UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK
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UNITED STATES OF AMERICA,

v. 22 CR 673 (LAK)

SAMUEL BANKMAN-FRIED,

Defendant. Trial
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New York, N.Y.
October 16, 2023
9:40 a.m.

Before:

HON. LEWIS A. KAPLAN,

District Judge

APPEARANCES

DAMIAN WILLIAMS
United States Attorney for the
Southern District of New York
BY: DANIELLE R. SASSOON
NICOLAS ROOS
DANIELLE KUDLA
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Assistant United States Attorneys

COHEN & GRESSER, LLP
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BY: MARK S. COHEN
CHRISTIAN R. EVERDELL
SRI K. KUEHNLENZ
DAVID F. LISNER

Also Present:
Luke Booth, FBI
Kristin Allain, FBI
Arjun Ahuja, USAO Paralegal Specialist
Grant Bianco, USAO Paralegal Specialist

(Trial resumed; jury not present)

THE COURT: Good morning.

Before we get the jury, one or two things.

As counsel all know, it is quite common to request proposed jury instructions in advance of trial. It was done here. That gave me a chance to consider them and it gave counsel an opportunity to react to one another's proposals. In one of the innumerable letters in which I have been favored, somebody suggested more proposed jury instructions. I think it was the defense.

Any further proposed jury instructions I would like to have by the close of business on Thursday, and any response to them by the close of business the following Tuesday.

My job includes giving instructions that fit the case, regardless of what counsel does or does not request, and I will continue to do my job.

I think we are ready.

MR. ROOS: Judge, there are just two very brief matters.

THE COURT: How did I guess.

MS. SASSOON: Just quickly, outside the subway this morning I encountered a lost juror or juror who appeared to plainly be turned around and lost, and I did not help her and would appreciate the instruction that the lawyers are not being rude or inconsiderate if they are not allowed to talk to the

jury.

THE COURT: I will do that.

Mr. Roos is still up.

MR. ROOS: The other thing, your Honor, is, the second witness today is Nishad Singh.

As your Honor knows, the parties had pretrial briefing on the admissibility of evidence of violation of the Federal Election Campaign Act or campaign finance laws, whether it was direct evidence or 404(b), and I wanted to put on the record that, in advance of Mr. Singh's testimony -- and as your Honor I am sure recalls, Mr. Singh pled guilty to a campaign finance offense or a conspiracy count -- in advance of his testimony we engaged defense counsel on the question of whether we can reach an agreement as to not basically offering his plea to that and then testimony around that; in other words, an agreement that nobody will bring up the campaign -- the violation of the campaign finance law, and they declined.

THE COURT: And therefore you would like me to do what?

MR. ROOS: Nothing. I think it is relevant to the record in terms of the 404(b) issue that was briefed previously, so I just wanted to put this on the record now.

THE COURT: Is there any dispute about the facts, Mr. Cohen?

MR. COHEN: No. We will be asking for a 404(b)

limiting instruction at the appropriate time.

THE COURT: OK.

Let's get the jury.

MR. COHEN: Your Honor, before the jury comes in, if we may be heard very quickly at the sidebar.

(Continued on next page)

(At sidebar)

THE COURT: I hope you're aware that I've been advised that people in the gallery can read what's said at the sidebar on the screens on your table.

MR. COHEN: Very quickly, your Honor, just to update the Court on the conversation that we were having, my client advised that he did not receive the extended dose of Adderall this morning.

THE COURT: I last week told you that if there were any problems or questions, you were to be in touch with Mr. Bork in Washington, and your letter said you were trying unsuccessfully to reach somebody else in Brooklyn.

MR. COHEN: We were trying to reach --

THE COURT: The deputy general counsel at the MDC. Maybe it's not surprising you didn't connect.

MR. EVERDELL: Your Honor, that is Mr. Bork who we have been trying to reach. That's the number we have been given for him.

THE COURT: He has got Washington numbers.

MR. EVERDELL: Your Honor, the one I was trying to get in touch with, Ken Bork, gave me the email that I've been using, the BRO email.

THE COURT: I'm misinformed. I have a call in to him too.

One minute. One of you get in touch with Gitner and

tell him what's going on.

MS. KUDLA: He has been informed, your Honor, so that process --

THE COURT: He is the head of the criminal division, as you know, and I gather he is overseeing this Bureau of Prisons issue.

(Continued on next page)

(In open court)

THE COURT: Might as well bring in the witness.

MR. RAYMOND: Yes, your Honor. The government calls Tareq Morad.

(Jury present)

THE COURT: The jurors are all present, as is the defendant, as has been the case throughout.

Who don't you recall your witness, for the sake of the record, with the jury present.

MR. RAYMOND: Yes, your Honor.

The government calls Tareq Morad.

TAREQ MORAD,

called as a witness by the government,

having been duly sworn, testified as follows:

THE COURT: You may proceed, Mr. Raymond.

MR. RAYMOND: Thank you, your Honor.

DIRECT EXAMINATION

BY MR. RAYMOND:

Q. Mr. Morad, where do you live?

A. I live in Calgary, Alberta, Canada.

Q. And what do you do for a living.

A. I'm a hotel owner and operator.

Q. Have you ever bought or sold cryptocurrency?

A. Yes, I have.

Q. Did you ever buy or sell cryptocurrency on FTX.com?

A. Yes, I did.

Q. How did you first learn about FTX?

A. Primarily through media. I follow cryptocurrency space as a whole and news related to economy, investments, and things like that, and FTX was a very hot topic for quite sometime.

Q. When did you first learn about FTX?

A. I would say around 2019ish, 2019, 2020.

Q. What did you learn about FTX when you first learned about it?

A. FTX was making a lot of headlines for their advancements of the space, their use of good technology and trading platform. They made some efforts towards legislation of the crypto industry. I learned a lot of their -- their CEO was making a lot of headlines at that time, the founder of the company. Just the typical news related to the platform.

Q. Did you learn who the CEO was?

A. Yes, at this.

Q. Who was it?

A. Sam Bankman-Fried.

Q. From the sources you reviewed, what, if anything, did you learn about Sam Bankman-Fried?

A. At the time he was quite revered in the industry. He was revolutionizing it in ways with use of his technology and platform, again, very revered in the space, came highly regarded. He was spoken about through many prominent figures.

He did a lot of media, podcasting, interviews, that kind of thing.

Q. Did you ever follow Mr. Bankman-Fried on Twitter?

A. Yes, I did.

Q. After learning about FTX, did you ever create an account there?

A. Yes, I did.

Q. About when was this?

A. Roughly, April 2021.

Q. Once you opened your account, did you fund it?

A. Yes, I did.

MR. RAYMOND: Ms. Cotto, can you publish Government Exhibit 590, which is already in evidence.

Q. Mr. Morad, do you recognize Government Exhibit 590?

A. Yes, I do.

Q. What is it?

A. That is the landing page where it's giving you options of how to fund your FTX account.

Q. Did you see this when you were on FTX?

A. Yes, I did.

Q. And how did you fund your FTX account?

A. I chose the wire transfer method.

MR. RAYMOND: Ms. Cotto, can you take this down and can you pull up Government Exhibit 568, which is already in evidence.

Q. Mr. Morad, do you recognize Government Exhibit 568?

A. Yes, I do.

Q. What is Government Exhibit 568?

A. Those are the instructions on how to send a money wire to FTX, as described on their website.

Q. Do you see where it says where to send the money beneficiary?

A. Yes, I do.

Q. What entity is listed as the beneficiary named?

A. North Dimension Inc.

Q. Before you reviewed this page, before Mr. Morad, had you ever heard of North Dimension Inc.?

A. No, never.

Q. Did you know whether North Dimension was connected to FTX in any way?

A. I did not. I presumed.

MR. RAYMOND: Ms. Cotto, can you pull that down and show the witness what's been marked for identification as Government Exhibit 540.

Q. Mr. Morad, do you recognize Government Exhibit 540?

A. Yes, I do.

Q. What is it?

A. That is a copy of a completed wire transfer that I made from my personal account to FTX.

MR. RAYMOND: Your Honor the government offers

Government Exhibit 540.

MR. LISNER: No objection.

THE COURT: Received.

(Government Exhibit 540 received in evidence)

MR. RAYMOND: Your Honor, may we publish it to the jury?

THE COURT: You may.

MR. RAYMOND: Thank you.

Ms. Cotto, can you publish.

Ms. Cotto, can you expand under destination bank.

Q. Mr. Morad, can you read what bank the destination bank was.

A. Yes. I'll just read the whole thing in its entirety. Bank identifier, SIVGUS66. Silvergate Bank, 4250 Executive Square, floor 3, La Jolla, California. Routing code: ABA. Routing number and in the United States.

MR. RAYMOND: Ms. Cotto, can you take this down and can you expand beneficiary.

Q. Mr. Morad, do you see what the beneficiary listed is? You don't have to read out the address.

A. Yes, I do. North Dimension Inc.

MR. RAYMOND: Finally, Ms. Cotto, can you go back and expand correspondent charges.

Q. Mr. Morad, can you read this section?

A. Correspondent charges to be paid by beneficiary. Intermediate bank. Bank identifier: PNBPUS3NNYC. Wells Fargo

Bank, NA, 30 Hudson Yards, international operations, New York, New York, United States.

MR. RAYMOND: Ms. Cotto, could you take this part down and take down the document.

Q. Mr. Morad, after you opened and funded your FTX account, did you trade on FTX?

A. Yes, I did.

Q. What products if any, did you trade on FTX?

A. Typically, from U.S. dollar to Bitcoin, Ethereum, and a number of other cryptocurrencies, XRP, Solana, and a few others.

Q. In total, how much did you fund your account?

A. Say roughly about 500,000 U.S. dollars.

Q. When you funded your account, did you observe the balance on the FTX website?

A. Yes, I did.

Q. Once the funds were there, what, if anything, did you do with them?

A. So I would transfer currency, hard currency, to my account, and then I would make transactions from U.S. dollar to the product of choice, coin, or token. So I would trade U.S. dollar to Bitcoin and sometimes Bitcoin to other trading pairs, so just the standard stuff that you do.

Q. Mr. Morad, did you ever withdraw funds from your FTX account?

A. No, I do not believe I did withdraw anything, unfortunately.

Q. Was the ability to control when you were able to withdraw funds important to you?

A. Very much so.

Q. Why?

A. It's my money. I think like a wallet. If you have money in your wallet, you presume you can take it out and use it at any time. I presumed that the balances that were listed there was my money that I had available to withdraw, trade, or do whatever it was of my choice. So I considered it a wallet, like a wallet in your pocket.

Q. Mr. Morad, were you aware of a program on FTX that allowed customers to lend out their assets?

A. No, I wasn't.

Q. Did you ever agree to any such program?

A. No, I didn't.

Q. When you deposited money into your FTX account, do you expect anyone other than yourself would use your funds?

A. No, I did not.

Q. Did you expect that anyone would borrow or lend out your money?

A. No, I did not.

Q. What did you understand FTX was doing with the funds you had transferred to the --

A. Holding it for me, for the ability to use as I wished, whether that was to trade or withdraw or buy.

Q. If FTX was borrowing your deposits, would you have considered that important information to know?

A. Yes, definitely.

Q. Why?

A. That would be a different level of exposure, and I think that it would just be my rights to know if someone was using my money for anything other than what I was aware of. So that would be very, very important to know.

Q. Mr. Morad, between when you opened your FTX account in 2021 and October 2022, did you see anything else about FTX in the news?

A. Lots. FTX was all over the news in the entire period, yes.

Q. Did you see anything else about Mr. Bankman-Fried?

A. Yes. A lot. He was on the cover of magazines, again very prominent in the space. If you read about crypto or you are following it, it's his name often appeared.

MR. RAYMOND: Ms. Cotto, can you publish Government Exhibit 1471, which is already in evidence.

Q. Mr. Morad, do you recognize this?

A. Yes, I do.

Q. What is it?

A. That is Forbes magazine with Sam Bankman-Fried on the cover.

Q. What, if anything, did you conclude about FTX after you saw this cover?

A. This cover and many other things led me to believe, as many others did, much more prominent figures in the space than myself.

MR. EVERDELL: Objection, your Honor. Getting into hearsay.

THE COURT: Yes. The question is, what did you conclude? Let's focus on what you concluded after you saw the cover.

THE WITNESS: Sure.

I concluded that Mr. Bankman-Fried, a very successful legitimate businessman and entrepreneur revolutionizing the cryptocurrency space.

Q. Mr. Morad, I would like to turn your attention to November 2022. About how much in U.S. dollar denomination did you have on FTX as of November 1, 2022?

A. It would have to be in the range of about 250 to $280,000.

Q. Did there come a point in November 2022 when you learned that FTX was receiving increased customer withdrawal requests?

A. Yes.

Q. How did you learn that?

A. Again, through the media that I followed, YouTube primarily. Just tweets that they have been experiencing increased withdrawals due to -- I believe at that time they

said it was balance sheet information that became public and people were a little bit worried about their ability to access all their funds and that they were experiencing -- that many people were withdrawing funds from the platform.

Q. Were you following Mr. Bankman-Fried's Twitter feed at this point in time?

A. Yes, I was.

Q. And do you recall reading any tweets Mr. Bankman-Fried posted to Twitter around that time?

A. Yes, I do.

Q. Do you recall what they said?

A. One in specific was not to worry, all the funds were there and all withdrawals would be covered by FTX.

Q. What, if anything, did you conclude after reviewing that tweet and others like it by Mr. Bankman-Fried?

A. I was very relieved, happy to hear from the leader of the company to know and reassuring and knowing that the money was there and it was just rumors.

Q. Right after you saw that tweet, did you try and withdraw funds from FTX?

A. No, I did not.

Q. Did there later come a time where you did try to withdraw your funds from FTX?

A. Yes. The following day.

Q. Were you able to successfully withdraw your funds when you

tried?

A. No. It did not process or go through.

MR. RAYMOND: Ms. Cotto, can you show for the witness what's been marked for identification as Government Exhibit 539.

Q. Mr. Morad, do you recognize Government Exhibit 539?

A. Yes, I do.

Q. What is it?

A. That is a screenshot I took at one time -- I put the date there myself, November 10, 2022 at 1:19 p.m. It was when I came across that banner across the top there. I wanted to make sure that I had evidence or proof that I did have money on the platform in case it wasn't functioning anymore or whichever. It was a screenshot I took.

MR. RAYMOND: Your Honor, the government offers Government Exhibit 539.

MR. LISNER: No objection to the document, except we would request to redact the material that Mr. Morad added to the document, which is the date in red.

MR. RAYMOND: Your Honor, I don't know the basis for that. The witness has explained the source of it.

THE COURT: The request is denied. The document is received in evidence.

(Government Exhibit 539 received in evidence)

MR. RAYMOND: Ms. Cotto, can you publish. Thank you.

Q. Mr. Morad, was this after you had attempted to withdraw your funds?

A. Yes, it is.

Q. And can you describe how much funds in U.S. dollar denominated were in your account as of that day?

A. $257,948.53.

MR. RAYMOND: Ms. Cotto, can you go to the second page of this document.

Q. Mr. Morad, did you have holdings in Bitcoin on FTX at that time?

A. Yes, I did.

Q. Did you have holdings in Ethereum at that time?

A. Yes, I did.

Q. Mr. Morad, since November 10, 2022, have you been able to withdraw the funds from FTX?

A. No, I haven't.

MR. RAYMOND: No further questions, your Honor.

THE COURT: Thank you.

Cross-examination.

CROSS-EXAMINATION

BY MR. LISNER:

Q. Good afternoon, Mr. Morad.

A. Good morning.

Q. Just a few questions and a couple of clarifications.

You were located in Canada when you opened your FTX

account?

A. Yes, I was.

Q. And you always accessed it from outside of the U.S.?

A. Yes, I did.

Q. Before you began using FTX, you had accounts on other crypto exchanges, correct?

A. That is correct.

Q. Do you recall what exchanges those were?

A. Binance, Coinsquare, Bittrex. I believe I had an account open with Poloniex. So I had a number of different platforms that I was using prior.

Q. Is it fair to say that you opened your FTX account because FTX offered additional products and cryptocurrencies that weren't available on those exchanges?

A. Yes, that's one of the reasons, yes.

Q. Now, you testified that you never sought to withdraw funds prior to November. Have you ever heard of anyone else being unable to withdraw funds prior to November 2022?

MR. RAYMOND: Objection, your Honor.

THE COURT: I am not sure I understand the question. What's the objection?

MR. RAYMOND: Hearsay for one, your Honor.

THE COURT: Sustained.

Q. One clarification. You mentioned that, I believe, you deposited approximately 500,000 in U.S. dollars, never made any

withdrawals and, at the end, in November, you had approximately 257,000 left, correct?

A. Correct.

Q. Was the decline from 500 to 250, was that the result of the market decline?

A. Yes, it was.

Q. You never read FTX's terms of service, true?

A. True.

Q. And you testified that you expected FTX would maintain your assets on the exchange without lending them out, is that right?

A. Yes, that is correct.

Q. And that understanding wasn't based on anything that you have heard or read from FTX, true?

A. I can't say that's -- how that understanding developed, I am not sure.

Q. Sitting here today, you can't recall any statement?

A. The statement that was on Twitter the day of, that all withdrawals would be covered, so that is primarily meaning that your money is there. So I am just trying to think if prior to that I heard anything. But that would led me to conclude, for one, that the money was there that I deposited.

Q. So other than that statement, you can't recall anything?

A. Not particularly, no.

Q. You have never had contact with Mr. Bankman-Fried, correct?

A. No, I have not.

MR. LISNER: No further questions.

THE COURT: Anything else, Mr. Raymond?

MR. RAYMOND: No further questions, your Honor.

THE COURT: I have one or two.

Were the terms of service ever provided to you by FTX or anybody else?

THE WITNESS: When you open your account, I believe, like anything, any website, you can agree to the terms of service but they are not there, so you have to click, I believe, to read them, to the best of my recollection.

THE COURT: Did you click to read them?

THE WITNESS: No, I did not.

THE COURT: Did you click even to see how long they were?

THE WITNESS: No, I did not.

THE COURT: Thank you.

Any other questions in light of mine?

MR. RAYMOND: Your Honor, can I just ask very briefly one more question?

THE COURT: Yes.

REDIRECT EXAMINATION

BY MR. RAYMOND:

Q. Mr. Morad, following up on what Judge Kaplan asked, do you recall when you were asked to look at the terms of service or when you were provided the opportunity to look at the terms of

service?

A. I believe when I signed up to open the account.

Q. And that was, I think you testified, in about March or April 2021?

A. As close as I recall, March, 31, April 1ish, 2021.

MR. RAYMOND: No further questions, your Honor.

THE COURT: Thank you, Mr. Raymond.

Mr. Lisner.

MR. LISNER: Nothing from the defense, your Honor.

THE COURT: Thank you.

You are excused. Thank you.

(Witness excused)

THE COURT: Next witness, please.

MR. ROOS: Thank you, your Honor. The government calls Nishad Singh.

NISHAD SINGH,

called as a witness by the government,

having been duly sworn, testified as follows:

THE COURT: You may proceed, Mr. Roos.

MR. ROOS: Thank you, your Honor.

DIRECT EXAMINATION

BY MR. ROOS:

Q. Mr. Singh, where were you working last year?

A. At FTX.

Q. What was your job at FTX?

A. I was the head of engineering.

Q. Did you commit financial crimes while at FTX?

A. I did.

Q. What crimes did you commit while working at the company?

A. I defrauded customers, investors, I participated in money laundering, and I violated campaign finance laws.

Q. Did you commit those crimes on your own or with others?

A. With others.

Q. Who?

A. Sam Bankman-Fried, Gary Wang, Caroline Ellison, Ryan Salame.

Q. Who did you defraud?

A. FTX customers and investors.

Q. How were those customers and investors defrauded?

A. For the customers, their money was being spent and they didn't know it. For the investors, they were -- they weren't told of the large hole and were given financials that were doctored.

Q. And what was your role in the fraud against FTX's customers that you committed with the defendant?

A. In September of 2022, I learned of the hole. And even after that, implicitly and explicitly, I green-lit transactions that I knew must have been digging the hole deeper and therefore coming from customer funds.

Q. When you are using the word the hole, what are you

referring to?

A. Like the large deficit in funds that FTX should have had on hand to supply customer withdrawals.

Q. How large was that hole?

A. I'm sure it varied over time. When I learned of it in September, my belief is that it was $8 billion.

Q. Just yes or no, did there come a time you learned what happened with some of the customer money?

A. Yes. September 2022.

Q. Two questions on that.

First, how did you learn what happened with the money?

A. From conversations with Sam, Gary, and Caroline.

Q. So what did you learn what happened with the money?

A. I learned that there was a hole that was enormous and that it had been spent and lost by Alameda, and I knew that it was $8 billion in size. So the last $8 billion of spend had necessarily come from customers. That spend included things like real estate investments, VC investments, campaign donations, and speculative events in trading.

Q. You used the word VC. What does that mean?

A. Venture capital. Alameda acted as a venture capital firm in this crypto space.

Q. And what is venture capital exactly? Can you give us an example?

A. Yeah. Maybe one summary is that it's the practice of

investing money in other companies hoping for returns.

Q. Now, you mentioned you committed --

THE COURT: Excuse me. Is that any different from buying stock in Apple today or in Google today or in General Motors today? Is venture capital any different from that?

THE WITNESS: One distinction is, I think often venture capital is done with private equity, so you are not buying something that's publicly traded.

THE COURT: Go ahead.

Q. You mentioned you committed financial crimes at FTX.

Have you pled guilty to those crimes?

A. I have.

Q. Are you testifying here today under a cooperation agreement?

A. Yes.

Q. We will talk about all of that a little further. I want to take a step back and ask you about your background.

Where did you grow up?

