.

Q. So there could have been off-ledger trading by GSR during that period. Correct?

MS. GUERRIER: Objection to form; asked and answered.

Go ahead.

A. There could have been.

Q. And you didn't analyze that as part of your analysis?

MS. GUERRIER: Objection.

A. I didn't have the data to analyze it.

Q. Okay. Now, I want to show you -- let's mark as [redacted]-3 the Ferrell rebuttal report.

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(Exhibit [redacted]-3 was marked.)

Q. There you go.

A. Thanks.

Q. And I'll just ask you, did you review that report prior to your testimony today?

A. Yes, I reviewed this report at some point.

Q. Okay. And I want to ask you to turn to Paragraph 18, which is on Page 11. And in this paragraph, Professor Ferrell employed what he calls a square root price impact model. Do you see that?

A. Which paragraph?

Q. 18 on Page 11, bottom of Page 11. Why don't you just read that paragraph to yourself, please.

A. (Pause.)

Q. Okay?

A. Yes.

Q. Okay. And Professor Ferrell includes from this analysis that the potential XRP price impact from GSR trading using that square root model is approximately 1.6 percent compared to the 41 percent XRP price return over this period. Do you see that?

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A. Yes, I see that sentence.

Q. Now, are you familiar with the square root price impact model?

A. I looked at the model because he cited it, but the model he uses is not an acceptable model in the field. It's not one that's widely used. It's just some ad hoc model that was published in a no-name journal. So it's not a widely model -- used model in the field. I don't know why he picked some obscure model that no one uses.

Q. So you're basically saying that this model is not useful to analyze the impact of -- on price of GSR's trading?

A. I --

MS. GUERRIER: Objection.

Go ahead.

A. I would need to more fully analyze the -- the model before I give a complete opinion on it. But at least as a way as implemented by Professor Ferrell where these models are typically done over short periods of time, there's several ways that he implemented the model that are incorrect. For instance, he only considered the -- he only considered the -- he considered total volume --

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well, I can go over why -- why he -- why his implementation of the model is incorrect. One -- there is -- there is many reasons, but I don't know if you want me to go into that.

Q. Why don't you give us those reasons. I'm happy to hear them.

A. Okay. Well, first of all, he took a Y parameter, which was from another paper. And that parameter was calibrated -- that parameter was -- was calibrated using the price of bitcoin. It wasn't calibrated using the price of XRP. If I look at his model and look at the implementation, his model was also over -- let me look at his equation.

So he also used a total volume rather than the on-ledger volume that he examined. The problem with using total volume is that volume on many exchanges is -- is been known -- has been shown in the academic literature to be dominated by wash trading. And so using a volume from the total space and only putting XRP's behavior on ledger but dividing it by a large number mechanically deflates the price impact number so that puts a mechanical bias in his -- in his estimate.

So those are -- I think there is --

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2 there's more reasons -- there is more reasons, but I
3 think even -- even if you do look at his number,
4 1.6 percent compared to 41 percent, so his model by
5 his own estimates does say that there is price
6 impact.
7 Now, I'm not -- I'm not opining on it,
8 but apparently Professor Ferrell is and he is
9 showing that there is some price impact. Now, given
10 the fact that he has these biases in his model,
11 those biases -- in that those biases, both the
12 parameter as well as the number that he used as --
13 was the volume number, those biases make that
14 1.6 percent -- it would be larger than that if you
15 control -- it would be -- my understanding, that
16 number would be larger than that if you control for
17 those biases.
18 But -- so I think his -- I think his
19 analysis is really a very poor way to do price
20 impact. There is literature on price impact, but he
21 chose to cite some obscure paper in an obscure
22 journal to perform such analysis. So I do -- there
23 is other reasons, but I don't -- I don't think his
24 analysis is reliable.
25 Q. Is there -- just to be clear, when you

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say that the percentage of trading off ledger was potentially inflated, you didn't consider any off-ledger trading in your analysis. Correct?

MS. GUERRIER: Objection.

A. I considered on-ledger trading because I have data for that and I could determine who the market players are and I'm saying that it could potentially induce bias for dividing by and on-ledger volume if one doesn't know the extent to which that trading -- who the participants are, if that was even a legitimate volume.

Q. Do you have any sense at this point in the period of time that's analyzed in Figure 1, what percentage of trading of XRP was on ledger versus off ledger?

A. I do -- I do have a general sense, but I'm not -- I think in this figure, it was approximately 15 percent, but I could be off.

Q. So 15 percent of the trading was on ledger?

A. I think so.

Q. So 85 percent of the trading was off ledger?

A. When you use the term "trading," you have

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to be careful what you mean by that because as shown in many academic papers and industry reports, exchange volume is often driven by wash trading so -- and exchanges have a strong incentive to inflate their volume. So 85 percent may not actually be 85 percent. It could be zero. It could be -- could be 80 percent.

Q. Okay. But you didn't consider it at all. Fair?

MS. GUERRIER: Objection.

A. I didn't have -- as I explained earlier, I didn't have the data. As -- as far as I understand, Ripple did not provide or I was not provided the data for these on-ledger exchanges -- I mean, these -- these off-ledger exchanges.

Q. Okay. You don't know what Ripple provided. Right? You weren't intending to comment on Ripple's production?

A. Yeah, I shouldn't have commented on Ripple's production. I guess I should just say I didn't have it.

Q. Okay. Is it also fair to say, though, that off-ledger trading would have a potential impact on the price of XRP?

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MS. GUERRIER: Objection.

A. It could have a price -- it could have an impact on the price of XRP.

Q. Okay. Now, one of the premises of Figure 1 was -- just to look back at your report, if you look at Figure 1 again. Figure 1, if you see at 1:10 p.m., you see there is a reference to a UTC -- 1:00 p.m. UTC, a partnership announcement. Do you see that?

A. Yes.

Q. And this is a reference to an announcement that Ripple made of a partnership that it had -- it had entered into. Correct?

MS. GUERRIER: Objection.

A. I can read the precise text, but there is some sort of partner -- there's some sort of announcement, Ripple partnership, yes.

Q. And you made the suggestion -- one of the suggestions you're making in your report, tell me if this is right, is that the timing of the trading by GSR was related to that announcement. Correct?

MS. GUERRIER: Objection.

A. Well, I'm looking at Paragraph 17, and I looked at email correspondence, which is cited here.

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There is directions from Patrick Griffin, EVP of business development. [redacted]

And then [redacted], VP of finance. They gave -- there is email correspondence and they said GSR was instructed by Griffin to make purchases up to 300,000 and to consider placing offers on the ask side of the book to tighten spreads and attract more buying volume from the market.

So as I say in my report, his decision -- Griffin's direction to make purchases and place offers to tighten the spread and attract more volume, buying volume, suggests that Griffin wanted GSR to purchase XRP and induce others into doing -- buying the same.

If you have an important announcement, one trades on that announcement, one moves the announcement, that's one way to signal to the market that there is positive information.

So it does seem that the timing of those emails and coordination beforehand doesn't seem like it's an accident. They definitely had -- my review

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2 of the correspondences is they have a purpose for
3 trading. I generally -- if someone is spending
4 $300,000, they have a purpose for it.
5 Q. Did you do any analysis of the time of
6 day that GSR typically traded -- I'm sorry.
7 Did you do any analysis at the time of
8 day that GSR traded on the -- traded XRP versus the
9 rest of the market trading XRP during that period?
10 MS. GUERRIER: Objection to form.
11 A. I'm focused on this particular period.
12 The -- I imagine it is the case that the markets
13 trade more at certain times of day, but I'm not
14 looking at -- and that's a criticism Professor
15 Ferrell makes of my report. I'm not looking at
16 total volume. I'm looking at net -- net buying
17 volume. I'm looking at net activity.
18 Q. And so -- but you see from Figure 1, just
19 to be clear, that there is no trading by GSR in the
20 period prior to -- prior to 1:00 UTC on
21 September 15th. Correct?
22 MS. GUERRIER: Objection.
23 A. There is no trading by GSR prior to the
24 announcement.
25 Q. And you saw that -- if you look at -- why

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don't you look at Professor Ferrell's rebuttal report, Page 35.

(Discussion off the written record.)

A. Page 35 of his report?

Q. 35. Yes, exactly. Do you see there that Professor Ferrell analyzed intraday trading volume on September 15th, 2016? Do you see that?

MS. GUERRIER: Objection.

Also, I think you're referring to Figure 1 (unintelligible) analyze (unintelligible) trading volume.

A. You're referring to Exhibit 1 here?

Q. Yeah, that's what I was referring to.

A. Okay. Yes, some summaries exist on Exhibit 1.

Q. Yes. And according to Professor Ferrell's analysis, for the period of 13:00 UTC to 19:00 UTC, GSR traded 30 percent of its volume that day versus the rest of the market trading 55 percent of its volume that day. Right?

MS. GUERRIER: Objection.

Q. Is that correct? During that period of time.

A. Can you restate the question?

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Q. Yeah. Let me back up.

A. Yeah.

Q. During the period 7:00 to 13:00 UTC, GSR traded zero volume. Correct?

A. That's correct.

Q. And during that same period, 1 percent of the volume for trading that day was traded by the rest of the market -- the exchanges that day. Correct?

MS. GUERRIER: Objection.

A. That's correct.

Q. But then between 13:00 to 19:00 UTC, GSR traded 30 percent of its volume that day and the rest of the market traded 55 percent of its volume that day. Correct?

MS. GUERRIER: Objection.

A. According to Professor Ferrell's analysis. I didn't independently check these numbers.

Q. Okay. So you have no basis to disagree with Professor Ferrell's analysis. Correct?

MS. GUERRIER: Objection.

A. I would hope that he could -- this is a pretty simple calculation. I would hope that his

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staff could do this. But based on some of the other analyses, I'm not sure.

Q. Do you have any basis to disagree with Professor Ferrell's analysis?

MS. GUERRIER: Objection.

Q. Instead of your, you know, just commentary on Professor Ferrell's expertise?

MS. GUERRIER: Objection.

A. Well, it's not commentary. You asked me about a price impact model that was applied in a major report that was not in any major journal. So -- so, you know, I'm just saying that I would -- I would hope that there is some details to calculating this. I'm not sure how -- who had a system, what they know about blockchain, and so forth. I would think that these -- I would think these are very simple calculations. So I would hope they would be right.

Q. All right. But you didn't do anything to determine whether they're right or not, did you?

MS. GUERRIER: Objection.

(Simultaneous speaking.)

A. I don't think these numbers have any bearing on my report.

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Q. Okay. I'm not asking you whether they had bearing or not. I'm asking you did you do anything to determine whether these numbers were accurate or not?

MS. GUERRIER: Asked and answered.

A. No.

Q. Okay. And so sitting here today, you have no basis to disagree with this analysis.

Correct?

MS. GUERRIER: Objection.

A. I've already answered that question.

Q. What's your answer?

MS. GUERRIER: Asked and answered.

Q. You can answer.

A. I don't rely on other people's analyses, whether it's -- I'm not going to opine whether other people's analyses is right or wrong without having checked it myself. I would hope you would do the same.

Q. Right. And I'm asking you, have you checked it yourself?

A. No.

Q. Okay. You didn't take the time to do that?

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MS. GUERRIER: Asked and answered.

A. Again, I don't think this analysis has any bearing on my report. If you would like to ask me why this analysis has no bearing on my report, I can answer that question, but I guess you don't want to answer -- ask me that.

Q. I think we've gone through that.

MR. CERESNEY: All right. Let's take a lunch break.

THE VIDEOGRAPHER: Off the record, 12:56.

(Break.)

THE VIDEOGRAPHER: This is Segment No. 4. We're back on the record, 1:51.

Q. [redacted], I'm going to ask you a few additional questions before we move to Figure 2.

The first question I have is in your report you cite a number of emails between GSR and Ripple personnel, and some just among Ripple personnel. Correct?

A. Yes.

Q. In your report, all of the emails that you cite are emails that are between either GSR and Ripple and not external to GSR and Ripple. Correct?

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MS. GUERRIER: Objection to form.

A. It's hard for me to -- it's hard for me to answer a question about all emails, but at least in terms of Figure 1, these emails were regarding communications. These emails were regarding communication between GSR and Ripple and internal Ripple communications.

Q. Okay. So then let's look at the communications relating to Figure 2. I think that starts in Paragraph 19 and 20.

Is it true -- isn't it the case that you cite there internal emails -- let me see -- isn't it the fact that you cite there emails between Ripple and GSR?

MS. GUERRIER: Objection to form.

A. They're emails between Ripple and GSR and other people at Ripple are copied on it too.

Q. Okay. So Ripple and GSR?

A. That's what I'm focused on here, yes. There -- I mean -- related to your question, there may be internal -- I'm not sure if there was an internal email between Ripple execs as part of the chain, if that's what you were asking.

Q. All I'm trying to get at is these emails

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were not available to anyone external to either Ripple or GSR?

MS. GUERRIER: Objection to form.

A. Not to my knowledge.

Q. Okay. And then let's look at the emails relating to Figure 3. That's Paragraphs 22 and 23.

Fair to say those emails, again, are emails that are either -- that are internal to Ripple and GSR?

A. That's my understanding.

Q. Okay. And let's look at the emails relevant to Figure 4, which I think are in Paragraph 24. Again, those are internal emails between Ripple personnel. Correct?

MS. GUERRIER: Objection.

And take your time to look at Paragraph 24.

A. I'm sorry. Can you repeat the question?

Q. In Paragraph 24, the emails you cite there are either internal emails -- Ripple internal emails amongst Ripple personnel or emails between Ripple and GSR?

MS. GUERRIER: Objection.

A. I believe that's correct.

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Q. Okay. And then looking to the emails that are relevant to Figure 5, which I believe is from Paragraph 26 to 28, again, those emails are either internal emails involving Ripple personnel or emails between Ripple and GSR. Correct?

MS. GUERRIER: Objection.

A. I'm sorry. Can you restate the question?

Q. Yes. Paragraphs 26 to 28, the emails that are relevant to Figure 5, those are either internal emails with Ripple personnel or emails between Ripple and GSR. Correct?

A. Let me just review my paragraph.

MS. GUERRIER: And I'll renew my objection.

A. (Pause.)

That's correct, although I did notice in reviewing the communications that either Larsen or Garlinghouse did use, like, a personal email. I don't know if that was their work email that they always used or just a personal email that they preferred to use in all their work communications, but...

Q. Okay. But was it still a communication between --

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A. Yes.

Q. -- Garlinghouse and Larsen?

A. Yes. That's correct.

Q. Okay. And then let's look at the emails that relate to Figure 6, which are in Paragraph 29 to Paragraph 32. And, again, I want to just ask you if those emails that you cite are either internal Ripple emails, so Ripple emails -- emails amongst Ripple personnel, or emails between Ripple and GSR?

A. The -- Figure 6 also quotes from -- from the liquidity extraction report, I believe. Or one of these figures does.

Q. And the liquidity extraction report is a report that's maintained by GSR?

MS. GUERRIER: Objection.

A. That's -- it's an internal report maintained by GSR in conjunction with Ripple.

Q. Okay.

A. I'm not sure who is ultimately responsible.

Q. Okay. So then just restating my initial question on this whole section. Is it fair to say that the emails that you cite in support of your analysis of GSR's trading on behalf of Ripple or

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GSR's trading on behalf of Larsen and Garlinghouse, are all either emails that are internal to Ripple personnel or emails between Ripple and GSR?

MS. GUERRIER: Objection.

A. I believe that's correct.

Q. And is it also the case that these emails would not have been available external to Ripple and GSR during that time period?

MS. GUERRIER: Objection.

A. I believe that is correct, but I'm speculating in terms of I don't know who they would have shared it -- might have -- might have shared it with or might have discussed this with.

Q. Fair enough.

But you have no basis to believe, sitting here today, that these emails were shared beyond Ripple and GSR?

MS. GUERRIER: Objection.

A. I believe that these -- the emails that I've reviewed are internal email correspondence.

Q. And so you don't have any basis, sitting here today, to believe that anyone -- any holder of XRP would have been aware of these emails?

MS. GUERRIER: Objection.

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A. Do you want me to answer each of these questions or do you want me to answer the question where -- where you're leading with this?

Q. I want you to answer the question I ask.

A. Okay.

Q. That's what this is about.

A. All right. So --

Q. You answer the question I ask. So...

A. Okay. So can you repeat the question, sir?

Q. I'll repeat the question.

So you don't have any basis, sitting here today, to believe that anyone -- sorry -- that any holder of XRP would have been aware of these emails at the time?

MS. GUERRIER: I renew my objection.

Go ahead.

A. I would be speculating to say who was aware or not aware of emails. What I do think is relevant is that every holder of XRP can see price movements, can see price patterns in the data. So I don't -- I doubt that the holders of XRP are reading internal emails. I'm not -- I'm not opining on that.

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Q. So holders of XRP see the price of XRP. That's your point?

A. Yes.

Q. Okay. Fair enough.

A. And the volume.

Q. And the volume.

Although, as you said on the volume, it's not 100 percent clear what the volume of XRP actually is, given what you said earlier about exchange trading. Correct?

MS. GUERRIER: Objection.

A. Yeah. They can see ledger volume. They could -- they could also see ledger volume, the type of analysis that I did in the report where one figures out the identity of the trades on the ledger. That is -- that is a possibility that someone could be doing that in realtime in the same way that [redacted] And there -- there are firms and people that analyze this type of trading.

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2 Q. Are you aware of anybody who did that

3 analysis at the time?

4 A. I am not.

5 Q. Okay. Now, one other thing you said

6 earlier, is it fair to say that the volume of

7 trading in XRP, the true volume of trading in XRP,

8 not -- I'm going to set aside wash trading. But the

9 true volume of X- -- of trading an XRP increased

10 from 2016 to 2020. Is that a fair statement?

11 A. That's my understanding.

12 Q. And as the volume of XRP increases, is it

13 also fair to say that the ability of one trader, to

14 influence that price, lessens?

15 MS. GUERRIER: Objection to form.

16 A. I think it depends on a number of

17 circumstances. If the trader trades more capital,

18 for instance, or more volume, they could potentially

19 move the price.

20 So -- and it also depends on the

21 intentions of the other traders, what their

22 incentives are. So if they have an incentive to

23 keep the price high as well, that could -- they --

24 people could have similar -- similar motives.

25 Q. Fair to say that it's much more

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complicated to influence the price of a -- of a digital asset as the volume increases?

MS. GUERRIER: Objection to form.

A. I think the conventional wisdom would be that it is very difficult to influence the asset prices in general, in general, asset prices. What our academic paper showed is that one trader was able to move the price of bitcoin, which is a very large -- which is the most liquid token in the crypto space. We also showed they were responsible for even larger movements on other crypto assets.

So if it can be done on bitcoin through one trader, I definitely -- it's definitely possible and [redacted] other digital assets were -- were moved and manipulated.

So my report is not about manipulation, but if you're asking about whether things are possible, the volume of bitcoin is many times larger than XRP volume. So if you're asking me my opinion about whether it's possible, that's beyond the scope of my report, but I do -- I will answer you, yes, it's definitely possible that one trader can move the market because [redacted] in one -- [redacted] -- [redacted]

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[redacted].

Q. [redacted] Do you know who that trader was?

A. No.

Q. Okay. And do you -- does the fact that one trader can influence the price of bitcoin, as you suggested, would that mean that there could be a central actor impacting the price of bitcoin?

MS. GUERRIER: Objection.

A. I want to -- I want to go back to the question of -- your previous question. You asked me if I know who that trader is. I'm going to say -- I'm going to say that I'm not positive who that trader is. I'm not positive who that trader is. The previous question you asked me.

Q. Yeah.

A. So I'm going to say that -- I'm not -- I'm not sure who that trader is.

Q. Do you have speculation as to who that trader is?

MS. GUERRIER: We don't want you to speculate.

A. I -- I'd rather not speculate.

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Q. Okay. But there is a central actor who you believe influenced the price of bitcoin during that period. Correct?

A. It's -- yeah, it's not just what I believe. [redacted] that was through all of the analysis.

Q. Okay. And one of the things you also said earlier was that -- when I asked you about your investment in -- whether you had purchased digital assets, you said that digital assets are more speculation than an investment. Do you remember that?

A. Yes.

MS. GUERRIER: Objection to the extent you're mischaracterizing his testimony.

MR. CERESNEY: Okay. I believe he just said that is what he said.

Q. So having said that, what do you understand to be the difference between speculation and an investment?

A. That's a good question. That's actually -- that's actually the subject of many discussions between a colleague of mine and he asked finance professors this question.

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So I think -- I think the difference between speculation and investment is -- ultimately probably comes down to the -- the -- the fact that one -- one answer to the question that is at least my colleague's answer. I'm not sure -- it's not a complete one. But one answer to the question is that it comes down to an expected return that is positive, that the respective return, for instance, if one goes to Las Vegas, the expected return on average -- now, you may get lucky and make money going to Vegas, but on average, the expected return is negative. And the expectation -- the expected return should be positive to be an investment.

Now, I think there is also an aspect of that, too, which depends on whether speculation versus investment, whether the -- whether -- if it's an investment, is it tied to -- is it tied to future -- future cash flows or a hope from profit from -- from future activities related to that.

So -- so -- yeah -- so it's a complex -- a complex question. I guess I'll give you -- I'll give you the short answer. I can go into it more if you'd like, but I know you don't -- not big on long answers, so...

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The short answer is -- is probably the -- whether the expected return, not the -- the expected return is positive or negative. And -- but there is an aspect of the variance also mattering. If something has an extreme variance, it's extremely risky, then at what point does that variance become -- make it more speculation than an investment.

Q. Okay. I want you to look at Figure 2 of your report, which I believe is at Page 15 of your report. And I want to ask you a few questions about Figure 2.

Is it fair to say that the structure of Figure 2 is very similar to Figure 1 in terms of the pink lines being net buys, there is no blue lines here, but -- and then the volume being on the -- the volume of XRP being on the Y axis on the right? Is that fair?

A. That's correct.

Q. And across the bottom, the X axis is the time period. Correct?

A. That's correct.

Q. And is it also fair to say that this Figure 2 is more zoomed than Figure 1?

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MS. GUERRIER: Objection.