A. The bay area in California.

Q. Where did you go to high school?

A. Crystal Springs Uplands School.

Q. When did you first meet the defendant, Sam Bankman-Fried?

A. I think in my sophomore or junior year of high school.

Q. Were you friends in high school?

A. I wasn't friends with Sam, but I was close friends with his

younger brother, Gabe.

Q. After high school, did you go to college?

A. Yes.

Q. And where did you go to college?

A. UC Berkeley.

Q. What did you study at UC Berkeley?

A. Electrical engineering and computer science.

Q. What did you do after college?

A. I briefly worked at Facebook.

Q. Did there come a time you started working with the defendant?

A. Yes.

Q. Approximately when was that?

A. Late 2017.

Q. And where did you start working with him?

A. Alameda Research.

Q. Who ran Alameda Research at that point in time?

A. Sam and Gary.

Q. And what was Sam Bankman-Fried's job at Alameda Research at the time?

A. He was the CEO, the head trader, and founder.

Q. What about Gary Wang's job?

A. Gary was the CTO and a founder.

Q. What was your position at Alameda Research?

A. I was a software engineer.

Q. So were you a manager in any way?

A. Not initially.

Q. And what did you do as a software engineer at Alameda Research?

A. I wrote code that improved or built out trading systems for the traders to use.

Q. While working at Alameda, did you meet someone named Caroline Ellison?

A. Yes.

Q. What was her job at Alameda?

A. She was a trader.

Q. Now, did there come a time where you changed jobs?

A. Yes.

Q. Where did you start working?

A. At FTX.

Q. When was that?

A. It was in mid 2019.

Q. What was your initial job at FTX?

A. Similar. Software engineer.

Q. So what kind of things did you do at FTX as a software engineer?

A. It was pretty similar to what I did in Alameda in that I was coding at Sam and Gary's direction, this time not to build out trading systems, but instead to build out the site for other customers to trade on.

Q. You just mentioned Gary Wang. What was his job at FTX?
A. Gary was the CTO.
Q. What is CTO stand for?
A. Chief technology officer.
Q. Now, how, if at all, was your job similar to Gary Wang's job at FTX?
A. It was similar in that we both wrote code.
Q. Did one of you supervise the other, or were you equals?
A. We weren't equals. Gary supervised me. On every technical decision of importance I would either get direction from him or advice or leave it to him.
Q. You mentioned coding. Did the defendant do any coding at FTX?
A. He did not code himself, but he was very involved in the coding process.
Q. Can you explain what you mean by that.
A. Yeah. There is the act of writing code and then there is the act of designing it and thinking about it and architecting it. Sam did not write the code, but he did a lot of the rest of that stuff. He was really involved in the sort of minutia of the architecture of FTX.
Q. Let me ask you a follow-up question on that.

First, the writing of code, what do you mean by that? What is the writing of code?

A. Yeah. It looks like you are typing out words like you

might in a Word document, only it's in a non-English language, like Python or JavaScript.

Q. Then you said the architecture of the code --

THE COURT: Slow down, please.

Please tell the jury what those various terms you just used mean.

THE WITNESS: Python is a programming language in which you can express logic for a computer to execute. JavaScript is a different programming language.

Q. Thank you.

You also mentioned the defendant's involvement in the architecture of the code. What were you referring to?

A. Sam directed a lot of these specifics of how the code should run and what it should be doing. As an example, Sam designed all the rules for the margin system and the liquidation engine, and Gary implemented them.

THE COURT: You better tell us what those things are.

THE WITNESS: Yeah. The margin and liquidation systems are -- they were core to FTX. They were the things that considered users' balances and decided how much they could trade with them, when they should be closed out to prevent losses, and, in general, how assets were considered on the system.

THE COURT: Proceed.

MR. ROOS: Thank you, your Honor.

Q. Who were the founders, by the way, of FTX?

A. Sam and Gary were.

Q. And were they equals at the company?

A. No.

Q. Were there parts of the business -- sorry. Just to follow up, you said no to whether they were equals. Can you explain the relationship dynamic.

A. Yes. Gary took instruction from Sam. Gary was in charge of all of the code and the technical systems, and Sam frequently deferred to him on those topics. But on business decisions or on -- almost anything on technical, meetings with investors, any sort of public statements, managing other departments, legal, Sam was in charge.

Q. Were there parts of the business that you observed the defendant being involved in that Mr. Wang was not involved with?

A. Yes.

Q. And what were those parts?

A. Marketing, raising from investors, sort of running a lot of Alameda's trading, things like endorsement deals, high-level business decisions.

Q. What do you mean by raising?

A. Selling FTX equity to investors.

Q. And you mentioned earlier in your testimony venture capital, or VC. How, if at all, were either Gary or Sam

Bankman-Fried involved in that?

A. I don't think that Gary was involved, but I'm not sure because I wasn't in those meetings myself. I know Sam was very involved in VC investing.

Q. How do you know that?

A. From conversations with Sam about it.

Q. Now, who did you report to at FTX?

A. Sam and Gary and in various projects other people, but primarily Sam and Gary.

Q. Did that ever change over time?

A. No.

Q. Were there aspects of the business you observed the defendant involved in that you yourself were not involved in?

A. Yes.

Q. Which?

A. A bunch of the ones I had mentioned about -- that Gary wasn't involved in but Sam was: Marketing, raising, making public statements, legal decisions, high-level business decisions.

Q. Focusing on your role and responsibilities at FTX, how, if at all, did those change over time?

A. In 2020, I started managing other engineers and growing out the team, other junior engineers, not Gary. And as a part of that I became more involved in management discussions going forward.

Q. Did you ever live with the defendant?

A. I did.

Q. Where and when?

A. Starting in December of 2021, I lived with him in Albany, which is a luxury resort in the Bahamas.

Q. Where in Albany did you live with him?

A. In the Orchid 6 penthouse.

Q. How would you describe your relationship with the defendant over time?

A. I have always been intimidated by Sam.

MR. COHEN: Objecting. Move to strike.

THE COURT: Ground.

MR. COHEN: Calls for speculation.

THE COURT: Overruled.

Q. How would you describe your relationship with the defendant over time?

A. Sam is a formidable character, brilliant, so I had a lot of admiration and respect for him. Over time I think a lot of that eroded, and I grew distrustful.

Q. When you worked at FTX, did you own equity in the company?

A. I did.

Q. Approximately how much?

A. Around 6 or 7 percent.

Q. On paper, how wealthy did that make you?

A. I was a billionaire.

Q. You testified that you were not one of FTX's founders. Who gave you this valuable stake in FTX?

A. Sam and the lawyers did.

Q. And how did your stake compare to the defendant's?

A. It was smaller than Sam's.

Q. How about to Gary Wang's stake?

A. Smaller than Gary's.

Q. Were you aware of anyone besides Sam Bankman-Fried and Gary Wang who had a larger stake than you and worked at FTX?

A. None others.

Q. What's your understanding of why you were awarded such a large -- relatively large stake in the company?

A. In 2020, I asked to not be paid bonuses anymore and instead have equity. It's a lot more efficient for long-term donations. Sam agreed.

Q. In addition to owning FTX stock, did you get a salary?

A. Yes.

Q. And what was your annual salary?

A. $200,000.

Q. Did you receive any bonuses?

A. I did until 2020.

Q. How much were those bonuses that you did receive?

A. On the order of a million dollars.

Q. In addition to the salary, the bonuses, the stock, were you ever given any loans by the company?

A. I was.

Q. Were those loans for personal uses or corporate uses or both?

A. Both.

Q. We will circle back to that in a bit.

While you were working at FTX, did you ever use any form of money from the exchange, so stock, cryptocurrency, loans to make large purchases or payments?

A. Yes. I made a large investment, I made many donations, and I gave gifts to friends and family.

Q. When you started working at FTX, did you continue to work at Alameda?

A. Yes.

Q. Until what point?

A. I am not sure exactly when, but I think sometime early or mid 2020.

Q. Just to be clear, as of early or mid 2020, did you stop working at Alameda?

A. Right, yes.

Q. And you only worked at FTX at that point?

A. Correct.

Q. By 2022, were you working at Alameda Research at all?

A. Not at all.

Q. Who was in charge of Alameda at that point?

A. Nominally, Caroline Ellison and Sam Trabucco. Ultimately,

Sam Bankman-Fried.

Q. What do you mean by nominally?

A. Trabucco and Caroline had been named the co-CEOs of Alameda. My understanding is that in the end Sam held a lot of the final say.

Q. That year, so 2022, what observations if any, did you make about the defendant's involvement in Alameda?

A. There were a lot of things. Sam had a six-monitor setup, two tall, three wide. In his middle top monitor I saw a spreadsheet pretty frequently there that had Alameda's trading positions.

Sam also sometimes had the pointer balances page open. Pointer is like the Alameda trading UI. So this would have displayed all of Alameda's balances on different exchanges and their loans and such as far as that system tracked.

Sam also, as far as I understand, unilaterally, without going through Caroline or Sam Trabucco, spent a lot of Alameda's money with the layers effectuating loans through people like me to get them into FTX US or making investments from Alameda Research ventures.

I'm sorry. This answer is long. I know.

He referenced to me that he had threatened to fire various people at Alameda, including Caroline, implying that he held that power as well.

(Continued on next page)

BY MR. ROOS:

Q. You used the term UI when talking about the pointer page with balances. What does UI mean?

A. User interface. It's like the website that you'd use.

Q. You mentioned the defendant's spending at Alameda. How would you describe the defendant's approach to spending?

A. Excessive.

Q. What do you mean by that?

MR. COHEN: Objection. Can we have a foundation, your Honor.

THE COURT: Sustained.

Q. So, Mr. Singh, did you, in 2022, observe spending by the defendant?

A. Yes.

Q. Did you have conversations with the defendant about his spending?

A. Many.

Q. In the course of those conversations——we'll start at a high level——did you ever express a view as to his approach to spending?

A. Many times.

Q. How would you describe your view of the defendant's approach to spending?

A. I often learned about large incidents of spend after the fact and got conflicting reports of how much was spent or who

was in charge. I'd frequently go to Sam and express that I thought that, you know——my complaints varied by the instance, but that the spend was too large or that it didn't make sense——in essence, a bad business decision——and I also would express that I felt kind of embarrassed and ashamed of how——how much it all reeked of excess and flashiness. It didn't align with what I thought we were building a company for.

Q. What was the defendant's reaction, if any, when you expressed disagreement with spending?

A. Also varied by the instance. Most cases I just didn't get a response. In some cases Sam would correctly state that I didn't have sufficient context to evaluate the spending decisions but Sam did because he was sort of out and interacting with the people that were targets of it. I'd hear that, you know, my opinions had already been factored in and if they, you know——he would——I didn't need to continue sharing them. In one instance, with other people around in the office, when I thought we had been fleeced for $20 million, Sam got visibly mad at me and said——he said that it was, you know, people like me sowing seeds of doubt in the company decisions that were the real insidious problem here. It was pretty humiliating.

Q. Now I want to talk more specifically about the spending that was happening in late 2021 and 2022.

Let's just start by category. You mentioned venture

spending. What are you referring to?

A. Venture investments made by Sam and Ramnik and others.

Q. And then besides the venture spending, what were some of the other categories of spending that you observed in late 2021 and early 2022?

A. There was large amounts of spending on real estate and endorsement deals, things like deals with celebrities or stadiums.

Q. Okay. Let's start by talking about venture spending.

MR. ROOS: And pursuant to stipulation S2003, the government offers Government Exhibit 14A, which, according to the stipulation, is a spreadsheet titled Venture Deals, dated June 17, 2022.

THE COURT: Stipulation Exhibit S2003 and Government Exhibit 14A are received.

(Government's Exhibits S2003 14A received in evidence)

MR. ROOS: May we publish it?

THE COURT: You may.

BY MR. ROOS:

Q. Now, Mr. Singh, do you see a spreadsheet on your screen?

A. I do.

Q. And are you familiar with some of the——do you see the column that says A on it?

A. Mm-hmm, yes.

Q. Do you see below it project names?

A. Yes.

Q. Are you familiar with some of the project names listed on this spreadsheet?

A. Yes, some of them.

Q. And why don't we, I guess——are you able to see the project names fully?

A. Some are a little cut off, but I can see most of them.

Q. Okay. So starting with the top of the sheet, do you see in column A2 and A3, Genesis Digital Assets?

A. Yes.

Q. And do you see the——in column E, what the category of that is?

A. Yes. Mining.

Q. So are you familiar with an investment in Genesis or a mining company?

A. Yeah. I don't——yes. I don't recognize the name Genesis Digital Assets, but I know that Sam, Ramnik, and Ryan Salame visited Kazakhstan sometime in late 2021 or early 2022 to look into making a deal with a mining firm there, and I heard later in 2022 from Ramnik that they had spent a billion dollars on it.

THE COURT: Let me just interpose another dumb question. When I was your age, mining basically referred to digging in the ground for gold and coal and stuff like that. That's not what you're talking about, is it?

THE WITNESS: Almost in some ways, but no, not exactly.

THE COURT: Well, would you explain what you were talking about.

THE WITNESS: Yeah. Cryptocurrencies——proof-of-work cryptocurrencies relied on a large amount of compute being spent to solve problems, and there are big rewards, like in Bitcoin, in the case of the Bitcoin chain, for doing so. Mining is the activity of throwing a bunch of compute at those problems to get Bitcoin.

THE COURT: Well, I'm sure that's the best I'm going to get. I'm not sure how it's going to help me, but the jury is smarter than I am, and we'll go on.

MR. ROOS: I'm tempted to take a shot here.

THE COURT: Feel free.

BY MR. ROOS:

Q. Mr. Singh, so at a very high level, what is a crypto mining company making?

A. It doesn't really produce physical goods. It instead has a bunch of computers that try to solve problems. Those problems, when solved, are used to bundle together a bunch of transactions on a blockchain, making them official, and making them part of the chain.

And so the service they provide is——is sort of verifying and making official transactions that other people

have proposed, and their reward is that the chain natively gives them a Bitcoin——it's one or some number of them——every time they do so.

THE COURT: And please forgive me if we've done this before, but tell everybody what a blockchain is.

THE WITNESS: It's an electronic database that tracks——it tracks a lot of transactions, but doesn't live in one place; it lives in a distributed manner across many people's computers.

BY MR. ROOS:

Q. And you mentioned an amount. Take a look at column F at the top. Do you see the two transaction amounts at the top there?

A. Yes.

Q. And what's their total together for Genesis?

A. 150——sorry——1,050,000,000.

Q. And how does that compare to the amount you had heard had been spent on the mining company?

A. I'd heard 1 billion, so it's pretty close.

Q. Now take a look at column K, and the first two lines there under Investment Entity. And what is the investment entity listed for this Genesis Digital Assets investment?

A. Alameda Research LLC.

Q. What, if any, involvement did the defendant have in acquiring or investing in the mining company you heard about?

A. I think he was calling the shots there. He went to go visit them for multiple days. That's a pretty extreme sort of sacrifice in Sam's calendar.

THE COURT: How do you know that?

THE WITNESS: I don't know that he was the one to pull the trigger on the investment. I do know that Sam was in general the one making the final decision on investments and investment team decisions as a whole.

THE COURT: And how do you know that?

THE WITNESS: Conversations with Sam and Ramnik and overhearing their process.

THE COURT: Proceed.

MR. ROOS: Thank you, your Honor.

BY MR. ROOS:

Q. Let's take a look at row 4 here on the spreadsheet. Do you see a payment to a project name called Anthropic and the investment amount of $499,999,900?

A. Yes.

Q. Are you familiar with Anthropic?

A. Yes, I am.

Q. What is it?

A. It's an AI company focused on AI safety.

Q. Do you know what the almost $500 million to Anthropic was for?

A. I know what we were told it was for. It was compute.

Q. What do you mean by that?

MR. COHEN: Objection, hearsay.

Q. Who told you that?

A. Dario Amodei——I don't know if I'm getting the pronunciation right——who runs Anthropic.

THE COURT: Sustained.

Q. Just at a high level, not how the funds would be used, but why was money being sent to——withdrawn.

To what extent, if at all, was this an investment or acquisition of Anthropic?

A. It was an investment.

MR. COHEN: Objection, foundation.

THE COURT: Answer stricken. You can lay a foundation, if you can.

Q. Did you have conversations with the defendant about a payment to Anthropic?

A. I did.

Q. And what did you understand the payment was for?

THE COURT: Let's start with what was said.

Q. What did the defendant say to you?

A. That we were going to invest $500 million in Anthropic.

Q. Okay. And what involvement, if any, did the defendant have in the Anthropic investment?

A. Extreme amount of involvement. I was in the Hong Kong office——

MR. COHEN: Objection.

THE COURT: What's the objection?

MR. COHEN: Foundation.

THE COURT: Yes. Mr. Roos.

Q. Did you observe the defendant having any involvement in Anthropic?

A. Yes.

Q. ——in the Anthropic investment?

A. Yes.

Q. Did you have conversations with the defendant about the Anthropic investment?

A. Yes.

Q. Based on your conversations and your observations, what, if any, involvement did the defendant have in the Anthropic investment?

A. He set it up and decided on it.

Q. What entity does the spreadsheet say was the investment entity for these Anthropic investments?

A. Alameda Research Ventures LLC.

Q. Take a look at row 7. And do you see in row 7 the project name is K5?

A. Yes.

Q. Do you see the investment amount is $200 million?

A. Yes.

Q. And do you see on the spreadsheet in column C who it says

the lead is on this investment?

A. Sam Bankman-Fried.

Q. Okay. Now who ran K5?

A. Michael Kives and Bryan Baum.

Q. Do you know——just yes or no: Do you know whether or not the defendant ever met Michael Kives and Bryan Baum?

A. I do. Yes, he did.

Q. And——

THE COURT: How do you know that?

THE WITNESS: I saw them meeting.

THE COURT: Thank you.

Q. And did you ever speak to the defendant about meeting Michael Kives and Bryan Baum?

A. Yes.

Q. And what, if anything, did he say to you about that?

A. He was very impressed with their——their level of connection to influential celebrities and entrepreneurs. He thought it would be useful for FTX to leverage those connections.

Q. Are you familiar with a document about why FTX should partner with K5?

A. Yes.

MR. ROOS: Pursuant to stipulation S2003, the government offers Exhibit 42, which, according to the stipulation, is a document titled K5 Relationships and Marketing, dated February 15, 2022.

THE COURT: It's received.

(Government's Exhibit 42 received in evidence)

MR. ROOS: May we publish?

THE COURT: You may.

MR. ROOS: And can we zoom in on the first, let's say, third of this first page.

BY MR. ROOS:

Q. Mr. Singh, have you seen this document before?

A. Yes, I have.

Q. What was the context of you seeing it?

A. Sam sent this to a group of a bunch of people in some form of leadership at FTX. I think it was in the Signal chat called hashtag meetings.

Q. And what, if anything, did he say about the document?

A. I don't know——I can't remember anything he said about the document. I just know what the document says.

Q. Now——

THE COURT: Excuse me. Was this sent to you as part of this leadership group or did you come to see it some other way?

THE WITNESS: I was in that group, so it was sent to me.

THE COURT: Thank you.

Mr. Roos, please. I don't want to have to do this every time.

MR. ROOS: Thank you, your Honor.

BY MR. ROOS:

Q. Let's start at the top of the document. It says, "In LA last weekend, I met with Michael Kives and his firm, K5."

At around the time did you have any conversations with the defendant about meeting with Michael Kives and his firm K5?

A. Yes.

Q. And what, if anything, did he say?

A. Sam said that he had gone to a post- or pre-Super Bowl party in LA and that he had met the most impressive collection of people he ever had in one location and that that dinner party in which he met them was organized by the two folks at K5.

Q. Now the document says, "In attendance at the dinner at his house were," and lists a bunch of names. Do you see that?

A. Yes.

Q. Do you recall the defendant telling you about the dinner?

A. Yes.

Q. And now with this list of names of people who were at the dinner, if you recognize a person or people on the list, can you say who they are.

A. Sure. I can go through them now?

Q. Please.

A. Hilary Clinton. She was a presidential candidate.

MR. COHEN: Stipulated.

THE COURT: Thank you, Mr. Cohen.

MR. ROOS: Your Honor, can the witness proceed.

THE COURT: The witness can proceed.

A. Doug Emhoff, who is Kamala Harris's husband; Katy Perry is a singer; Orlando Bloom is an actor; Kate Hudson I believe is an actress; Leonardo DiCaprio is an actor; Jeff Bezos ran Amazon. I don't know No. 8. I don't know No. 11. Kendall and Kris Jenner, I honestly could not tell you what they do.

MR. ROOS: Okay. We can zoom out.

Q. Now part way down the page, do you see the heading that says "They want with us"?

MR. ROOS: Can we zoom in on that section.

Q. And No. 6 says, "Maybe us to invest in them or some stuff, idk." What is "idk"?

A. "I don't know."

MR. ROOS: If we could zoom out on this part. And can we zoom in on the part that says, "We get from them."

Q. It says, "We can get from them essentially infinite connections. I think that if we asked them to arrange a dinner with us, Elon, Obama, Rihanna and Zuckerberg in a month, they would probably succeed."

Did you have any conversations with the defendant about getting connections through Michael Kives or K5?

A. Yes.

Q. And what, if anything, did the defendant say to you about

the purpose of getting connections?

A. That it would be extremely valuable for FTX's and his own reputation and influence.

Q. The second number here says, "Potential endorsement deals"; the third says, "Potential unpaid partnerships with celebrities"; the fourth says, "Working together on electoral politics." What, if anything, did the defendant say to you about why those things mattered?

A. I think he said that these are all areas in which increasing FTX's influence would help propel its success, that endorsement deals and celebrities can promote FTX. I don't recall explicitly talking about the relationship between K5 and electoral politics.

MR. ROOS: Now let's zoom out from here and go to the next page.

And can we zoom in on the last paragraph.