Q. Let me explain what I mean by that. Figure 1, the price of XRP range from six-tenths of a cent to nine-tenths of a cent, and here the range is much narrower. It's 79-hundredths of a cent to 84-hundredths of a cent. Is that fair?

A. That is correct.

Q. Okay. And the GSR volume ranges in Figure 1 were from 1 million to 7 million, and here it goes from no activity to 400,000 XRP purchased. Correct?

A. That appears to be the case.

Q. And the purchases and sales that are reported here by GSR are during a two-and-a-half to three-hour period. Is that fair?

A. That's correct.

Q. Okay. So will you agree with me that my characterization that Figure 2 is a much -- is a more zoomed analysis than Figure 1?

MS. GUERRIER: Objection.

Q. You can answer.

A. It is focused on this particular short -- shorter window.

Q. Okay. And fair to say, again, as we

1 [redacted] - 2/15/2022
2 talked about on Figure 1, that Figure 2 also only
3 focuses on on-ledger XRP trading by GSR?
4 A. That's correct.
5 Q. And is it also the case, as we talked
6 about on Figure 1, that this Figure 2 is not
7 intended to show any causation between the GSR
8 trading and the price of XRP?
9 A. Well, I'm not -- I'm not saying there
10 is -- I'm not doing a formal causal analysis here,
11 but I do make the observation, or one can obviously
12 see that the price stops exactly at 8 cents, which
13 is exactly the point, that the GSR is -- exactly the
14 point of GSR purchasing that -- that price.
15 So if one wanted to ask the question of
16 what's the odds of this happening by chance, one
17 could -- one could obviously see that that
18 probability is -- is very extreme.
19 Q. And in Paragraph 20, I believe you write
20 in the second-to-the-last sentence in Paragraph 20:
21 The trading seems to have succeeded in protecting
22 XRP from dipping below .008 USD, as the price did
23 not go below this level.
24 A. That's correct.
25 Q. So that reflects what you just said in

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words?

MS. GUERRIER: Objection.

A. Yes. The two thoughts are related.

Q. Okay. And you used the word "seems" because you didn't test causation. Is that fair?

MS. GUERRIER: Objection.

A. The -- as I stated previously, I was not asked -- as part of my assignment, I was not asked to opine on -- I was -- I'll read my assignment again.

Q. Okay.

A. And that's what I was examining here, did they take steps to influence the price of X -- they took steps to influence XRP prices. I'm not -- I'm not opining on the aggregate success of moving XRP prices.

I do note, as I say here in the figure -- as I say here, that trading seems to have succeeded because the price hits 8 cents and then goes back.

Q. Okay. And --

A. But, again, my analysis is limited to this window here.

Q. Right. And that's what I was going to ask you. Your analysis of the price staying above

1 [redacted] - 2/15/2022

2 8 -- .008 is just limited to this window?

3 A. That's correct.

4 Q. And this window is a two-and-a-half-hour

5 stretch, basically?

6 A. That's correct.

7 Q. Did you analyze at all whether this price

8 flow remained in effect beyond this

9 two-and-a-half-hour window?

10 A. The -- Professor Ferrell criticized my

11 report, that the price does -- went below, and

12 claims that the price did go below 8 cents over a

13 longer window. I think that -- that -- I think

14 it -- I went back and reviewed the correspondence

15 that I cited here and regarding that, and it seems

16 that there is -- there was two things in the

17 correspondence that, one, this trading was not just

18 on -- related to an earlier comment.

19 This -- the email was directive that they

20 were to trade on Poloniex as well. So I don't have

21 data on Poloniex, but the email directs this type of

22 trading on Poloniex. But it seems like, possibly,

23 because they were trading on both exchanges, they

24 ran out of capital, and they decided that there was

25 no more trading at that point.

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Q. Well, let me sort of break that down. You refer to Professor Ferrell -- Professor Ferrell's analysis, which showed that in the period after Figure 2, the price of XRP went below .008 --

A. Yeah, can I see that?

Q. -- for a period of time --

Let me just finish my question.

-- for a period of time. Right?

A. Sorry.

Q. I'm going to -- is -- am I correct that that's what you were referring to?

A. Yes. I would like to look at Professor Ferrell's --

Q. Okay. So why don't we look at Professor Ferrell's report. That's -- I believe what you're referring to is Exhibit 2, which is on Page 36 of his rebuttal report, which is [redacted]-3.

MS. GUERRIER: Is that the exhibit that you're referring to, [redacted]?

THE WITNESS: Which -- yeah, this is related to this exhibit.

Q. And what do you understand this exhibit to show?

MS. GUERRIER: And just to be clear,

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we're talking about Exhibit 2?

MR. CERESNEY: Yeah.

MS. GUERRIER: Ordinary course.

A. Yeah, well, first of all, the analysis should have said percent of time that XRP prices were lower than 8 cents, but it says percent of days, so I infer that this analysis is talking about any day which -- in which the price of XRP is below eight-tenths of 1 percent. And I have no reason to believe that that -- I have no reason to believe that that's incorrect.

Q. Okay. By the way, you keep referring to 8 cents. This is eight-tenths of a penny. Right?

A. Eight -- eight-tenths of a penny is --

(Simultaneous speaking.)

Q. Okay.

A. Yeah, sorry.

Q. Yeah, eight-tenths of a penny. That's what you meant?

A. Yeah.

Q. Eight-tenths of a penny. Okay. I just want to make sure we're precise.

A. Yeah, sorry. Eight-tenths of a penny.

Q. I didn't mean to suggest you were

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intentionally --

A. Sure, yeah.

Q. Okay. And is it fair to say that this analysis shows that for the period following the period included in Figure 2, the price of XRP for most of that period was below .008 -- point eight-tenths of a cent?

A. Well, that's not what the analysis looked at exactly, his analysis, percent of days, not percent of time that the price is below 8 cents.

So in my understanding of what his analysis is, is that any time, if there was -- let's say we had a trading day, and the average price was 8.5 cents, but it dipped at one point below the 8 cents, he would call that day -- he would call that a day with a price below 8 cents.

So that's -- that's -- the statement you gave was a statement on what the average price was. That's not what Professor -- that -- that's the way probably the analysis -- I would have done the analysis.

But I think it's the -- I think this analysis is irrelevant to what I'm showing, because what I'm showing is they held the price forward

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during the time they traded. The fact that they did not trade after that, or they stopped using the trading strategy, the price -- well, that's exactly what one would expect. If they stopped -- if they employed the trading bot for a window and they traded in that window, you would maintain the floor. And if they took -- they decided not to trade without that -- after that window, you would expect the price to fall below the floor.

(Exhibit [redacted]-5 was marked.)

Q. Okay. I wanted to show you what we marked previously as [redacted]-5, which is a CoinMarketCap price chart of XRP U.S. dollars for the time period October 1st, 2016 through December 31st, 2016.

Because you referred a number of times to Professor Ferrell's analysis and his saying that it was one day -- it was a day, and you referred to the fact that it could have been that the price of XRP was above .008 within that day.

And I just want to show you this price chart. And I want to ask you, if you look at this chart, the time period that's referenced in Figure 2, to remind ourselves -- first of all, I guess, let me just ask you, do you recognize this

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chart?

A. No, I haven't seen -- I don't know if I've seen -- I doubt I've seen this precise chart.

THE WITNESS: Is this something I should have seen? I'm not sure.

MS. GUERRIER: Yeah. I'm going to object to this as well.

But go ahead.

A. I'm not -- I --

Q. Well, do you have any reason to believe that this is not an accurate price chart of XRP during this period?

A. I am -- if you pulled it from -- if somebody pulled it from CoinMarketCap, I would assume it's accurate.

Q. Okay. That's all I'm asking you --

A. Yeah.

Q. -- to assume for these purposes. And you see --

A. Can I -- I can't understand the -- the axis is kind of cut off. Is that October -- what -- I can't see the dates on the bottom axis.

Q. So if you look at the dates, it starts with October 1st, 2016 --

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A. Okay.

Q. -- and then it continues through December 31st, 2016.

A. Okay.

Q. Okay. And you see -- I think Figure 2 was November 1st. Right?

MS. GUERRIER: I'm sorry. Which Figure 2 are you referring to?

THE WITNESS: In my report.

MS. GUERRIER: I just want to make sure we clearly identify it.

A. My report, Figure 2 is on November 1st. Yeah, this is correct.

Q. And this indicates that following November 1st, the price of XRP was well below .0008. Correct?

MS. GUERRIER: Objection. What indicates?

A. Well, the price -- the price was -- went above -- it looks to me like -- let me read the graph. Let me read the graph to make sure I'm reading it correctly.

(Pause.)

Well, I don't see November 1st marked on

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this graph.

Q. Okay.

A. So I can't really infer from the graph when the price hit the 8 cents exactly, because I don't see the November 1st marked --

Q. Okay.

A. -- on the graph. Do you know where it is?

Q. Let's put it aside. It's not -- it's not a critical point. Why don't we put it aside.

Let's go to Figure 3. I wanted you to show -- I wanted to have you look at your report, Figure 3, which is on Page 17 of your report.

A. Okay.

Q. I wanted to focus on Figure 3. And first thing is, the structure of Figure 3 is structured the same way as Figures 1 and 2?

MS. GUERRIER: Objection.

A. Generally. Generally so.

Q. So, in other words, the X axis has the time period, the Y axis has the volume of -- the right-side X axis has the volume of XRP and then the volumes are in pink and blue. Pink is net buys, blue is net sales by GSR, and then the left-hand Y

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2 axis is the price of XRP. Is that all correct?

3 A. That's all correct.

4 Q. And it's true that this is only on-ledger

5 trading by GSR during this time period of

6 September 25th and 26th. Correct?

7 A. Yes. This is only on-ledger trading, as

8 I said, related to -- the email on the previous

9 figure, it indicates that they -- that GSR is

10 trading on Plo -- Plononiex or they called it Plo --

11 Polo in the email. Meaning, they indicated they

12 were doing a similar matter on Plonono (sic) on

13 November 1st. I don't -- I don't know what they're

14 doing on Plonono -- Plononiex on September 25th and

15 26.

16 Q. Right. You didn't analyze Plononiex

17 Trading?

18 A. Well, I don't have trading volume.

19 Q. Okay.

20 A. I don't -- I don't have the detailed

21 trading data of Plononiex over this period, is my

22 understanding.

23 Q. Okay. You refer in your -- in this

24 figure to uneconomic trades. Actually, you refer to

25 that in Paragraph 21 prior to this. You refer there

to "uneconomic trades." Do you see that?

A. Yes.

Q. And I want to focus on that concept of uneconomic trades.

Before we do that, though, I want to just ask, you have this reference in Figure 3 to the second sentence -- I'm sorry -- the third sentence. So if you look at Figure 3 there's a paragraph before the charts. Do you see that?

A. Underneath the figure heading?

Q. Yeah. Underneath the header --

A. Yes.

Q. -- Figure 3 there's a paragraph?

A. Yes. I see that.

Q. And the third sentence of that paragraph says: The XRP price was calculated using the volume weighted average price at one-minute intervals across all trades on the XRP Ledger involving the XRP-US -- USD trading pair.

Do you see that?

A. That's correct.

Q. What does that mean that there -- it's a volume weighted average price used to calculate the price?

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A. So it basically, if you're going to compute an average -- suppose you have three trades that trade within a given one-minute interval. An equal weighted average would just take the -- take the average of the three. So suppose you have $10, 10.50 and $11, the trade's going off. You could take the valuated average -- the equal weighted average price would be 10.5, but the volume weighted average price would be different in the similar way that we use value weighted returns in finance or volume weighted things.

But volume weighted average price which is a very standardized concept used in industry takes the average weighted by how much -- how many trades go off at that price. So in my example where you have 10 -- a trade that goes off at 10, 10.50, and $11, if you have -- let's say you have -- let's say you have 50 -- let's say you have 90 percent of the volume going off at -- at $11, then the volume weighted average price is going to be somewhere closer to -- somewhere closer to 10 -- 10.90 rather than taking the equally weighted average of 10.50 because you're putting more weight on the observations that trade at a larger price.

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Q. When you're constructing that volume weighted average price, though, there are prices above that average price and below that average price often. Correct?

A. Sometimes there are and sometimes there aren't because you might be in a one-minute interval where there's only one trading going or maybe there's multiple trades and they all trade at the same price.

But volume weighted average price -- volume weighted average price is a very standardized measure used in many academic papers as well as industry uses it to summarize things.

Q. Yes.

But the actual average price doesn't signal that every trade occurred at that price. Correct?

MS. GUERRIER: Objection.

A. The -- it shows that on average the volume on a volume weighted basis it's comparing it relative to a volume weighted basis.

Q. Right.

But there could be trades above that price and trades below that price. Correct?

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MS. GUERRIER: Objection.

A. There could be trades above and below the price.

Q. Okay. And then your statement in Paragraph 23 is that: GSR on average purchased XRP at a 1.5 percent premium compared to the last trade price.

Do you see that?

A. Paragraph?

Q. 23.

A. Yes.

Q. Second-to-last sentence, you say: The GSR on average purchased XRP at a 1.5 percent premium compared to the last trade.

Do you see that?

A. Yes.

Q. And so what you're suggesting here is that GSR in their transactions on this -- in this time period, purchased XRP at a premium to what the average price was. Correct?

MS. GUERRIER: Objection to form.

A. That's not what I write in the report.

Q. Okay. What do you write? Tell us?

A. I write they purchased XRP at a 1.5

1 [redacted] - 2/15/2022
2 premium compared to the last price. And that's
3 exactly what I do. And Professor Ferrell
4 mischaracterizations my report by saying I computed
5 relative to the volume weighted average price. I
6 did not compute it relative to the volume weighted
7 average price. I computed the price relative to
8 what it says, exactly what here is said: At a
9 1.5 percent premium compared to the last trade.
10 So it's a trade-by-trade analysis and
11 compares the trade relative to the last trade and
12 shows that they're overpaying by 1.5 percent on
13 average.
14 Now, the graph would show, if you do it
15 on volume weighted average price, you're also going
16 to get the result. Professor Ferrell is wrong in
17 his report to criticize me from -- for comparing it
18 to the volume weighted average price. If he
19 would've looked -- taken -- if his team would've
20 taken the time to look at the code we provided, I
21 believe they could've seen that or they could've
22 just read our report because we described what we
23 did here, and that's not what we did. We didn't
24 take it relative to volume weighted average price.
25 But if one took it relative to the volume weighted

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2 average price, you're also going to get a premium.

3 So the result is very robust.

4 Q. And to be clear, when we talk about a

5 premium of 1.5 percent, are we talking here about a

6 difference in bids of two-thousandths of a penny?

7 A. We're talking about -- we're -- we're

8 talking -- I'm not going to do math on the fly, but

9 we're talking about 1.5 percent of the -- the quoted

10 price.

11 Q. Which is 2 point --

12 A. It depends on what price is at the time.

13 Yes.

14 Q. Can you take a look and tell us what the

15 price was at the time?

16 A. Well, the price moved over the figure.

17 So the price went between 7.4 cents and it looks

18 like $0.09 -- I'm sorry -- seven -- seven-tenths of

19 one penny to nine-tenths of one penny,

20 approximately, over that period. And that is a --

21 when I say 1.5 percent, that would be like

22 1.5 percent overpaying. You can see that those --

23 like those red dots on the top, you can see that on

24 average it's 1.5 percent, but if you wanted to -- to

25 get a sense of the economic -- the economics of what

1 [redacted] - 2/15/2022
2 we're talking about here, you would look at 8 --
3 .8-tenths of 1 percent that's about where the other
4 trades are and they're paying like 9.2. So in that
5 sense it's -- those trades there are about four --
6 four-tenths of a penny, but on average it's one --
7 on average it's 1.5 percent premium.
8 Q. 1.5 percent above what?
9 A. Above the price at the time.
10 Q. And the price --
11 A. Compared to the last trade price.
12 Q. Okay. So --
13 A. Compared to the last trade price.
14 Q. So I just want to make sure what -- what
15 the 1.5 percent is a percentage of. Is it the
16 percentage of the difference between the last
17 trading price and the next trading price -- and the
18 next trading price -- what is the 1.5 percent a
19 percentage of?
20 A. So you would take -- so you would take --
21 it says, 1.5 percent compared to a 1.5 percent
22 premium. So you would take the difference, let's
23 say 9 -- 9.2 divided by nine -- nine-tenths of
24 1 percent minus eight-tenths of 1 percent that's
25 like a four-tenths of 1 percent and then you would

1 [redacted] - 2/15/2022
2 divide it by the previous trade price so if the
3 previous price was eight-tenths of 1 percent you
4 divide it by that.
5 Q. So how much is the difference?
6 A. On average it's 1.5 percent.
7 Q. I understand.
8 But how much is that in terms of how much
9 of a penny does that represent? Am I right that
10 it's two-thousandths of a penny?
11 MS. GUERRIER: Objection.
12 A. The -- it's two-thousandths of a penny.
13 No, it's -- it's four-tenths of a penny. It's -- in
14 my example that we just talked about, it was
15 four-tenths of a penny.
16 Q. Okay. All right. Let's go to Figure 4
17 which is on Page 18 of your report. And this
18 Figure 4 relates to trading -- GSR trading
19 April 10th and 11th of 2016. Correct?
20 A. Would you -- I'm sorry. Can you repeat
21 the dates?
22 Q. April 10th and 11th, 2016?
23 A. That's correct.
24 Q. And it's fair to say that Figure 4,
25 again, is structured the same way as the prior

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figures. Correct?

MS. GUERRIER: Objection to "structured" term.

A. That's generally the case.

Q. By the way, Figure 4 also is only on-ledger trading by GSR during that period. Correct?

MS. GUERRIER: Objection.

A. This is -- Figure 4 is on-ledger trading.

Q. Okay. Now, I want to look at Paragraph 24 which proceeds the figure. Paragraph 24 you say: GSR reversed -- and this is in the second-to-last line of Paragraph 24.

You say: As seen in Figure 4 at the direction of Ripple, GSR reversed it's programmatic sales after the price of XRP continues to decline. Instead of net selling, XRP began net buying around 9:00 a.m. UTC.

Do you see that?

A. Are you in Paragraph 24?

Q. 24, the last sentence of paragraph -- the second-to-last sentence of Paragraph 24.

MS. GUERRIER: You can read the whole paragraph.

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THE WITNESS: Okay.

A. (Pause.)

Okay.

Q. Okay. And by the way, I think there is a -- there is a typo there in the last sentence.

Do you see where it says: Instead of net selling, XRP began net buying around 9:00 a.m. UTC.

I assume that should have been GSR. Correct? The reference to XRP should be GSR. Correct?

A. That's correct.

Q. Now, you say that Figure 4 shows that GSR reversed its program out of sales after the price of XRP continued to decline. Do you see that?

MS. GUERRIER: Objection.

Q. That's what you say.

A. That's what I say.

Q. Okay. And in looking at Figure 4, it looks like at the 6 o'clock hour, so if you look at 6:00 on April 11th. So if you look at April 11th at 6:00, there is a small red bar meaning GSR was in a net buy position. Correct?

MS. GUERRIER: Objection.

A. Which red bar are you referring to? I'm

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sorry.

Q. At 411 at 6:00. There is a net buy in the hour after that. Correct?

MS. GUERRIER: Objection.

A. Small net buy, yes.

Q. A small net buy. Correct?

A. That's correct.

Q. And in the next hour what appears to be 7:00 there's a blue bar. Right?

A. That's correct.

Q. And that indicates that at the 7 o'clock hour GSR was in a net sale position. Correct?

MS. GUERRIER: Objection.

A. That's correct.

Q. But at that time in the 7 o'clock hour when GSR was in a net sale position, the black line for the price of XRP appears to spike. Correct?

MS. GUERRIER: Objection.

A. Are we talking about the 7 o'clock hour?

Q. Yeah, the 7 o'clock hour. At the time they're in a net sale the price appears to be spiking. Correct?

A. Well, there's --

MS. GUERRIER: Objection.

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But go ahead.

A. There's a small -- it's a small -- it's a small net sale. And as you can see, there's red dots as well, so they're buying and selling. So it's possible that they're buying and the price -- at the time that the price went up and they're selling when the price went down.

Because you see even within that hour there's some movement. It goes up during that hour and then it starts to fall. So I would have to really get micro with the data to know for certain what's happening within that hour, but it is the case that it's a small net seller in that hour, in the price, but those red dots are indicating they're doing substantial buying in as well.

Q. But there is a large net sale in the next hour from 7 to 8. Correct?

A. That is correct. And the price falls during that period.

Q. Falls, but then goes up?

MS. GUERRIER: Objection.

A. Well, we'd have to get -- zoom in on that period to know for certain what's exactly happening, but the price does fall somewhere between 7 and -- 7

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and 8 o'clock hour the price falls during that window.

Q. Okay. But the price of XRP begins to increase at a time when GSR is in a net sale position. Am I right about that?

MS. GUERRIER: Objection.

A. I wouldn't -- the graph is meant to show general patterns of them switching the bot activity. If one wants to try to make inference about the precise timing of this, one would have to get more micro with the data and when exactly the price moved within the period.

The point of my report, though, is to show -- the point of the graph -- the main point of the graph is to show that they reversed their bots. And you can see that the blue line is showing that they're net selling over the period.

There was some communication. Usually there is a lag. Oftentimes there is a lag, like, hey, do you want to -- there's -- if people are communicating, they don't just like trade instantly oftentimes. If they're -- say, hey, the price is falling, what do you want me to do, maybe it takes the person a while to respond to the email. Then

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2 there is net buying activity over that period.

3 But I'm not -- I'm not -- I mean, I

4 wouldn't try to make any inference over a one-hour

5 window where they're buying and selling -- they're

6 both buying and selling over that -- over that

7 window.

8 Q. But you say in your report: GSR reversed

9 its programmatic sales after the price of XRP

10 continues to decline.

11 Right? And then you say: The net buying

12 began around 9 a.m. UTC.

13 That's what you said in your report.

14 That's not accurate, is it?

15 MS. GUERRIER: Objection.

16 A. I believe it is accurate because when

17 they reversed their activity based on the email

18 they're discussing -- if I go back and look at the

19 email.