Q. And do you see the second sentence that says, In particular I think it's something of a one-stop shop for relationships that we should utilize, and can supersede a lot of other things we have"?

A. I see that.

Q. Besides writing that document, did you ever——did the defendant ever say anything to you in substance similar to this?

MR. COHEN: Objection, form.

THE COURT: Sustained, form.

Q. What, if anything——well, let me just ask: Yes or no, did you have any other communications with the defendant about a one-stop shop for relationships?

A. Yes.

Q. And what, if anything, did the defendant say to you about that?

A. I recall him using that exact phrase, that it would be extremely convenient to not have to manage many of the relationship brokers but just this one.

MR. ROOS: We can take this down.

Q. After you received this document, just yes or no, did the defendant spend any more time with Michael Kives and Bryan Baum?

MR. COHEN: Objection, foundation.

MR. ROOS: I'm just asking yes or no, and I'm going to lay the foundation.

THE COURT: Well, then the question is problematic. It's leading, so let's——

MR. ROOS: Okay. I'll rephrase.

BY MR. ROOS:

Q. Mr. Singh, what, if anything, did you observe about the defendant's interactions with Bryan Baum or Michael Kives after you received this document?

THE COURT: If anything. Or you've got the "if

anything." Sorry.

A. I physically saw them meeting multiple times in the Bahamas penthouse, and I'd heard from Sam that they had gone on——I believe they'd gone on some trips together. Sorry. I knew they'd gone on some trips together. I can't remember if it was before or after this document.

Q. Okay. Showing you now what's marked for identification as Government Exhibit 1451. Do you recognize people in this photo?

A. I do.

Q. Government offers——well, let me just ask you: Who do you recognize, for starters?

A. Katy Perry is on the far left; Orlando Bloom is to her immediate right; Michael Kives to Orlando Bloom's immediate——he's the man to his immediate right; Sam is immediately to Michael Kives's right; and I don't recognize anyone else.

MR. ROOS: Government offers 1451.

THE COURT: Received.

(Government's Exhibit 1451 received in evidence)

MR. ROOS: Can we publish it.

THE COURT: Yes.

Q. Mr. Singh, now that the jury can see it, can you point out the individuals that you just identified.

A. As in like go through the same process?

Q. Yes.

A. Sure. Katy Perry is on the far left in the green; immediately to her right is Orlando Bloom with the hat; the man immediately to his right is Michael Kives; and then Sam is immediately to Michael Kives's right.

Q. Now what, if any, conversations did you have with the defendant about investing in K5?

A. Sam sent a——like a term sheet of a Google Docs to me and Gary one night after meeting with Bryan Baum in the Bahamas penthouse.

Q. After receiving that term sheet what, if anything, did you discuss?

A. I was pretty shocked. It laid out hundreds of millions of dollars of bonuses to Michael Kives and Bryan Baum and proposed up to a billion dollars long term of capital to give to their VC firm. Surprising given that in the previous——by my understanding till this point was that investments——

MR. COHEN: Objection.

THE COURT: Sustained.

MR. ROOS: I'm sorry. To which part? To his understanding up to this point?

THE COURT: "Surprising given that."

MR. ROOS: Okay. Thank you, your Honor.

BY MR. ROOS:

Q. Had you had any conversations with the defendant prior to

this point about the nature of the investment?

A. I talked with him about the possibility of investment. The sizes and the actual nature of them, not——I don't think we talked about those.

Q. After you received this term sheet what, if anything, did you say to the defendant?

A. The first thing I asked was: *Is this a done deal? Can we go back on this?*

Q. What, if anything, did he say?

A. He said: *It's basically done. It's not in stone, but consider it done.*

Q. Did you have——did you speak further after that?

A. Yeah. I was very concerned that a move like this was highly expensive and maybe not worth it on its own right. I was concerned that K5 was value extracted and that they would share——

MR. COHEN: Objection.

THE COURT: Strike the answer. You can re-put the question.

Q. So what, if anything——after the point you testified up to, what, if anything, did you discuss with the defendant?

A. I was worried that partnering with K5 and giving them this much money would be really toxic to FTX and Alameda culture; that every day I was actively trying to espouse——I felt we all were——that politicking and social climbing was not going to be

rewarded, and here we were rewarding people in exorbitant amounts.

MR. COHEN: Same objection.

THE COURT: Sir, is that something you thought or is that something you both thought and said to the defendant?

THE WITNESS: Thought and said.

THE COURT: Thank you.

Let's go on.

BY MR. ROOS:

Q. So after you said that to the defendant, how, if at all, did he respond?

A. I think I said a few more things and then he responded.

Q. What else did you say to the defendant?

A. I asked that if we must go through with this that it not interact with FTX lest it mess up FTX's culture and that that meant that Sam would be the person interacting with them, not FTX people, and that it would be Sam's money and not FTX money.

MR. ROOS: Could we please put back up Government Exhibit 14A.

And can we look at column K of row 7.

Q. And what investment entity does the spreadsheet say was used for K5?

A. Alameda Research Ventures LLC.

Q. Now do you see on this spreadsheet in row 10 a project name called Dave Inc.?

A. Yes.

Q. Do you know what Dave Inc. is?

A. It's a neobank.

Q. What's a neobank?

A. It's like a bank that exists primarily online, doesn't have brick-and-mortar stores, I believe.

MR. ROOS: We can take that down.

Q. Besides the venture investments, what other spending was happening in the first quarter of 2022?

A. There was spending on endorsement deals and real estate.

MR. ROOS: So pursuant to stipulation S2003, the government offers Exhibit 343, which, according to stipulation, is a spreadsheet dated March 23, 2022, called Sponsorships Full.

THE COURT: 343 is received.

(Government's Exhibit 343 received in evidence)

MR. ROOS: May we publish?

THE COURT: You may.

BY MR. ROOS:

Q. Mr. Singh, are you familiar with this spreadsheet?

A. Yes.

Q. And just as a category, what is listed on it?

A. Sponsorship deals and how much they cost.

Q. Okay. Starting at the top, do you see the numbers 1a, 1b, and 1c?

A. Yes.

Q. And what are——what is the Miami-Dade FTX Arena?

A. The Miami Heat NBA stadium that was renamed FTX Arena.

Q. And did FTX have a sponsorship agreement with them?

A. Yes.

MR. ROOS: Can we show the witness Government Exhibit 1478.

Q. Do you recognize this?

A. This is that arena.

MR. ROOS: Government offers 1478.

THE COURT: It's received.

(Government's Exhibit 1478 received in evidence)

MR. ROOS: May we publish it.

THE COURT: You may.

Q. Mr. Singh, what are we looking at?

A. This is the Miami Heat stadium that was renamed to FTX Arena.

Q. And do you know what team plays at the Miami Heat stadium?

A. Miami Heat.

Q. What's that?

A. It's an NBA team.

MR. ROOS: Let's put back up Government Exhibit 343, please.

Q. How much did the Miami Heat arena sponsorship cost?

A. Summing the first three numerical values in column O, it's

$205 million.

Q. No. 2 on this list, which is row 8, says MLB. Was there an MLB endorsement?

A. Yes.

Q. What does MLB stand for?

A. I think Major League Baseball.

Q. What was the total deal amount?

A. I don't know if rows 9 and 10 contribute, but around $150 million.

Q. Do you see——let's look down to row 14 and 15. And do you know who Steph Curry is?

A. Yes, a great basketball player.

Q. And did FTX have any sort of arrangement with Steph Curry?

A. Yes.

Q. What?

A. I actually don't know the full nature of that.

Q. Okay. What was the total deal size listed on this spreadsheet?

A. According to this——

MR. COHEN: Is he just reading this? Is there a basis beyond that?

THE COURT: Yes. Let's find out.

Q. Mr. Singh, at the time this was happening, as these endorsements were happening, were you familiar with some of the endorsements and their amounts?

A. I mostly learned about them after their——after the fact and certainly learned about the amounts after the fact.

Q. And just to be clear, when you say after the fact, when are you referring to?

A. After the payment had been made, the deals had been agreed on.

Q. But when in 2022 or 2023?

A. Like late 2022. I saw——I saw——this sheet was shown to me by Jayesh in late October or early November 2022.

Q. Who is Jayesh?

A. Jayesh Peswami was the head of finance for FTX.

Q. Okay. And what were those circumstances of him sending this to you?

A. He came over to my desk and he asked me about a topic called goodwill, which he explained was something like the net present value of future expected growth of an entity, and he wanted to know what a reasonable number for Blockfolio's goodwill will be. We talked about user growth. To substantiate user growth, he showed me how much was being spent on endorsements, which, in theory, lead to user growth.

Q. So you've seen this spreadsheet before?

A. Yes, I'd seen it before, at that time.

Q. Just a few others.

Row 21 says Riot LCS. Do you know what that's a reference to?

A. Riot is the company that makes League of Legends. LCS is the competitive league that they run.

Q. What, if any, relationship did of this with FTX?

A. This is an endorsement deal with FTX.

Q. Can we look at row 9. I'm sorry. Not row 9. If we look at No. 9a on the list.

Are you familiar with Tom Brady and Gisele Bündchen?

A. Yes.

Q. And who are they?

A. Tom Brady is a great quarterback; Gisele Bündchen is a model and philanthropist.

Q. What, if any, relationship were you aware of at the time between Tom Brady and Gisele Bündchen and FTX?

A. I knew there was some form of——there were a couple things. There was some form of endorsement deal. I also know that FTX was coordinating on some philanthropic efforts with Gisele.

Q. Let's look at No. 27 on this list.

And do you see the name Larry David?

A. Yes.

Q. Who is that?

A. He wrote *Seinfeld*.

Q. Okay. And do you know what the sponsorship was for?

A. This was for his role in the Super Bowl ad.

Q. Now let's look at line 72.

And what was the total deal amount?

A. 1.13 billion.

MR. ROOS: We can take that down.

Q. You mentioned that money in late 2021 and 2022 was being spent on real estate.

THE COURT: Before we get into the real estate business, we'll maybe take our morning break. Fifteen minutes, please.

THE DEPUTY CLERK: All rise. Would the jury please come this way.

(Recess)

(In open court; jury present)

THE COURT: And folks, forgive me for one minute. Just let me see Mr. Cohen and Mr. Roos at the sidebar.

(Continued on next page)

(At the sidebar)

THE COURT: During the recess, I just received an automatic email saying that Mr. Bork is on extended leave.

MR. COHEN: Oh.

THE COURT: And in case of need, call Adam Johnson, and here's the number. I'm certainly not going to put it on the record.

MR. COHEN: Thank you, your Honor.

THE COURT: Do you have it?

MR. ROOS: Yes, we have it.

THE COURT: Okay.

(Continued on next page)

(In open court)

THE COURT: Okay. Let's proceed.

BY MR. ROOS:

Q. Mr. Singh, before we broke, I'd asked you about real estate. And why don't we just——

MR. ROOS: Pursuant to stipulation S2003, the government offers Exhibit 3, which, according to the stipulation, is a spreadsheet called FTX PHL Properties 2021, Leased and Purchased.

THE COURT: Received.

(Government's Exhibit 3 received in evidence)

MR. ROOS: May we publish it?

THE COURT: You may.

BY MR. ROOS:

Q. Mr. Singh, do you see in column A a list of properties by address?

A. Yes.

Q. Okay. Are you familiar with any of the properties listed in this spreadsheet?

A. A handful of them.

Q. Which do you recognize?

A. There's Albany Lot No. 44 Conch Shack, I recognize that; I think I visited some of the ones in rows 3, 4, and 5 that say Charles at the end; on row 8, Gemini Unit 1D was one of Sam's apartments; on row 12, the Orchid penthouse was Sam's apartment

that I and Sam and some eight others lived in.

MR. ROOS: Could we scroll down.

A. I recognize some of these One Cable Beach ones. I see that there are five and I only know of three, and I don't know which is which, but I know there were three, at least three apartments purchased at One Cable Beach under my and Sam's and Gary's name.

Q. Do you recognize any of the other ones?

A. Two others. Old Fort Bay, lots 5A and 5B. I'm not certain, but I know that Joe Bankman lived in one home in Old Fort Bay, and this might be the one.

And then on row 35, the Veridian Corporate Center No. 23, that was part of the FTX office.

MR. ROOS: Could we scroll back up to the top.

Q. I just want to clarify, in row 8 it says Albany Building 9, unit 1D. Is that one of the properties you just identified the defendant lived in?

A. Yeah.

Q. And so I want to be clear. You testified earlier that you lived with the defendant. Did you live in that property?

A. No. I lived in the Orchid penthouse in row 12. Sam moved at some point to Gemini 1D.

MR. ROOS: Could we publish Government Exhibit 1542, which is in evidence.

THE COURT: Yes.

Q. What's this?

A. This is that——the penthouse that me, Sam, and others lived in.

Q. Who else lived there?

A. There were I think eight others. I can——I can list them?

Q. Okay.

A. Claire Watanabe, my girlfriend; Adam Yedidia and Andrea Lincoln; Leila Clark; Duncan Rheingans-Yoo; Caroline Ellison; Sam.

Q. What, if any, conversations did you have with the defendant about purchasing real estate in 2021 or 2022?

A. We had a couple conversations. I can describe them.

Q. Let me ask you more specifically then, what, if any, conversations did you have with the defendant generally about spending on real estate?

A. I had one conversation with him while I was still in Hong Kong, where he was talking to a group of people that I was in. He praised Dan Friedberg and Ryan Salame's real estate purchases freely.

Q. And what, if any, conversations did you have with the defendant about purchasing the penthouse apartment that's depicted on the screen?

A. That group I mentioned, we wanted to live together, so we were searching for a place, we'd landed on one a fair bit less expensive; we went——some group went to go see this apartment.

Sam really liked this one. Sam's a fan of views. And there was substantial disagreement about if we should go with it, in part because it was really expensive, in part because it's just super ostentatious. At one point I talked to Sam and expressed that discomfort. Sam said that he would pay $100 million for the drama to just be done with and go away, which I took as a pretty clear sign that I should shut up and we should move forward with this.

(Continued on next page)

MR. ROOS: Now, we can take this down.

Q. Focusing on the period of late 2021 and early 2022, at that time what did you believe the state of Alameda's finances were?

A. I thought it was fantastically wealthy.

Q. Just to be clear, what, if any, direct involvement in Alameda's finances did you have at that point?

A. None.

Q. Did there come a time in 2022 when there was a change to the cryptocurrency market?

A. Yes.

Q. What happened?

A. Are you referring to the crash in May?

Q. Let me ask you about that. What, if any, crash in cryptocurrency prices happened in May?

A. Luna and UST, an associated stablecoin, had some algorithmic failure and it crashed and, with it, brought down a bunch of other crypto prices.

Q. Around that time what, if any, conversations did you have with the defendant about the availability?

THE COURT: I'm sorry. Can we just back up.

What's an algorithmic failure?

THE WITNESS: It's a failure in this case in the financial design of those two tokens and their interactions. I suppose the algorithm itself operated as expected. It was just not robust.

THE COURT: What is the algorithm supposed to do?

THE WITNESS: I don't actually remember the mechanics of how Luna and UST were supposed to work that well. Something about its design led to an interaction in which their price was driven to near zero.

THE COURT: All right. We will take it from there.

MR. ROOS: Thank you, your Honor.

Q. Around this time, what, if any, conversations did you have with the defendant about the availability of money?

A. That night that the crash happened, I was in the Chicago office, maybe 1, 2 a.m., or something like that. I was walking to get a snack from the pantry, and I was beckoned into a room with Ramnik Arora and Tristan Yver. Forgive me. This is not a conversation with Sam. I can skip ahead.

Q. I'll ask you the question again. What, if any, conversations did you have with the defendant about the availability of money after the change in the cryptocurrency market?

A. Sometime in the weeks to months following this crash, there were meetings held inside my room inside the penthouse in which the topic of needing more collateral or needing more capital, rather, came up. There was a lot of mention of the lending market drying out.

MR. COHEN: Can we have a foundation, your Honor?

MR. ROOS: No problem.

THE COURT: Go ahead.

Q. You mentioned meetings in your room. For starters, are you referring to the penthouse?

A. Yes.

Q. And who were in some of these meetings?

A. Always Sam, me, Gary, Caroline, Ramnik. Often Constance, Adam, Claire, Can Sun, Brett Harrison.

Q. To pick up on your answer, what was the topic of some of these meetings?

A. For some of these meetings -- but forgive me, I don't remember who all exactly was in it, but I know for certain Sam, Caroline, myself, Gary, Ramnik -- that the topic was how to address the fact that the capital markets -- that the lending markets are drying up and that capital is harder to come by. Alameda had taken out large loans from third-party lenders, and presumably it was getting harder to source new loans or to keep a hold of the old loans in this new marketing regime.

Q. Let me ask you a few follow-up questions.

So you said capital. What are you referring to?

A. Lent funds for trading or other purposes.

Q. You mentioned lending twice. Who was lending in this context?

A. Third-party crypto lenders. Genesis is a name that comes to mind here.

Q. What's a third-party crypto lender?

A. It's a firm that's in the business of lending money to, in this case, trading firms and just collecting interest on it.

Q. What, if anything, did the defendant say in these conversations?

A. A number of things. Sam acknowledged and agreed that capital was short. He talked about the need for capital. There were a lot of acquisitions he wanted to make. There was a discussion about if raising would be viable.

THE COURT: What does raising mean in this context, please?

THE WITNESS: Thanks. Raising money for FTX by selling its equity.

THE COURT: Thank you.

Q. You mentioned a few things: Borrowing, raising. Was there anything else in your answer about what he raised in the conversations?

A. There were specifics along those lines. For example, Ramnik and Sam, I don't remember which proposed it at first, but both talked about it a lot, discussed the idea of acquiring large lending -- large sources of capital that may or may not have been lending to customers of the business, groups like Celsius, Voyager, BlockFi, in part to bail out the space and in part to make Alameda have access to more funds to borrow.

Q. You have mentioned the name Ramnik a few times. What was his role at FTX?

A. His title was head of product, but he primarily worked on other matters. He headed up, along with Sam, VC investments and raising from FTX investors as in selling FTX equity.

Q. Focusing on the same time period, what, if anything, did the defendant say about the availability of money to be borrowed?

A. That it was quickly drying up.

Q. Now, I want to turn your attention to June of 2022. Did there ever come a time where you were involved in a project relating to Alameda's balances?

A. Yes.

Q. When was this, approximately?

A. Mid June 2022.

Q. Who did you work with on the project?

A. Caroline, Sam, and Gary.

Q. Can you describe what the project was at a high level.

A. Yeah. Caroline sent over a Google Doc that had -- it reflected Alameda's system's records of what they had in balances on FTX. It was extremely negative. She asked if this was correct.

Q. Now, were you working at FTX at this time?

A. Yes.

Q. And what, if any, role did you have at Alameda Research as of June 2022?

A. I was friends with them socially, but I didn't have a role.

I wasn't working there.

Q. How did working on this project fit into your overall responsibilities at FTX, if at all?

A. It was pretty anomalous. It was regular for me. I didn't have any hesitation about jumping on things that needed help. If it was something that was for Alameda that related to FTX, that was fine, but I had not considered Alameda finances until this point.

Q. What, if any, involvement had you had at looking at Alameda's balances prior to June 2022?

A. None that I recall.

Q. Why were you involved in this project to calculate Alameda's balances?

A. I don't know what Caroline was thinking when she messaged the group with me, but insofar as this is a project that relies on looking at FTX, the database there, and confirming if the data that they are streaming to their system is valid, I had comfort in those technical systems.

Q. You mentioned that Caroline Ellison circulated a spreadsheet. What, if anything, did the defendant say before receiving it?

A. I distinctly remember --

MR. COHEN: Objection.

THE COURT: What is the objection?

MR. COHEN: No foundation.

THE COURT: I thought I heard it, but, Mr. Roos, won't hurt to hear it again.

Q. Just to be clear, who was the spreadsheet circulated to?

A. At the very least, myself, Gary, and Sam.

Q. And what, if anything, did the defendant say about the spreadsheet?

A. Sam said this can't be right. There has got to be an error. Let's dig into it.

Q. After that, who, if anyone, dug into it?

A. Gary and I did. I asked Gary how I could help because I wasn't sure what the areas of uncertainty might be. Gary asked that I find and search for all the accounts in the FTX database that are either Alameda's or ultimately Sam is responsible for, so Sam morally owns, and to list them and list the dollar value of their holdings. I made an attempt at that. I think -- Gary thought it was not a great attempt, so he took his own stab at it. I deleted my page and we went with Gary's.

MR. ROOS: Let's take a look at Government Exhibit 50, which is in evidence, and, according to the stipulation, S2003, it is a June 13, 2022 spreadsheet called Alameda balances by FTX sub.

THE COURT: And the exhibit number again, please?

MR. ROOS: Government Exhibit 50, which is in evidence.

THE COURT: Thank you.

Q. Just briefly starting on sheet 1, what is this sheet?

A. This is the sheet that -- that Caroline sent that shows Alameda systems' understanding of their balances in all of these FTX accounts.

Q. Let me just take a background question of what we are looking at here.

What kind of document or file is this?

A. I recall this being a Google Doc.

Q. What kind of document do you recognize is on the screen?

A. Do you mind rephrasing that?

Q. I'm wondering what was the format in which you received this information?

A. I received it in Google Docs form, Google Sheets.

Q. What's Google Sheets?

A. It's a cloud-based version of Microsoft Excel.

Q. Did it resemble what we are looking at here?

A. Yeah, very closely. Had all the same contents.

Q. So what was this first sheet, sheet 1?

A. This is the sheet that I first saw when Caroline sent us the document, so presumably the one that Caroline wrote.

MR. ROOS: Let's now look at sheet 2.

Q. What's this sheet?

A. This is the sheet that Gary made with his attempt at the technical exercise that I described.

Q. Let me ask you a few questions about what we are seeing

here.