20 Q. Well, you -- I'm not asking you about the

21 email.

22 A. Given the sell-off --

23 Q. I'm asking you about the chart.

24 (Simultaneous speaking.)

25 MS. GUERRIER: Actually, let him

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2 answer, please. He's not done answering.

3 A. And you're asking me about what happened

4 here, and I'm saying given the sell-off over the

5 weekend -- so this is not talking about events

6 happening on the micro level, what happened in the

7 last five minutes.

8 It's obviously over -- he wrote: Given

9 the sell-off over the weekend --

10 That's a multiple-day period.

11 -- I think we should halt the sales

12 entirely tomorrow and Tuesday and instead purchase

13 20K each day. Let's try it.

14 So Ripple execs passed on the directives,

15 confirmed in an email the next day that it:

16 Followed Ripple's direction and they say they

17 reversed the 2t bot to net buying of 5 percent

18 previous 24 hours' trading volume.

19 As seen in Figure 4, the direction of

20 Ripple GSR reversed its programmatic sales around

21 the price of XRP. Sales after the price of XRP

22 continues to decline. Instead of selling, XRP

23 became net buying around 9:00 UTC. I believe that's

24 the description of what has happened here.

25 Q. Isn't it true that the price of XRP began

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to rise before there was any net buying?

MS. GUERRIER: Objection.

A. If we want to get real technical about the 7:00 a.m. window, we would have to look intra-window. We would have to look -- we could chop that window up into little intervals and perhaps look at that. Maybe they were net buying in the interval that the price moved up. So it's a very small -- it's a very small net buying activity.

My point is that there is a large amount of net buying activities starting around -- around 9 a.m. It does appear that they were doing some net buying before that.

Q. Okay. But you didn't do the granular analysis that you just described --

A. I did not.

Q. -- that you just described that you could have done. Is that fair?

(Simultaneous speaking.)

MS. GUERRIER: Objection.

A. I did not -- I did not think that was relevant to do a granular analysis.

Q. Okay. Fair enough.

A. I followed the same form in all of my

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figures.

Q. Okay.

THE STENOGRAPHER: I just wanted to state for the record I can't get two people at the same time. And I won't interrupt again. I know I said the last time was the last time. Just looking at the record, I'm just concerned. Thanks.

MR. CERESNEY: Okay.

MS. GUERRIER: Thank you.

Q. Okay. I want to focus on Figure 5 for a few minutes.

Figure 5 represents the personal trading of Defendant Larsen. Isn't that right?

MS. GUERRIER: I'm going to object to the form.

MR. CERESNEY: Sorry?

MS. GUERRIER: I'm objecting to the form. That mischaracterizes the chart or figure.

MR. CERESNEY: Hold on a second. You can object to the form and that's it.

MS. GUERRIER: I know that.

MR. CERESNEY: Thank you.

Q. Is it fair to say Figure 5 relates to Mr. Larsen's personal trading?

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MS. GUERRIER: Objection.

A. Figure 5 relates to Mr. Larsen's trading conducted by GSR over this -- over this period. I'm not going to opine on whether it's personal or -- or not.

Q. Okay. That's fine.

Now, looking at the chart, the X axis of this chart is the time frame. Correct?

A. That's correct.

Q. And the Y axis on the right-hand side is the trading volume by GSR. Correct?

A. That's correct. It's the net -- it's the net trading volume.

Q. Net trading volume. Correct.

And then on the left-hand side is -- of the Y axis is the XRP US -- I'm sorry -- XRP bitcoin price. Correct?

A. That's correct.

Q. Now, why did you use XRP bitcoin here versus the other figures where you used XRP U.S. dollars?

A. Yeah, because it seems that that was the major currency that was used to trade on Poloniex.

Q. Okay. And so -- just so I understand

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what you're analyzing here, this is a 12-day period from June 3rd to June 14, 2017. Correct?

MS. GUERRIER: Objection.

A. It is a 12-day -- roughly -- roughly -- roughly 12 or 13 days, depending on how you count it.

Q. Okay. And those are limited to --

(Simultaneous speaking.)

A. (Unintelligible).

Q. -- transactions conducted on the cryptocurrency exchange Poloniex?

A. That's correct.

Q. Do you know whether Mr. Larsen engaged in other transactions during that time period in XRP?

A. I don't think -- I don't -- I'm not sure if -- what his other activity was --

(Simultaneous speaking.)

A. -- besides XRP.

Q. So you don't know one way or the other?

A. I don't -- I'm trying to think if I recall from any communications. At least I know that I only had data to analyze this.

Q. Did you analyze transactions from Mr. Larsen -- XRP trading transactions from

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2 Mr. Larsen on any other dates?

3 A. I don't believe so.

4 Q. Okay. Now, is it -- is it also the case,

5 as you testified earlier with regard to your other

6 analyses, that you were not opining here on whether

7 Mr. Larsen's trading in XRP caused any impact on the

8 XRP's price. Correct?

9 A. I want to just -- just to be super

10 accurate here in terms of what I'm opining, that I'm

11 opining that he -- he personally bought 800,000K of

12 XRP by the end of the weekend through GSR, based on

13 his communications, and that Garlinghouse, in email,

14 does speculate that Larsen's purchases might be the

15 reason for the XRP price stability.

16 So I am not analyzing whether he is

17 precise -- precisely the reason, like I said, that

18 form of analysis is extremely difficult, but his

19 colleague -- his colleague thinks that he could

20 be -- might be the reason. So obviously there's

21 some people that think he was the reason for it.

22 Q. Okay. But you didn't analyze whether he

23 was or he wasn't?

24 A. I did not.

25 Q. Okay. In looking at the -- the amount of

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XRP that was sold each day, did you -- scratch that.

Did you consider in your analysis here the average daily trading activity of other XRP sellers on Poloniex during this period?

A. Well, back to our earlier discussion, the average XRP behavior of everyone else on Poloniex would be the exact opposite of what -- of what he did. So on average, if he was a net buyer during this window, everyone else on Poloniex would have to be net sellers.

Q. And that's the same discussion we had earlier?

A. Yes.

Q. Okay. And so did you at all look at the volume of trading on Poloniex during this period of time?

MS. GUERRIER: Objection.

A. Well, I would say yes, in the sense that it is standardized. That's -- this is the total -- total units of volume so it does have volume as part of the -- the calculation so I'm not plotting the total volume, though. I'm plotting the net -- the net trading volume.

Q. That's the net trading volume for

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Mr. Larsen. Correct?

A. That's correct.

Q. That's not the net trading volume for all traders on Poloniex during that period of time. Correct?

A. That's right. This is only for Mr. Larsen.

Q. Okay. Now, Mr. Ferrell -- Professor Ferrell in his rebuttal report did an analysis of trading on Poloniex during this time period. Am I correct?

A. I believe so.

Q. If we look at the rebuttal report which is [redacted]-3 and if we look at Paragraph 29, I want you to just read that paragraph to yourself, Paragraph 29, where Professor Ferrell provides data on total volume of trading and Mr. Larsen's trading volume on days between April 15th, 2017, and March 18th, 2018, and then between June 2nd and June 15th, 2017. Do you see that?

A. That's Paragraph 29?

Q. Yeah.

A. Yes. You'd like me to read that?

Q. Why don't you read it to yourself.

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A. (Pause.)

Q. Let me know when you're done.

A. (Pause.)

Okay. I'm done.

Q. Okay. Do you see that Professor Ferrell's analysis showed that on 90 percent of the days between April 15th, 2017, and March 18th, 2018, Mr. Larsen's trading volume for total purchases and sales for XRP bitcoin was less than .5 percent of the total trading volume on Poloniex and less than .1 percent of the XRP bitcoin trading on all exchanges? Do you see that?

MS. GUERRIER: Objection.

A. The information in -- in 29?

Q. Yes.

A. Yes, I see that.

Q. Do you have any reason to believe that that analysis is not accurate?

A. Well, there is no analysis here. It's just some summary statistics.

Q. Okay. Do you have any reason to believe those summary statistics are not accurate?

A. They should be -- should be accurate.

Q. Okay. And then he also says that in the

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2 period between June 2nd and 15th, 2017, Mr. Larsen's
3 volume was at most 1 percent and often less than
4 .5 percent of the total Poloniex XRP bitcoin value
5 and at most .2 percent of overall cryptocurrency
6 exchange volumes.
7 Do you have any reason to -- to believe
8 that those figures are inaccurate?
9 A. I would guess that's probably correct.
10 Q. Okay. And the -- I guess the final
11 question on this, would you agree that the volume of
12 trading in the bitcoin XRP currency pair and the
13 percentage of that trading that Mr. Larsen's trading
14 constituted would be relevant to whether
15 Mr. Larsen's trading could impact the price of XRP?
16 MS. GUERRIER: Objection.
17 A. Well, my report did not analyze price
18 impact, but Professor Larsen does make claims along
19 those lines. I think it's important to note that
20 this trading on Poloniex can -- likely contains wash
21 trading because Poloniex is one of the exchanges
22 that's been shown to have substantial wash trading
23 on the exchange. So some studies put the wash
24 trading amount at 70 or even 85 percent, 90 percent,
25 even 95 or 100 percent. So if you took wash trading

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out, let's say it was only -- let's say wash trading was -- let's say wash trading was 90 percent, which was the range of some estimates at certain times, then that would put Professor Larsen's activity at 10 percent of the total volume. Also --

MS. GUERRIER: One second, just to correct. Do you want to say Professor Ferrell or not Professor Ferrell?

THE WITNESS: I'm sorry, not Professor. I meant Mr. Larsen's -- Mr. Larsen. I don't know if Mr. Larsen is a professor or not so...

Q. He's not.

A. So that -- that -- that could -- his own trading could be -- could be as much as -- in that -- in that scenario, his trading could be 10 percent.

Also, we know from other communications that Garlinghouse traded as well on his own personal account. Other Ripple execs traded. We have Ripple Foundation. We have Ripple itself directing GSR to trade. So we know -- so -- so the combined -- we don't know the combined amount of his trading -- the combined amount of trading that was done on behalf of Ripple.

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So it's interesting and I'll go -- just go back to what Ripple's own executives say. Garlinghouse said you could be the reason for the priceability. So Garlinghouse definitely believes, and it is $800,000 worth of XRP. It's not a trivial amount.

So definitely it's -- it's within -- if you're asking me if it's in the realm of possibility or is it obvious -- is it an obvious conclusion, I don't know if -- if the question is, is this an obvious conclusion that -- that Larsen's trading activity couldn't have affected price, I'd say that's not obvious at all. So, particularly, Garlinghouse seems to think that he's the reason.

Q. Okay. First of all, that wasn't the question.

The question was simply whether the market volume could impact the ability to impact price.

MS. GUERRIER: Objection.

Q. That was the question. Do you have an answer to that question?

A. I don't think that's the question you asked me. I would like to hear the original

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2 question you asked me.

3 Q. I'll -- I'll tell you what the original

4 question was. The original question -- I guess the

5 final question on this would be would you agree that

6 the volume of trading in the bitcoin XRP currency

7 pair and the percentage of that trading that

8 Mr. Larsen's trading constituted would be relevant

9 to whether Mr. Larsen's trading could impact the

10 price of XRP.

11 That was the question. Do you have an

12 answer to that question?

13 MS. GUERRIER: And before you answer,

14 I'll renew my objection.

15 Q. Go ahead.

16 A. I believe I've answered the question. I

17 believe it -- it -- if -- it could be relevant if

18 there were corrections made for all the biases that

19 I mentioned and all the potential problems that I

20 mentioned such as wash trading. So if one could

21 control for the amount of wash trading, take that

22 out and one could also control for the amount of --

23 an amount of other trading on behalf of Ripple

24 executives or Ripple itself, those are very

25 important facts one would want to know. So I think

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2 that all that information could be relevant, but
3 just to characterize and assume implicit assumption
4 which, you know, seems to be the implicit assumption
5 that I'm being asked that all the rest of the
6 activity must be due to willing market participants
7 or some -- one would have to know the nature of
8 those other market participants and one would have
9 to extract wash trading.
10 Q. Okay. To be clear, there was no implicit
11 assumption in my question. I think my question was
12 clear.
13 But going back to everything that you
14 referenced, the wash trading, Mr. Garlinghouse's
15 trading, trading by the foundation, all of those
16 other things that you referenced that could be
17 relevant, do you, sitting here today, have any idea
18 about any of those things and what was going on with
19 those things during the time this trading occurred?
20 MS. GUERRIER: Objection to form.
21 A. I do have an idea that there was other
22 trading on behalf of -- of -- of -- for instance, of
23 Ripple executives on Poloniex. There was an email I
24 mentioned earlier regarding one of the early
25 figures. So I do have an idea that Ripple was

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trading on Poloniex and they were an active trader on Poloniex. They turned their bots on and off. So, yeah, I -- I think that I do have an idea that there was wash trading on these exchanges because it's an academic -- that many papers have analyzed this. Academic papers have shown there's wash trading.

So, yes, I think that I do have an idea that there's other things going. Do I know the precise amount of it, no.

Q. I want to move now to the regression analysis that you performed in connection with your report.

MS. GUERRIER: Can I stop you there? Do you think we could take a break before we get into the regression analysis?

MR. CERESNEY: Sure. Let's take a break.

MS. GUERRIER: How long do you need?

THE VIDEOGRAPHER: We're off at 2:57.

(Break.)

THE VIDEOGRAPHER: This is Segment No. 5. We're back on the record at 3:14.

Q. So, [redacted], as part of your

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report, you performed a regression analysis. Correct?

A. That's correct.

Q. Generally explain to us what a regression analysis is.

A. Sure.

A regression analysis looks to understand the relationship between two variables. And you generally have, like, a left-hand-side variable. Often, people refer to that as Y. And then you often have a right-hand-side variable referred to as X.

Sometimes -- oftentimes, it's assumed that the X variable goes first, in which case, in terms of timing, you may want to lag X variable. So you're looking at the relationship between X and Y to determine whether two variables are related and whether one -- and possibly whether one precedes the other.

Q. Are those sometimes called dependent variables and independent variables?

A. Yes.

Q. Which is the dependent variable, X or Y?

A. Y.

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Q. And the independent variable is X?

A. That's correct.

Q. Okay. And what is the function of a regression analysis, generally?

A. To -- to understand relationship between things more fully, possibly control for other confounding factors.

There's many purposes in a regression analysis. It's one of the -- obviously, regression analysis are used in many ways in finance. [redacted] This particular regression here is a time-series regression, but there is also cross-sectional regressions.

Q. And this is a time-series regression, and so tell us what a time-series regression is.

A. Well, generally, the relationship varies. You're looking -- wanting to look at a relationship that maybe varies through time. And the timing of matters could be important in the sense that you might want to examine whether a right-hand-side variable X precedes a left-hand-side variable Y.

And so you may want to have multiple lags of the Y variable -- of the X variable, and you may

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2 want a control for other things that could affect --

3 could affect the Y variable.

4 Q. In these kinds of analyses, do you want

5 to look at various different time periods, a day,

6 two days, three days? Is that typically the way

7 it's done?

8 A. Just depends on the nature of the data

9 and the problems and the questions that are being

10 asked and what data one has. So sometimes you

11 can -- so I'll just -- I guess I'll stop there. It

12 depends on the nature of the question asked and what

13 type of data is available.

14 Q. Let's look at Page 26 of your report.

15 And there you have Table 1. Does this Table 1 show

16 the results of your regression analysis in this

17 case?

18 A. Yes, it does.

19 Q. Okay. And can you explain the variables

20 in the regression analysis in your report?

21 A. Sure.

22 The imbalance is the left-hand-side

23 variable in this case, or we're going to refer to it

24 as a Y variable here, time T. The imbalance is

25 defined as the number of XRB -- XRP purchases, minus

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2 the number of XRP purchases sold on a given day by
3 GSR and CryptoCompare systems on behalf of Ripple.
4 This is based on data that -- that -- a daily
5 summary tab that had this information. And the --
6 that's the numerator in the balance.
7 And the denominator in the balance
8 normalizes by dividing by the average daily
9 circulating supply of XRP over the previous 30
10 calendar days. So the purpose of the normalization
11 is to give some context for the magnitude -- the
12 magnitude of -- of -- of an imbalance.
13 So, for instance, if you -- if I told you
14 somebody bought 100,000 shares, you might say,
15 "Well, that -- is that big or -- big or small?" It
16 depends on, well, if it's 100,000 shares out of a
17 million shares, it would be really big. If it was
18 100,000 shares out of a quadrillion shares, it might
19 be more -- a small -- smaller number.
20 So you want to normalize it by the number
21 of shares that is either outstanding, or in this
22 case, a lot of the shares are locked up, so that's
23 why imbalances normalize by the number of shares in
24 circulating supply.
25 And then the other variables, you have an

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2 intercept in the regression notice. This

3 intercept -- this is also an alpha term, but it is

4 not the same as the alpha term that you were

5 referring to earlier in terms of asset pricing and

6 so forth. This is an intercept term.

7 I have a -- I have an error in the

8 equation. The R -- the RETR, there is a typo. That

9 should not be ETR. The R should be scratched. It's

10 just a time T. There is only one imbalance that's

11 considered here, not multiple imbalances.

12 So the -- in this case, the -- there is 1

13 through 5, the summation sign, 1 through 5, BI times

14 the return. Returns are lagged at time periods, so

15 it's asking whether the previous imbalance follows

16 the return, or whether there is a relationship

17 between imbalance and past return.

18 The regression also contains five other

19 terms, which is related to past imbalances. And the

20 reason the past imbalances are -- are included is

21 because often there is autocorrelation in balances.

22 Maybe there is -- somebody trades one day, they're

23 more likely to trade the next day and so forth, so

24 you want to control for that type of normalized

25 trading imbalance.

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This regression is the -- is nearly identical to -- is basically the same regression that [redacted].

Q. It's basically the same regression that [redacted]?

A. Yes.

Q. Okay.

A. And it was [redacted]

Q. Okay. That's the [redacted] that you talked about earlier?

A. That's right. And I also [redacted] That was using the same methodology, but it was using aggregate returns.

Q. Okay. So both of those [redacted] essentially used the same methodology that you're using here, basically. Fair?

A. That's correct.

Q. Okay. So just so I understand what this is intended to show, is this basically intended to show that the imbalance in the trading that GSR does

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on behalf of Ripple is impacted by the XRP returns in the days prior to that imbalance?

MS. GUERRIER: Objection to form.

Go ahead.

A. What the regression shows is it examines whether there is a relationship between [redacted] trading -- [redacted] and [redacted] trading over the period, the period in this case being the period with available data, January 15th through September 12th, 2019, because these are daily -- this is daily data here in this case.

And so the imbalance is looking at -- the imbalance is looking at the relationship between trading and past returns or asking the question whether the previous day's return influences or the previous -- whether the trading behavior is related to the previous day's returns, after controlling for the fact that trading is -- is autocorrelated, which is the -- the term is on the right.

And you could see that the trading does seem to be autocorrelated in the sense that the lagged 1 is also significant. So in terms of -- in terms of the coefficient here, the buy/sell imbalance is positive, meaning if they bought more

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yesterday, they're more likely to buy today, the lagged 1 for the imbalance. But also, the B1 coefficient is negative and significant, indicating that if they -- the return went up yesterday -- indicating that there is an inverse relationship between imbalances and returns or that, on average, if the return went up yesterday, there is more selling or vice versa.

Q. Okay. So I just want to make sure I understand. So looking at your chart, you have there a beta 1. Do you see that in your chart?

A. Yes.

Q. And beta 1 tells you that if the return the day before was positive, then the subsequent day, GSR is going to have a net sell, basically. Is that a fair statement?

MS. GUERRIER: Objection to form.

A. It's going to be a net -- net sell on -- or that it will have more -- technically speaking, the regression is so that there is more net selling than there would be on a day without a positive return, without a large --

Q. Uh-huh.

A. So if there was, like, a really large

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positive return, there is going to be more net selling after days with really large positive returns, and the converse being that if return is very negative, there will be more net buying than there would be otherwise.

Q. So, basically, what that beta 1 column is telling you is the likely impact on the imbalance in GSR's trading, dependent upon the returns on the previous day?

MS. GUERRIER: Objection.

Q. The XRP returns on the previous day?

A. That's a decent layman's understanding. I think it's reasonably correct.

Q. Okay. And it's a one-day lag. Right? So, in other words, it's showing you the imbalance the day after the returns. Correct?

A. That's correct.

Q. And the asterisks in this column, this beta 1 column there, do those indicate statistically significant findings?

A. The P -- the T statistic there is in parenthesis, and that's a T statistic of negative 2.98. And the P value there with two stars indicates that it's statistically significant at

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less than .01 percent chance, or in other words, there is less than a one in a hundred percent chance that this relationship is spurious.

Q. Just looking at Paragraph 34 of your -- of your report. I just want to read the sentence that I think sums up what we just talked about which is right in the middle of that paragraph starting with the words: Based on this analysis of [redacted] and [redacted] net trading of XRP, I conclude that these sellers on behalf of Ripple sold more XRP when the price of XRP was increasing and relatively less when the price was decreasing on the previous day.

Do you see that?

A. Yes, I see that.

Q. And does that accurately summarize the conclusions that flow from your regression analysis?

A. It does.

Q. Okay. So does this regression analysis show anything regarding whether or not the sales of Ripple's programmatic sellers caused changes in the price of XRP?

MS. GUERRIER: Objection.

A. This regression is not based on -- does not examine what caused XRP price movements. It's

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taking the XRP price movements as the return on the left-hand side and asking what's driving the -- what's driving the trading activity.

Q. So fair to say that this analysis doesn't tell you whether, in fact, the trading activity caused any impact on the price of XRP?

MS. GUERRIER: Objection.

A. As I stated previously, I'm not opining on price impact here.

Q. Okay. Fair enough.

A. I might discuss price impact in the context of Professor Ferrell's criticisms in his price impact model, but that's not what this regression analysis does.

Q. Okay. Fair.

I want to direct your attention to Paragraph 34, Page 25, the same paragraph that we just looked at. You say in this paragraph: The previous --

The second sentence there: The previous day return coefficient, beta 1, is highly statistically significant and negative - consistent with net selling following a day of positive returns.