The first column, A, says, in the first row, ID, and then there are a bunch of numbers below it.

What does that column refer to?

A. These are the IDs of those accounts in the FTX database.

Q. What do you mean, the IDs of accounts in the FTX database?

A. Many objects in FTX's database had numbers associated with them and uniquely identified them. Those are called IDs colloquially. These are those identifying numbers for the accounts table.

Q. What's listed in column B on the spreadsheet?

A. The user name of those accounts. This is another column in the accounts table.

Q. What's listed in column C?

A. I didn't generate this, but I generated my version of it and I know what Gary told me to generate there. So inferring that he did the same thing or assuming he did, this is the dollar value of the holdings in each of those accounts.

Q. So let me ask you about a few of the accounts here. You testified that the defendant said that the initial balance that Caroline Ellison calculated was wrong. Was it?

A. Yes.

Q. Why was that balance figure wrong?

A. There were many reasons it was wrong. The one that had the biggest effect, I believe, is that fiat@FTX.com, which

represented the total amount that was in bank accounts to be custodied of customer fiat, that calculation, the system that had been updating that number had a bug such that the obligation that Alameda had was overstated by nearly $8 billion.

Q. Let's break down your answer.

Starting with the basics, what do you mean when you say fiat deposits?

A. FTX supported customers sending traditional currencies. That's what I meant by fiat, things like dollars, euros, GBP.

Q. How were those fiat deposits recorded at FTX?

A. In a number of ways. One of these systems involved in tracking them interacted with fiat@FTX.com's balances in that a deposit sent to a bank account was credited to a customer on the FTX system by, in effect, transferring from them in the sort of a technical system from the fiat@FTX.com account.

Q. What kind of account is the fiat@FTX.com account?

A. It's a special account. It's not one that customers would log into. It's an accounting-oriented account.

Q. What does the total in the fiat@FTX.com account represent?

A. Absent bugs, it is supposed to represent negative the amount that has been net deposited of fiat in the FTX system by customers.

Q. What do you mean negative the net amount that's been deposited?

A. If the balance here was negative $10, then that should represent that customers have on net, after all deposits and withdrawals, deposited $10 into bank accounts.

THE COURT: I'm sorry. Into what bank accounts?

THE WITNESS: Bank accounts that customers were directed to send to by FTX to be credited on the FTX system, managed either by Alameda or FTX at different times.

THE COURT: And so is it correct that that was money which, at least in a sense, Alameda was borrowing from or owed to FTX?

THE WITNESS: It certainly owed it to FTX.

THE COURT: Proceed.

MR. ROOS: Thank you.

Q. What does the term fiat liability refer to?

A. It refers to the magnitude of this number, the amount that Alameda needs to have custodied on behalf of FTX customers in banks.

Q. What's the relationship between the number and the fiat@FTX.com account and what's supposed to be in the bank accounts?

A. It is always larger than what should be in bank accounts, but it's very close. The reason it's larger is because for some time deposits had been going into FTX bank accounts, not Alameda ones. Through that point is that the fiat@FTX.com number would have represented exactly what should be in Alameda

bank accounts.

Q. We will come back to what you just said in a moment.

You mentioned earlier in your testimony a bug. Can you describe what you are referring to.

A. Yes. Sometime in 2021, Adam Yedidia was working on the fiat system and automating the elements of it. In doing so, he accidentally introduced a bug that prevented the correct accounting for fiat@FTX.com's balances on specific types of withdrawals.

As a result, over time there was an error that grew in the balance stored for fiat@FTX.com such that, by June, it was -- the stated number is negative 19 billion but the correct number would have been negative 11.

THE COURT: That's June of which year, please?

THE WITNESS: 2022.

THE COURT: Thank you.

Q. Approximately when in June 2022?

A. Mid June 2022.

Q. Just a few more background questions on this topic.

Prior to your discussion of balances in June 2022, had you learned whether or not Alameda was accepting FTX customer deposits?

A. Yes.

Q. When did you know of that?

A. Very, very early in FTX's existence. One of the first

things that FTX did before going live was connecting it to OTC.FTX.com, which was a reskin of another OTC system that Gary and Sam had built. That system supported depositing fiat into Alameda's bank accounts. That system could be used to onboard funds via fiat deposits to FTX once they were linked.

Q. What, if any, conversations did you have with the defendant about Alameda receiving FTX customer deposits prior to June 2022?

A. We had discussions on improving this set up technically that I helped sort of direct Adam to pursue. I'd also heard from him and from others that the reason that Alameda bank accounts were used at all in the beginning was because FTX had a hard time securing bank accounts but Alameda already had them.

Q. Who was the him in the answer you just gave?

A. Sam.

Q. Prior to June 2022, had you ever spoken to the defendant about the fiat@FTX account?

A. Yes.

Q. What did he say to you?

A. He understood that it was something that Alameda --

MR. COHEN: Can we have a time frame, please.

THE COURT: Prior to June of 2022.

MR. COHEN: More than that.

THE COURT: Pardon?

MR. COHEN: Is there anything more than that?

THE COURT: You can inquire.

MR. COHEN: OK. Thank you, your Honor.

THE COURT: Proceed.

A. Early, maybe December 2019, I remember discussions about the setup of fiat@FTX.com. I think I overheard them. This was an audit discussion I was participating in myself in which there was talk about how fiat@FTX.com would be incorporated into Alameda's own native sense of what their balances were, such that customer deposits made into bank accounts, plus their consideration of fiat@FTX.com, should always be zero.

Q. Who do you recall participating in that conversation you overheard?

A. Sam Bankman-Fried, Jen Chan, and I believe at least one trader or Alameda engineer, but I don't remember who.

Q. What was Jen Chan's role?

A. Chief of staff of FTX.

THE COURT: Could I just ask go back a minute.

You were asked whether prior to your discussions of balances in June '22 you had learned whether or not Alameda was accepting FTX customer deposits, and you said yes.

Then you were asked: When did you know that? You said: Very, very early in FTX's existence. One of the first things FTX did before going live was connecting it to OTC.FTX.com, which was a reskin of another OTC system that Gary

and Sam had built. That system supported depositing fiat into Alameda's bank accounts. So that system could be used to onboard funds via fiat deposits to FTX once they were linked.

Now, can you explain that answer.

THE WITNESS: I can talk about it mechanically, what a customer would do and how the funds --

THE COURT: What we are trying to find out is what you knew about Alameda taking or not taking FTX customer deposits very early in FTX's existence. Could you pick it up from there.

THE WITNESS: Me?

THE COURT: Yes. That's to you. That's a fair question.

THE WITNESS: I knew that FTX customers could deposit funds to Alameda bank accounts in order to be credited with those funds on FTX to trade from FTX's inception and that one of the ways they could do it is by depositing to Alameda bank accounts through the separate system called OTC.FTX.com and then transferring those to FTX.com.

THE COURT: Was there another way?

THE WITNESS: In December of 2019, an analogous system was set up, but directly on FTX. So customers could, on FTX, view wire instructions that they should send their funds to, and those wire instructions were for Alameda bank accounts.

THE COURT: Then how were those deposits reflected and

where?

THE WITNESS: Those deposits were sent to Alameda bank accounts, and then the technical FTX system through use of -- through somebody observing the deposits into bank accounts, somebody would go and manually credit on the FTX system the corresponding user with the amount that they had sent to the bank account, and in that process what would happen under the hood is that fiat@FTX.com would go negative via the amount deposited and the customer's account would go positive via the amount deposited.

The net effect is, a customer sent $10 to an Alameda bank account. Somebody working for Alameda or FTX on the FTX system presses a button that credits the user on FTX with 10 virtual dollars and decrements fiat@FTX's.com balance by $10.

THE COURT: Which other FTX.com balance?

THE WITNESS: Fiat@FTX.com's balance.

THE COURT: That's the way it was supposed to work, right?

THE WITNESS: Right.

THE COURT: What was the bug?

THE WITNESS: The bug, which I think was introduced sometime in 2021, was that when a withdrawal was processed in a specific programmatic way, the customer's balance was successfully decremented, the funds were successfully sent through actual bank accounts, but fiat@FTX.com's like virtual

balance was not successfully incremented.

THE COURT: So the apparent liability, from the point where the bug was introduced, owed by Alameda to FTX grew and grew. Is that right?

THE WITNESS: Yes.

THE COURT: And part of that balance was there because it belonged there and part of it was the result of the bookkeeping error by virtue of the failure to reflect the withdrawal from the customer account in the fiat@FTX account, yes?

THE WITNESS: That's exactly right.

THE COURT: Let's go on.

MR. ROOS: Thank you.

Q. And who identified that error or bug?

A. I am not sure who first identified it, but, in late 2021, I overheard a conversation between Gary and Adam Yedidia or Gary was explaining it to Adam.

Q. Take a look at lines 13 and 14 of the spreadsheet.

What does this reflect?

A. Line 13 reflects what was literally in the fiat@FTX.com's like virtual balance. Line 14 is something that Gary added as a correction for the effect size of the bug until this point.

Q. Judge Kaplan asked you about the fiat@FTX account balance being overstated. Where, if anywhere on the spreadsheet, does it reflect that number?

A. Negative 19 billion is an overstatement by the number in cell C14.

Q. Where, if anywhere, is the correction to that overstatement?

A. In row 14, C14.

Q. With those two pieces of information, are you able to determine the correct fiat@FTX.com balance as of this date?

A. This correctly determines the total amount of customer deposits sent to FTX or Alameda bank accounts. There is one additional step that needs to be taken to find out how much had been sent to Alameda versus FTX bank accounts.

Q. Just sticking on this for a moment, how can you determine what the correct balance in fiat@FTX.com is?

A. Summing these two numbers.

Q. So summing those two numbers, what was the correct balance in fiat@FTX.com at the time?

A. About negative $11 billion.

Q. So what does a negative $11 billion reflect?

A. It reflects that in banks, Alameda's or FTX, there should be $11 billion of fiat sent by customers.

Q. Now, at the time of the conversation you had in June 2022 about the fiat bug, what, if any, involvement did you have in Alameda's banking?

A. None.

Q. At this point did you know whether or not Alameda had $11

billion in its bank account?

A. I believed it did, but I didn't know either way.

Q. What was your understanding as to whether Alameda was allowed to use or spend the FTX customer fiat deposits it had received?

A. I didn't have an affirmative understanding, but using it would break common-sense expectations from customers.

MR. COHEN: Objection.

THE COURT: Sustained.

MR. ROOS: Judge, can we have a moment on this one?

THE COURT: Ask another question.

MR. ROOS: I'll come back to that, actually.

Q. Now, do you see below this, in row 17, an account called info@AlamedaResearch?

A. Yes.

Q. What is the balance at the time of info@AlamedaResearch?

A. Negative $2.78 billion.

Q. Do you recognize that account?

A. Yes. This is the main Alameda trading account.

Q. How was it possible for Alameda to have a balance in its main account of negative $2.7 billion?

A. Alameda had a flag granted to them, a feature called allow negative, which by this point allowed them to be negative via withdrawing or transferring or trading arbitrary amounts, unlimited amounts.

Q. What was the flag called?

A. Allow negative.

Q. And what, if any, role did you have in the creation of allow negative?

THE COURT: Let's just find out what he's talking about when we are talking about a flag. I don't imagine it's Don't Tread on Me.

THE WITNESS: It's a property of this account stored in the database. Flag means that it can either be true or false, and in this case this allow negative property for this account was true.

Q. So it's like a feature?

A. It's a feature.

THE COURT: It's a feature of the program, right?

THE WITNESS: Yes.

THE COURT: The same kind of feature that when you try to write a check on my bank account for a million dollars, the bank won't pay it, right? I haven't got a million dollars.

THE WITNESS: Same type of thing.

Q. If you have the feature turned on that allows negative, what does that allow?

A. It allows you to withdraw more than your balance such that you can have a negative balance in the end without bound.

Q. What, if any, involvement did you have in creating that feature?

A. I wrote the first version of allow negative, which had meaningfully different abilities.

Q. Before I ask you about the abilities, when you say you wrote it, what do you mean? What are you referring to?

A. Under Gary's and Sam's advisement and direction, I wrote the computer code that added this allow negative feature to the code base.

Q. What computer code?

A. The python future code used as part of the FTX system.

Q. What do you mean by code base?

A. FTX had a lot of code that it used to sort of run its technical systems. Code base is a term that encapsulates all of that code.

Q. I want to be clear about something. Judge Kaplan asked you a question about where the flag was and your testimony was in the database. You just testified about the code. Are those the same things or different?

A. They are different.

Q. What's the difference?

A. The code defines how the system functions, depending on whether or not an account has the flag. The database shows and stores if an account has a flag.

Q. Where does this allow negative feature show up for Alameda?

A. It shows up as turned on for them in the database.

Q. Now, what did the allow negative feature allow Alameda to

do initially?

A. Initially, it allowed them to go negative up until they hit their collateral limit, but they can go negative in any currency until that point.

Q. You mentioned it changed. What, if any, changes are you aware of?

A. There were changes later in 2020, such that it could then go negative without any balance, so not bounded by its collateral limit, and there was a change added such that it would never be liquidated.

Q. Let me ask you about each of those things. Starting with the last one, what do you mean by, it would never be liquidated?

A. Should I describe liquidation first?

Q. Sounds good.

A. Liquidation is the process of closing out an account that otherwise might end up under water. If an account is put on a bet that could lose by more than the account has collateral in it, it's the exchange's job to sort of close out that bet before that trade has lost more money than the customer initially deposited. It's a safeguard for the exchange and for other customers that, when executed well, prevents accounts from ever going negative, thereby dipping into other customers' assets.

Q. And you testified that Alameda's account was exempt from

that liquidation. What does that mean?

A. That Alameda could be in a position where it was liable to lose a lot of money and hurt other customers, or not just liable but well beyond that fact, had lost a lot of money or borrowed a lot of money such that it was taken from other customers without the system then taking any actions to close out their account or prevent that.

Q. What were the other -- you listed them. But what were the other features that allowed negative -- maybe I'm using the word features too many times. What else did allow negative permit an account to do besides avoiding liquidation and going negative?

A. It allowed many means of arriving at a negative balance, such as withdrawing money that it didn't have, so any withdrawing such that it was very negative, transferring to others such that it was negative, trading such that it was negative.

Q. What do you mean trading such that it was negative?

A. Selling a Bitcoin when Alameda's balance was zero Bitcoins, so they would have negative 1 at the end of it.

Q. When Alameda had a negative balance in its account and was withdrawing money, where did that money come from?

A. Other customers.

Q. Why?

A. There is only a few sources of funds that comprise what's

in FTX's wallets. There is FTX's revenue. Then there is customer assets less Alameda and there is Alameda assets. If Alameda's like stated ownership of an amount is zero and then they go and withdraw it, it must necessarily be coming from one of the other parts or both. For non-USD tokens, if FTX only made revenue in USD-like tokens, then it was necessarily coming from other FTX customers.

Q. I have to ask, what is a USD token?

A. There are some tokens, like USDC, TUSD, that are stablecoins that are pegged to the dollar, and that in the crypto space are sometimes treated interchangeably with dollars.

Q. What's a stablecoin?

A. A coin that holds its value at $1, one U.S. dollar.

Q. It's a form of cryptocurrency?

A. Right.

Q. When you participated in the creation of the allow-negative feature, what did you understand its purpose to be?

A. I was told it was for two purposes. It was for unifying a set of existing functionalities for accounts like Alameda accounts to go negative and for giving FTX staff the ability and a page to transfer locked forms of FTT to customers or to pay expenses.

Q. When was it that you were told those were the purposes?

A. The day of or -- as I was writing the code, so the day of

or the day before, when I was instructed to write the code.

Q. I'm looking for a date or a year. When was that?

A. July 2019.

Q. You said someone told you this. Who told you this?

A. Sam gave me the project of making a page to allow transferring forms of FTT such that balances of the account that the transfer was coming from could end up negative. Gary suggested the specific implementation in details, including adding the allowed negative flag and sort of all the minutia of what that meant in the code.

Q. Taking us back to June 2022 and the spreadsheet, what was your reaction when you saw Alameda had a negative $2.7 billion balance in its main account?

A. It seriously concerned me. This seemed like a real abuse of a feature that until this point I believed was serving FTX, not hurting it.

Q. As far as you knew, what was your understanding as to what customers had agreed to?

MR. COHEN: Objection.

THE COURT: Sustained.

Q. What was your understanding as to whether using customer funds was appropriate?

A. It was inappropriate.

Q. Why?

A. Does not meet the default expectations a customer would

have, and I don't recall --

MR. COHEN: Objection.

MR. ROOS: Relevant to his mental state.

THE COURT: Sustained. Excuse me. Overruled.

THE WITNESS: Should I continue?

THE COURT: Continue.

A. Yes. And I don't ever recall it being stated to customers that their funds were being taken, and I remember affirmative descriptions from Sam and others that Alameda didn't have special treatment, and this would constitute a form of special treatment.

Q. What led you to conclude that the negative 2.7 was, to use your word, abuse and not an allowed use of allow negative?

A. The allowed usage or the acceptable uses in my mind resulted -- were ones such that accounts would be negative for incidental reasons and in small amounts and then be shortly after -- would be topped off shortly after.

This is not a small amount. It does not strike me as incidental. I expected that this had been there for a while if it was this negative. And it sort of couldn't have been a mistake. This number, Alameda's main accounts balance, is a front-and-center number in all of Alameda's trading systems. It's the sort of thing from my time at Alameda I couldn't imagine being missed or ignored by anyone there.

Q. Let's take a look at column I and J. What's reflected in

that column?

A. There is a total that includes -- it is probably the result of a sum of column C, maybe absent a few lines.

Q. If you just look at the top here, I am going to circle it, seeing that, do you know what the total refers to?

A. If there isn't something in D indicating to exclude a given row, then the sum is the corresponding value in column C.

MR. ROOS: Can we just scroll down and so the witness can see whether there is something in D.

Let's go back up.

Q. What does the total in column J refer to?

A. It looks like it's just the sum, all the things that we see in column C.

Q. What's in column C?

A. USD values of the holdings in each of those accounts.

Q. Now, in response to one of Judge Kaplan's questions you mentioned that there was a change in terms of which accounts were receiving money.

Do you remember that answer?

A. Yes.

Q. What was the change in the bank accounts receiving money?

A. Over the course of 2021 and early 2022, FTX started acquiring bank accounts and customer deposits and withdrawals are processed out of those, not the Alameda ones.

MR. ROOS: We can take the spreadsheet down, by the

way.

Q. After FTX got bank accounts in its name, what did the balance in that fiat@FTX account reflect?

A. It reflected the total amounts that should have been in Alameda and FTX bank accounts on behalf of customers.

Q. So to be clear, was Alameda responsible for the entirety of that fiat liability?

A. No.

Q. What part?

A. They were responsible for the amounts that had been sent to Alameda bank accounts, and then the rest FTX was responsible for.

Q. How, if at all, did FTX or Alameda address the combined number in the fiat@ account?

A. Sorry. I am not sure what you mean. Do you mind rephrasing.

Q. You mentioned that Alameda was not responsible for the entirety of the fiat@ balance?

A. Right.

Q. What, if anything, was done to address the fact that Alameda was not responsible for the entire amount?

A. Adam, Andrea, and Gary went through an exercise with help of the fiat settlement team to determine what the right split was and then separate the liabilities, so they were recorded in separate areas.

Q. What do you mean by the right split?

A. Determine how much had been sent to Alameda bank accounts, how much had been sent to FTX bank accounts, confirm that there is some lined up with what was stated for fiat@FTX.com, and then split that fiat@FTX.com balance into two balances: One corresponding to what Alameda owed, one corresponding to what FTX owed.

Q. You used the word exercise. Do you mean like a project?

A. Yes.

Q. When was that project to split the fiat liability?

A. Sometime in the weeks or months after this June exercise where we discovered this bug.

Q. Who took the lead on determining what Alameda owed?

A. I'm not confident. I believe -- I know that Adam ended up writing and executing a lot of the code. I know that Gary was very involved in it.

Q. What's your understanding of what Adam Yedidia or others did to figure out the balance split?

A. I don't have an understanding affirmatively.

MR. COHEN: Objection.

THE COURT: If you don't have one, let's stop there.

Q. Just to be clear, did you work on this project directly?

A. No.

Q. Now, what, if anything, did you learn about the results of this project?

A. That it had happened, that there was in fact a split made, that fiat@FTX.com after the split represented the amounts that were in FTX bank accounts or that FTX was responsible for, and that there was a new subaccount created called FTX fiat old under the info@Alameda Research account that reflected how much Alameda was responsible for or should be in Alameda's banks.

Q. Let's break your answer down there.

First, it wasn't clear to me. Do you know how much of the fiat@FTX.com liability Alameda was responsible for?

A. Yes.

Q. What amount?

A. I recall seeing that it was around $8 billion.

Q. You testified that the amount of that fiat liability was split between two accounts. Can you explain what you mean?

A. Fiat@FTX.com was originally, or as of June we saw, like negative $11 billion. Alameda owed 8 of that. So if the split was done on that date, then the negative $11 billion in fiat@FTX.com would be reduced to negative $3 billion, and a separate account would be created under Alameda's account with the remaining negative 8.

Q. To use your example, prior to the project, the total liability was 11 billion, is that right?

A. Yes.

Q. The split happens. How much was determined to be -- how much was FTX determined to be responsible for?

A. I don't remember that number. I only remember Alameda's number.

Q. Let's do it the other way. How much was Alameda determined to be responsible for?

A. $8 billion worth of fiat.

Q. Where was that fiat liability put?

A. It was put into a subaccount of info@AlamedaResearch.com called FTX old.

Q. What do you mean by a subaccount of info@AlamedaResearch.com?

A. Alameda employees could log into, like with a user name and password on the site, a high-level account called info@AlamedaResearch.com, but within it there were many subaccounts that had their own distinct balances. Subaccounts had names.