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Do you see that?

A. That's correct.

Q. When you use the term here "previous day coefficient," does that refer to the fact that what you're looking at are the previous day's XRP returns and the impact that that previous day has on the imbalance on the following day?

A. That's correct.

Q. Did your report analyze the same day coefficient?

A. No, it did not.

Q. So you did not look at whether the XRP returns on a particular day might have impacted the imbalance in GSR's trading on that day?

MS. GUERRIER: Objection; form.

A. Can you restate the question again? I want to make sure I answer.

Q. So you did not look at whether the XRP returns on a particular day might have impacted the imbalance in GSR's trading on that day?

MS. GUERRIER: Same objection.

A. I believe that -- I believe that you can't perform such a regression because of concerns about reverse causality, which came first. And as I

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discussed in my report, as I believe I discussed issues related to Professor Ferrell, one of the points in the -- one of the points in the literature is that there is a lot going on within the day. Okay. So if you add a contemporaneous coefficient here, you may or may not get a statistically significant relationship but that doesn't -- that could obscure a lot of things going on.

For instance, if you -- if -- as [redacted] showed and other papers have shown, if traders are trend chasing within the day or following price -- past price movements, they're -- in other words, within the day, let's say that prices go up within the day and then people buy, you find -- signed a certain group of people that are buying following past prices, whereas other people may be selling following past prices, you might attribute -- you might say that those people that are following past price movements within the day are causing the price to increase or they're moving the price. That would be an improper assumption because, in fact, they're trend chasing intraday.

The same could be said for somebody that was -- if you find the opposite relationship, they

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2 could be contrarians within the day. So there's

3 momentum chasers, contrarians within the day. There

4 was kind of a debate in the academic literature

5 about whether investors are trend chasers,

6 followers. I weighed in on that debate. You could

7 look at -- yeah, I'll just stop with that, with the

8 daily relationship there if you add a

9 contemporaneous term in the regression, it's not

10 clear -- it's not clear what that's measuring.

11 Q. Did you even do that analysis, though, as

12 part of your regression analysis here?

13 MS. GUERRIER: Objection.

14 A. I -- I'm not -- I don't believe I did

15 that as part of my regression analysis because I

16 thought this was the correct specification. But I

17 believe Professor Ferrell does such an analysis.

18 Q. Right.

19 Is that something you would ordinarily

20 test in this sort of analysis? When I say "is that

21 something," let me rephrase that.

22 Is the contemporaneous -- the

23 relationship between the contemporaneous returns and

24 the imbalance on the same day, is that something

25 that you typically would test in this sort of

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analysis?

A. You could put the contemporaneous relationship there, it's just not clear what it means.

Q. Okay.

A. So one could put -- one could put the relationship there and -- and see whether it's positive or negative, but I'm not sure what -- what it's telling you because you have a contemporaneous relationship.

Q. Did you even do that analysis in this case?

A. As I -- as I --

MS. GUERRIER: Objection.

Go ahead.

A. As I said -- yeah, I'll just read back -- I've already answered that question. It's my recollection that -- that this analysis, the one I performed was the one relevant and the one I did.

So Professor Ferrell, as I mentioned, does do such analysis, he criticizes the relationship, but I don't think it's the correct way to do it.

Q. I didn't ask you about Professor Ferrell

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yet, I will.

I just -- I want to understand, when you did your report, did you do that analysis?

MS. GUERRIER: Asked and answered.

Q. You can answer.

A. Again, I think I this is the correct way to do it. This is what I did. When I looked at Professor Ferrell's analysis I see that he did that. He says, I don't -- I -- I -- this is the specification that -- that I did, the one I think makes sense.

Q. So let me just ask you this --

A. I did not --

Q. -- did you --

A. I did not run a regression with a contemporaneous return in there.

Q. Okay. That's all I'm asking.

You did not run a regression with the contemporaneous return at the time you did your report. Correct?

MS. GUERRIER: Asked and answered.

A. That's correct. Now, I can't opine in terms of if a member of my staff ran -- ran such a regression or not, I don't know. But this is the

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one that I thought made sense and this is the one I directed to be done.

Q. Did you know at the time that you prepared your report that the contemporaneous returns were not statistically significant?

MS. GUERRIER: Objection; form.

A. I know -- I knew that this relationship was the one that mattered, I didn't care about the contemporaneous relationship.

Q. Okay. But my question is, whether at the time you prepared your report you knew that the contemporaneous return was not statistically significant?

MS. GUERRIER: Asked and answered.

A. I -- I don't think I -- I'm not sure the answer to that question.

Q. Okay. Would you ordinarily test in contemporaneous returns? Is that a test you typically would do in this sort of analysis?

MS. GUERRIER: Objection --

A. It depends on the nature --

MS. GUERRIER: -- form.

Go ahead.

A. Depends -- as I said earlier, it depends

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2 on the nature of questions answered. If one wanted
3 to look at price impact, then one could start
4 getting into issues like that, although that's not a
5 reliable -- that's not a complete price impact
6 methodology and you couldn't do that on a daily
7 relationship. So just doing such a -- it's not
8 clear what -- what a regression like that would --
9 would show.
10 Q. So are you saying if you're just looking
11 at imbalances, you wouldn't look at contemporaneous
12 returns?
13 MS. GUERRIER: Objection.
14 A. The -- I did not -- I did not say that.
15 I said it depends on the -- I said -- I said it
16 depends on the nature of the timing of the returns
17 and the relationship.
18 You could run such a relationship. I
19 have run such relationships in my academic work only
20 to show that there's a strong relationship and that
21 one doesn't understand -- it's not possible to
22 interpret without looking at finer time intervals.
23 So as I explained earlier, the point of
24 that academic literature is that the contemporaneous
25 return including contemporaneous returns in a

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2 regression is not a reliable way to do things. So I
3 don't think it makes sense to have it in there as a
4 contemporaneous relationship. I understand that
5 that's a criticism of Professor Ferrell. But it's
6 not a criticism that concerns me because of the
7 relationships of -- in terms of reverse causality
8 that I mentioned.
9 You would expect -- whether you find a
10 positive or negative relationship is depending on
11 whether -- you don't know whether X drove Y or Y
12 drove X. That's -- I have a whole section in a
13 paper that talks about that and there's also Sias,
14 Starks, and Titman, they also talked about the
15 problems with inferring things from like monthly
16 data, for instance, where you have a contemporaneous
17 relationship.
18 So there's a large literature that talks
19 about the problems with putting a -- with
20 contemporaneous relationships and the fact that you
21 don't know what that means.
22 Q. In the 2003 paper that you cited earlier
23 that you used as the model for this regression
24 analysis, did you analyze contemporaneous returns in
25 that paper?

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A. I did.

Q. Okay. And that was the model for this analysis you did in this case. Correct?

A. No, I have different --

(Simultaneous speaking.)

MS. GUERRIER: Objection to form.

Go ahead.

A. It's not the exact -- I have different specifications that I run in the paper, if we want to turn to the paper and look at it, in terms of which specification I ran and why, we can walk through that. I would be happy to explain why I did things in that paper.

But in terms of looking at the relationship between past returns and -- imbalances and past returns, I believe this is the correct way to do it.

Q. Why would you have run the --

MS. GUERRIER: I'm sorry. I just want to instruct. Just wait for me to object --

THE WITNESS: Sorry.

MS. GUERRIER: -- before you answer.

That's okay.

Q. Why would you have analyzed the

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[redacted] in this case and not in this case?

MS. GUERRIER: Objection to form.

Go ahead.

A. That's an incorrect characterization of what I did. [redacted]

So I'm happy to -- I don't know which specification you're talking about, but I did follow the methodology in that paper, so I would like to see if you're going to criticize me on the methodology in that paper. I'd like to see it and precisely what you're criticizing me for.

(Exhibit [redacted]-13 was marked.)

Q. Okay. Let's look at [redacted]-13. I'm going to hand you [redacted]-13, which is an article entitled "[redacted]"

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authored [redacted] It's marked [redacted]-13. It's dated December 2003. It's from the [redacted]

And so I'm showing you that document. And I want to ask you -- before I ask you about this document, I want to look at your report. And I want to look at Paragraph 33 of your report, which is on Page 25 of your report. And I want to look at Footnote 41 of this report, your report.

And Footnote 41 is a footnote to a sentence that reads: A regression analysis of [redacted] and [redacted] trading activity shows that when the prior day returns of XRP increase, the amount of XRP that [redacted] and [redacted] sell also increases.

Footnote 41 then reads: This regression follows the same buy-sell imbalance regression methodology as [redacted]

A. That's correct.

Q. So is this article which I just handed you, the same article that you cited in your report in this case as the regression analysis following the same buy-sell imbalance regression methodology that was used in this [redacted] as also being used

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in the 2021 report you filed in this case?

MS. GUERRIER: Objection to the form.

And take your time to read that paper.

A. Yes.

Q. So let's look at [redacted] that you have here. And I want to look at [redacted] (sic) of this [redacted] [redacted]. And in this paragraph I want to look at the page right before it, the paragraph right before it. And in that paragraph right before it, [redacted] [redacted] --

MS. GUERRIER: I'm sorry. Can you direct us to where you're reading?

MR. CERESNEY: Yeah, yeah. Hold on a second.

Q. In the actual paragraph before the table there is a -- there is a sentence that reads -- it's about five lines from the bottom of that paragraph, Panel B: [redacted]

Do you see that sentence?

A. That's correct.

Q. And then when you look down [redacted]

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the line for [redacted] looks like it has figures for [redacted]

Do you see that?

A. That's correct.

Q. And the [redacted] isn't that the contemporaneous price return in the imbalance regression?

MS. GUERRIER: Objection to form.

And also take your time to look at --

THE WITNESS: Sure.

A. You're talking about [redacted]?

Q. Yeah.

A. If you talk about -- if you look at [redacted], which usually in [redacted] you put the most important [redacted] first, and the way they believe the correct way to do it is in [redacted] you'll notice there is no contemporaneous relationship there in [redacted]

So, first of all, this is not an identical regression to what is being done in the imbalance equation there because it is a -- it's a structure VaR, it's a VaR system. There is many differences to that, but it's a whole VaR -- it's a whole VaR apparatus. And if you put the

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contemporaneous return in, there is certain assumptions you have to make about the causality. Okay.

And you're basically -- when you put the contemporaneous relationship there, you're basically making the assumption, implicit assumption that the contemporaneous relationship, R, in the imbalance, R is driving the imbalance is often the structural assumption if one is doing a structure VaR.

And that's why I say right there, in terms of discussing it, I [redacted]

Q. Just to be clear, you're reading from [redacted]?

A. [redacted], in the same paragraph you quoted. So I say --

Q. Well, just to be clear, I didn't quote that paragraph.

(Simultaneous speaking.)

A. You turned me to --

MS. GUERRIER: Okay. Can you let him

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finish?

Go ahead and finish your answer.

Q. I just want the record to be clear what he's reading from. [redacted]

Correct?

A. You pointed me to -- I thought you pointed me to a paragraph titled: [redacted]

Did you not point me to that --

Q. I didn't.

(Simultaneous speaking.)

A. -- paragraph?

Q. I pointed you to a paragraph before the -- before the chart on the previous page.

MS. GUERRIER: Was that part of your answer, [redacted] what you were reading? Because if it is, you should keep reading your answer.

THE WITNESS: Yeah.

A. You were talking about [redacted] So you mentioned [redacted] This is the paragraph -- I don't know if it's worth our time to go back and look at

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the record, but you did ask me about [redacted] And so I'm reading from the paragraph that discusses [redacted]

Q. Okay.

A. It's on [redacted]. And you'll see -- you'll see discussion there.

At the end of the paragraph it says: [redacted]

And so that's what the next section then says.

[redacted]

Okay. So the point of including that contemporaneous relationship is to show that there is a strong daily relationship and that one cannot make inferences about that strong daily relationship without looking at the intraday relationship.

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So the point of that relationship is not to say that the contemporaneous return, RT, is causing imbalances. I believe that would be an improper interpretation, which is why [redacted]

So it's indeterminant. And the whole point of me including that specification was to point out that you cannot learn anything from that contemporaneous relationship. And that's why I have the [redacted]

So you can't -- that's why I don't think it makes sense to put a contemporaneous relationship there. [redacted] there is a relationship, but it could be due to X, it could be due to three different reasons. And so that's what the next section is.

Q. And in the [redacted], and the report you did for this case, you didn't analyze whether the contemporaneous returns would have been impacted by the other things that you analyzed in connection with this [redacted] Correct?

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MS. GUERRIER: Objection to form.

A. The question that I'm answering -- the question that I'm asking is [redacted] I believe that is the correct way to go about it.

[redacted] at issues of trend chasing, price following, price impact, or predicting returns, I could have -- I could do that with a contemporaneous relationship. But as I opine in this -- [redacted], whether you have a contemporaneous relationship or not does not imply -- it could be due to one of those three explanations, which is why one has to go to more detailed data, which I personally -- I don't have over this period. I don't have the same level of granularity of data that [redacted] or I could have done an intraday analysis and shown that that's necessary.

Q. In your report in this case you indicate that you used the regression analysis in this article as the model for your regression analysis as part of your expert report here. Correct?

A. That's correct.

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Q. And then when you performed that analysis, you didn't actually do the whole analysis that [redacted]; you excluded the contemporaneous return. Correct?

MS. GUERRIER: Objection to form.

A. As I explained, [redacted] is the correct way to do the relationship because you're looking at the relationship between imbalances and past returns. That's the question I'm answering.

If I wanted to be answering the question of is there a contemporaneous relationship that -- that could be due to one of three factors and the whole literature is flawed, which is the concept of what's going on here, is that there is a whole academic literature that does these type of relationships and I'm showing that there is problems with that regression.

So I'm -- [redacted] to show that that was not sufficient, not to say that that's the right methodology, but that regression was [redacted] to show that the intraday analysis, you cannot conclude anything from that regression.

So if you're asking me did I not include

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a regression and did I not include a regression that [redacted] showed was inconclusive, the answer to that question is, yes, [redacted] -- include -- it wouldn't make sense to include a relationship that would, by definition, be inconclusive.

The way I did the analysis is the exact correct way to do it because the question I'm asking and the one I'm opining on is not -- not the precise one in -- in doing an intraday analysis, but I'm looking at this question of whether the -- whether they're trading in a manner consistent with past prices.

Q. I guess my question is, your analysis, when looking at past prices, would not take into account whether -- would not take into account a situation where a trader trades on a particular day based upon returns on that particular day. Correct?

MS. GUERRIER: Objection.

Q. In other words, your analysis would just have a lag of a day. Right?

MS. GUERRIER: Same objection.

A. The analysis, it has a lag of a day. That's a problem with daily regressions so you have

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lag of a day.

Q. Right. But your analysis wouldn't tell you whether, in fact, there was an imbalance that was influenced by returns on a particular day. Is that fair?

MS. GUERRIER: Objection to form.

A. Well, I don't know if I would -- if there was an imbalance -- if you include the contemporaneous relationship, it has a number -- it has a host of problems because, as I explained in [redacted] -- and that's one of the major points of [redacted] So it can be, you know, buy and sell imbalances around extreme events -- well, these are the [redacted]. But, basically, there is -- there is three things that it could be due to. It could be due to price pressure, which is what you automatically assume when you put a contemporaneous relationship in there, but it could also be due to trend chasing. For instance, if the price went up intraday and somebody traded beyond the price or it could be consistent with somebody having intraday ability to -- to time the price.

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So because of those reasons, I don't think it makes sense to include a contemporaneous return as Professor Ferrell did and criticize me for it.

Q. Okay. You didn't explain any of this analysis of contemporaneous returns in your report in this case, did you?

MS. GUERRIER: Objection to form.

A. [redacted] I -- obviously, I think that is beyond the scope of -- of this report.

Q. Okay. But when you cited in this report that you were using this paper as the model for your regression methodology in this case, you didn't indicate that you were not analyzing contemporaneous returns, did you?

MS. GUERRIER: Hold on. Objection to form. Objection; mischaracterizes the citation --

MR. CERESNEY: I read --

MS. GUERRIER: -- to the regression.

MR. CERESNEY: I read the -- the footnote in my question. It says: This regression --

MS. GUERRIER: Follows.

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MR. CERESNEY: -- follows the same buy, sell and balance regression methodology as the paper I just cited.

A. I think --

MS. GUERRIER: Right. So my objection is your interpretation of follows as it relates to this report and trying to make it seem like -- okay. I'm not going to make a speaking objection.

Objection to the form. Objection that your question mischaracterizes the report.

But go ahead and answer.

A. I think -- I think my -- my footnote is completely accurate. Panel A, typically, it's very common in academic papers one could look at it that the main specification, the one that they consider most important, is put as Panel A.

Q. Yeah.

A. And [redacted] that specification in Panel A. That's -- I'm following -- I'm following that methodology from a general sense.

Yes, there are some minor -- minor differences in the sense I'm not running a bar, but I'm looking at that bottom equation.

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Q. Okay. Let me just direct you to [redacted]. Take a look at that table on [redacted].

A. Yeah.

Q. Take a look at Panel A on that table on [redacted], which I think you just said is the main analysis in these analyses. Panel A in -- on [redacted] in the same regression-type analysis analyzes contemporaneous returns, doesn't it?

MS. GUERRIER: Objection to form.

A. Let me remind myself what I'm doing here.

(Pause.)

Table 7 is examining -- I can -- I can read more and get into it, but Table 7 is -- is following up on a different -- different specifications and different questions in terms of afternoon trading and morning trading.

So it's showing a certain group of traders that they have a less strong contemporaneous relationship than the relationship document that previously -- in the previous table, Table 4, so it's showing that the coefficient, for instance, in that table is .52, but it's comparing coming back to saying, okay, this -- this other group of traders moves with prices less than that. And then it's

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looking at Panels B and C is looking at whether [redacted].

So, you know, again, I follow up in terms of this. This is -- we can dig into it more if you'd like, but this is a specification near the end of the [redacted] following up on issues related to the main -- following up on some [redacted] issues with the -- with the [redacted] and it's not focused on the aggregate relationship. It's focused on a particular group of papers, and you'll see that in the end, I'm doing like [redacted] I can -- I can sit here and look at it more if you'd like.

Q. Okay. All I really asked you was -- and you were making a distinction between [redacted], and all I was asking was in Panel A of this analysis, did you do a contemporaneous return analysis?

A. I'm just saying that this is for a -- I'm doing this for a completely different reason than [redacted] in the other -- than the other table -- in the other table, not to understand the past relationship, but to look at this contemporaneous relationship for a different group of traders and

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then to understand the intraday, evening, night relationship.

Q. Okay. You've referenced a few times Professor Ferrell and the analysis he did of contemporaneous returns. Right?

A. Yes.

Q. And I think Professor Ferrell found that when you look at the -- the contemporaneous -- the relationship between contemporaneous returns and the imbalance in trading by [redacted] and [redacted], that there was no statistically significant relationship between those two things on -- on the same day. In other words, looking at it as beta zero that day. Is that correct?

MS. GUERRIER: Objection to form.

A. I believe that's what he found.

Q. And just to be clear, you don't contest that finding. In other words, you don't contest that there is no statistically significant relationship between contemporaneous returns and imbalances. Is that fair?

MS. GUERRIER: Objection to form.

A. I don't think the way performing that analysis in that manner can get at the -- can get at

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the question in terms of whether there is a contemporaneous relationship because that's the whole point of this paper is to show because there is other traders that have a negative relationship. So some traders have a positive relationship to the previous -- to the contemporaneous return, other -- for every buyer, there is a seller. So other -- other traders have a negative relationship with the return.

So the -- the point of this paper is to show if one wants to answer questions of price impact or contemporaneous relationship, which one needs to get more micro, more detailed in the data.

Q. Okay. All I'm asking is you don't contest Professor Ferrell's calculations; you contest the significance of -- of that finding. Is that fair?

MS. GUERRIER: Objection to form.

A. I'm not sure whether I've critiqued his -- his specification. I could look at his -- can I -- can I look at his report --

Q. Sure. Let's look at --

A. -- and exactly which -- which one we're talking about, which panel.

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Q. Yes, of course. Let's look at Ferrell's rebuttal report. That's [redacted]-3. And if you want to look at Exhibit 7 I believe is the relevant exhibit which is on Page 41 -- hold on. No, not 41. Sorry. 42. Page 42. And maybe we can just -- if you can look at the analysis side-by-side with your analysis which is in Table 1 which is on Page 26 of [redacted]-1. If we can just look at that together.

Okay. And so if we look at this analysis and we look at -- we compare your finding of beta 1 of 14.96 and if we look at his analysis and find 14.96 in his analysis, do you see -- you see where he has return T minus 1, 14.96? Do you see that?

A. Yes.

Q. On the left-hand side of the column?

A. Yes.

Q. Okay. And so that's the same number as you have in yours for T minus, T1. Right?

And then if you look at T2, you had 6.89, and he's got 6.89. Do you see that?

A. Are we looking at Column 2?

Q. We're looking at Column -- the column with number one at the top of it.

A. Column No. 1, yes. Okay.

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Q. And then you see -- so that's the same numbers. He has the same numbers for T1, T2, T3 as you. Right?

A. Yes.

Q. Then he --

A. I don't know if it is exactly the same ones. We can look at it, yes.

Q. But then --

A. Are you able to -- can -- which --

Q. That's why I want you to take them side-by-side.

A. Yeah, sorry, sorry. Yeah, I appreciate that. Thank you.

Q. Okay. So I just wanted to show you that his number for T1 is the same as your number. His number for T2 is the same as your number for T2, so Day 2. Day 3 is the same, .02. And Day 4 is 2.59, just the same as yours.

A. Okay. Good enough.

MS. GUERRIER: Is that a question, or are you asking him to confirm that --

THE WITNESS: No. Our numbers line up. I think I'm --

(Reporter admonishment.)

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(Discussion off the written record.)

Q. And then --

A. I believe his T statistics -- oh maybe he's plotting standard errors. Our numbers are the same, but it looks like -- is he -- it looks like our -- it looks like the number in parenthesis is different. Maybe he's plotting standard errors, but okay.