There is a new subaccount called FTX fiat old, whose balances didn't reflect Alameda's trading activity; just their share of this fiat liability.

Q. What was put in that account?

A. All the obligations that Alameda had for customer fiat, customer fiat they should have been holding in banks.

Q. What was left in the fiat@FTX.com account?

MR. COHEN: Objection. Foundation.

MR. ROOS: I think he has laid it.

THE COURT: Yes. I think so. Overruled.

A. What was left in the FTX -- the fiat@FTX.com was everything else, so amounts that should have been in FTX bank accounts.

MR. ROOS: The government offers Government Exhibit 647, which, according to stipulation S2002, is a screenshot of a part of the FTX database.

THE COURT: Received.

(Government Exhibit 647 received in evidence)

MR. ROOS: May we publish it, your Honor.

THE COURT: You may.

And hand out reading glasses.

MR. ROOS: Mr. Ahuja will have to use the zoom function.

Q. Mr. Singh, I just want to start just by getting the lay of the land, ask you a few background questions of what we are looking at before we get into the details. OK?

First, what is the screenshot of?

A. This is the result of a query on the FTX database.

Q. I want to ask you about the various columns we have here.

MR. ROOS: The first column -- maybe, Mr. Ahuja, can we zoom in on the heading and some of the numbers.

Q. What does this first column relate to?

A. These are account IDs. We talked about IDs in the database earlier. These are the same ones, just for different accounts.

Q. What is the account ID 9?

A. That is the account ID of Alameda's main trading account.

MR. ROOS: Zoom out on this and zoom in on the next column from account user name.

Q. What sort of information is in the from-account user name?

A. It describes the account that the transfer is sent from. This spreadsheet shows transfers acquired in the database.

Q. In terms of the types of information in the database, are you able to view transfer transactions?

A. Yes.

Q. What's a transfer? What do you mean by that?

A. It's a simple movement of money from one account to another. There is not necessarily a physical analogue. It's not that money is wired in the real world. It's just sort of a change of ownership of some amount of money in the FTX system.

MR. ROOS: We can zoom out from here.

Q. Do you see where -- we looked at from-account ID, from-account user name.

Do you see the next one, to-account ID?

A. Yes.

Q. What does that refer to?

A. It's the account ID of the account to which the funds were sent in each given transfer.

Q. The next one.

A. The user name of that destination account.

Q. The next one.

A. The time of the transfer.

Q. So basically from, to, time, date, is that right?

A. Yes.

Q. You see the column called coin ID and next to it ticker and next to it coin name.

MR. ROOS: Can we take those three together.

Q. What is this information?

A. These are all descriptors of the asset transferred. They described the numerical ID in the database, the ticker or shorthand representation of that coin or asset, and then the full name of that coin or asset.

Q. So starting at the top, USD, what's that?

A. U.S. dollars.

Q. Then just to take another one, EUR, what's that?

A. Euro.

MR. ROOS: We can zoom out on this.

The next two columns, can we take those.

Q. What's the information on these two columns?

A. They describe the sizes of the transfer. The first column does so in units of the coin. The second column does so in dollar-equivalence units.

Q. Let's look at the last column. What does notes refer to?

A. These are notes that are added to the transfer. The first two look to me like notes automatically added by the FTX system. All the other ones were added by a developer running the script.

MR. ROOS: We can zoom out.

Q. For any particular transfer how do we read this, left to right, right to left, up to down?

A. Left to right.

Q. Just give us an example.

MR. ROOS: Let's zoom in on the first transaction on August 17, so it's the third one down. This is not going to work, to zoom in on it that way. Why don't we start with just the first five columns and zoom in for that date, so row 3 -- that's fine.

Q. Can you just narrate -- for the row 3, narrate for us what this transaction is.

A. The first row here describing a transfer made on August 17 of 2022 from info@Alameda Research.com/FTX fiat old to fiat@FTX.com.

MR. ROOS: Let's look at, just so can get it zoomed in, the rest of that row 3 from coin ID to the end of it.

Q. So a transfer on that date in what?

A. Of euros in the amount of 339 million with notes attached called moving counterparty balances to different account.

Q. What was the effect of the info@Alameda Research FTX fiat old subaccount transferring, to take the first one, that amount of euros to the fiat@FTX.com account?

A. The FTX fiat old account became that much more negative in euros, and the fiat@FTX.com account became that much more

positive. If this was the amount that was determined that Alameda should have in its bank accounts for euros, now FTX fiat old after this transfer would correctly reflect the amount Alameda owed, and fiat@FTX.com would correctly reflect the amount that FTX owed.

Q. Just to clarify, is money actually being transferred, or is it a bookkeeping entry, or something else?

A. This is bookkeeping. There isn't a physical wire that associates with it.

Q. Zooming out, looking at all of the transfers that occurred on August 17, what was the combined effect of these?

A. The movement of lots of funds. Lots of liabilities shifted from fiat@FTX.com to FTX fiat old.

Q. I think said earlier that the end result was that this info@Alameda Research FTX fiat old account had approximately a negative $8 billion balance?

A. Correct.

Q. How was that account able to have a negative $8 billion balance?

A. It, as an accounting account, had the allow-negative flag, which allowed it to be unboundedly negative.

Q. What does unboundedly --

A. Without bound. It could go negative without consequence or limits.

Q. After the fiat balance, the negative fiat balance was

assigned to this Alameda subaccount, what happened?

A. I was -- I noticed it at some point.

Q. Why did you notice it?

A. Jayesh had asked me to pull some FTX revenue stats from the database. In doing so, I observed that one line item for revenue, line of interest fees, had spiked dramatically, from like $200,000 to 800,000. I dug into why it had done so and identified that the marginal $800,000 lined up with one bip, which was a rate charged to the additional negative $8 billion now housed in Alameda's main account.

(Continued on next page)

BY MR. ROOS:

Q. All right. So a few follow-ups.

First, when was it that you saw Alameda Research was being charged more interest on its accounts?

A. I don't remember the exact date, but I——I think July or August.

Q. You mentioned this was related to a conversation with someone named Jayesh. Who is that?

A. Jayesh was the head of finance for FTX.

Q. Okay. And could you explain how it was that this account was being——or withdrawn.

Can you explain why it was that this account was accruing interest.

A. There was a system in place to charge Alameda and other accounts with lines of credit, if configured, for their used line of credit. This considered negative balances. As part of moving fiat@ftx.com, part of that amount, into FTX fiat old, there was an additional negative $8 billion in one of the Alameda high-level accounts, and so that was considered as part of what was the used line of credit and they were now being charged interest on it.

Q. I'm going to ask you some more questions about line of credit in a bit, but just at a high level, what is a line of credit?

A. It's a nonwithdrawable dollar amount that's granted to

allow for easier trading without actually having to deposit as much money.

Q. And why was this $8 billion negative balance on the FTX fiat old account being charged interest as a line of credit?

A. Because it contributed to total negative balances in all subaccounts of this user, which was one of the factors considered when determining how much of Alameda's granted line of credit was used and therefore charged interest on.

Q. Now what, if any, conversations did you have with the defendant about the charging of interest on this account?

A. I brought this up with him. I said, it looks like after the splits that Adam and Andrea did of FTX versus Alameda fiat liabilities, they put it inside a subaccount that's contributing to the amount that Alameda is charged in interest.

Q. What, if anything, did he say in response?

A. He said that seemed incorrect, in theory those balances are in banks, it's not something that they're borrowing in sort of the traditional sense, they're custodying it, so they shouldn't be charged interest, let's move as a liability out of a location where it's being charged interest.

Q. What happened next?

A. I followed his instructions. I asked a group with a bunch of Alameda FTX and traders——Alameda traders and developers and FTX developers if there was an account that I could move this to that they were tracking so they wouldn't lose track of it

such that it was——such that it wouldn't be charged interest anymore, and I believe one of Terence Choo and Caroline Ellison gave me the name of the account to move it to.

Q. And who was on——who do you recall being on that message exchange about this?

A. This was in Signal. At the very least it included me, Gary, Adam, Andrea, Sam, Terence Choo, and Caroline Ellison. I believe it also had other Alameda traders and FTX developers.

Q. And so was this FTX fiat old account moved?

A. Yes.

Q. To what account was it moved to?

A. I moved it to the account that I was given by the Alameda traders, one called seoyuncharles88@gmail.com.

MR. ROOS: Could we please publish what's in evidence as Government Exhibit 645.

And could we zoom in on, just to make it a little larger, how about the first three columns.

Q. And Mr. Singh, what does this show?

A. These show the subaccounts under the seoyuncharles88@gmail.com account. The first column is an account ID. We've talked about that some. The second column described the ID of the user that the subaccount is housed under. So in all cases it's the seoyuncharles88 account. And the user name describes the——like the label for the account, which is only generated at the time that the account is

created.

Q. So looking at the user name, at the last one on this list, is that the same user name as the one we saw on the last exhibit?

A. Yes.

Q. And why is that user name for that subaccount now associated with seoyuncharles88@gmail.com?

A. The user name says inputalameda-research.com because it was Adam or Andrea made the subaccount under info@alameda-research.com. It now shows it being associated with seoyuncharles88 because at instruction, I moved its ownership from inputalameda-research.com to seoyuncharles88.

Q. What was the result of moving this subaccount to be under seoyuncharles88@gmail.com account?

A. My understanding is that the——Alameda continued to track the liability as it had——no change there——but that interest was no longer being charged on this amount.

Q. And how, if at all, was the defendant involved in the movement of this subaccount to the seoyun account?

A. He instructed me to make the movement, and he was in the chat in which a trader told me which account to move it to.

MR. ROOS: Your Honor, I'm about to change topics. I can keep going or——

THE COURT: No. I think we could use a break.

MR. ROOS: Okay.

THE COURT: 2:00, members of the jury.

THE DEPUTY CLERK: Will the jurors please come this way. Bring your notebooks with you. All rise.

(Luncheon recess)

AFTERNOON SESSION

2:07 p.m.

(In open court; jury present)

THE COURT: The jurors and the defendant all are present, as they have been throughout.

The witness is reminded he's still under oath.

Mr. Roos, you can continue.

MR. ROOS: Thank you, your Honor.

BY MR. ROOS:

Q. I want to change topics and talk to you about futures trading and collateral.

Did FTX allow customers to trade cryptocurrency futures?

A. Yes.

Q. And what's a cryptocurrency future?

A. It's a product that customers can buy such that if it goes up, they'll make money, or short, that if it goes down, they'll make money.

Q. So for example, what does a Bitcoin future do?

A. It's a product, a financial product, that eventually resolves the price of a Bitcoin and so users can bet on Bitcoin by trading it.

Q. What do you mean by resolves the price of a Bitcoin?

A. At some point the future will expire. When it does, it will be——every——every future that is purchased will turn into

the price of Bitcoin at the time of expiry.

Q. So if I thought the price of Bitcoin was going to go up, what would I do?

A. You would buy the future.

Q. What type of future?

A. The Bitcoin future.

Q. And what if I thought the price of Bitcoin was going to go down?

A. You'd short the future, or sell it.

Q. Now to do futures trading——well, let me ask you, did ftx.com allow futures trading?

A. From day one.

Q. And to do futures trading, what was required of a customer?

A. Customer had to deposit collateral.

Q. What's collateral?

A. Real liquid funds that the customer owned used as safety buffer such that if they lose money, the customer can get liquidated, their positions closed, before they lose the entirety of their collateral.

Q. Okay. So to break that down, what can be collateral?

A. Liquid funds, things like dollars or Bitcoin or other tokens.

Q. Did FTX treat different types of collateral differently?

A. Yes.

Q. How so?

A. Some forms of collateral, everything that wasn't just US dollars or other forms of fiat, had a haircut applied to it, meaning that if, you know, one Bitcoin was worth $20,000, it may only contribute $18,000, say, towards their effective collateral.

Q. What requirements did FTX have, if any, about where collateral had to be kept?

A. On the exchange.

Q. What do you mean by that?

A. Customers had to deposit their collateral.

Q. Deposit it where?

A. To FTX.

Q. And you mentioned liquidations, and you talked about that in the morning. What happened if a customer, for example, was shorting Bitcoin and they started to lose money?

A. If a customer was losing enough money——money——enough money that it approached the value of their collateral, so say if they had a thousand dollars of collateral and they had lost $600 in trading, there would be some point, maybe, you know, when they lost 700, at which——when FTX would liquidate the customer, closing their positions, as in selling off whatever futures bets they had made, hopefully——with a goal that they wouldn't lose the remaining $300.

Q. Are you familiar with the term "clawback"?

A. Yes.

Q. What's a clawback?

A. A clawback is a mechanism for resolving any losses that arise from a liquidation. And by losses here, I mean instances in which the account being liquidated ends up negative. So you could imagine that somebody has——same thing——a thousand dollars of collateral, they make a bet, and before the liquidation is complete, their futures position has actually lost $1,001, so they've lost more money than they ever deposited in collateral. There's negative $1 around to resolve. One way of resolving this is through a clawback, a system in which that 1 dollar is——that loss is sort of socialized, so it's called, across a bunch of other users, as in everybody else pays.

Q. While you were working at FTX did it ever do clawbacks?

A. No, not that I'm aware of.

Q. And what did the code say, if anything, about clawbacks?

A. Yeah, I brought this up with Sam and Gary at some point when I discovered it. Clawbacks weren't even implemented.

Q. What do you mean "weren't even implemented"?

A. That the code could never cause a clawback.

Q. So what does that mean?

A. Even in instances in which a customer account ended up negative and the insurance fund, which is a sort of bailout pool of cash, was empty, the expected option for resolving the negative balance would be a clawback, but there was nothing in the code that would do that. Instead, the account would remain

negative and——and Sam and Gary or others would sort of manually handle it however they saw fit.

Q. Now did Alameda do——I'm sorry. Did Alameda trade futures on FTX?

A. Yes.

Q. You testified a moment ago that futures trading typically required collateral. What, if any, conversations did you have with the defendant about the collateral Alameda had to support its trading, its futures trading?

A. I had a discussion in September, early September, about this.

Q. What did you——

THE COURT: What year?

THE WITNESS: 2022.

Q. What did you discuss with the defendant in September 2022 about this?

A. That historically, according to a project that I'd run, like a batch historical data, there were points when Alameda's main account had not nearly enough collateral if you did not include their enormous line of credit.

Q. Okay. So let's start with the timing of this conversation. Do you remember approximately what date it occurred on?

A. Yeah. I believe it was either like August——sometime between August 31st and September 2nd.

Q. You mentioned a calculation you did. What was the

calculation?

A. I wrote a script that would emit for each day Alameda's total position size, as in the USD equivalent of how many——how much they had on in futures positions, the total collateral they had in the system, and how much collateral was needed to support their positions. From these, I could determine how——how much collateral they didn't have, and so how much of their line of credit in their main accounts they were using.

Q. And so before we talk about line of credit, what did you determine about how much collateral they didn't have?

A. There were points when, using just their deposits, not their line of credit, Alameda had around $10 billion——they were like on——$10 billion short of what they needed to be.

Q. Now you've mentioned line of credit a few times. For starters, what is a line of credit?

A. In the context of FTX, it's an amount that is granted to the customer, it's not withdrawable, but it contributes towards what FTX considered to be their collateral, meaning that customers could trade using that line of credit as if they had deposited funds but without actually having done so.

Q. Just to be clear, is a line of credit the same as collateral?

A. It's not the same.

Q. What's the difference?

A. It's——if there's——there aren't physical assets backing,

there's just trust.

Q. Did Alameda have a line of credit?

A. An enormous one.

Q. How large was it?

A. By the end, it was $65 billion.

Q. How did that compare to other customers?

A. Significantly larger.

Q. What do you mean by that?

A. Other customers, if memory serves, had lines of credit on the order of hundreds or tens of millions of dollars.

Q. As far as you knew, was it publicly known outside of Alameda——sorry——outside of FTX that Alameda had a $65 billion line of credit?

A. Not that I know of. I don't think it was known.

Q. So circle back to your conversation with the defendant on September 1st or 2nd. After you told him that Alameda did not have enough collateral in FTX without its line of credit, what, if anything, did he say?

A. His first question was if I was including all of Alameda's other subaccounts and accounts on the system. I responded no, the purpose of this exercise was just for evaluating Alameda's main account, the one we've seen with account ID 9. Sam came back to me sometime later and asked if I could transfer in the Serum that I, Gary, Caroline, and Sam personally held into Alameda's main account, at some historical time, to make it

appear that Alameda always had more collateral than it did.

Q. Okay. For starters, what's Serum?

A. Serum is a cryptocurrency that Sam and Gary created.

Q. And why did you, Gary Wang, and Sam Bankman-Fried have Serum in your own accounts?

A. We, like other employees, bought a lot of it at Serum's genesis. Sam decided how much everyone could buy. I think everyone bought the maximum allotted amount.

Q. What would it mean to move the Serum?

A. It would mean——like mechanically, you mean?

Q. Yeah. What were you talking about there?

A. Yeah. Making a transfer, like the ones we've seen in the FTX database, but backdating it, making it appear as though it happened earlier so that it looked as if the funds had been there for a long time.

Q. You used the phrase earlier in your testimony "a historical time." What did you mean by that?

A. Some previous time, sometime before Alameda had, you know, $10 billion less than it should have, or it was using $10 billion of its line of credit.

Q. What was the purpose of backdating?

A. To make it appear as if Alameda did have sufficient collateral to fool the eventual targets of——the eventual——

MR. COHEN: Objection.

THE COURT: What's the objection?

MR. COHEN: To the latter part of the answer.

MR. ROOS: Relevant to his understanding of the purpose.

THE COURT: Overruled.

BY MR. ROOS:

Q. Go ahead.

A. I understood the purpose to be to fool the eventual recipient of this——this, like, data that I was collecting, which was the CFTC.

Q. What's the CFTC?

A. Blanking on the first letter.

Q. If you don't remember what the acronym is, can you just tell what you understand the agency to be or what the acronym stands for?

A. Commodities and futures trading commission, possibly.

Q. Now this transaction you testified about, can you walk——can you describe how it would have changed that negative $10 billion number.

A. All right. So it would have made it look like Alameda's main account held much more Serum than it actually did. But the Serum was actually, you know, in locked form. It would be locked Serum. That's what we had, locked Serum by default, because it isn't liquid, it can't be sold, was not something that FTX considered to be contributing to collateral. And so implicit in Sam's request was to also adjust the rules about

what I was computing as collateral to include this locked asset. It would make it eventually appear as if Alameda was using a lot less of its line of credit, not $10 billion.

Q. And how, if at all, would this have affected Alameda's line of credit that you were talking about?

A. Do you mind clarifying the question.

Q. You said this was in the context of a conversation about collateral and lines of credit. How, if at all, did including this Serum affect the line of credit issue?

A. It didn't change anything about the line of credit directly. What it did was it would have adjusted my calculation about how much of it was used since any amount of collateral held was necessarily counted against what was, you know——it wasn't——that's an amount that wasn't drawn from the line of credit and wasn't used from the line of credit.

Q. Now did you do this transaction?

A. I didn't.

Q. Why not?

A. It felt wrong. I mean, I was fine giving up my personal assets. I'd taken on debts and given up my assets for the company countless times. But I understood the purpose of this exercise to be, you know, to fool a US regulator and to fool employees of the company, and I wasn't comfortable with that.

Q. While we're on this topic of line of credits, I want to ask you a few follow-up questions.

To be clear, did most customers on FTX have lines of credit?

A. Not most.

Q. And who did have lines of credit?

A. The EIT users, sometimes those were individuals, but oftentimes they were trading firms, large trading firms.

Q. And apart from Alameda, did any customers have lines of credit in the range of a billion dollars or more?

A. I don't recall what the largest one was outside of Alameda by the end of FTX, but I know that at some point in 2022 when I inspected them, there weren't any that were over a billion dollars except for Alameda's.

MR. ROOS: At this time the government offers Government Exhibit 5, which, according to a stipulation marked S2003, is a spreadsheet titled locs, dated September 5, 2022.

THE COURT: Received.

(Government's Exhibit 5 received in evidence)

Q. Mr. Singh, I want to ask you about a few of the numbers on this spreadsheet before you, okay?

A. Okay.

Q. Do you see in column A, the heading says email?

A. Yes.

Q. And in column B, it says sum?

A. Yes.

Q. So reading in those two columns, do you see row 2, where it

says info@alameda-research.com?

A. Yes.

Q. And do you see what the sum number is?

A. Right. It's north of 65 billion.

Q. Do you recognize that number?

A. Yeah.

Q. What do you recognize it as?

A. This is——this matches my recollection of what the line of credit was for, for Alameda's account.

Q. And what's the next largest below it?

A. 150 million given to Genesis Capital.

Q. Now does this spreadsheet anywhere show Alameda's balances on FTX?

A. So I don't——I didn't see this spreadsheet while I was at FTX and I don't know how all the values were computed, but——

MR. COHEN: Objection.

THE COURT: The document speaks for itself, counsel.

Q. Do you see this net number?

A. Yes.

Q. Okay. What's the net number?

A. It's the sum of——

MR. COHEN: Same objection.

THE COURT: Sustained.

MR. ROOS: Can I just have him read the number into the record. That's actually all I was going for.

THE COURT: You've got it highlighted, and the jury is looking at it there.

MR. ROOS: Okay. Thank you, your Honor.

BY MR. ROOS:

Q. Picking up on something you said a moment ago, this document that lists that 65 billion number and this negative 5 billion number, did you see this while you were at Alameda?

A. No, nor while at FTX that I recall.

Q. Okay. And do you recognize the writing style on it?

MR. COHEN: Objection.

A. Yes.

THE COURT: Sustained.