Q. Yeah, yeah. If you look at -- it's Footnote 1, he says: Standard errors are robust. There is some word there that's --

A. (Unintelligible.)

Q. Yeah, there's a difficult word that I won't --

A. Yeah, heteroskedasticity. Thanks.

Q. Well, you just said it. Let me spell it for the court reporter. It's H-E-T-E-R-O-S-K-E-D-A-S-T-I-C-I-T-Y. Okay. I have no idea what that means, but the point being that he essentially reaches the same numbers, at least for the -- for the -- well, why don't you tell me.

When he says -14.96 and you have -14.96, do those numbers line up?

A. Yes, those numbers line up.

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Q. Okay. But then for the contemporaneous return, he has a number -4.94. Do you see that?

A. Yes.

Q. And that is not a statistically significant return?

A. That's correct.

MS. GUERRIER: Objection to form.

Go ahead.

A. That's correct. But I want to point out that Ferrell's analysis shows that my analysis is robust. I appreciate you pointing this out to me.

If you look in Column 2, all I'm opining on is RT -1, and it's statistically significant with three stars. -14.96, he includes the contemporaneous relationship, which I think is problematic to do so. Nevertheless, even after including it, it's still showing that my lag return is highly significant. And the coefficient is nearly identical to the other one.

Q. Yeah.

A. So he's showing that my relationship is -- is robust to including the imbalance, so I don't understand what the point of all this -- my -- whether I use Panel A or Panel B, it doesn't matter.

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The result is the same. I mean, I -- I guess --

Q. Here's the significance.

A. -- I'm just kind of perplexed at this. My relationship is the same. It's statistically significant. The lag 1 is what I'm opining on. And I'm saying that they are still trading in such a manner related to the previous day's past return.

Q. Okay.

A. And so it's definitely showing the robustness of the relationship to including the contemporaneous relationship. So whether you do Panel A, or Panel B, Panel C, whatever, the relationship is robust.

Q. Okay. But in Panel A and Panel B of the other article, [redacted] contemporaneous returns, and in this analysis you didn't. Is that fair? That's all I'm asking.

MS. GUERRIER: Objection to form.

A. As I've said many -- several times, I -- I'm going to answer the question and not be characterized.

As I've said several times, the reason [redacted] the contemporaneous relationship in there is to show that you would need to do an intraday

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relationship to understand that relationship more fully. And that's what the point of the paper is. And the paper spends substantial time doing the intraday relationship.

As [redacted] note in the paper, one cannot interpret that positive coefficient -- whether it's positive, significant, or insignificant, one cannot interpret it because of the issues within the day. You don't know, are they trading in response to past returns within the day? Are they impacting returns? Maybe they're trying to minimize their impact on returns.

And, in fact, GSR has communication, a lot of communication, which I've reviewed in my report, indicating that they're very sensitive to not wanting to -- not -- not wanting to -- they're very sensitive in the way they trade, and so they -- they're very careful in the way they trade, and they're very strategic in the way they trade. So I don't know to what extent one can draw any conclusions from including the contemporaneous relationship.

But I want to know that -- that's not what I'm opining on. That's maybe what Professor

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Ferrell is opining on, the contemporaneous relationship. That's not what I'm opining on. I'm opining on the lagged relationship. And that lagged relationship is completely robust to Ferrell's robustness check.

I didn't include that robustness check because I didn't think it was the right way to do it, but I appreciate him including the robustness check for me.

Q. Okay. Let me just ask you one final thing about Ferrell's analysis, and I want to just get why you disagree with Professor Ferrell on this.

If you look at Paragraph 45 of Ferrell's report, which is [redacted]-3. He says in the two sentences at the end of that Paragraph 45: [redacted] also has no basis for his claim that these sellers on behalf of Ripple sold more XRP when the price of XRP was increasing and relatively less when the price was decreasing on the previous day, and thus were able to use rising XRP returns and increased demand to mitigate any potential negative effect of its XRP sales, and thus keep XRP prices high.

In order for this claim to be true, the regression coefficient on prior returns must be

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statistically significant, and my return regression specification demonstrates that this is not the case.

Then he goes on to say [redacted] regression does not support his claim, that [redacted] and [redacted] on behalf of Ripple were able to use rising XRP returns, and these increased demand to mitigate any potential effect of its XRP sales, and thus keep XRP prices high.

Do you disagree with Ferrell's statements in that paragraph?

MS. GUERRIER: Why don't you read Paragraph 45 and 46 as well.

THE WITNESS: Okay.

A. (Pause.)

I think Professor Ferrell should amend his report.

Q. Why should he amend his report?

A. Because his relationship here in his table does not line up with -- what he wrote in Paragraph 45 does not line up with his table.

Q. And why do you say that? Let's look at his table.

A. Yeah.

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Q. Which is Page 42.

A. Okay. As one can see in Column 2, Column 1 and Column 2 imbalances are related to past returns. That is exactly what my report opines on.

Professor Ferrell states: [redacted] has no basis for his claim that sellers on behalf of Ripple sold more XRP when the price was increasing and relatively less when the price was decreasing on the previous day, and thus were able to use rising XRP, blah, blah, blah.

Here, this is the key sentence in -- after Footnote 69: In order for this claim to be true, the regression coefficient on the prior return must be statistically significant.

And my return specification demonstrates that this is not the case. In fact, his specifications in 1 and 2 shows that it's statistically significant.

Q. Actually, isn't he talking here about a different part of his regression analysis, not the imbalance as the dependent variable, but the returns as the dependent variable?

MS. GUERRIER: Objection to form.

A. No, he's not, I don't think.

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Q. Take a look at his report. And I'll direct your attention to Paragraphs 44, 45, and 46 again. Read that again, [redacted].

A. It says: In order for his claim to be true, the regression coefficient on the prior returns must be statistically significant.

And he's -- his regression coefficient on the prior returns must be -- okay. His -- he does say, "My prior return regression indicates that this is not the case," but his balance regression indicates that it is the case.

Q. So he's talking here about his prior returns? Regression is --

(Simultaneous speaking.)

A. The criticism for me, I said: Sellers on behalf of Ripple sold more XRP when the price is high.

So he misunderstands what I have done. Because I'm looking at imbalances. None of my regressions are in relationship to returns.

Q. Okay. That's true, but Professor Ferrell did an analysis on the basis of returns and concluded that there was no statistically significant relationship between the imbalances that

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[redacted] and [redacted] had and the returns on XRP, meaning that those imbalances had no impact on the price of XRP. Is that fair?

A. Well --

MS. GUERRIER: Objection to form.

A. -- with due respect to Professor Ferrell, [redacted], and this paper -- and the regression, if you want to look at the relationship -- this may be four. There is another [redacted] that's related, but -- another couple of [redacted] that are related, but these are the main ones.

But this relationship here, if you want to look at the relationship and ask the question, if we turn to Exhibit 7, and we wanted to look at his Specification 3 and 4, for instance. Okay?

Q. Uh-huh.

A. If we look at his Specifications 3 and 4 with returns on the left-hand side, and we looked at past imbalances, okay, that is answering the question of whether XRP trading is able to predict where the return is, whether -- they have forecasting power for the return. There is a literature about that.

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Q. Uh-huh.

A. And so all that relationship in Specification 3 and 4 is examining is whether -- whether G -- whether trading on behalf of Ripple is able to predict the future.

I don't know if that's the -- if that is any opinion that's -- I'm not offering any opinion about whether Ripple is able to predict the future, and I didn't know that Professor Ferrell was offering any prediction about whether Ripple can predict the future.

But that is all that one can learn from Specification 3 or 4. That's the point of [redacted] in the [redacted]. It's also the point of the [redacted]. And [redacted] that also talks about whether certain people can predict the future.

But that's what those regressions are about, and there is no evidence that excerpt -- that whether the lagged imbalances predict returns. One's not showing evidence of that.

Q. When you talk about predicting returns, do you mean influence future returns?

A. No, I'm saying predicting future returns

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we're not talking about contemporaneous relationships. When we're talking about purely lagged relationships, we're saying whether they can predict future returns. That's when you have a -- when you -- if you say like, for instance, if we see -- it was done in international literature, for instance, that we saw in -- and this is like Feude (phonetic) O'Connell & Schultze had a paper. They showed that if you took like the State Street trading data, you could see that those international investors typically move into a market and then the price may move the next day. They had some ability to predict the future.

Okay. There was -- there's also a relationship about whether they're actually moving the price and their contemporaneous relationship is moving the price and to get micro with that, my point in this paper, [redacted], is just looking at -- documenting a correlation on a daily basis is not enough to answer that question.

Q. Okay.

A. And that one must have very micro data to look at the question and the intraday patterns. And one the things all the papers found is that intraday

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2 patterns, the patterns are very different. There's
3 certain groups of traders do move the prices and
4 maybe and -- and maybe have some predictability on
5 the very short-term of moving the price.
6 But to answer those questions one has to
7 get with the intraday data, looking at the lagged
8 relationship, this lag regression here. You
9 can't -- only question that Specification 3 and 4
10 that Professor Ferrell runs, the only question that
11 can answer is whether people trading on behalf of --
12 trading on behalf of Ripple can they predict what
13 the price will be tomorrow. And it looks like from
14 his specifications the answer to that is no, because
15 they're insignificant.
16 But you cannot use that to -- there's
17 nothing in there to criticize what I did. That's
18 not a question that I answered at all.
19 Q. Right.
20 A. I didn't look at --
21 Q. You didn't look at that?
22 A. -- whether they predicted the future.
23 Q. You didn't look at whether they predicted
24 the future or whether their prices -- sorry -- or
25 whether their trading influenced XRP prices?

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MS. GUERRIER: Objection to form.

A. I've stated my statements carefully around that, but my assignment was not to -- I've stated my things carefully around that so I -- that was not part of my assignment.

MR. CERESNEY: All right. Let's take a break.

THE VIDEOGRAPHER: Off the record, 4:21.

(Break.)

THE VIDEOGRAPHER: This is Segment No. 6. Back on the record 4:41.

Q. [redacted], I wanted to ask you a few questions about [redacted] again. Does [redacted] have any policies and procedures relating to [redacted] employes in crypto?

A. Yes.

Q. Tell me what those policies are?

A. One it's not allowed to be trading in crypto on a matter that -- that [redacted] is working on.

Q. So what is that -- what does that mean "a matter that [redacted] is working on"?

A. So -- so, for instance, if one is -- if

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[redacted] is working on a matter regarding a digital asset, one is not allowed to be trading on that digital asset based on information one may obtain. Sort of like, I guess, insider trading policy.

Q. Does [redacted] have a watch list or restricted list of digital assets that are -- that employees are prohibited in trading?

THE WITNESS: Seemed like the screen rebooted.

A. I -- I don't know exactly. I don't trade digital assets, so I don't -- I'm not aware of a watch list like that. I'm not sure if there's a watch list of other employees or it's just the general policy that you're not allowed to trade on -- on any matter in which you have information.

I don't have the specific policy. There is a policy, employees all sign the policy. And I don't trade digital assets, so it doesn't affect me.

Q. Are there [redacted] employees who do trade digital assets?

A. I'm not sure.

Q. Okay. Are they required to notify you if they do engage in -- in -- let me scratch that.

Do employees of [redacted] who engage in

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trading of digital assets, are they required to notify anyone at [redacted] about that trading?

A. I think they're required to notify if they're trading -- if they make any trades regarding a digital asset in which any matter [redacted] is working on.

Q. And how do they know what matters [redacted] is working on?

A. To the extent that -- to the extent that they're knowledgeable about the matters we work on.

Q. Well, does every [redacted] employee know every [redacted] matter that you guys are working on?

MS. GUERRIER: Objection to form.

A. No, not every [redacted] employee knows every matter we're working on. Some matters we're working on require more secrecy than others.

Q. And those matters that require secrecy, would an [redacted] employee be precluded from trading in the digital assets involved in that matter if they're not involved in the matter?

A. Yes, they would be. They would be precluded in trading in that matter.

Q. And so is there some centralized location that they could go to to learn what digital assets

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[redacted] is involved with?

A. Not to my knowledge. I'm not sure. I'm not sure how -- how that -- how the policy works. I think it's similar to an insider trading policy at any large firm, you're not allowed to trade on any kind of information you have that's inside information. It's purposely defined to be, you know, broad.

Q. Okay. But my understanding of large firms that have those policies is that those firms also have restricted lists that identify the securities or the digital assets that cannot be traded on. Do you know if [redacted] has such a restricted list?

MS. GUERRIER: Objection to form.

A. I'm not sure of the details as ours (phonetic).

Q. Okay. Do you know if any -- earlier you also talked about -- we talked about how crypto assets, major crypto assets are speculative. Right? We talked about that earlier. Right?

A. Yes.

Q. In your view?

And you talked about how those assets are

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extremely risky?

MS. GUERRIER: Objection to form.

A. Yes.

Q. And that would include assets like bitcoin and Ether, for example?

MS. GUERRIER: Objection to form.

A. Yes, [redacted] examines the -- [redacted]

[redacted]

Q. And that was true -- I think [redacted] covered the [redacted] period. Correct?

A. [redacted] -- it's a little broader than just [redacted] but, yes, earlier period.

Q. Is it [redacted], is that what time period --

A. I would need to look at the [redacted] for the precise window.

Q. Okay. But did you still believe that that was true in 2020, that bitcoin and Ether were still speculative at that time?

MS. GUERRIER: Objection to form.

A. I think the fundamental forces that are identified in that [redacted] are -- haven't gone away.

Q. Okay.

A. In fact, [redacted] has printed more -- there

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is much more [redacted] that were printed post [redacted] than there was in the period that [redacted] in the [redacted].

Q. So you believe, even as of today, bitcoin, Ether and other major digital assets are subject to manipulation?

MS. GUERRIER: Objection --

A. I'm not --

MS. GUERRIER: -- to the form.

A. -- I'm not opining on -- I'm not opining on that. I -- if you want to say subject to the potential to manipulate the asset is there, I don't know whether they are manipulated or not.

Q. Okay.

A. The structural forces -- as I said, the structural forces that [redacted] have not -- have not all been eliminated and many of them are the same.

Q. And it's fair to say that your view that you expressed earlier which is that these type of digital assets, bitcoin, Ether and other major digital assets are more speculative than investments, that is your view as of today still, too?

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MS. GUERRIER: Objection to form.

A. I wouldn't make a statement that all digital assets. There could be exceptions. There could be exceptions. I don't have -- but I do -- the assets I have examined were quite volatile and not only volatile -- I mean everybody knows about the volatility, but they were also -- [redacted] that they were manipulated over the period that [redacted] [redacted] it.

So I do believe that they are not only speculative, but if you're trading against someone that's a large player, the odds are often stacked against you.

Q. And that's true for bitcoin and Ether as well?

MS. GUERRIER: Objection to form.

A. The -- it's true for bitcoin and Ether.

(Exhibit [redacted]-2 was marked.)

Q. I want to mark -- let's mark your rebuttal report [redacted]-2, which is your rebuttal report. I just want to make sure we mark that.

A. It was actually the rebuttal report I didn't have, not the amended report. I actually have the amended report here.

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Q. So okay. I hadn't yet given you the rebuttal report.

A. Sorry. Thank you. That's why I don't have it.

Q. I handed you [redacted]-2, which is the rebuttal report of [redacted] dated November 12th, 2021.

Is this a copy of the rebuttal report you prepared in connection with this case?

A. Yes, it appears to be so.

Q. If you look at Page 49, is that your signature on Page 49?

A. Yes, it is.

Q. Okay. And your rebuttal report rebuts certain opinions from two of the defendants' experts, Professor Osler and Professor Ferrell.

Is that correct?

A. That's correct.

Q. And it's fair to say that your rebuttal report concerns two topics, opinions of whether XRP is a currency and opinions on Ripple's impact on XRP price and liquidity. Correct?

MS. GUERRIER: I'm objecting to the form.

A. The currency -- yeah, those are

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2 general -- in general those are the categories, the
3 broad categories, yes.
4 (Discussion off the written record.)
5 Q. In your rebuttal report we talked a lot
6 just before the break about the regression analysis
7 you did in connection with your original report.
8 Correct?
9 A. That's correct.
10 Q. And in this rebuttal report you also
11 commented on Professor Ferrell's regression analysis
12 in his original report. Correct?
13 A. That's correct.
14 Q. And I want to direct your attention to
15 Page 43 of your rebuttal report, and direct your
16 attention there to whether this is the portion of
17 your report where you comment on Professor Ferrell's
18 regression analysis. Correct?
19 A. That's correct.
20 Q. And in your report you list five reasons
21 why Professor Ferrell's regression analysis was
22 flawed. Correct?
23 A. That's correct.
24 Q. I want to walk through those five reasons
25 right now. The first reason you cite is that the

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Ferrell report used a nonstandard 28-day event window. Right?

A. That's correct.

Q. From your perspective, as I understand it, you believe that it would have been more appropriate for Professor Ferrell to use a 30-day window. Is that what you opined?

MS. GUERRIER: Objection to form.

A. That's not what I opined.

Q. What did you opine?

A. Well, what I opine here is that he's looking at a large -- there is two points I'm making. The first point is that he's looking at a 28-day window when the literature -- anyone that can look at the literature could see that the relationship should be conducted in a much tighter time window.

In fact, the point of [redacted] is to show -- and other papers they've examined these questions intraday. And now some people have also looked at daily relationships. Like, for instance, I cite here the relationship between asset returns and trading uses daily and intraday data, Chordia, Roll, Subrahmanyam, Chordia and Subrahmanyam.

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Those [redacted] that I mention [redacted]. [redacted], like we went over earlier, is that using a daily relationship is too -- one must go intraday if one wants to understand this relationship better. And longer windows will obscure the relationship between returns and trading behavior.

Now, [redacted], Sias, Starks, and Titman, they showed how the quarterly relationship and a longer relationship can be obscured and how you get more precise when you use daily returns. And that these longer windows are inappropriate.

And as I cited here: Indeed a major point of Sias, Starks, and Titman is that longer windows make it impossible to discern whether examining trading activity in relationship with stock prices occurs before the price, with the price, or after the price movement.

So for him to run a relationship over a long period of time like this, over a monthly period, it is nonstandard that he gets 28 days. So I do think that's odd and probably shows a lack of

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familiarity with the finance literature that almost everybody in the finance literature, if they're going to use monthly returns, they use monthly returns.

Nevertheless, I'm not saying that that's the major problem whether he did 28 days or 31 days. He probably would have gotten the same result whether he did 28 days or 31 days, but that relationship is the improper one to run if one really wants to get answers, questions of price impact that one needs to get intraday with the data. In examining a long relationship here, he also cites [redacted] saying he's following the [redacted], but nowhere in [redacted] do I do monthly regressions or 28-day regressions.

So [redacted] mainly uses intraday data and analyses of that nature. So I think he cites [redacted] incorrectly to say he's following [redacted] methodology.

And also he cites the Fama/French papers. Those are answering very different questions. They're looking at longer windows. They're running regressions to examine what are the common factors and returns -- return structure, not asking who's

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driving prices.

So the papers he cites here for the longer window, [redacted], the Fama and French papers at least, and I'm familiar with the other one he cites, but those were not appropriate to the type of questions that he's asking here.

Q. That last point you made about those papers not being appropriate to the types of questions he's asking here, is that what you are referencing when you have that parenthetical there: They do not deal with blows, distributions like the literature above.

Is that what that reference is to?

A. They don't deal with -- at least the Fama French paper is not primarily about flows, yes.

Q. But is that the reference you just made to those papers not being applicable here was that parenthetical?

A. The -- the point I was making here is what he's trying to say with these papers. Again, he -- what he's saying with these regressions, yeah, we can go back and -- we can look at his regression. Can I look at his regression?

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Q. But I'm not asking you about his regression. I'm asking you about your criticism of his regression right here. And your criticism right here that I'm asking you about is his use of the nonstandard 28-day event window.

MS. GUERRIER: Were you done with your answer?

A. Well, I would like to go back and -- you're asking me details about -- related to my criticism of his regression. I would like to look at his regression.

MS. GUERRIER: Well, he's not done with his answer. So can he finish his answer and then you can follow up?

Q. Are you done with your answer?

A. I would like to look at Professor Ferrell's actual regression, if we're going to talk about it, like I thought it was instructed, to actually walk through the specification, what he's showing, the table behind it at least.

Q. I'm happy for you to look at Professor Ferrell's regression analysis, but I'm not asking you a question at the moment that requires you to look at that. So if you want to look at it, go

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ahead, feel free.

A. Well, I believe it does because it is a question about his regression. This is my criticism of his regression --

Q. Right.

A. -- in the 28-day window.

Q. Right. And I'm just asking you now about the 28-day window. I'll ask you about the other criticisms in a minute.

A. Okay.

Q. But I just want to focus on the 28-day window criticism. Okay?

MS. GUERRIER: I don't think [redacted] was done. I think that he wanted to explain his answer. So if he needs to look at Professor Ferrell's report to do that, then I think he should.

So can you look at Professor Ferrell's report?

A. Can I look at Professor Ferrell's report?

Q. Go ahead. Take as much time -- would you like to take a break so that you can look at it?

A. No, I don't need a break.

Q. Okay.

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A. I don't need a break. I'll look at it quickly.

MS. GUERRIER: Take your time and make sure --

MR. CERESNEY: Well, if you'd like to study the report, I'm happy to take a break.

MS. GUERRIER: I don't think he's trying to study it. He's just using it as a point of reference.

MR. CERESNEY: Yeah, so let's take a look at it.

A. Because he ran a lot of regression, so I want to see exactly which regression in the earlier report. Is this the rebuttal report?

Q. Yes, I believe that's the rebuttal report.

A. I don't think I have his original report.

(Exhibit [redacted]-15 was marked.)

Q. All right. We'll give you his original report. We'll mark it as [redacted]-15.

A. (Pause.)

Okay.

He ran lots of regressions here, so I don't know exactly which one we're talking about at

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this point.

Q. Okay. Well, I'm asking you about the 28-day. Did you do any analysis of how Professor Ferrell's regression analysis would have come out under the windows that you're proposing were appropriate?