Q. Are you familiar——do you have any familiarity with the defendant's writing style?

A. A lot of familiarity.

Q. How?

A. I've seen his writing and writing process many times over our five years working together.

Q. Did you ever see him write any spreadsheets?

A. All the time.

Q. Are you familiar with his writing style on spreadsheets?

A. Yes.

Q. Do you recognize anything about the writing style in this spreadsheet?

A. I do.

MR. COHEN: Objection.

MR. ROOS: 901(b)(4) and (b)(5).

THE COURT: Did you say (d) or (b)?

MR. ROOS: (b) as in boy, (4) and (5).

THE COURT: Thank you.

I think you need a better foundation than you have.

BY MR. ROOS:

Q. Were there any——you testified a moment ago that you reviewed spreadsheets written by the defendant. Were there any distinctive characteristics about how he wrote spreadsheets?

A. There were.

Q. What were they?

A. They were rarely ever color coded; they frequently exhibited some sort of casualness about naming and structure; they rarely had capital letters; they usually, my recollection, often had data on the left and summaries of that data on the right, as opposed to like further down.

Q. How about how, if at all, accounts were referred to in them?

A. If——if they were like pulled from a data source, they might include like the full description of the account or login. Else they would refer——you'd often have shorthand that——that Sam used.

Q. And do you see in column L the four email addresses?

A. Yes.

MR. COHEN: Objection.

THE COURT: Overruled.

Q. Do you recognize those email addresses?

A. I do.

Q. And who did they belong to?

A. The first belongs to Sam.

THE COURT: No, no, no, no, no. You're just reading from the document now.

MR. ROOS: I'm just asking him whose email addresses does he recognize.

THE COURT: Fair enough. Okay. Go ahead.

A. The first belongs to Sam, the second to Caroline, the third to Gary, the fourth to me. To clarify, when I say belongs, my——mine and possibly Sam's and Gary's weren't like beneficially owned by us. They were admin accounts to be used on the system.

Q. Now do you recognize the writing style in the document?

A. I do.

Q. Whose writing style do you recognize?

A. Sam's.

MR. COHEN: Objection.

THE COURT: Members of the jury, it's ultimately up to you to decide whether this document was written by the person who the witness is going to identify. There's enough here so that I've concluded you're entitled to make that judgment one

way or the other.

Okay. Overruled.

A. Forgive me. This isn't a question that you asked, but another distinctive characteristic——

Q. No. I think there was a pending question. There was an objection, I think your Honor overruled, so I think you have to answer the question.

MR. ROOS: Is that right, your Honor?

THE COURT: Yes. And I think he answered before, or at least before the reporter got Mr. Cohen's objection. Whether that was temporally right or not, I don't know, but he answered.

MR. ROOS: Okay. My apologies. I didn't see it.

BY MR. ROOS:

Q. Now you said that you did not see this spreadsheet at the time. Did there come a time when you later learned some of the information?

A. Yes.

Q. So let's move forward.

MR. ROOS: We can take this down.

Q. Do you recall ever participating in a conversation about shutting down Alameda?

A. Yes.

Q. And what led to that conversation?

A. Sam sent a Google Doc over Signal to me and Gary titled "We

came, we saw, we researched." It laid out a case for shutting down Alameda, citing that Sam didn't have faith in its——the competency of its leadership without him more involved, and that the PR cost with both FTX and Alameda coexisting was high.

Q. What type of document was this, just to be clear?

A. A Google Doc.

Q. Did it have a title?

A. "We came, we saw, we researched."

Q. Did you read the Google Doc about shutting down Alameda?

A. I read most but not all of it.

Q. After reading the document what, if any, proposals did you make with respect to Alameda?

A. It occurred to me that the cost, the cost that Sam cited was Alameda and FTX coexisting; really the cost is Alameda existing on FTX, and so I proposed shutting down Alameda on FTX as opposed to shutting down Alameda entirely.

Q. What would be required to shut down Alameda on FTX?

A. I remember I listed out what I believed the requirements would be in the chat. We'd have to close a bunch of illiquid markets that Alameda was primarily market making on. They were not a significant market maker overall, but there were some markets where nobody else bothered to trade. We'd have to revamp how the OTC system worked——over-the-counter trading. Alameda was sort of plugged in as the only provider for those trades, but that could have been——that could have been, you

know, given to a pool of market makers. We'd have to have Alameda close out all of its accounts, return everything that it was negative in, like that main account that was negative 2.8 billion, withdraw everything that it was positive in. Maybe a few other things. But those are some big ones.

Q. So let me ask you a few questions about closing out Alameda on FTX.

For starters, by this time, September 2022, to what extent was Alameda's presence on FTX necessary for market making?

A. Not very.

Q. What do you mean by that?

A. There was a time when Alameda was in some 20, 30 percent of trades. By 2022, or at least by a point in 2022, Alameda was only a party to like some 2 percent of trades or thereabouts. Alameda was not nearly as significant a player as it used to be on the platform. The ways in which it was involved that still provided value to the exchange were replaceable for——or not so important that it was necessary.

Q. And by 2022, did Alameda need the "Allow Negative" feature to do market making?

A. I don't know all the details of how it did its market making, and it's possible that it like availed of "Allow Negative" in some way, but fundamentally, no, I don't think that to perform the duties that were more important of it, it

needed all the things that "Allow Negative" granted.

Q. By 2022, was Alameda needed for stablecoin conversion?

A. They were never needed for it. My belief is that they were doing it out of convenience in the beginning. Certainly once FTX had grown, it had enough staff, those staff could just manage the stablecoin creations and redemptions.

Q. You mentioned that Alameda would need to close out its accounts. What did you mean by that?

A. Alameda had many accounts on FTX. Like we'd seen with that other spreadsheet, some of them were big positive numbers, some of them big negative numbers. Each of those has underlying numbers for, you know, balances of specific coins. Closing out means making every one of those numbers zero, by depositing any amounts that are negative and withdrawing any amounts that are positive.

Q. So after you proposed shutting down Alameda on FTX, what, if anything, did the defendant say?

A. I first proposed it inside the chat with myself, Gary, and him, and asked if I could share it with Caroline to talk about its viability. Sam said "not crazy." His way of——

THE COURT: He said what?

THE WITNESS: "Not crazy." He used "not crazy" to greenlight a proposal without fully endorsing it.

Q. Did you ask Caroline Ellison about the viability of shutting down Alameda trading on FTX?

A. I did. I sent a message inside the hashtag organization Signal group, which had me, Gary, Caroline, and Sam. I said: *The PR costs of having Alameda on FTX seem really steep. I'm thinking about if it's possible to have Alameda shut down on FTX. Here are some six things I think that would take.*

Q. You mentioned PR costs. What were you referring to?

A. Public relations cost, that there was a lot of worry and fear in the crypto ecosystem about conflicts of interest between Alameda and FTX.

Q. So how did Caroline Ellison respond to your message?

A. She said——and I believe verbatim——"That's impossible."

Q. How did you respond to that?

A. I said: *Which part of it?* I was pretty alarmed. And I was hoping it wasn't the part about closing out accounts.

Q. What did she say?

A. That it was the part about closing out accounts.

Q. Just to be clear, who was on this hashtag organization Signal chat?

A. Me, Gary, Sam, Caroline.

Q. What, if anything, did Gary Wang say in the conversation at this point?

A. At this point Gary said Alameda is borrowing 13 billion from FTX.

Q. What did you say in response to that?

A. I was really hoping that I misunderstood, and I called for

a meeting immediately.

Q. What was your reaction about hearing Alameda owed $13 billion?

A. I was really afraid.

Q. What do you mean?

A. The June exercise, I thought Alameda had positive balances on FTX, that it was borrowing lots in some places but that overall they had more money than they didn't. This suggested an entirely different reality. I was hoping that I didn't really understand what Gary meant by borrowing, but if I did, this was absolutely devastating.

Q. And how, if at all, did Alameda's borrowing $13 billion from FTX affect FTX customer funds?

A. The borrowing had to have been from customer funds in large part because FTX itself didn't have——like, didn't own that much money.

Q. How, if at all, did the defendant react when Caroline Ellison said Alameda has——I'm sorry——when Gary Wang said Alameda was borrowing 13 billion from FTX?

A. I was sitting next to Sam at the time. We were in the office. So I got some real sense. He seemed unsurprised and made up what I understood to be a false excuse for dodging the meeting.

Q. So you mentioned the meeting. Did you in fact meet?

A. Yes.

Q. Okay. And then who did you meet with?

A. Just Gary and Caroline because Sam didn't come.

Q. What was your belief at this point as to whether Alameda could repay the $13 billion it owed?

A. Before the meeting I was really hoping that I misunderstood what had been said and that Alameda could in fact close out and repay what it owned. After the meeting I was significantly less hopeful.

Q. Now did there come a time when you spoke to the defendant about this topic?

A. That evening.

Q. And where did you speak with the defendant?

A. On the balcony of the Orchid 6 penthouse where we lived.

Q. Why did you meet on the balcony?

A. Sam and I almost never met; very, very rarely. I knew this needed to be really private. I figured that if we went to our two most common spaces to talk, which were my room or in the office, that both of those were very frequently used by other people for meetings and that others could stumble in on us, and I knew that there was something really serious going on and I didn't want people stumbling in.

Q. What time of day was this?

A. Evening into night.

MR. ROOS: Could we please publish Government Exhibit 1554, which is in evidence.

Q. Mr. Singh, what's this?

A. This is the balcony that we met on.

Q. Where were you located on this balcony when you spoke with the defendant?

A. I was pacing behind where these baskets on the left are. Sam was reclined on one of the white like chaise chairs behind that.

Q. How long was your conversation with the defendant on the balcony?

A. Hour, hour and a half.

Q. Let me ask you a few questions about the conversation.

First, how did the conversation begin?

A. I said: *Caroline's really freaked out about the NAV situation and so am I*. NAV, by the way, means net asset value, which was——I wasn't very fluent in financial terms. This was my crude way of referring to the hole.

Q. What do you mean by the hole?

A. The fact that Caroline had suggested that Alameda couldn't return its borrows, that meant that there was, in my lingo, a hole, a deficit of customer funds.

Q. What, if anything, did the defendant say in response to your initial comment that you and Caroline Ellison were freaking out?

A. He said: *I'm not sure what there is to worry about. NAV is fantastic by almost any measure. It was super positive even*

if you don't include FTX and FTX.US equity.

Q. Did you speak to the defendant directly about the hole?

A. Yes.

Q. And what did you discuss?

A. I said next: *Well, what about what Caroline said today and Gary said today, that there's 13 billion borrowed and we can't pay it all?* Sam said: *Right, that. We are a little short on deliverable.*

Q. What do you mean by deliverable?

A. Assets that can be delivered to customers as opposed to illiquid assets.

Q. Did he say by how much FTX was short on deliverable assets?

A. I asked: *How much is it short by?* Sam said: *That is the wrong question to be asking. The right question is how much can we deliver, and in 24 hours, if pressed, I think we could deliver around $5 billion; given some more weeks, substantially more; given some more weeks after that, substantially more.*

Q. Now what, if anything, did the defendant say about how this had been affecting him over the prior year?

A. He did describe it. I said something like "Jesus F'ing Christ." Sam said: *Yeah, this has been taxing me some 5 to 10 percent of my productivity for*—and he either said for this year or like for this calendar year or since before the last year. I said: *I think this is going to be doing a lot more damage to me, hitting me a lot harder.* Sam said: *Yeah, I was*

worried about this. In hindsight, it might have been a mistake for me to circulate that document this morning. People are thus going to freak out. I said: *I understand it's not productive to respond emotionally.*

Q. What, if anything, did you discuss about a plan for addressing Alameda's negative balance?

A. I asked what the hell the plan was, what are we going to do. Sam said he's not too worried and he described a number of sort of strategies that we could pursue in parallel going forward.

Q. What kind of strategies did he describe?

A. He described selling off Alameda's illiquid but, according to his estimation, valuable assets, and properties; he described, for the ones that weren't sellable but generated revenue, making sort of low-hanging changes to make them more profitable; he discussed raising from investors, selling FTX equity; and he discussed making FTX——oh, he said that FTX.US futures, which we believed would come online, you know, any day now, would be a boon to the company, and would be great for revenue and for its valuation, and that there were many engineering projects that were crucial and were themselves very valuable.

Q. Did you have any discussions about expenses?

A. Yes.

Q. What did you discuss?

A. I asked if now, Sam would take seriously cutting expenses or——and curbing them going forward. He said yes, definitely, he's working with that——working on that with Ramnik.

MR. ROOS: We can take this down.

Q. After this conversation, what was your mental state?

A. I was blindsided and horrified. I felt really betrayed, that five years of blood, sweat, and tears from me and so many employees, driving towards something that I thought was a beautiful force for good, had turned out to be so evil. I knew that customers were betrayed. So many customers had to put their trust in us. And, you know, according to Sam's take, chances to rebuild this hole depended enormously on me continuing to try to make the company successful, and I knew that would require me betraying customers and employees.

Q. Did you consider leaving the company?

A. Every day.

Q. Why didn't you?

A. How could I live with myself if my departure precipitated a fall that might have been unavoidable——or might have been avoidable.

Q. After your conversation with the defendant on the balcony, what steps, if any, did the defendant take with respect to raising money for the company?

A. He followed through on the plan that he discussed in that——

MR. COHEN: Objection, foundation.

THE COURT: Sustained.

Q. You testified that the defendant said he had plans for raising money; is that right?

A. In that conversation on the balcony, Sam——I had asked to get more details on prospects and plans regarding raising money from investors. Sam had mentioned that he was planning to go to New York in two weeks with Ramnik, and in a month, from the conversation, he was planning on going to the Middle East with Ramnik and Scaramucci.

Q. Who is Scaramucci?

A. I think Anthony is his first name. He was the press secretary or chief of staff for Trump for some time and runs a VC firm, I think.

Q. And after your conversation on the balcony, what, if anything, did you observe about whether these trips took place?

A. They took place.

Q. Now did there come a time when the defendant returned from the Middle East?

A. Yes.

Q. What, if anything, did the defendant say to employees at FTX about how the trip went?

A. Sam arrived back from the Middle East in the middle of the day on a weekday, came into the office, and attracted a crowd, like he often does. Sam was regaling everybody with stories of the Middle East and how successful it was and talking about how

it's turning a corner and being more progressive culturally and so on.

Q. Did you speak to the defendant after his return from the Middle East?

A. Yes.

Q. In what setting?

A. I asked him if we could meet again privately. Again, this was an exceedingly rare thing. I did this like less than once a year on average. But I wanted to know what the real deal was with prospects for the raise.

Q. And did you meet privately?

A. We did, in his apartment in Gemini 1D.

Q. Okay. Can you describe the conversation in the apartment.

A. I started by saying: *I'm really not doing well, I thought I might quit,* in that conversation. I kind of wanted to put him on notice. I asked: *How is it going with NAV? What's the plan? Any updates?* I was standing in the living room area, right behind the counter to his kitchen. He was in the kitchen with his back up against the fridge. He described for me in some real detail what the Middle East trip was like and what prospects were from raising——for raising from various investors there.

Q. Did he say how much money he thought could be raised?

A. He said that we can make——it's still possible that nothing comes out of this deal, that $0 could be raised, but that we

could also come out of this with another $5 billion.

Q. So 5 billion is not 13 billion. What, if anything, did you discuss about the difference?

A. I said: *I'm really happy to hear we can pull up that much, but, like, oh, my god, we have a lot left. What's the plan? Like, tell me you've got some updates.* Sam said: *The main line plan remains, making FTX successful and growing it, and that depends on a huge part in you. You're one of the few people, Nishad, that can take that kind of work off my plate so I can focus on the rest of this.*

Q. What was the tone of this conversation?

A. I was really afraid to ask for a conversation, and I think my fears kind of bore out. Sam was on edge, and I felt he was very mad at me for talking about this, and it was tense. There were long periods of silence. Sam has a——some physical twitches for when he gets angry.

MR. COHEN: Objection.

THE COURT: Strike the last sentence.

MR. ROOS: Your Honor, I think it's relevant to the tenor of the conversation.

THE COURT: It's unresponsive to the question.

MR. ROOS: Yes, your Honor.

BY MR. ROOS:

Q. What was the defendant's body language in the conversation?

MR. COHEN: Same objection.

THE COURT: Overruled.

A. Sam has some physical tells for when he is thinking hard or is upset, and a lot of those were on display.

Q. What are you referring to?

A. Puffed out his chest, had his hand back, hands back, he was grinding his finger, closing his eyes, grinding his teeth or tongue in his mouth, and when he opened them to respond, he would sort of glare at me with some intensity. This didn't happen for the whole conversation, but it did happen at specific points, like when I asked, like, *Dear god, what else is there? Give me some updates.* I ended up apologizing to him at the end for asking for the meeting because I could tell it was so unwelcome.

Q. Now you testified about cutting expenses. Withdrawn.

You testified about, during the conversation you had on the balcony, a portion of the conversation about cutting expenses. I want to ask you some follow-up questions about expenses in the fall of 2022, okay?

A. Okay.

Q. All right. So how, if at all, did spending change in September onwards?

A. In some ways I was pleasantly surprised. I really pushed for a number of large items to be cut, and I think I was successful in cutting maybe a couple hundred million dollars of spend. But there was also a point——there were a couple of

points when I felt like our real obligation to be doing so was not being taken seriously and that it was much, much more that was either cuttable or at least strongly curtailed, that Sam simply wasn't cutting.

Q. Now after the conversation with the defendant about the $13 billion hole, what, if any spending did you speak to him about specifically?

A. I spoke to him about various endorsement deals, spoke to him about reversing the AZA acquisition, spoke to him about reversing the Embed acquisition, spoke to him about canceling the kind of disgusting FTX office plans——it was going to be a big F——that cost——at first I heard 50 million, eventually 250 million.

Q. Let me ask you about what things you just said.

You said AZA. What's that?

A. I forgot what it stands for, but it's a payments company that FTX had——was some part of the way through acquiring, but I believe was still a reversible transaction.

Q. And what's Embed?

A. Embed is a company that FTX.US acquired at Brett Harrison's behest to list FTX.US stocks.

Q. In September of 2022, did you have any disagreements with the defendant about spending?

A. Yeah.

Q. What topics did you disagree with him on?

A. You said in September?

Q. September 2022 onwards.

A. In one instance, I saw that spreadsheet we looked at earlier that Jayesh showed me that had outlays——that described outlays of future spend on endorsement deals. I was really upset about that. There were way more than I knew about. Many of the numbers are much bigger than what I'd been told. And there was like a billion dollars headed out the door. If FTX was making a billion dollars a year, this puts us like a year of revenue behind with a hole. And so I approached Sam and said: *You know, this is crazy. We need to cut as much of this as we can. I thought you were on this.*

Q. And what, if anything, did he say?

A. He said he didn't think that these were bad spends, and he sort of like challenged me to point to one that was worth cutting. I did point to a couple. And for the ones I pointed at, he agreed that they were bad, but he said that those weren't his fault and that everybody proposing cutting them was shortsighted because the cost associated with cutting them was about like 70 percent of the cost of seeing them through and so it wasn't worth it.

Q. Was there any other spending that you had disagreements about in September 2022 to November 2022?

A. There are the others I mentioned, AZA and Embed.

Q. What about any——what, if any, proposed transactions did you

have disagreements about?

A. There was a point when Sam was in the Middle East, he sent a message to a Signal group called hashtag meetings, or hashtag groups, which contained a lot of folks in leadership——maybe some eight or ten of them——basically pitching that FTX do a deal with Telegram.

Q. And what happened in response to that proposal?

A. Yeah, Sam described that FTX could build a payment-processing service for Telegram and that Telegram would give us a lot of TON, which was their coin, some hundreds of millions of dollars' worth. Seemed like a huge win, wasn't a big lift to build this payment service, probably, and we get a lot of money for it. Ramnik clarified that we'd also pay $120 million for it.

Q. How did you respond to that?

A. Made me extremely nervous. Getting even longer random illiquid tokens was not something I was excited about, especially when the cost would come from customers.

Q. What do you mean by that?

A. Spending dollars, spending anything, after September was necessarily digging the customer deficit hole deeper.

Q. Why do you say that's the case?

A. FTX was short on funds to give to customers. Alameda owed that back. If either FTX or Alameda was spending liquid funds to acquire more illiquid stuff that was not for customers, that

was necessarily spending customer funds, not for customer benefit.

Q. When you responded to this potential Telegram deal, how did the defendant respond, if at all?

A. Yeah. To clarify, in the larger group, I wasn't transparent about my worry that this was digging into customer funds. Not everybody knew about it. Not everybody knew about the hole. But I raised a number of other objections, as did Caroline. Sam ultimately said to the larger group: *We're going ahead with this, Ramnik and I are. You guys shouldn't feel responsible for it. That's not why I shared it. Unless you have any serious new objections, we're going ahead.* And then he repeated separately, inside hashtag organization——the group with me, Sam, Gary, and Caroline, the folks that definitely knew about the hole, as far as I knew——that it wasn't our responsibility, don't worry about it.

MR. ROOS: Pursuant to stipulation S2003, the government offers Exhibit 14B, which, according to the stipulation, is a spreadsheet titled Venture Deals, dated September 26, 2022.

THE COURT: Received.

(Government's Exhibit 14B received in evidence)

MR. ROOS: May we publish it?

THE COURT: Yes.

BY MR. ROOS:

Q. Mr. Singh, is this spreadsheet similar to the one we looked at this morning?

A. Yes.

Q. I just want to ask you about a few of the venture deals.

First, do you see in lines 2, 7, and 9 something called Modulo Capital?

A. Yes.

Q. Do you know what Modulo Capital is?

A. It's a trading firm run by some old associates of Sam.

Q. Where was Modulo Capital based?

A. I don't know where it was initially, but it moved to the Bahamas.

Q. Who ran Modulo Capital?

A. Lily Zhang.

Q. And do you see——let's focus on line 7. What was the investment amount for that Modulo Capital transaction?

A. For the specific one or the sum of them?

Q. For the specific one.

A. $250 million.

Q. Do you see who the spreadsheet says the lead is?

A. It says——can you click on the cell. Sam Bankman-Fried.

Q. And look over at the closing date. It says September 26, 2022. Was this before or after your conversation about the $13 billion hole?