A. No.

Q. Okay.

A. Because --

Q. I'm not asking you why. I just asked you --

A. Well, I would like to answer the question.

Q. Well, your counsel will have plenty of time to ask you questions.

MS. GUERRIER: Well, no.

MR. CERESNEY: I asked him a question and he answered it.

MS. GUERRIER: That's his answer. You can't cut off his answer. He's not done. Let him finish his answer.

MR. CERESNEY: I can cut off his answer if he's not answering the question.

THE WITNESS: I do not --

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MS. GUERRIER: No, you can't -- I mean, you can't -- how do you know what he's going to say? Let him finish his answer, please. Thank you.

Go ahead.

A. I did not -- the question was if I ran any analysis regarding the 28-day window and whether it would change under the proposed -- when you say proposed analysis I'm talking about, it depends on which analysis. I mentioned a lot of ways one could form analyses. Whether one does -- as I mentioned earlier, whether one does 28-day or 30-day analysis, I'm not sure -- I doubt that's going to change things much.

But I am talking about intraday analysis would potentially be the right way to look at things, but also what he's -- the type of regression he's looking at here is also -- there's other reasons why it's flawed. So I don't think that one can just say, "oh, I should have -- I should have critiqued it by changing X or Y." There is a litany of things. So we can go through all five, if you want.

Q. Yeah. I'm happy to.

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A. Okay.

Q. That's what we're going to do.

A. Let's do that.

Q. I'm only asking you whether you performed any analysis in the intraday analysis that you claim would have been appropriate to do the regression analysis.

MS. GUERRIER: Objection to form.

A. I don't have the precise data, intraday data to do the type of analysis that I did in the [redacted].

Q. Okay. So you didn't do the analysis?

A. I did not.

Q. Okay. And by the way, are you familiar with the phrase "day of the week effect"?

A. Yes.

Q. And can you describe what you understand that to mean?

A. Day of the week effect is sometimes people have talked about the Friday effect or Monday effect, end-of-the-month effect. Sometimes there is a day-of-the-week effect where the return can, on average, be higher on a certain day than other days. [redacted], Laura Starks, has also written on the

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end-of-the-month effect, I believe, also. Controls for day of the week.

Q. And would you agree that Professor Ferrell's use of the 28-day sampling period circumvents the concerns that trading on the weekend, for example, may have lower volume or a somewhat different nature than trading during the week?

MS. GUERRIER: Objection to form.

A. I don't know -- I don't think that the 28-day window helps with that.

Q. You don't think the 28-day window addresses the day-of-the-week effect?

A. Well, there is the day-of-the-week effect. There is also day-of-the-month effect so if, like, Monday, it would have four Mondays, but there is very little -- I'm not aware of a huge -- there's not -- the day-of-the-week effect was something that was discussed a lot in the '80s so it's not a huge problem with today's world that people want to address or people trying to solve still the day-of-the-week effect or -- yeah, sure, there is some papers, but it's not a major -- not a major issue and I don't see any reason why -- yeah,

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I don't -- I don't see any reason why the analysis would be performed to avoid certain -- this -- this huge problem.

Q. Okay. Let's turn to your second criticism. Your second criticism of Professor Ferrell's report -- regression analysis is that XRP distributions are denominated in US dollars rather than XRP units. Is that correct?

A. Yes.

Q. Did you analyze how Professor Ferrell's regression analysis would have come out if distributions had been denominated in XRP units instead?

A. I am commenting about -- I did not -- let me see which analysis we're talking about.

(Pause.)

I'm -- I'm merely pointing out reasons why his analysis is unreliable. There is a multitude of reasons here.

Q. Okay.

A. As I stated in my first reason, one would need to do this intraday, so I don't believe that redoing this -- redoing Professor Ferrell's analysis in any form on a monthly basis or 28-day period like

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he did would tell me anything. So I don't believe there is a reason to redo that analysis.

Q. Well --

A. I don't -- I don't think I learned anything from Professor Ferrell's analysis so I don't see any reason to redo that analysis.

I am pointing out that there is a big problem in the way that he constructed it in the sense that we all know, and as you pointed out over the period, XRP -- prices of XRP units are changing widely over time and he cites [redacted]. And when citing [redacted], he says he follows [redacted] and [redacted] denominated in digital asset units, not U.S. dollar units. So there is a whole international literature that talks about what units to do, but if one's going to look at the relationship between flows and returns, one should keep things in the -- in the same -- same units.

Q. Okay. But my question was whether you had done any -- whether you had done any analysis to determine whether, in fact, his regression analysis would have come out differently if he had denominated the distributions in XRP units?

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A. I don't believe I have.

Q. Okay. Your third criticism of the Ferrell report is that the regression analysis fails to account for Ripple's active management of XRP distributions. Correct?

A. Yes.

Q. And are you able to reach any conclusion that Ripple's active management, to the extent it occurred, of XRP distributions actually had any impact on the price of XRP?

A. Well...

MS. GUERRIER: Let me object the form of that question.

But go ahead.

A. What I'm -- what I'm saying here is that the regression doesn't make -- what I'm saying in this point is that I'm -- the regression doesn't make sense to -- when you have an effect that's actively managed and they're managing it with response to prices, in particular, response as Professor Ferrell's own analysis has confirmed, that they're trading in response to past returns -- that GSR is trading in response to past returns as his own analysis has confirmed.

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Do -- you're disagreeing with that?

Q. Answer the question.

A. Okay. Well, as his own analysis has confirmed, that GSR trades with respect to past returns and so given that GSR is not trading in a vacuum completely exogenously looking at -- and that they're trading in response to past returns, as I showed in my regression, as Professor Ferrell also showed in his regression, that type of relationship means that putting a contemporaneous relationship in there doesn't make much sense. And, in fact, if one is trading actively and to minimize price impact, one might find precisely no relationship. And that just means that you're trading strategically to avoid price impact or that there is some kind of intra- -- intraday relationship and you're just looking at the aggregate data.

So again, it comes back to this fact that he's running a monthly relationship, whereas all the academic literature would say that that is not the way that this should be done. So you can't just run a monthly or, in his case, 28 days, again, nonstandard, but my main point is there, you can't just run a long period of time when something needs

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to be examined with precise data if -- if one wants to make a causal -- causal claim like he's -- or the lack of relationship to draw anything from that lack of relationship, which is what he's trying to do.

That's another point that I bring out in my report is that the fact that you don't have a relationship, the lack of a statistical relationship does not prove anything. You can't, you know -- as I've been told in an academic seminar, you can't prove something from a nonresult.

Q. Okay. Is it fair to say, though, that you didn't do any analysis to determine what impact Ripple's active management of XRP distributions would have had on the price of XRP?

MS. GUERRIER: Objection to form.

Q. I think we've established that pretty conclusively today.

MS. GUERRIER: Objection.

A. Again, as I mentioned earlier, one would need to have a precise intraday relationship to examine this more precisely.

Now, my -- the emails I have trading -- the emails and the trading suggests that -- is the attention -- as I mentioned earlier, it seems to be

1 [redacted] - 2/15/2022
2 the attention of Ripple executives to trade on
3 certain times to either establish a price pour or
4 to -- to push the price, and Ripple executives,
5 including I believe it was Garlinghouse, believed
6 that their activity was successful.
7 But that's not -- that's beyond the scope
8 of my assignment, but I am saying that Professor
9 Ferrell's analysis is extremely inconclusive exactly
10 as one would expect, given all -- given the type of
11 analysis he performs.
12 Q. The emails you just referenced, those
13 were all from 2016. Correct?
14 A. I believe so.
15 Q. Okay. From the fourth criticism in your
16 report is that Professor Ferrell's report, the
17 regression, is that timing of XRP transfers may be
18 inconsistent with sales of XRP. Is that correct?
19 Is that the fourth criticism?
20 A. Yes.
21 Q. Did you analyze how the regression
22 analysis would have come out different if the timing
23 of the transfers were recorded in a methodology you
24 deemed proper?
25 MS. GUERRIER: Objection.

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A. (Pause.)

So I -- my criticism of Professor Ferrell in this regard is that he -- he cited my paper and, again, did not apply the same methodology that [redacted] does. [redacted] is very careful to document that it was not on -- for instance, [redacted] is [redacted]

Looking at the analogy here to look at when something was released from custody is irrelevant. It's similar to what [redacted] showed in [redacted] paper, that that was irrelevant, to look at [redacted] printing, for instance. We knew -- we already know [redacted] printing doesn't matter.

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So to say he applied my methodology without looking carefully at how [redacted] was constructed is incorrect. He did not apply my methodology. My methodology looked [redacted] His regression, his approach to -- to just look at the printing and over a monthly frequency is not at all what I did. I did a -- I did an intraday analysis and I looked at the times when the money went out from the wallet.

So the question being did I correct for this, if the question is correct for this, the answer is the same, that I don't have the data. I don't have the intraday data granular enough like [redacted] did in the [redacted] to examine that.

But what he did is not at all what [redacted] did in that paper and I would expect you would get completely inconclusive results if one is to perform such analysis. And, in fact, [redacted] -- [redacted] shows that we would get inconclusive results using the wrong timing. And so the fact that he uses the

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2 wrong timing gets inconclusive results, I'm saying
3 this is another example where that's exactly what
4 you'd expect. If you do your analysis -- if you do
5 sloppy analysis, you get sloppy results.
6 Q. Bottom line is, though, you did not do
7 the analysis, you don't have the data to do the
8 analysis is what you're saying?
9 A. That's what I said.
10 Q. Okay. And then let's look at the fifth
11 criticism here. The fifth criticism is that: The
12 regression analysis does not account for the
13 long-run effect that XRP distributions have on
14 increased liquidity, recognition, and demand.
15 Right? That's your fifth criticism?
16 A. That's correct.
17 Q. Did you analyze or measure the long-run
18 effects of XRP distributions on increased liquidity,
19 recognition, and demand?
20 A. No.
21 Q. Okay.
22 A. I would like to say to that that
23 Professor Ferrell, in his own report, in his own
24 opinion offers an opinion that liquidity is
25 important. And he has -- there is a large

1 [redacted] - 2/15/2022
2 literature about liquidity being important and
3 liquidity driving prices, so being -- being a
4 positive factor to increase prices.
5 And so Professor Ferrell kind of tries to
6 sidestep the issue, but the fact that he's
7 showing -- the fact that in his other part of the
8 report where he argues that their goal is to
9 increase liquidity, that is tautologically related
10 to increasing the price.
11 And there is a whole literature about
12 that, and Professor Ferrell in his own testimony in
13 other cases notes that, and he conveniently leaves
14 it out in his current report, that that is --
15 increasing liquidity is a -- also causes prices to
16 increase.
17 Q. Let me ask you about that. I'm glad you
18 raised it.
19 A. Okay.
20 Q. You cite Professor Ferrell's -- another
21 article that Professor Ferrell wrote in your
22 rebuttal report on that issue. Correct? You just
23 referred to it. Right?
24 A. Yeah. I'd like to see the exact quote,
25 but yes.

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Q. Okay.

A. I cite -- I think I -- prior --

Q. Why don't we turn to --

A. -- I don't know if it was prior testimony or an article.

Q. Why don't we turn. We'll look at [redacted]-3 -- I'm sorry -- [redacted]-15 -- [redacted]-2, which is your rebuttal report. We'll look at Paragraph 67 of your rebuttal report. Page 42. You quote here from an article that Mr. -- that Professor Ferrell wrote in a different matter. And you quote the last sentence of that article.

It says: And a more liquid asset will be more valuable than a less liquid asset, all things being equal -- all else equal. Sorry.

Do you see that?

A. Which paragraph?

Q. Paragraph 67. You have a block quote there.

A. In my rebuttal report?

Q. In your rebuttal report, [redacted]-2.

A. (Pause.)

Yes.

Q. In which you focus on this -- this last

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sentence: A more liquid asset will be more valuable than a less liquid asset, all else equal.

Do you see that?

A. Yes.

Q. And you focused on that. And just to be clear, Professor Ferrell is saying there: All else equal, a more liquid asset would be more valuable than a less liquid asset. Right? He's qualifying it with the term "all else equal." Correct?

MS. GUERRIER: Objection to form.

A. Yes.

Q. Now, I want to look earlier in your report. First, let's look at Page 34 of your report, Paragraph 56(a). And if you look at this paragraph, you say in this paragraph: A large body of academic literature finds that an increasing liquidity is generally associated with increasing asset price. All else equal, an asset is more valuable when it is more liquid. Stated another way, an investor will pay a higher price for an asset to the extent that the opportunity to sell the asset becomes easier and less costly.

And then you say: In fact, Professor Ferrell, in an earlier expert report for an

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unrelated matter, conceded that a more liquid asset would be more valuable than a less liquid asset.

Do you see that, where you quote that?

A. Yes.

Q. And that quote is the same article that you cite in Paragraph 67 of your report. Correct?

MS. GUERRIER: Objection.

A. Yes.

Q. But you didn't include the last three words of his quote, did you?

MS. GUERRIER: Objection.

A. I -- as I note in my report here, I said: As Professor Ferrell acknowledged, increasing liquidity is generally associated with higher prices.

So I do qualify it with "generally."

Q. Where do you -- where do you say that in this paragraph, Paragraph 56(a)?

A. Paragraph 56(a), I say -- there is a sentence that says: Indeed, in both public and private communication to their potential investors, Ripple and their employees indicate they are aware of the positive relationship between liquidity and XRP value. Ripple's efforts to increase liquidity,

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as Professor Ferrell acknowledged, and increasing liquidity is generally associated with higher -- higher prices.

Professor Ferrell's conclusion that none of the returns is owning to the efforts of Ripple is directly contradictory to his extensive knowledge of Ripple's effort to increase liquidity and his knowledge of a more liquid asset will be more value than a less liquid asset.

Yes.

Q. So you then quote -- I was initially asking you about Paragraph 56(a), okay, the prior paragraph to what you just read. Right? And in Paragraph 56(a), you quote Professor Ferrell from his article, but you left out the "all things" -- "all else equal" at the end of his article. Correct?

MS. GUERRIER: Objection to form.

A. This is a summary report. In my report, I put the whole quote so everybody could see it. I am not trying to mischaracterize Professor Ferrell in any way. I put the whole paragraph of his quote so one could see the context of it.

Q. Okay. And is it fair to say, though,

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that Professor Ferrell in his report was saying that all else is not equal? Is that a fair statement?

MS. GUERRIER: Objection to form.

A. He's certainly -- in this report, he made no mention of the fact that -- he made no mention of the fact that his prior testimony that a more liquid asset will be more value than a less liquid asset, all else equal. He made no mention of that in his report.

Instead, he opined that the -- the motive for doing that -- anyway, I'll leave his opinion -- but he made no mention that he had this view that a more liquid asset will be more valuable than a less liquid asset, all else equal.

Q. Isn't it the case that he didn't mention that because all else was not equal?

MS. GUERRIER: Objection to form.

A. If he believed that was his view, he had the case to -- he could have spelled it out in his report why it wasn't the case that all else was not equal.

Q. And you're claiming that he didn't do that in his report?

A. I don't believe he did.

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MS. GUERRIER: Objection.

Q. Okay. So let's look at his report, then, because I think it's clear from his report, so let's look at his report.

MS. GUERRIER: I'm going to object to that statement, too.

Q. So let's look at Professor Ferrell's report. And if we look at [redacted]-15.

Well, actually, let me just ask you before we look at his report. Professor Ferrell talked about -- when you're talking about increasing liquidity of XRP, what you're referring to is in his report his reference to some incentives that were provided to six exchanges to list XRP. Is that what you were referring to?

MS. GUERRIER: Objection to form.

A. I would like to answer a precise question based on his report. He talked about a lot of things in his report, so --

Q. Well --

A. It's a 100-page document, so if we're going to -- if you have a specific statement he made and we want to look at that, I can look at that.

Q. Okay. But you were the one just a few

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minutes ago who said that Professor Ferrell in his report made a big deal about the efforts that Ripple took to increase liquidity of XRP, so what I'm asking you is, what were you referring to when you referred to that?

MS. GUERRIER: Objection.

A. So I would like to -- yeah, he spent numerous pages in his report discussing that.

Q. And what did he discuss, as far as you can recall?

A. I would like to look at his report. Is that fine?

Q. Yeah. Go ahead.

A. Okay.

(Pause.)

He says -- I mean, this isn't a complete discussion of him, because it's discussed in many places, but an example would be in Paragraph -- on Page 51.

Professor Ferrell states: The SEC, however, fails to recognize that Ripple's efforts to improve liquidity are not equivalent to efforts to increase prices. As I discuss below, Ripple efforts aimed at increasing improving -- aimed at improving

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2 market liquidity for XRP to enhance the efficacy of
3 Ripple's product suite, including ODL.
4 Furthermore, my empirical analysis states
5 that Ripple's XRP distributions did not have a
6 statistically significant effect on XRP's long-run
7 price returns.
8 Well, we've already talked about why I
9 believe the last part of that is incorrect, but
10 the -- he says: Fails to recognize Ripple's efforts
11 to improve liquidity are not equivalent to efforts
12 to increase price. There were Ripple's efforts
13 aimed at improving market liquidity for XRP to
14 enhance the efficiency of Ripple's product suite,
15 including ODL.
16 So, yes, that could have been a
17 motivation for them to increase liquidity, but what
18 I am pointing out is just that there is a very
19 strong relationship between increasing liquidity and
20 increasing prices, and Professor Ferrell is not
21 addressing that.
22 And, in fact, there's a strong
23 relationship one would expect in a whole host of
24 academic literature that shows that increasing
25 literature, increasing liquidity does increase

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prices. Now, one might not find it or probably would not find it if you read, in fact, I would expect one not to find it running the kind of regression Ferrell runs, any kind of relationship. Because it's not -- the relationship is a positive -- the relationship is a positive relationship that as you increase liquidity, it increases returns.

However, in the short run if you increase liquidity by putting more shares out into the wild, it has a downward effect on prices in the short run, but in the long run it has an offsetting effect.

And in emails that I cited in the report, Ripple executives acknowledged that and understand that fact and I believe I cited those in my -- in one of my reports and we can go look at those if we want.

Q. So --

A. I think Ripple understands that relationship. I think Professor Ferrell understands that relationship too. Sorry.

Q. So just, in your last answer, I heard you talk about efforts to increase liquidity of XRP but also downward pressure on the price of XRP from

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distributions of XRP. You talked about both of those concepts in what you just discussed. Correct?

A. That's correct.

Q. And so, therefore, efforts to increase liquidity may be offset by the actual distributions of XRP which could have a negative impact on the price of XRP. Is that a fair statement?

MS. GUERRIER: Objection to form.

A. As I stated, there's a short-run impact and a long-run impact. In the short run, one would expect a distribution if one put a bunch of shares out there, it would have been a negative price impact. But even in the long run, it could be positive in the sense more people are selling the shares, maybe what -- like something that's been done in experiments or they give-- they give somebody like one share of stock. If you psychologically, if you give somebody one share of stock, they're much more likely to buy one share.

So by putting shares out there in various people's hands, it also increases the odds that they may buy the stock in the future. That's the reason -- that's the reason why you have cross-listing on exchanges to -- for instance, the

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paper that I cite, the Forester & Corolly (phonetic) paper, that was the paper where [redacted] And the idea was if you get more shares into people's hands, you increase the shareholder base, it can have a positive effect on price.

So coming back to what your question is, yes, there are offsetting effects. There's a short-run effect, there's long-run effect which is why it's difficult to empirically measure this and that's why there's a large academic literature on it. And that's also why Professor Ferrell running some regression, saying there's no relationship, is exactly what you'd expect given that you have offsetting forces and not being -- in that long-run effect being very difficult to measure in the data.

So I don't -- that's why I think it is, you know, important to point out that this, on average, you would expect this relationship and Ripple executives understand that the whole academic literature understands it, there's a positive relationship and Professor Ferrell understands it, but he doesn't --

Q. So --

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A. -- but he doesn't mention it in his report.

Q. Can we agree that everything you just outlined shows that all else is not equal?

MS. GUERRIER: Objection to form.

A. Absolutely not.

Q. So you would contend that if the simple statement that a more liquid asset be more valuable than a less liquid asset governs the concepts that you just spent ten minutes explaining to me?

MS. GUERRIER: Objection to form.

Go ahead, Professor.

A. On average, generally, this is the case that a more liquid asset is more valuable than a less liquid asset. All else equal.

Now, the concept of all else equal here, in this case, one would have to say what else isn't equal about GSR? In other words, if you took GSR -- I mean, I'm sorry -- I didn't mean to say GSR -- XRP and you have 1 million shares in the wild and, then, suddenly you have 2 million shares in the wild, and then, you could -- had all else equal, then it would be different.

So, yeah, I -- so I -- again, there's a

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short-run impact and a long-run impact, but that's different from saying all else equal. We can talk about all else equal and what those assumptions were. But, again, that was not a subject that Professor Ferrell noted and I did think it was worthwhile to note not only does the academic literature show that there should be a relationship, Ripple executives think there should be a relationship, and even Professor Ferrell thinks there should be a relationship.

So I think it is important fact, yes, he did qualify his statement "all else equal," I cite that in the report. I'm not misciting Professor Ferrell.

(Discussion off the written record.)

MR. CERESNEY: Let's take a break.

THE VIDEOGRAPHER: Off the record at 5:36 p.m.

(Break.)

THE VIDEOGRAPHER: Segment No. 7. We're back on the record at 5:45.

Q. I just have one more question before I hand it over to Ms. Bunting.

Earlier we -- I asked you a number of

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questions about speculative investments and major cryptocurrencies and [redacted] and Ether and how you viewed those today, how you viewed those over the last few years. Do you remember those series of questions that I asked you?

A. Yes.

Q. And my only question is, would you consider XRP to be a major crypto asset much like bitcoin and Ether --

MS. GUERRIER: Objection.

Q. -- for the purposes of those questions?

MS. GUERRIER: Objection to form.

A. I don't know. I haven't -- I'm not seriously considering investing in the digital asset space so I haven't sat down and analyzed whether I would be comfortable buying XRP as a digital asset. I know I can't. It's a moot point because I can't do it because I'm not -- I'm now working on this, but even if I wasn't working on this matter, I'm not looking at that space so I haven't thought about it. I haven't analyzed it.