A. After.

Q. While we're on this spreadsheet, do you see Skybridge Capital?

A. Yes.

Q. And do you know what Skybridge Capital is?

A. Scaramucci's VC firm.

Q. Anthony Scaramucci you referred to earlier?

A. Yes.

Q. Do you see the date for that transaction?

A. Yes.

Q. September 7, 2022?

A. Yes.

MR. ROOS: We can take this spreadsheet down.

Q. This morning in your testimony you mentioned that there were loans made to you for corporate purposes. What were those loans for?

A. There were various ones for various purposes. Two high-level categories include amounts that ran through me for campaign donations and amounts that didn't literally go through me but on paper I was on the hook for, for money ultimately sent to FTX.US for its investments.

(Continued on next page)

Q. So let's split those apart. For that second category, starting there, for the investments, how were those transactions structured?

A. I don't know for all of them. For at least one of them, the way it was structured, was that Alameda, on paper, would loan me, Sam, and Gary a large amount of money, and that, on paper, we would go and immediately give it to FTX US. I am not sure if that was a loan or if that was an investment. FTX US would then have money to go make purchases or acquisitions that it needed.

Q. What do you mean by, on paper?

A. I don't recall the actual money ever hitting any accounts of mine or going through them, and I don't know how the funds actually moved. This was an on-paper, like description for like -- I am not sure if it actually described, well, the physical reality of what happened.

Q. You also mentioned some loans for political donations. What were you referring to?

A. There were political donations made in my name, using my bank account, so these did literally go through my bank account, the funds deposited straight from Alameda.

Q. How were some of those donations funded?

A. Some were funded with my money or money taken as a borrow from my FTX account or money from my salary. Some of it was funded from transfers directly from Alameda accounts.

Q. How would you describe your involvement in the majority of these donations?

A. The majority by count or size?

Q. By count.

A. Very, very minimal.

Q. What do you mean by that?

A. I tried to be as uninvolved as possible. I sort of had my head elsewhere.

Q. Walk us through how the donations were made.

A. There was a Signal chart called donations processing in which Sam or Gabe, his brother, or Michael Sadowsky, who worked with Gabe, or their associates would request that a donation be made in my name. Ryan Salame, who had access to my bank account, would transfer money out of my bank account for that purpose, and in some of the cases, I think when the size of the transfer was large enough, there would be an email that would go to me. I would get prompted, often repeatedly because I was usually delinquent, to click on the approve button, and then it would go out.

Q. What was your job with respect to the donations that were made in your name?

A. It changed over time. Initially, I was invested in and cared about and was just kind of -- initially, there were meaningfully my donations, but for the majority of them, and after some point in time, my role was to click a button.

Q. Did some of these donations occur in the fall of 2022?

A. They did.

Q. Did they occur after you learned about the $13 billion hole?

A. They did.

Q. Now, who was Ryan Salame?

A. He was the CEO of FTX digital markets, and he also ran the fiat management team at FTX and OTC trading at Alameda.

Q. I show you now what's been marked for identification as Government Exhibit 1808.

Do you recognize this?

A. That's Ryan Salame.

MR. ROOS: The government offers Exhibit 1808.

THE COURT: Received.

(Government Exhibit 1808 received in evidence)

MR. ROOS: May we publish?

THE COURT: Yes.

Q. Now that the jury can see, who is this?

A. This is Ryan Salame.

Q. What was Ryan Salame's role with respect to the political donations?

A. I don't know the full extent of it. What I observed is that Ryan Salame had access to my bank account, to Sam's bank account, and that he would like log in to my account at Prime Trust, that's where I had a bank account, would send and

specify the details for a wire to be spent to a political candidate or a super PAC and then would ping me in the chat to ask me to click OK in my email to have it get sent out.

Q. What chat are you referring to?

A. The donations processing chat.

Q. What sort of messaging platform was that donation processing chat on?

A. Used Signal.

MR. ROOS: The government offers Exhibit 475, pursuant to stipulation S2003. Per the stipulation, this document is a message exchange between or thread among Nishad Singh, Samuel Bankman-Fried, Ryan Salame and others.

THE COURT: Received.

(Government Exhibit 475 received in evidence)

MR. ROOS: May we publish it?

THE COURT: You may.

Q. Mr. Singh, are these screenshots of the Signal chat you mentioned?

MR. COHEN: Your Honor before we proceed, may we request a limiting instruction regarding the others on the chat besides the individuals identified by Mr. Roos?

MR. ROOS: Depends on who he is talking about, I think.

THE COURT: Who are you talking about?

MR. ROOS: None of them are admissible under

801(d)(2)(D) and (d)(2)(E).

THE COURT: Why don't we take our break, 15 minutes.

(Jury not present)

(Recess)

THE COURT: Before we bring in the jury, counsel, with respect to any proposed additions to the jury charge, I would like a red line whenever you submit them.

MR. ROOS: No problem.

On the exhibit, I think basically nobody is objecting to the admission, if I understand it correctly. It is to how the jury is to consider various messages. Basically, the witness, Ryan Salame, the defendant are all on it, and then there are some other folks, Gabe Bankman-Fried, Michael Sadowsky, Keenan Lantz, and some other individuals.

The government's view is that the messages by those individuals are agent statements or are commands, directives, questions that are nonhearsay, and I think the defense position may be that they should be offered not for their truth.

THE COURT: Take your best three that you think are a problem if offered for the truth and explain it to me.

MR. COHEN: Sure.

Mr. Keenan Lantz and Mr. Michael Sadowsky did not work for Alameda, did not work for FTX. They were political consultants to another company called Gap that was run by the defendant's brother and others. It's really -- I don't think

there is any allegation, at least not that I have heard, that any of them are part of the conspiracy, and in terms of the agency argument, the government is essentially arguing they are agents of agents of agents, and we think it goes too far.

THE COURT: What I was hoping to get is for you to point me to the best three and tell me why it matters apart from having a quiz on the law of evidence.

MR. COHEN: I'm sorry, your Honor.

I don't know what page counsel intends to go through is part of the problem.

MR. ROOS: I am going to start with the first one, Keenan Lantz. Ryan Salame can we get --

THE COURT: What are you reading from?

MR. ROOS: This is the second page of Government Exhibit 475. This one, for instance, is by Keenan Lantz. And setting aside even the agency determination under --

THE COURT: There is no part of it that's offered for the truth.

MR. ROOS: It's a question or a directive, exactly.

THE COURT: Right.

Is there anything here that's offered for the truth by somebody who you claim is not an agent or a conspirator, Mr. Cohen, that matters at all in this case?

MR. COHEN: All I was asking for was an instruction as to the people that it is not being offered for the truth for.

THE COURT: I understand that. But does any of it matter?

MR. COHEN: To the extent this is in evidence and the jury can read it, it could matter.

THE COURT: You are not getting my point. I'm sorry.

MR. ROOS: If I could --

THE COURT: If somebody wrote a message here that said, what time is it, and he wasn't an agent, who cares if it's offered for the truth or not offered for the truth, and why should there be a limiting instruction. Why should all of us be taking time on that issue? If there is something here that potentially hurts, I'm with you all the way.

MR. COHEN: I understand, your Honor. I'm a little limited because up until just now I didn't know what part of this they were going to offer.

Hold on one second.

MR. ROOS: I'm offering the whole thing, but if this is helpful to move us along, we can just put this in. If Mr. Cohen wants to flag something for me overnight about something that's for the truth that he finds problematic, we could then work it out and raise it.

MR. COHEN: That would be fine.

THE COURT: That sounds fine.

Bring in the jury and let's get the witness.

Thank you for resolving that way, both of you.

(Jury present)

THE COURT: The defendant and the jurors all are present, as they have been throughout.

Mr. Roos, you may continue.

MR. ROOS: Thank you, your Honor.

May we now publish Government Exhibit 475?

THE COURT: You may. It is received.

Q. Mr. Singh, what messaging platform was the donation processing messaging thread on?

A. On Signal.

Q. Do you see at the top where it says March 28, 2022?

A. Yes.

Q. Do messages exist going that far back?

A. Not on the device that took a screenshot.

Q. What device was that?

A. My laptop.

Q. How far back do the messages go?

A. Four weeks since the time of the screenshot, which was sometime in November.

Q. Why is it that they only go back four weeks?

A. Because the disappearing message timer was set to four weeks.

Q. What's a disappearing messaging timer?

A. It specifies a retention period for messages such that messages that are older than that period get deleted.

MR. ROOS: Mr. Ahuja, can we go to the second page of this document.

Q. Starting with the first message in the chat, someone named Keenan Lantz sends a message. Who is Keenan Lantz?

A. Keenan Lantz worked for Gabe Bankman-Fried and Michael Sadowsky.

Q. Who is Michael Sadowsky?

A. He was Gabe's partner, partner at work at Guarding Against Pandemics.

Q. What's Guarding Against Pandemics?

A. It was a PAC that Gabe and Michael ran.

Q. What, if any, relationship did that have to the defendant?

A. Did the PAC?

Q. Yeah.

A. Sam funded it.

Q. Focusing on this first page, it says: @Salams, can we get the 20K from Nishad Singh to the Delaware democratic party today.

Who is @Salams?

A. That's Ryan Salame. This is my nickname in my phone for him.

Q. What is the reason Lantz asked him to send $20,000 from you to the democratic party of Delaware?

A. Keenan knew, I believe it had been well established by this point, October 17, that Ryan was the person who was actually

logging in to my bank account and sending wires.

Q. Were you involved in the decision to donate to the democratic party of Delaware?

A. Not at all.

Q. Two messages down, Salame or Salams says: This is queued up. And adds: Also resent the last five verification emails.

What did you understand that to be a reference to?

A. These are referencing the same type of thing. Here Ryan is saying that he has queued up a donation, as in he has like put it into my bank account, but I had to click approve on an email that was sent to me, and I missed the window for clicking approve on a bunch of others, which is typical. I wasn't paying a lot of attention to this. So he resent them and he requests here that I click OK on them as well.

Q. When Salame was setting up donations like this for you, where did you understand the money was coming from?

A. A combination of my money and money that he had deposited -- I don't know that he did it. Somebody had deposited directly into my bank account.

Q. How did the money go to the campaigns?

A. Through a wire like from my bank account.

Q. You used the term earlier, when describing Guarding Against Pandemics, a PAC. Do you know what that stands for or what it refers to?

A. Political action committee.

Q. Just to be clear, how would the money go from Alameda, in the cases it came from Alameda, to the campaign?

A. Funds would start out with Alameda at some bank account. They would get transferred into -- wired to my Prime Trust account, which is another bank account, and then Ryan would request a wire withdrawal from my bank account to the campaign as a destination, and I would click OK in my email.

MR. ROOS: Mr. Ahuja can we go to the next page of this Signal chat.

Q. Mr. Singh, do you see partway down the page where Keenan Lantz asks @SamBF: Will you be cool with me being able to set up wires via PT?

For starters, who is Sam BF?

A. That's Sam Bankman-Fried. This is what I had him as in my phone.

Q. Where it says, set up wires via PT, what is that a reference to?

A. I believe he is asking if there can be a Prime Trust PT account for Sam that Keenan would set up and have access to.

Q. Do you see below this where Sam BF writes: Think so?

A. Yes.

MR. ROOS: Could we zoom in on the portion below that.

Q. The Salames message says: SBFs are all queued and sent.

What is queued and sent a reference to?

A. I understand it to mean that Ryan already had access to

some bank accounts under Sam's name, and he had done what he did for me, which was to send the wires. He might also be saying here that he clicked --

MR. COHEN: Objection.

THE COURT: Strike everything after he might, including he might.

Q. What was your understanding with respect to whether the defendant had a similar setup as to use for paying donations?

A. That was my belief inferring from the messages and thread like this one.

MR. COHEN: Same objection.

THE COURT: Pardon me?

The answer is stricken.

Move on, please.

MR. ROOS: We can take this thread down.

Q. In addition to having your bank account used to make wire transfer donations, how, if at all, were checks used for making donations?

A. I signed a bunch of blank checks attached to my Wells Fargo account, which at first only contained my salary, but eventually also contained money that I had wired to it from my Prime Trust account. Those were used by Gabe and his team to make donations in my name to candidates.

Q. What do you mean by, you used checks? What did you do?

A. I signed blank checks.

Q. What did you do with them after you signed blank checks?

A. I handed them back to Gabe's assistant, who provided them to me.

Q. Can you describe the circumstances of you signing those blank checks.

A. Yeah. Gabe had called me asking that --

MR. COHEN: Objection.

THE COURT: Ground.

MR. COHEN: Hearsay.

MR. ROOS: Effect on the listener.

THE COURT: Received for the effect on the listener, the witness.

Members of the jury, not for the truth.

THE WITNESS: Continue?

THE COURT: Yes, please.

A. Gabe had called me asking if I was OK with making a lot of small donations to democratic candidates. We talked some about the purpose of it. I said OK.

Q. What happened next?

A. I tried to -- I gave my credit card to Gabe, or maybe to Keenan Lantz, so that he could try to make payments through ActBlue using my credit card, drawing on my salary. It was -- my credit card got rejected at some point. He tried to make a PayPal for the same reason. This also had some issues. Eventually it seemed that checks were the most viable option

left. So Gabe called me saying that he was flying out one of his assistants with a bunch of checks from my bank account. I had given them access to my bank account for me to sign.

THE COURT: What is ActBlue?

THE WITNESS: ActBlue is a platform used to make donations to democrats.

THE COURT: And you said he was flying out one of his assistants. What did that mean?

THE WITNESS: One of his assistants had a lot of checks from my bank account, but they weren't signed yet. So she was going to arrive in the Bahamas and meet me at the office where I would sign them and hand them back to her.

THE COURT: Go ahead, Mr. Roos.

MR. ROOS: Thank you.

Q. For the donations that were made in your name in the fall of 2022 that were funded with wires from Alameda, from where did you understand the money was coming from?

A. Customers.

Q. Why is your answer customers?

A. There was an enormous hole, I knew, deficit in funds at FTX for customers, and Alameda sort of also had that hole. It was theirs to fill. Alameda sending me money to spend, as opposed to keeping money for customers, say, necessarily deepens that hole and is drawing on funds that would have otherwise gone to customers.

THE COURT: From where did you get that understanding?

THE WITNESS: From my conversation in September with Sam in which he told me $5 billion was deliverable, and I earlier that day heard that there was a $13 billion amount borrowed by Alameda from FTX.

THE COURT: Thank you.

Q. Now, you testified that many of these donations you were not involved in. What is your understanding about why the donations were made in your name?

A. For advantageous optics, that it was useful for my name to be associated with some donations, even if the end recipient understood that they were really coming from someone else.

MR. ROOS: Now, the government offers Government Exhibit 477 pursuant to stipulation S2003.

THE COURT: Received.

(Government Exhibit 477 received in evidence)

MR. ROOS: May we publish it?

THE COURT: You may.

Q. Mr. Singh, what type of document or record is this?

A. This is also a Signal chat with screenshots from my phone, as opposed to a computer.

Q. Who is the Signal chat with?

A. Michael Sadowsky.

Q. Was he also part of that donation processing chart?

A. Yes.

Q. Does this Signal chart concern any particular donation?

A. Yes.

Q. Which one?

A. There was a donation to be made to the LGBTQ victory fund.

MR. ROOS: Mr. Ahuja, can we go to the next page.

Q. About halfway down there is a message. The next one too. It says: In general, you, being the center left face of our spending, will mean you giving to a lot of woke, swear word, for transactional purposes.

Had you had conversations about that in the past?

A. Yes, yes, though less crudely.

Q. What did you understand this to refer to?

A. That donations that were really effectuated by a group of people, not just me, would be made in my name, so I would be the face of those donations, and that there would be targeted at center left recipients. The four transactional purposes part, I believe, refers to the fact that --

MR. COHEN: Objection.

MR. ROOS: It goes to his understanding, and it's based on what he said in his past conversations.

THE COURT: Let's find that out.

Q. The belief you are about to testify about transactional purposes, to what extent, if at all, was that based on past conversations?

A. Past conversations and this one. This thread describes the

transaction.

THE COURT: Past conversations with whom?

THE WITNESS: With Michael and Gabe and Sam.

THE COURT: Sustained.

And Sam. Overruled.

Q. What were you referring to with transactional purposes?

A. That on its face a donation may appear to be for one purpose, say going to a PAC called the LGBTQ Victory Fund. But, in reality, the true purpose is something else, and it may be the funds end up affecting some outcome that seems unrelated to LGBTQ efforts.

MR. ROOS: Go to the next page.

Q. On the next page you write: I think I need to do some of this and prob see if there are other viable people at FTX for it.

What did you mean by, see if there are other viable people at FTX for it?

A. I wasn't comfortable being in this position for very long, and so I put it on myself here to search for replacements for me, other people at FTX willing to have their name be used for donations.

MR. ROOS: We can take this down.

Q. What, if anything, was done to track donations made by FTX employees, FTX and Alameda employees?

A. I partook in some tracking myself. That's really all I

know about there.

Q. What, if any, involvement in tracking did you have with the defendant?

A. There was a point in 2022 when Sam had asked a group of us -- I believe me, Caroline, Ryan, Gary, Adam, and others -- if we could contribute to a spreadsheet, a Google sheet that he made, listing the donations that we had been a part of so that he could understand and represent to others what all FTX and Alameda employees were donating to and where our influence was.

MR. ROOS: Government offers Exhibit 28, which, according to stipulation S2003, is a spreadsheet called Alameda FTX donations.

THE COURT: Received.

(Government Exhibit 28 received in evidence)

MR. ROOS: May we publish it?

Q. Mr. Singh, have you seen this before?

A. I have. In Google Sheet form.

Q. What do you mean, in Google Sheet form?

A. That the actual document that I touched and that Sam circulated was a Google Sheet. This appears to be a Microsoft Excel version of it.

Q. Now, what is this particular spreadsheet about?

A. It's about the donations made by various people -- those are listed on the bottom in tabs -- to various recipients.

Q. Who are the various people in the tabs?

A. From left to right: SBF, so that's Sam; FTX US, the company; Nishad, that's me; Caroline, that's Caroline Ellison; RDS, Ryan Salame.

Q. Let's look at your tab. Can you explain what each of the columns relates to.

A. The first is attempt at categorizing the motivations or type of donation. The second is a recipient column that just names a recipient. Date is the date of the transfer. USD amount is the dollar equivalent of the amount transferred. In some cases there is crypto here, but in most cases there are dollars sent. Notes is some additional context I added. U.S. tax deductible is my almost-wrong-in-all-cases guess if the donation was tax deductible.

Q. Who, if anyone, asked for all these donations to be listed in the spreadsheet?

A. Sam did.

MR. ROOS: We can take this down.

Q. I want to change topics.

You mentioned this morning that you are testifying here pursuant to a cooperation agreement, is that right?

A. That's right.

Q. Did you plead guilty to crimes at the time you entered into a cooperation agreement?

A. Yes.

Q. Before you pled guilty, had you met with federal

prosecutors and the FBI?

A. Many times.

Q. And when did you start meeting with prosecutors?

A. Somewhere around November 20, 2022.

Q. When you first met with the FBI or with prosecutors, had you been arrested or charged with crimes?

A. No.

Q. How many times have you met with prosecutors?

A. I am not sure the exact number. Maybe around 20 times.

Q. In those meetings did you discuss your own involvement in crimes?

A. I did.

Q. What crimes did you bring to the attention of prosecutors?

A. I discussed how I defrauded customers, investors, how I was a straw donor for campaign donations, and how I knew that the money going to those donations was from customer funds.

Q. Did you talk about the defendant in your meetings?

A. I did.

Q. What about other individuals?

A. Talked about other individuals.

Q. In general, what charges have you pled guilty to?

A. Defrauding customers, defrauding investors, campaign finance violations, and money laundering.

MR. COHEN: Your Honor, may I have a brief sidebar?

THE COURT: Yes.

(At sidebar)

MR. COHEN: Your Honor, I didn't want to interrupt Mr. Roos in front of the jury, but I wanted to ask the Court at the appropriate time to give a 404(b) instruction on the political campaign testimony we will hear today.

THE COURT: Haven't I done that already?

MR. COHEN: I thought you gave it on a different topic, on the FCPA topic. I think you did that last week.

THE COURT: Is there any objection?

MR. ROOS: I don't think there has been a 404(b) instruction on the campaign finance.

I guess the question I have is, what do you have in mind at this point? I am not sure that he has testified --

MR. COHEN: He just did.

MR. ROOS: He described conduct. I am not sure --

MR. COHEN: He just said one of the crimes he committed was being a straw donor.

MR. ROOS: That he committed. I am not sure he has actually said. I'm happy to look at the testimony.

MS. SASSOON: I think it is also direct evidence.

THE COURT: Doesn't it really come down to saying that the defendant, as opposed to this witness, is not charged here, as I have told you before, with any crimes involving any violations of campaign finance costs.

MR. COHEN: That would be fine, your Honor.

MS. SASSOON: I just want to make sure that FCPA instruction referred to -- it's for the limited purpose of propensity. I don't think that applies here.

(Continued on next page)

(At sidebar)

THE COURT: Members of the jury, I just want to remind you that, as I said earlier in the trial, the defendant is not charged with any criminal violation of campaign finance laws in this case. This evidence is coming in for other purposes, not least of what would be the fact that this witness has pleaded guilty to such a violation.

MR. ROOS: Thank you, your Honor.