Q. At the time [redacted], did you consider bitcoin to be a major cryptocurrency asset?

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A. If one takes a list of major crypto digital assets in terms of market caps, there are certain periods of time where -- where XRP is a major -- is a major digital asset.

Q. And the things that you said about bitcoin and Ether being more speculative than an investment, risky, all those other things you said about bitcoin and Ether, would you say those same things about XRP?

MS. GUERRIER: Objection to form.

A. Again, I haven't -- I haven't sat down and thought about the nature of that question, whether I'd -- I'd be comfortable. It would depend. Whether I would invest in a digital asset or not would -- would depend on a lot of things. One of those things might be the extent to which I believe that that was legal to trade, whether that asset had a claim to -- how volatile the asset was, where the asset traded, the liquidity of the asset, the -- the nature -- for what I found -- from the results of [redacted] for bitcoin and the other crypto assets, that they were [redacted] issuances. Their -- their [redacted] issues.

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So the possibility -- as we talked earlier, the possibility that it could happen for other digital assets, I cannot rule that possibility out. I can't say today that's what's going on or two years -- but at least at the time of [redacted] it showed that there was a lot of [redacted] in the space. So that would make me uncomfortable from investing in digital assets in general.

And I don't know those -- whether that -- I don't know that -- I don't know how that conclusion would differ with XRP or not.

Q. Okay.

MR. CERESNEY: Ms. Bunting has some questions.

EXAMINATION

BY MS. BUNTING:

Q. Good afternoon, [redacted].

A. Hi.

Q. My name's Kristina Bunting. I'm from Paul, Weiss, Rifkind, Wharton & Garrison. And I represent Mr. Larsen in this action.

So, [redacted], if you could please turn to Page 7 of your report. I just direct your attention to Paragraph 9. Let me know when

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2 you're there?

3 A. Yes, I'm here.

4 Q. I believe you testified earlier that this

5 sets out the summary of the opinions that you're

6 offering in your report. Correct?

7 A. That's correct.

8 Q. If I could direct your attention to

9 Paragraph 9(d), you state there: Larsen and

10 Garlinghouse collectively transferred 4.4 billion

11 units of XRP (valued at 1.3 billion at the time of

12 transfer) from the XRP digital wallet addresses. A

13 large portion of these transfers were made to GSR, a

14 market maker who also sold XRP programmatically on

15 Ripple's behalf to strategically sell their XRP

16 holdings over time.

17 Do you see that?

18 A. Yes.

19 Q. Are you offering any opinion in your

20 report or your rebuttal report on the amount of

21 proceeds that Mr. Larsen received as a result of any

22 transfers of his XRP from his wallet?

23 A. Can you read the question again?

24 Q. Sure. Are you offering any opinion on

25 the amount of proceeds that Mr. Larsen received as a

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result of any transfers of XRP from his wallets?

A. I am showing those transfers went to GSR and to other places, but I'm careful to note in my report that often those assets are sold on the exchange, but one would need to have detailed within exchange data to know precisely whether they were sold or exchanged into something else and so forth.

Q. So you're not offering an opinion on the amount of proceeds that Mr. Larsen received from any of his transfers of XRP. Correct?

MS. GUERRIER: Objection to form.

A. I'm offering opinion about the amount that he transferred out of his wallets. It's a factual analysis based on his analysis. Out of his wallets, digital wallets over this period, the amount of XRP that was transferred out of the wallets to GSR, as well as other sources, but not the precise -- yeah, not the precise amount sold.

Q. But you're also not opining on what he received from any sales of XRP. Correct?

MS. GUERRIER: Objection to form.

A. The -- I don't have a precise figure for what exactly he received from sales of XRP. If you want to -- the fact that these assets went out to

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exchanges, there is generally the inclination that people are moving them to exchanges. There is a reason for it.

If you move to -- money to an exchange, it's subject to potential hacking, for instance, and I saw in the email correspondence that I cited in my report that there was also some discussion of that, whether Poloniex was a credible exchange or whether -- so there is typically a reason why people move these to an exchange.

So I -- I'd rather answer exactly what I am opining on. I'm moving that the assets moved out of his wallet to other wallets, but not -- you know, there is a strong inclination that most people do that when they're selling. So that's -- but -- I'm not trying to pinpoint the precise amount -- dollar amounts of proceeds raised.

Q. So are you again also not pinpointing the precise amounts of dollars raised from sales of XRP with respect to Mr. Garlinghouse?

MS. GUERRIER: Objection.

A. The -- not the precise amount, but I am showing -- I am showing what happened. I am showing the facts of what happened on the blockchain.

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Q. Are you offering any opinion that particular transfers of XRP from Mr. Larsen's wallets actually affected the price of XRP?

MS. GUERRIER: Objection.

A. Mr. -- did you say Garlinghouse or --

Q. Larsen.

A. Okay. Are you here on behalf of Garlinghouse or Larsen or both?

Q. I'm asking questions that relate to both Mr. Larsen and Mr. Garlinghouse.

A. Okay. Sorry.

So am I offering opinion -- as I opined -- as I examined before in my Figure 5, it's examining Mr. Larsen's trading activity. So I am offering opinions about his trading activity in Figure 5.

Q. That's not what I asked -- that's not what I asked, [redacted]. What I'm asking is are you offering any opinion that any particular transfers of XRP from Mr. Larsen's wallets actually affected the price of XRP?

MS. GUERRIER: Objection to form.

A. What I show, his trading behavior on this, and I do note, as I mentioned earlier -- I do

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notice that Mr. Garlinghouse speculates that Larsen's purchases might be the reason for the recent price stability. So I do note in this graph it's not a -- I do note in this graph that he buys like 800,000 XRP -- $800,000 worth of XRP. The price increases afterwards.

And, you know, Garlinghouse thinks that he may be the reason why the price stabilized. As a reasonable person, I guess like Garlinghouse, one might think that if you're buying $800,000 worth of something in a certain period.

But my analysis, the scope of my analysis, as I talked earlier, is to, again, whether they took steps to influence the XRP prices, not whether the prices were actually influenced.

Q. So just to be clear, you did not do any analysis to show a causal connection between any transfers of Mr. Larsen's XRP and the price of XRP. Correct?

MS. GUERRIER: Hold on. Asked and answered. And objection to form also, in addition to -- and including asked and answered, objection.

A. I show in Figure 5 that he engages in a large amount of buying activity, Larsen does, and

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the price of XRP increases dramatically after that. Mr. Garlinghouse thinks that he might be the reason behind the price increase. It seems like a reasonable inference. But that is not the point of my analysis.

Q. So, [redacted] Correct?

A. That's correct.

Q. So did you analyze any data to show that there was that causal connection between the transfers and the price of XRP?

MS. GUERRIER: Objection to form, and asked and answered.

A. Again, when one wants to talk about causality, there's a variety of -- it's a loaded topic. Okay? One might want to have, for instance, a controlled experiment. That's one way people examine causality, like where money drops out of the helicopter and then people trade on it, does it affect prices, or something random happens for people to examine that.

So that is a -- yeah, that's a topic. It's a difficult one to examine. In particular, one would need to have -- yeah, so I think the -- if

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you're asking me questions of causality, I'm not opining in this figure. I'm not saying this relationship was causal.

Q. Are you offering an opinion that Mr. Larsen continued to control any XRP after it was initially transferred out of his wallets?

MS. GUERRIER: Objection.

A. I'm not opining on that. I don't believe I'm offering an opinion about that one way or the other, but if I'm missing something maybe. Is there some part of my report you want to read to me, ask me whether -- what I'm opining on there?

Q. We'll get to that in a moment. But is your answer that you're not opining on that question?

A. I'm not sure what the question is exactly.

Q. Are you offering an opinion that Mr. Larsen continued to control any XRP after it was initially transferred out of his wallets?

MS. GUERRIER: Objection.

A. Well, when it went to GSR, it seems that -- that he's directing GSR from the email correspondence --

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Q. When you say "transfer to GSR," do you mean a direct transfer to GSR or a transfer to GSR over multiple hops?

MS. GUERRIER: Objection.

A. In this particular case I'm talking about a direct transfer.

Q. Okay. So putting aside direct transfers by Mr. Larsen to GSR, are you opining for the other transfers that Mr. Larsen continued to control any XRP after it was transferred out of his wallet?

MS. GUERRIER: Objection; asked and answered.

MS. BUNTING: That's not been asked and answered.

A. I think --

MS. GUERRIER: Again, objection; asked and answered.

A. I think from the email the question that I thought I -- I thought I was being asked is, after it leaves his wallet, does Larsen have any control over the -- at least the original question -- and it says -- in the communication here it seems like he personally bought 800,000 of XRP by the end of the weekend through GSR.

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So the fact he's buying through GSR might indicate -- seemingly indicates that Larsen is using GSR to implement his trades. So it has left his -- it has left his control. It has left -- I mean, his -- well, I don't know if you would call it his control. His direct -- his maybe direct control it's left, but not his indirect control in the sense GSR and him have a relationship. So he's directing them to trade on his behalf. That's my understanding of the relationship.

Q. So putting aside any transfers to GSR for the moment from Mr. Larsen's wallets, are you opining that Mr. Larsen continued to have control over that XRP after it was initially transferred out of his wallets?

MS. GUERRIER: Objection; asked and answered.

A. Well, it depends on when you say "out of his wallets." It depends what that means exactly, in terms of out of his wallets. Because if one wants -- if we're talking about my tracing analysis and so forth, we can discuss that and --

Q. Yes, that's exactly what we're discussing, your tracing analysis.

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A. Okay. Well, can I look at which figure we're talking about or which one would you like to ask me?

Q. Okay. So let's turn to Page 27. So Section 7(b) of your report addresses blockchain tracing of funds leaving Larsen's addresses.

Correct?

A. Yes.

Q. And Section 7(c) of your report addresses blockchain tracing of funds leaving Garlinghouse's addresses. Correct?

A. That's correct.

Q. Okay. And then turning to Appendix E of your report, at Pages 64 to 70, it's entitled "Methodology of -- methodology for blockchain analysis and flow of XRP from Larsen and Garlinghouse addresses."

Correct?

A. That's correct.

Q. If you look at Paragraph 65 on Page 64, you note that XRP from the addresses of Larsen and Garlinghouse is traced until certain scenarios are reached. Correct?

A. That's correct.

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Q. What do you mean when you say: XRP is traced into one of the following scenarios?

A. Sure. So "traced" refers to the currency, the -- "traced" refers to -- if one is talking about, like, bitcoin, bitcoin tracing, there is services that provide bitcoin tracing. It's a matter of something that [redacted] works on.

But when I say "traced," I mean the accounts are followed from hop to hop. So there is different -- you -- you follow the funds on the blockchain from one account to another account. So you follow it from one account to another account. If you -- and these addresses were identified as Larsen and Garlinghouse's addresses.

So taking that assumption basis for the analysis, looking at the first transfer, the direct transfers and that's the -- I note the direct transfer is different from -- and then we focus on multiple hops, and so a hop is like you -- if something goes from Account A, it goes to Account B, then one looks at that movement from Account B to Account C.

So one common thing, for instance, with -- with [redacted]

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[redacted] in that analysis was that oftentimes people use the same account and transfer things over multiple hops.

So one reason people do that is they don't want everybody to know what they're doing necessarily or they have multiple accounts and they want to try to make it less easy for people to trace. If you just move funds between A and B, then, you know, Joe Smith can go on the internet and say, ah-ha, the money went from here to here; this is what happened. But if you move the funds from A to B to C to D, then it becomes more difficult. So that's what I mean by traced. We follow the funds from A to B to C and we have a methodology that we employed here, and in particular, we follow the funds until one of these following conditions happens. The XRP reaches the GRS -- or GSR-associated addresses.

We talked about that analysis in the previous section. I can go over that if you'd like, but that would be a long discussion.

XRP reaches an identified address such as a digital asset exchange. We obtain information on

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2 digital asset exchanges through scraping multiple
3 websites and understanding what their addresses are,
4 their wallet addresses, so forth. That's how one
5 identifies those.
6 And then XRP reaches a nonidentified
7 address with over a thousand transactions. Those
8 are labeled as high-activity addresses. Those may
9 be the case that our algorithm -- we want to be
10 conservative so we take an -- we take a approach
11 that says even if we don't have the identity of the
12 exchange, if there is over a thousand addresses
13 moving to this, this may be some kind of dis- --
14 this may be some kind of decentralized exchange or
15 something that's there is not great data out on the
16 internet.
17 The fourth one is it's returned to one of
18 the Larsen addresses so if it goes back to the
19 Larsen or Garlinghouse addresses, then it goes back.
20 Or the fifth component, if there's a
21 small flow, then we -- we ignored it.
22 Now, the last feature is the 13 hops.
23 And the reason we stopped with the 13 hops is
24 because computing -- computing power gets to be
25 fairly -- fairly intense as one moves to the 13

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hops, and also, one can see from the analysis whether one moves from 12 hops to 13 hops, it's very marginal. So we could have done -- perhaps done more hops and found -- found a few more funds going to GSR, but that would not alter the conclusions at all, so it's no reason to continue that beyond this.

Q. So what I hear you saying is that amounts that -- of XRP that can be traced to one of these scenarios is then included in the amounts of XRP transferred or traced that you set out in Appendix E. Correct?

MS. GUERRIER: Objection.

A. I'm sorry. It's getting late in the day. Can you repeat that question? Sorry.

Q. So what I hear you saying is that if XRP is traced to one these scenarios, it's then included in the amounts that you say in Appendix E can be traced or transferred -- traced to particular addresses of -- of Larsen or Garlinghouse. Correct?

A. That's generally the case.

MS. GUERRIER: Same objection --

Q. Okay. So why -- why did --

MS. GUERRIER: Hold on. I'm sorry. Let me just put my objection on. Same objection.

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Go ahead.

Q. So why did you analyze whether XRP initially transferred by Mr. Larsen or Mr. Garlinghouse reached any of these scenarios in particular?

MS. GUERRIER: Objection.

A. I mean, the outline -- my assignment was to opine on the incentives that might have been present for Ripple to attempt to influence the price of XRP. So to the extent that the executives had funds and were selling those funds through GSR or some other service, that might affect the incentives that they had.

Q. But you don't actually set out in your report how much, if any, was sold by Mr. Larsen through an exchange or GSR. Correct?

MS. GUERRIER: Objection.

A. As I note -- I discuss in the report, I laid it out very clearly that often cryptocurrencies are sold on exchanges and that's the typical reason why they go to exchanges but that we don't have exchange-level data.

I don't know where I said that, but I did say that somewhere.

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Q. Okay. If I could point you to --

MS. GUERRIER: Hold on a second. If you need to read your report just so that you can make your reference, please do that.

MS. BUNTING: We're going to get there now. I'm pointing him to the paragraph.

THE WITNESS: Okay.

MR. GUERRIER: All right.

Q. So, [redacted], if you look at Paragraph 69, you state that: It is impossible to infer that significant amounts of XRP originating from Larsen's and Garlinghouse's identified addresses were transferred and traced to GSR as well as digital asset platforms where they could have been sold.

Is there a reason why you were using the word "often sold" in your testimony today instead of "could have been sold" like you did in your report?

MS. GUERRIER: Objection to form.

A. I think both are correct.

Q. But, again, you did not do any analysis to show what amounts of XRP were sold by Mr. Larsen on an exchange or by GSR. Correct?

MS. GUERRIER: Objection to form.

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Go ahead.

A. I guess if Mr. Larsen didn't sell any and just transferred that to the GSR to keep his assets there and didn't sell any, he could produce evidence that -- that he hadn't sold any and he could produce such evidence if he wanted to, I guess.

Q. And you don't know one way or another. Correct?

MS. GUERRIER: Objection to form.

A. I don't have -- as I noted in the report, I trace it to GSR. I know that that's a big service that GSR provides and that's the reason why people move money to exchanges is they want to change their cryptos into other assets. That's the common reason people move to the exchanges. They definitely don't want a custodian -- their shares on a digital asset exchange. We could look at, like, Mt. Gox, for instance, was hacked. That's a risky way to custodian your XRP.

So if you're moving them to an exchange, generally, people have a reason for that, they generally do sell at that. I have -- I have examined that in -- in the context of my academic paper that, yes, usually there is a relationship.

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But, yes. So -- but there is, again, as I noted in my report, there's -- the precise timing and when those assets are sold, I'm not opining on.

Q. And you're also not opining on that point with respect to Mr. Garlinghouse. Correct?

A. That's correct.

MS. GUERRIER: Objection.

Q. And again, you're not opining that the amounts that were transferred to GSR or to digital exchanges were all ultimately sold by GSR or on the exchanges. Correct?

MS. GUERRIER: Objection to form.

A. I am showing that a lot of assets were transferred to GSR. Typically, that's -- typically, those assets are sold. I'm not opining that all assets -- all assets were -- were sold. If none of the assets were sold, I would -- and if -- if data is produced and it shows that none of the assets were sold, I -- I'd be happy -- or even most of the assets weren't sold, I'd be happy to incorporate that information in my -- in my report. But what I'm showing here is that a lot of funds went to GSR. There are contracts with GSR and most of the time people move funds to exchange to sell. That's

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typically why they move it, but there could be other reasons.

Q. Were these scenarios chosen by you, [redacted]?

MS. GUERRIER: Objection to form.

A. What do you mean by scenarios chosen by me?

Q. So you say that XRP is traced until certain scenarios are reached. Correct?

A. Yes.

Q. And there is six scenarios. Correct?

A. Yes.

Q. Did you -- did you choose all these scenarios?

A. My team chose these scenarios at my -- my direction.

Q. And why did you direct them to -- what did you direct them to --

A. I guess --

MS. GUERRIER: Hold on.

THE WITNESS: Sorry.

MS. GUERRIER: Okay. I'm going to object to this. In fact, I'm going to instruct you not to answer that on grounds of work product.

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Q. So how did you determine to apply these scenarios?

A. Well, these are -- I -- I do blockchain tracing as a function of our work at [redacted] also as a function of my academic work, and the question -- the -- the precise question that we're looking at here is the -- you know, is the relationship between money, moving out from Larsen or Garlinghouse accounts to GSR and what's that relationship, as well as looking at other addresses.

So I believe the methodology is appropriate in the sense it does -- it does also -- we do note in the report that we have different levels of confidence for the direct traces versus the multiple hops. And we note that the analysis is more precise for -- I note that the analysis is more precise for the direct transfers, and if you look at my table, it talks about this.

Q. So, actually, let's go there, [redacted], to paragraph --

MS. GUERRIER: I don't think he was done.

Q. Oh, sorry. Complete your answer.

A. Okay. I mean, maybe you're going to ask

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me about this, anyway.

Table 2, if you look at Table 2, I show 1 hop, the direct transfers. This is for Mr. Larsen. Table 2, 1 hop, these are direct transfers. These are transfers that -- that are going just directly from Larsen to GSR.

So in this case, there is -- you know, there is little doubt that the money is -- that the XRP is going to GSR. So in this case, it's -- this is on the blockchain. These are direct transfers.

Now, up to two hops and I show it up to 7 hops on the -- on the graph. In this case, one didn't need to -- for Mr. Larsen to go above 8 hops because of basically that there is some -- such a trivial amount left at that point, it's a rounding error.

So one can see that really whether one does -- I mean, so one can say -- one could say, well, you know -- one can talk about the 1 hop to 7 hops, various -- various levels of funds for each of those hops.

Q. And so I think what I -- let's actually turn to Paragraph 38.

A. Okay.

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Q. And you say there that: Mr. Larsen sent at least 1.50 billion XRP to GSR via 1 hop, but he could have sent up to 1.90 billion XRP to GSR over up to 4 hops, or 1.93 billion, if tracing up to 7 hops.

Correct?

A. That's correct.

Q. So you calculated the 1.93 billion number based on 7 hops because that is when the XRP initially transferred by Mr. Larsen purportedly reached GSR. Correct?

MS. GUERRIER: Objection to form.

A. Can you rephrase the question?

Q. Sure.

That 1.93 billion number is based on 7 hops, because that's when the XRP initially transferred by Mr. Larsen purportedly reached a GSR wallet address at any point up to the 7 hops. Correct?

MS. GUERRIER: Same objection.

A. I wouldn't use the word "purportedly," but according to the methodology, it reached a GSR -- it did reach a GSR address up to 7 hops. That's a fact.

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One can criticize -- one can say with the methodology that perhaps it was sold to somebody else, but even if it was sold to somebody else, if it was sold to somebody else, then Larsen made money from that. So it's really -- would be irrelevant in that case whether it was sold to -- whether it was sold through GSR or sold through another intermediary. The point would still stand whether he sold it through GSR or sold it to somebody else, it's kind of irrelevant, but anyway, I don't know if I'm answering your question.

Q. Yeah. But, [redacted], just on that point --

A. Yes.

Q. -- Mr. Larsen could have gifted it to someone who then sold it through GSR. Correct? I think you admit that in your report.

A. Sure.

MS. GUERRIER: Object -- hold on. Objection to form.

Go ahead.

A. Mr. Larsen could have gifted that to someone else, could have gifted it to a charity, taken a tax write-off for it that offset his income.

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That's possible. I don't examine that. Maybe that may be something that could be examined if the data was provided, but I didn't -- I did not examine -- and as I note in my report, the GSR -- GSR tradings I said -- I say: This could be a reason why XRP reached GSR from Larsen's identified wallets up to a period of 7 hops.

Q. So your choice of 7 hops was driven by the fact that it encompassed all the XRP that reached GSR that was originally transferred from Mr. Larsen's wallets. Correct?

MS. GUERRIER: Objection to form.

A. I say in the table -- Table 2, I'd like to read that. For example, 1.496 million was directed to GSR over 1 hop, and 1.926 million was traced to GSR over 7 hops. There is a small amount of GSR traced -- GSR -- I'm sorry. There is a small amount of XRP traced to GSR over 8 hops that is not shown because of rounding. The blockchain analysis did not identify additional XRP sent to GSR above 8 hops.

In other words, what I'm saying there is that, according to rounding, so in 7 hops, it's 599, you know, like .1, and the 8 hop is something like

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599.3. So it's not going to -- given that I'm reporting two decimals in the table, it's not going to matter whether it went on the 8 hop or not. We could have reported that, discussed that more, but that -- there was nothing that went out over 8 hops, according to our tracing.

Q. So just turning back to Paragraph 38, you state: When analyzing blockchain transactions over multiple hops, the certainty that the initial owner of funds still controls them decreases as the number of hops increases.

Correct?

A. That's correct.

Q. Okay. And then let's turn to Paragraph 68 of your report, which is on Page 66, where you state -- I'm on Page 66.

A. Sorry.

Q. In general, fewer transfers of a digital asset provides more confidence that the digital asset is still in the possession of the original holder.

Correct?

MS. GUERRIER: Objection.

Make sure you read that paragraph

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(unintelligible).

A. (Pause.)

Yeah, that -- in general, fewer transfers of digital assets provide more confidence that digital asset is still in the possession of the original holder.

That is correct, and that's why, as I showed, our analysis -- my analysis looked at 1 hop, 2 hop, 3 hops, so forth, and one can see that most of the transfers actually went out at 1 hop.

So if one wants to criticize the methodology and say, Oh, even if the analogy -- methodology was totally wrong, which it's not, but even if one believed that, then one could go to the 1-hop analysis. And the conclusions are very similar, depending on the 1 hop versus the 7 hop.

So, you know, we can debate the assumptions, the trading algorithm. I think it's very reliable trading algorithm, but ultimately, my conclusions would be very similar, depending on 1 hop or 7 hops.

Q. Okay. So is it fair to say that hop by hop, the tracing analysis becomes less reliable?

MS. GUERRIER: Objection.

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A. In my report, I said that it -- the reliability decreases in the number of hops, or something to that manner.

Q. So why even analyze hops beyond a direct -- a direct transfer if the reliability decreases as you increase the hops?

A. Well, sometimes it's very important to examine multiple hops. For instance, in [redacted] I show that when one looked at the multiple hops, one is able to see a relationship that wasn't there if you just look at direct transfers.

So you -- so I think it's a part of robustness analysis to see what went on. But, ultimately, as I showed in the report, the amount from 1 hop to 7 hops is a fairly small -- as a fraction of the total is fairly small, but it gives a more complete picture.

And if one looks at -- if one does look at, let's say, in the internet appendix -- I mean, not internet appendix, but that's what we call it in our academic papers. But if one looks at the appendix, the figure -- if one wanted to look at Figure 15, for instance, one could compare

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2 Figure 13, where it's a direct analysis, to

3 Figure 15, where it's over multiple hops.

4 Now, what one sees when one does that is

5 that instead of just saying that -- other than

6 addresses, one gets a fuller picture for what

7 happened in terms of the accounts went to -- in

8 Figure 15 for Larsen went to GSR liquidity

9 extraction, a larger percentage of digital asset

10 platforms. Again, those are common places where --

11 where -- where secure -- where XRP -- digital asset

12 platforms are common places where digital tokens are

13 sold.

14 And NYDIG, which I have email evidence,

15 there is an email talking about NYDIG here. In

16 Footnote 107, NYDIG is a technology and financial

17 services firm providing digital assets services to

18 institutional and private clients. Larsen publicly

19 disclosed that he was moving XRP to NYDIG in

20 September 2020 via Twitter.

21 I reviewed that Twitter. He seems to be

22 proposing that NYDIG is a good place to -- for one

23 to trade. So it gives a fuller picture, I believe,

24 of the activity, and I think it's a more complete

25 analysis of what likely happened.

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Q. Can we just pause for a moment on NYDIG?

A. Sure.

Q. So you said that Mr. Larsen thought that it would be a good place to trade. Is that correct?

MS. GUERRIER: Objection to form.

A. I was speaking off-the-cuff. There is an email about he publicly disclosed that he moved XRP to NYDIG in September 2020.

Q. Okay. So let's actually turn to Appendix C --

A. We can look at that --

Q. -- which is your list of documents.

A. We can look at that email, if we want.

Q. Yeah. I --

A. See exactly what it says. I don't remember exactly what that email says. It does say that he was -- he was moving funds to -- XRP to NYDIG.

Q. Do you know one way or another whether NYDIG does trading?

A. I would like to look at the communications between NYDIG and what he said on the Twitter account.

Q. Okay. Well, let's turn to Appendix C,

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2 which is your list of documents relied upon, and I'm

3 looking at Page 56 of this document.

4 A. 56?

5 Q. Yes. And I just direct you to the bottom

6 of the page. And this actually states what's on the

7 communication. Correct?

8 MS. GUERRIER: Objection to form.

9 A. Yes. This states the correction. I

10 don't know if there was further -- I don't know if

11 there was further communication on NYDIG or not, but

12 they -- yes, this is -- this is what's on the --

13 Q. And then he writes in this communication:

14 This is truly custody 2.0.

15 Correct?

16 A. That's correct.

17 Q. So what about this communication made you

18 think that NYDIG was a trading platform?

19 MS. GUERRIER: Objection to form.

20 A. I -- to -- I -- NYDIG may not be a

21 trading platform. That's not the testimony in my

22 report. I was speaking off-the-cuff. I read

23 something about NYDIG. I read this comment from

24 NYDIG. It seemed like he was proposing NYDIG as

25 being a good platform. I probably shouldn't have

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used the word "trading." He was proposing that it was a good platform. That was my recollection, in that email he was a proponent of NYDIG.

"As you may notice, I moved to NYDIG. I even know the founders. I'm impressed by their security and top-notch standards, custodian 2 point (sotto voce)"

So to the extent I said it was "trading," I misspoke. I may have -- I don't know precisely what the -- that's not part of my testimony. I don't assume in my analysis or my report that they did trading on behalf of him.

Q. But wasn't the purpose of your scenarios that you created to look at where Mr. Larsen could have potentially sold his XRP?

MS. GUERRIER: Objection to form.

A. The -- the scenarios I lay out here -- when I laid out my summary numbers, I talk about the number of funds that go to GSR liquidity extraction, digital asset reports, NYDIG. I'm not saying -- I'm not saying that those funds were sold at NYDIG in the report.

Q. But if you look at Paragraph 68 of Appendix E, this sets out the scenario -- sorry --

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Paragraph 65 of your report, we talked about the scenarios to which you traced XRPs. Correct?

MS. GUERRIER: Objection to form.

A. In which paragraph?

Q. Paragraph 65.

A. Yes.

Q. And you testified that the reason you chose these scenarios is because of where Mr. Larsen may have potentially sold his XRP?

MS. GUERRIER: Objection.

Q. That these were directly identifying where he potentially sold XRP. Correct?

MS. GUERRIER: Objection.

A. I did not say that all of this -- that he was selling -- selling all his funds on all these places. I did not -- I did not say that. I -- I talked about the reasons why I was doing transfers. I also noted that as you go multiple hops. Things are more -- less precise. Whether he custodianed a fraction of his shares at NYDIG, whether he sold those shares is not a -- is not really germane to this.

Q. So why did you include it in your report if it's not germane?

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A. Because I'm including all the major places where -- where funds went and I note where the -- where the funds went we traced them to the major place where the funds -- where the funds went.

Q. Okay.

A. So we're -- we have a methodology, we're -- we're reporting where the funds went.

Q. So --

A. The funds at NYDIG, if it's only a custodian place, that could've gone from the custodian and then it could have later been sold, but if it's only a custodian then maybe the funds stayed there.

Q. Okay.

A. That's not -- that's not my testimony that -- we can talk about NYDIG, but it's a small fraction of the total, but anyway.

MS. GUERRIER: Make sure you finish your answer. Were you done?

THE WITNESS: Yeah.

A. I think NYDIG is a small fraction of the total and maybe that is where -- maybe XRP was being custodianed on for Mr. Larsen.

MS. GUERRIER: And we don't want you

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to speculate Professor.

Q. So, [redacted], for the amounts that were transferred to GSR from Mr. Larsen's wallet, did you determine who owned or controlled any of the wallet addresses between the initial transfer and when the XRP reached GSR?

MS. GUERRIER: Objection to form.

A. Can you ask me that question again?

Q. So --

A. What exactly do you mean by "controlled the wallets"?

Q. Were they wallets that were controlled by Mr. Larsen?

MS. GUERRIER: Objection.

A. The -- are we talking about 1 hop, 2 hop, multiple hops? What are we talking about?

Q. Multiple hops.

A. The -- the wallets -- my understanding is that these -- these wallet addresses were wallet addresses that belonged to Larsen or Garlinghouse and I traced them through the methodology that's -- that's stated here.

And as I note in the report, as one goes to multiple hops, the analysis is less precise.

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But, again, my 1-hop analysis shows that quite a few funds are traded to GSR, so that used GSR's liquidity extraction. If you look at, for instance, my table -- if we look at my Table 2. Table 2, if we look at the total amounts that were done -- that were transferred from 1 hop with Professor Larsen, that's 495 million in Table 2, going to 7 hops, it's 599. So, yes, it is $104 million difference, but it's a different between 5 million versus 6. It's a 20 percent increase.

So ultimately there's not a lot of difference between the 1-hop and 7-hop analysis, but I can understand that people want to focus on this, but ultimately my conclusions would be the same whether I just did 1 hop or 7 hops.

Q. Well, they wouldn't be the same, would they, because you would be attributing, I think, you said something like 105 million extra in terms of transfers. Correct?

MS. GUERRIER: Objection to form.

A. They would be qualitatively the same. They would not be exactly the same quantitatively. Yes, it's a 20 percent difference. I noted that. There's a 20 percent difference between the two.

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2 But, ultimately, the fact is, what this analysis is
3 showing is that there's a connection between GSR's
4 liquidity extraction service and Larsen. And
5 Larsen's moving funds to GSR. GSR has liquidity
6 extraction service. That's what this analysis is --
7 is showing.
8 Q. Okay. So in terms of -- so -- so, for
9 example, if XRP is transferred from Mr. Larsen's
10 wallet and then it reaches GSR after 7 hops, it's
11 possible that it could've been transferred to other
12 people other than Mr. Larsen between the initial
13 transfer and it reaching GSR. Correct?
14 MS. GUERRIER: Objection; calls for
15 speculation. But go ahead.
16 A. If -- if Mr. Larsen sold the funds to
17 somebody else and then that person sold the funds to
18 GSR, that would be a possibility. It's also -- they
19 would have to be -- generally, those type of
20 transactions take place between people that know
21 each other.
22 But yes, that's a possibility that --
23 that Mr. Larsen sold GSR to his friends or family
24 member. It's a possibility, yes. It's -- again,
25 that's why my report makes -- makes it clear that

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the less hops the more certain the -- more certain the tracing is. But if he sold it to a friend -- if he sold it to a friend, the point is he would still -- he would have still sold it. So that conclusion wouldn't be the same for that transaction.

Now, that's a -- if we want to discuss this more, 1 hop versus 7 hops, I can.

Q. So I just want to direct your attention, Professor, to Paragraph 65 again, and, in fact, that's on Page 64. And you state there that: The first-in, first-out, or FIFO, forensic accounting methodology is applied to trace the flow of funds out of those Larsen-identified and Garlinghouse-identified addresses.

Correct?

A. Yes.

Q. You do not discuss that forensic accounting methodology anywhere else in your report. Correct?

MS. GUERRIER: Objection to form.

A. Yeah, this is in the appendix. I guess I'm getting out of wind here.

Q. And you describe it as a forensic

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accounting methodology. Correct?

A. That's correct.

MS. GUERRIER: Objection to form.

Q. Where do you explain how you applied that forensic accounting methodology in your report?

MS. GUERRIER: Objection to form.

A. Well, it's a first-in -- first-in, first-out is a common accounting methodology. It means basically that if you're the first person to the bus, then when you get on the bus and the bus is full, you're the first person off the bus. And -- and it's used in many accounting classes. I -- it's -- it's very common in accounting methodology. Now, there's different ways one can do first-in, first-out. I mean -- I'm sorry. There's different ways that one can do tracing, but first-in, first-out is a common -- common method.

Q. Are you aware of any other experts in blockchain tracing that use FIFO when tracing?

A. Yes, there's a couple of papers that use first-in, first-out.

Q. Do you cite it here?

A. I don't cite it. It's a method we use in -- in [redacted] and I use it in [redacted] as

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well.

Q. But you don't cite any sources for the use of it in your report. Correct?

MS. GUERRIER: Objection.

A. I don't think I need to. First-in, first-out is like the very basic principal that's used in accounting.

Q. Are you familiar with [redacted]?

A. Yes.

Q. Are you familiar --

A. I've heard the name, though you want to tell me more about it.

Q. Are you familiar with CipherTrace?

A. I've heard of CipherTrace.

Q. And have you heard of Unblock?

MS. GUERRIER: Objection.

A. I don't know if I know Unblock.

Q. The [redacted] and CipherTrace are at least blockchain tracing -- firms that offer blockchain tracing services. Correct?

MS. GUERRIER: Objection.

A. [redacted] and CipherTrace offer blockchain tracing, yes.

Q. Are you aware that [redacted] and

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CipherTrace don't use FIFO in their blockchain tracing?

MS. GUERRIER: Objection to form.

A. I -- I would -- I would need to see exactly what context it is done in because the context matters a lot for the -- for the tracing.

So, for instance, if you're tracing on bitcoin versus another exchange, most of those crypto -- a lot of the crypto assets space is set up to trace on -- on bitcoin, and they have different protocol than one would use, say, on Ethe in a different -- different method. So you -- you might do it different on a bitcoin versus Eth, you have different tracing on them.

So, yeah, I don't know if you're talking about their bit -- are you talking about their bitcoin tracing? Are you talking about their XRP tracing?

Q. So I'm talking about XRP tracing.

A. Do they have XRP tracing on their platform?

Q. Are you aware of whether they do or don't?

A. I don't know. I'm asking -- I -- I don't

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know whether your question was -- you made a statement that their XRP tracing was -- that they're first-in, first-out tracing -- and I don't know whether that is specific to bitcoin or specific to XRP.

Q. So did you consider using a different methodology other than FIFO in providing your opinions on blockchain tracing here?

A. No, I didn't.

Q. So you didn't consider, for example, Larsen first-out?

MS. GUERRIER: Objection to form. Asked and answered.

A. I could do it on last-in, first-out. Again, let me restate the obvious, which is that 1-hop tracing doesn't depend on last-in, first-out -- first-in, first-out. So let's don't try to confuse the issue. If I did last -- everything with 1 hop does not depend on -- does not depend on any kind of -- does not depend on last-in, first-out versus first-in, first-out.

So all my results would hold whether I used last-in, first-out, first-in, first-out or some other method because all my results are robust to 1

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2 hop and I do 1-hop tracing, multiple-hop tracings.

3 If -- you know, if it's Profess- -- if

4 it's Mr. Larsen or Mr. Garlinghouse's opinion that

5 they didn't actually sell XRP, they made no profits

6 from this, it seems like an easy way would just be

7 to -- to turn over all the accounts and show that

8 they, in fact, made no money from this.

9 Look, all I'm doing is I'm showing that

10 the funds are going from their controlled accounts

11 to GSR.

12 Q. So you described your opinion about 1-hop

13 transfers as robust. Correct?

14 MS. GUERRIER: Objection.

15 A. I said all of my findings are robust

16 whether it's seven hops or whether it's 1 hop.

17 Q. So did you analyze any industry criticism

18 of FIFO before you used it in your methodology?

19 A. No, I didn't.

20 Q. Are you aware that FIFO has been subject

21 to some criticism?

22 MS. GUERRIER: Objection.

23 A. Yes. I'm aware there is a debate about

24 whether LIFO or FIFO is best.

25 It's like some people like peanut butter

[redacted] - 2/15/2022

and some people like jelly on their sandwich, but it -- again, whether I used LIFO or FIFO is not going to affect my results because all of my results are robust to 1 hop, and 1 hop does not depend on LIFO, FIFO, or Rhino, or whatever you want to put in there.

Q. But 13 hops does depend on that methodology. Correct?

MS. GUERRIER: Objection to form.

A. 13 hops -- I would need to analyze this, if this is -- I could redo this with LIFO and analyze the robustness to this, but a clearer method would be, I guess, if just the account -- banking account statements of all these people maybe that's been provided. They could provide banking accounts of exactly how much they've sold and all of the financials. That would probably be a cleaner way to look at this than the blockchain, but yeah.

Q. So one last question, [redacted].

MS. GUERRIER: Okay. Actually, it's seven hours, so we're done.

MS. BUNTING: Thank you, [redacted].

THE WITNESS: Thank you.

[redacted] - 2/15/2022

THE VIDEOGRAPHER: We're off the record, 6:44

(Deposition concluded at 6:44 p.m.)

ERRATA SHEET

Case Name: CIVIL ACTION NO. 20-CV-1(AT)(SN)

Deposition Date: FEBRUARY 15, 2022

Deponent: [redacted]

Pg.	No.	Now Reads	Should Read	Reason
55	10,11	unbacked or	backed or	error
63	13	apt to	not apt to	error
64	15,19	MBR	NBER	error
68	24	public	publish	error
116	9	PHC	PHD	error
177	10,14,21	Plononiex	Poloniex	error
177	12,14	Plonono	Poloniex	error
184	3	.8-tenths	88 hundredths	correction
184	5,6	four tenths	4 hundredths	correction
184	22-4	(Clarification, See Page 349-3)		
185	12,13,15	four tenths	4 hundredths	correction
201	18	Larsen	Ferrell	correction
213	10	15TH	2015	error
238	23	beyond	behind	error

[redacted]

SUBSCRIBED AND SWORN BEFORE ME

THIS 19 DAY OF March, 2022.

R.G Montoya III

(Notary Public) MY COMMISSION EXPIRES: 07/26/2025

R. G. MONTOYA, III
Notary Public, State of Texas
Comm. Expires 07-26-2025
Notary ID 133231634

ERRATA SHEET

Case Name: CIVIL ACTION NO. 20-CV-1(AT)(SN)

Deposition Date: FEBRUARY 15, 2022

Deponent: [redacted]

Pg.	No.	Now Reads	Should Read	Reason
240	24	bar	VAR	error
254	11	balance	imbalance	error
257	8,9	(Typographical Error, See Page 349-4)		
263	13	2000 --	Two thousand	error
284	3	pour	floor	error
299	2	(Typographical Error, See Page 349-4)		
316	19	GRS	GSR	error
328	18	GSR traced GSR	XRP traced XRP	error
341	6	wouldn't	would	error
344	12	ethe	ETH	error

[redacted]

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THIS 19 DAY OF March, 2022.

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ERRATA SHEET SUPPLEMENTAL

Case Name: CIVIL ACTION NO. 20-CV-1(AT)(SN)

Deposition Date: FEBRUARY 15, 2022

Deponent: [redacted]

Original Testimony at pg. 184: 22 - pg. 185: 4

"So you would take the difference, let's say 9 -- 9.2 divided by nine -- nine-tenths of 1 percent minus eight-tenths of 1 percent that's like a four-tenths of 1 percent and then you would divide it by the previous trade price so if the previous price was eight-tenths of 1 percent you divide it by that."

CLARIFICATION at pg. 184: 22 - pg. 185: 4

The process for determining overpayment is to first find the difference between amount paid (.0092) and last trade price (.0088). This difference (.0004) is then divided by the last trade price (.0004 / .0088 = .045). In the given example the overpayment was 4.5%. The average of GSR overpayments was 1.5%.

[redacted]

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ERRATA SHEET SUPPLEMENTAL

Case Name: CIVIL ACTION NO. 20-CV-1(AT)(SN)

Deposition Date: FEBRUARY 15, 2022

Deponent: [redacted]

TYPOGRAPHICAL ERROR at pg. 257: 8-9

Now Reads: Feude(phonetic) O'Connell & Schultze

Should Read: Froot, O'Connell, & Seasholes

TYPOGRAPHICAL ERROR at pg. 299: 2

Now Reads: Forester & Corolly

Should Read: Foerster and Karolyi

[redacted]

SUBSCRIBED AND SWORN BEFORE ME

THIS 19 DAY OF March, 2022.

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(Notary Public) MY COMMISSION EXPIRES: 07/26/2025

R. G. MONTOYA, III
Notary Public, State of Texas
Comm. Expires 07-26-2025
Notary ID 133231634

SIGNATURE PAGE

I, [redacted], have read the foregoing deposition and hereby affix my signature that same is true and correct, except as noted on the correction page.

[redacted]

R. G. MONTOYA, III
Notary Public, State of Texas
Comm. Expires 07-26-2025
Notary ID 133231634

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

SECURITIES AND EXCHANGE COMMISSION,	§	
	§	CIVIL ACTION NO.
PLAINTIFF,	§	20-CV-1(AT)(SN)
AGAINST	§	
RIPPLE LABS, INC., BRADLEY GARLINGHOUSE, AND CHRISTIAN A. LARSEN,	§	
DEFENDANTS.	§	

REPORTER'S CERTIFICATION
DEPOSITION OF [redacted]
TAKEN FEBRUARY 15, 2022

I, TAMARA CHAPMAN, Certified Shorthand Reporter in and for the State of Texas, hereby certify to the following:

That the witness, [redacted], was duly sworn by the officer and that the transcript of the oral deposition is a true record of the testimony given by the witness;

That the original deposition was delivered to ANDREW CERESNEY;

That a copy of this certificate was served on all parties and/or the witness shown herein on _____.

I further certify that pursuant to FRCP No.

30(f)(i) that the signature of the deponent:

X was requested by the deponent or a party before the completion of the deposition and that the signature is to be returned within 30 days from date of receipt of the transcript. If returned, the attached Changes and Signature Page contains any changes and the reasons therefor;

was not requested by the deponent or a party before the completion of the deposition.

I further certify that I am neither counsel for, related to, nor employed by any of the parties in the action in which this proceeding was taken, and further that I am not financially or otherwise interested in the outcome of the action.

Certified to by me this 16th day of February, 2022.

Tamara Chapman

_____

Tamara Chapman, CSR, RPR-CRR
CSR NO. 7248; Expiration Date: 12-31-22
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