Q. You testified you pled guilty. How many felonies have you pled guilty to?

A. Six.

Q. Is that plea based on criminal activity you have testified about here today?

A. Yes. And more.

Q. When you were committing the frauds you testified about, did you know what you were doing was wrong and illegal?

A. Yes.

Q. And with respect to the conspiracies you pled guilty to commit wire fraud, securities fraud, commodities fraud and money laundering, who did you conspire with?

A. I conspired with Ryan Salame, Sam Bankman-Fried, Gary Wang, Caroline Ellison.

Q. You said you entered into a cooperation agreement. Is that a written agreement?

A. That is.

MR. ROOS: If we could pull up for identification 3501-002.

Q. Mr. Singh, do you recognize this document?

A. I do.

Q. What is it?

A. It's my cooperation agreement.

Q. Let's go to the last page.

Is that your signature on the last page?

A. Yes.

MR. ROOS: Your Honor, the government offers 3501-002.

MR. COHEN: No objection.

THE COURT: Received.

(Government Exhibit 3501-002 received in evidence)

MR. ROOS: May we publish it?

THE COURT: You may.

Q. Mr. Singh, we are not going to go through the whole document, but just for starters, looking at pages 1 and then 2, does that state the crimes that you have pled guilty to?

A. Yes.

MR. ROOS: Can we go to page 3.

Q. You see the first full paragraph on that page. What do you understand this paragraph in the cooperation agreement to require of you?

A. This paragraph describes my obligations as a part of the cooperation agreement. At a high level, it requires that I

provide truthful information to the government, that I testify truthfully if asked, and that I commit no further crimes.

Q. If you satisfy those obligations, what is your understanding as to what the government will do?

A. The government believes that my assistance was substantial, they can write a 5K letter to the judge to be considered at my sentencing.

Q. What's a 5K letter?

A. It's a letter that describes the extent of my cooperation and what crimes I committed.

Q. If you were to violate your agreement by not telling the truth or by committing more crimes, what do you understand would happen to your cooperation agreement?

A. It may not be sent.

Q. What may not be sent?

A. The 5K letter. It wouldn't be created and sent to the judge.

Q. And could your cooperation agreement be voided?

A. The agreement itself would not be voided.

Q. Have you been sentenced yet to the crimes that you pled guilty to?

A. Not yet.

Q. What is your maximum sentence you could face?

A. Seventy-five years.

Q. Have you received any promises about the sentence you will

receive?

A. None.

Q. Sitting here today, do you know what sentence you are going to get?

A. I don't know.

Q. What sentence are you hoping for?

A. I'm hoping for no jail time.

Q. Who decides your sentence?

A. The judge does.

Q. Now, does you getting a 5K letter from the government depend in any way on the outcome of this trial?

A. No.

Q. You said one of the crimes you pled guilty to was conspiracy to commit securities fraud?

A. Yes.

Q. On FTX investors.

I want to ask you some additional questions about that.

When you were working at FTX, did you ever work on a project relating to making FTX's revenues higher?

A. Yes.

Q. And when approximately was that project?

A. December 30 or 31 of 2021.

Q. Can you describe what the project was.

A. I made transfers from one of Sam's companies to another, to

FTX, to make it appear as though FTX had higher revenues.

Q. So a few follow-up questions on this.

First, just to be clear, where were FTX's revenues at this point in time?

A. What were they for the previous year?

Q. Before the project, what had FTX's revenues been calculated to?

A. Around 950 or $960 million for that year.

Q. What was the project that you worked on?

A. Sam messaged me and Gary and possibly others, but certainly the two of us, in Signal asking what we could do to get revenue over the line of a billion dollars.

Q. What, if anything, did you discuss in that Signal message -- conversation after that?

A. Sam and Gary talked about a number of options. In the end, Sam landed on charging for the service of Serum staking.

Q. So for starters, I think you mentioned it, but can you remind us what Serum is?

A. It's a token that Sam and Gary made.

Q. What is Serum staking?

A. Customers could so-call stake their Serum on FTX, which entailed locking up those tokens such that they couldn't be sold, in return for some interest.

Q. If you didn't sell your tokens, you got interest?

A. Right.

Q. And what was FTX's involvement in that?

A. FTX facilitated distributing the staking rewards, facilitating the distribution of interest from the ECO Serum account.

Q. Can you explain what the defendant proposed with respect to charging for that service.

A. The defendant -- Sam proposed charging ECO Serum to the account that paid the interest, 25 percent of the USD equivalent of the interest distributed to FTX.

Q. And how, if at all, would that affect FTX's revenues?

A. It would -- I know that, after calculating, it was determined that it would bring it over the line of 1 billion. I think that it added $50 million or so in revenue.

Q. Remind us, when was the date that this conversation occurred?

A. It was either December 30 or 31 of 2021.

Q. Was the plan to charge that $50 million amount at the end there?

MR. COHEN: Objection. Leading.

THE COURT: Sustained.

Q. What, if any, was the plan with respect to when to charge those payments to ECO Serum?

A. I was told to make it appear as though they had been getting charged throughout the year, so to backdate the transactions associated with paying this fee.

Q. Who told you that?

A. Sam.

Q. And what do you mean, backdating the charging of the fee?

A. The FTX database that he looked at has time stamps in it for when transactions happen, but in some cases those time stamps are mutable and can be adjusted and changed. So I was being asked here to make transfers and then to go into the database and reassign the dates for them.

(Continued on next page)

BY MR. ROOS:

Q. What would the effect have been of making those transfers?

A. The effect of making the transfers would have been to increase FTX's stated revenue, but not real revenue, by some $50 million, and the effect of the backdating would be to make it appear as though that had been getting paid out throughout the year, as opposed to all at the end.

MR. ROOS: Let's take a look at Government Exhibit 51.

The government offers pursuant to S2003, stipulation.

THE COURT: Received.

(Government's Exhibit 51 received in evidence)

MR. ROOS: May we publish it?

THE COURT: Yes.

BY MR. ROOS:

Q. Mr. Singh, what are we looking at here?

A. I recognize this as the FTX stats file, one that Sam made and posted inside a, among other places, a Slack channel that I was in that contained a lot of people, 20 or 30 people, with interest in raising, and I understand that copies of this spreadsheet or versions of it made their way into——

MR. COHEN: Objection.

THE COURT: Sustained as to the understanding.

Q. What, if anything, did you talk to the defendant or other FTX employees about what was done with this spreadsheet?

A. Ramnik told me that versions of this spreadsheet made their

way into data rooms that were shared with FTX investors.

Q. Now looking at this first tab, the overview page, where does it say FTX's revenue for year 2021?

A. Cell E8.

Q. And what is that revenue number?

A. Just over a billion dollars.

MR. ROOS: Now, Mr. Ahuja, can we please see the tab FTX data.

Q. Mr. Singh, where does the information for FTX data come from?

A. I believe that this is a download of data that was collated and——

MR. COHEN: Objection.

THE COURT: Yes. Sustained. Strike the answer.

Mr. Roos, foundations are sometimes necessary.

MR. ROOS: Yes, your Honor.

So let's go over to the tab that says Staking Fees, and can we scroll down. Scroll down to like the year 2021. So you'll have to go down a bunch, maybe using the side tab.

BY MR. ROOS:

Q. And Mr. Singh, do you see a number in the column W called Staking Fees?

A. I do.

Q. And are you familiar with where those figures come from?

A. This is a reflection of the erroneous transfers that I made

and backdated of one of them.

Q. What are you referring to?

A. The transfers that I'd made on December 30th or 31st of 2021, supposedly for eco Serum paying FTX 25 percent of the USD value of the distributed interest. I made those once per month, backdated them so they looked like they happened once per month, and this is the USD value of one of those transfers.

Q. Now where did you make those transfers?

A. I made them using a Python script. They ended up in the FTX database.

Q. Now you mentioned this is one of those monthly payments. Are there other such monthly revenue, or staking fee payments?

A. Yes, one per month.

Q. Throughout the period of 2021?

A. Yes.

Q. And are they for a month that predate December 2021?

A. Yes.

Q. What was the result of including these staking fees, these backdated staking fees, in the revenue total for 2021?

A. It was the difference between FTX being under and over a billion dollars of revenue in 2021.

Q. What, if anything, did you discuss with the defendant about backdating?

A. He told me to do it.

Q. What, if anything, did you learn about this, about the

revenue number being shared with investors?

A. I didn't learn anything affirmatively, but I knew it was shared.

MR. COHEN: Objection.

A. I assumed it was shared.

Q. Relevant to his state of mind.

THE COURT: Overruled.

I'm sorry. I'm going to sustain that.

MR. ROOS: Okay.

THE COURT: The jury will disregard it.

Q. Now what, if any, information about this revenue number was given to auditors?

A. It was. These numbers were given to auditors.

Q. Just to back up for a second, did FTX have auditors?

A. Yes.

Q. And what, if anything, were they doing in 2021, and 2022?

A. Looking at financials for the previous years at FTX.

Q. And so I think you answered that information was given to auditors. What, if anything, did auditors ask to see?

MR. COHEN: Foundation, objection.

THE COURT: Sustained.

Q. So just to take a step back, you testified that information was provided to auditors; is that right?

A. Correct.

Q. Did you have any conversations with auditors about the

staking fees?

A. I did.

Q. And what, if anything, was asked of you about the staking fees?

A. I was asked to describe what they were.

Q. And to what extent, if at all, were you asked about materials relating to the staking fees?

A. Jayesh, afterwards, at some point after my conversation describing the, like, technical basis for this number, asked me if there——if the auditors were interested in seeing an agreement about it. I told him I don't have the agreement and I redirected him to Sam.

MR. ROOS: The government offers Exhibit 323 pursuant to stipulation S2003.

THE COURT: Received.

(Government's Exhibit 323 received in evidence)

MR. ROOS: May we publish it?

THE COURT: Yes.

BY MR. ROOS:

Q. Mr. Singh, at the top of this agreement it says Rewards Agent Agreement. Do you see that?

A. I do.

Q. And do you see the parties listed in it?

A. Yes.

MR. ROOS: Let's go to the end of the document.

Q. What are the parties listed to the agreement on the end of the document?

A. Incentive Ecosystem Foundation and FTX Trading Ltd.

Q. Are you familiar with Incentive Ecosystem Foundation?

A. Sort of.

Q. Okay. And FTX Trading Ltd.?

A. Yes.

Q. And who signed on behalf of FTX Trading Ltd.?

A. Sam Bankman-Fried.

Q. Okay. Now let's go back to the first page.

Do you see here where it says the fee amount that would be paid?

A. Yes.

Q. And what was the fee amount listed in this agreement?

A. 25 percent of the distributed rewards.

Q. And what fee percentage did you discuss with the defendant in December of 2021?

A. 25 percent.

Q. Now do you see the date on this document——

A. Yes.

Q. ——at the top? And what is the date of the document?

A. January 1, 2021.

Q. When was it that you first discussed fees for staking Serum with the defendant?

A. December 30th or 31st, 2021.

Q. Let me just be clear about something. Had you seen this document back in 2021?

A. No.

MR. ROOS: We can take this down.

Q. In addition to this——my questions to you about revenue, what, if anything, was done at FTX to remove losses from the company's expenses?

A. In one instance, there were a bunch of accounts that found an exploit in Gary's original version of the spot margin system. They had essentially borrowed a lot of dollars against some MobileCoin, but if sold, the MobileCoin wasn't going to actually cover the full amount.

MR. COHEN: Objection, foundation.

THE COURT: Try again, Mr. Roos. The jury will disregard it.

Q. So just to take it in pieces, I asked you what, if anything, was done at FTX to remove losses from the total expenses. Were there——so let me actually ask you instead: In 2021, were you aware of any losses——just yes or no——associated with problems in the margins of some?

A. Yes.

Q. And how did you come to learn about those losses?

A. Ryan Salame and Sam Bankman-Fried sounded the alarms about somebody exploiting the margin system.

Q. Can you describe what you learned.

A. I learned that there were a number of accounts that had deposited a lot of MOB——or M-O-B, MobileCoin——as collateral, and had withdrawn a lot of USD against it using the spot margin system. They had done so in a way such that the——in a way that the FTX margin system essentially overvalued how much it could get out of the MobileCoin, meaning that these accounts weren't yet liquidated but really should have been much earlier.

Q. And what, if any, losses resulted from this?

A. I heard from Sam Bankman-Fried——he told me, after it was addressed, that the losses would constitute a fraction of Alameda's revenue that year, around $1 billion.

Q. What, if anything, did the defendant say about what should be done with the loss?

A. He directed the reassigning of the accounts themselves that had on these positions that should have been but were not liquidated to Alameda, meaning that Alameda absorbed the losses associated with those accounts.

Q. And what, if anything, was the effect of moving those losses to Alameda's account?

A. It meant that because Alameda data is not publicly shared, that these losses would not be publicly shared.

Q. Okay. I want to change topics.

Directing your attention to November of 2022. Can you, at a high level, describe what happened to FTX.

A. Collapsed. Customers tried to withdraw their money and FTX

didn't have it.

Q. So let's break it down.

Did there come a time in November 2022 when you learned about an increase in customer withdrawals?

A. Yes, November 5th.

Q. And what did you observe at the time?

A. Clients had moved a lot of FTT that they owned on chain to their exchange. This signaled to the crypto industry that a lot of FTT was about to be sold. This followed a leak of an Alameda balance sheet that had been published a few days earlier. I was very concerned that this might spell doom and the end of our attempts to make customers whole, and the end of the ongoing fraud, and that the mechanism for the doom would have been customers withdrawing.

Q. And so can you explain why you were concerned that withdrawals would be a problem for FTX.

A. Because customers believed, were told that they had balances that were not backed, and so if they withdrew more than the limited funds that existed, it would become evident that there was an enormous hole and that their funds had been used.

Q. Just to clarify your answer, you said customers were told that they had funds that were not backed. Did you mean customers were told that they had funds and they were not backed or customers were told they had funds but were not

backed?

MR. COHEN: Objection.

THE COURT: Overruled.

A. The former.

Q. Now earlier in your testimony you told us about some loans that had been made to you for corporate purposes. Do you remember that?

A. Yes.

Q. When withdrawals started picking up at FTX in November 2022, what, if any, conversations did you have with the defendant about those loans?

A. A few days or maybe a day after my worries, I was terrified that due to the collapse, I wouldn't be able to repay all my loans that I once thought I could, and I asked that we find an erroneous way to sort of remove them.

MR. ROOS: The government offers Exhibit 480A pursuant to stipulation S2003.

MR. COHEN: No objection.

THE COURT: Received.

(Government's Exhibit 480A received in evidence)

MR. ROOS: May we publish it?

THE COURT: You may.

MR. ROOS: Could we zoom in on first the blue messages.

Q. And let me ask: What is this document?

A. This is a screenshot from my computer of a Signal chat with Sam.

Q. And so focusing on your message——I'm sorry. Withdrawn.

Whose message is this?

A. Mine.

Q. Okay. And focusing on your message, you say there, "one thing that'd seriously help me is if I didn't have debts." What debts were you referring to?

A. There were hundreds of millions of dollars of loans that I had taken for the——for Alameda's and FTX's purposes, or loans that I'd taken for personal purposes but that Sam had requested I take in the form of a loan as opposed to selling my FTT.

Q. And you say here, "500 million for me exercising," what's that a reference to?

A. I received a $477 million on-paper loan in December or November of 2021, nominally for me to exercise shares that were granted to me.

Q. And who, if anyone, had the idea for you to take that loan?

A. Sam did.

Q. The same sentence says, "for me exercising, more for US investments." What were you referring to there?

A. There were on the order of $100 million or maybe more of other loans that ran through me for expenditures from FTX.US, things like acquiring LedgerX, acquiring Embed.

Q. What do you mean by ran through you?

A. Using the setup I described earlier in which the lawyers would paper up a transaction, a loan from Alameda through me, Sam, and Gary, and maybe others, but certainly the three of us, and that those funds would ultimately make their way into FTX.US's wallets and that FTX.US could spend that money to——to make acquisitions.

Q. The third line here, it says, "maybe 80 million extra or so are donations/personal/etc. that went through my bank acc and are in my name." What were you referring to?

A. Here I'm referring to instances in which I'd withdrawn from my FTX account using the spot margin system or instances in which Sam had given me like a loan. These are instances in which I'd first asked to sell FTT but Sam preferred I take a loan. And so these are ones that are in my name. These also include the transfers directly from Alameda into my bank accounts that, you know, weren't discussed beforehand.

Q. Just so we're clear, when it says "through my bank acc," what is that?

A. Bank account.

Q. Now you see lower it says, "would you be ok letting me trade to get rid of the approximately 80?" What were you referring to?

A. I was asking if I could make some fictitious transactions such that it looked like I had paid off this amount that I owed.

MR. ROOS: Let's zoom out.

And can we zoom in on the bottom three messages.

Q. And the defendant asks, "what does trade mean?" And you say, "sell FTT or SRM earlier in 2022." What does that mean?

A. I was asking if I could make a trade, selling the tokens that I had asked to previously sell, but backdating them to points that would cover the size of the loans.

Q. You've mentioned FTT previously. What's SRM?

A. SRM is Serum.

Q. And why did you want to get out of these loans?

A. I was really afraid of what it would look like, that I would look really corrupt, that I would, you know——the interpretation to them would——would be——would be really negative.

Q. Why did you feel comfortable proposing a backdated transaction?

A. It's something I knew could be done because Sam had proposed, you know, once to me in other contexts.

Q. And the defendant says, "I think that's probably fine." After that, did you go through with this transaction?

A. No.

Q. Why not?

A. It felt wrong. I was not——not to make an excuse for my having proposed this, not at all, but I was in different levels of having a right mind throughout these days, and in better

moments, I didn't pursue it.

MR. ROOS: We can take this down.

Q. Now directing your attention to November 6, did there ever come a time where you discussed Alameda's balances with the defendant?

A. Yes.

Q. And what did you discuss?

A. Forgive me. You're asking about November?

Q. November 6.

A. Yes. On November 6th, we talked about how there was a hole.

Q. Any other specifics you recall?

A. Sorry. This is specifically about Alameda balances?

Q. Correct.

A. I recall Sam drafting——Sam and Caroline drafting balance sheets that showed all of FTX and Alameda's assets versus liabilities.

Q. As part of these discussions, what, if any, conversations did you have about the old FTX fiat account you testified about earlier in your testimony today?

A. One of the exercises that related to determining Alameda's balances that Sam asked me for help in was giving him a list of the USD values in various accounts, much like the June exercise that we had done. He provided me a list of accounts and referenced the seoyun one, the one that now held the FTX fiat

old obligation.

Q. Let's take a look.

MR. ROOS: Government offers Exhibit 480B, which is a message exchange between the witness and the defendant, pursuant to stipulation S2003. It's dated November 6, 2022.

THE COURT: This is 480D or——

MR. ROOS: This is 480B as in boy.

THE COURT: Thank you. Received.

(Government's Exhibit 480B received in evidence)

MR. ROOS: May we publish it?

THE COURT: Yes.

BY MR. ROOS:

Q. Mr. Singh, what type of message is this?

A. This is also a Signal message, this time sent from Sam.

Q. And what's the date of it?

A. Sunday, November 6th.

Q. And focusing on the message, how, if at all, does this relate to what you were just describing about the seoyun account?

A. The bottom account, in the first message, Sam's enumerating a bunch of accounts for me to grab the USD value of. In the second message, Sam says to include the seoyun one, which has the old fiat account.

Q. And how did you know what the defendant was talking about?

A. Because we had had the discussion months earlier about me

moving it to——moving the FTX fiat old subaccount into a different account so that Alameda wasn't charged interest but could still know about it.

Q. And several months prior, which you testified about earlier, what was the balance in that account at the time?

A. Negative 8 billion.

MR. ROOS: Okay. We can take this down.

Q. Now let's focus on the evening of November 6. On that evening did you have any conversations with the defendant about tweeting or Twitter?

A. There was a war room of sorts that had gathered in Sam's apartment in Gemini 1D with Sam, Caroline, Gary, me, Ryan Salame on the phone, Ramnik Arora, and eventually others. One of the items being discussed was how to address the crisis now at hand publicly. They were discussing versions of a tweet that Sam was workshopping. There was a point when they were discussing whether or not to characterize FTX as solvent or well capitalized. I felt very uncomfortable with both definitions. I felt neither was true. I leaned over the couch in which they were talking and said: *I'm not comfortable with this. I'm recusing myself.* They acknowledged in a kind of annoyed way and proceeded.

Q. You used "they" a few times at the end of your statement there. Who is "they"?

A. Specifically, I was leaning over the section of the couch

with Sam and Ramnik, but the whole group heard.

Q. And whose tweet were they drafting?

A. Drafting a potential tweet for Sam to send.

Q. And you said you recused yourself. Is that something——what did you mean by that?

A. I don't know that I had the most precise definition at the time. I mostly wanted to express that I didn't approve of this and——but I didn't——I acknowledged I didn't have the power to stop them. I'd already made clear my preferences on what to say and so I just didn't want to be involved.

Q. Why weren't you comfortable with the tweeting?

A. It was really dishonest, and I was, you know——I'd been asking if we could just halt withdrawals instead.

Q. Did the defendant tweet after that?

A. Yes.

Q. Showing you now Government Exhibit 866, which is in evidence.

MR. ROOS: And could we zoom in on the date and time of the first tweet.

Q. Mr. Singh, when is this in relation to the conversation you were just describing?

A. The following morning.

Q. Let's look at the first tweet. The defendant says, "FTX is fine. Assets are fine." Was that accurate as of November 7, 2022?

A. No.

Q. Why not?

A. We had determined definitively that FTX had a hole. That was clear to everybody involved in the discussion I just mentioned.

Q. Did those discussions include the defendant?

A. Yes.

MR. ROOS: Okay. Zoom out from here. And let's look at the one below it.

Q. That tweet includes a statement, "FTX has enough to cover all client holdings." Was that true at the time?

A. This is an even narrower statement that is even——and therefore even more false.

Q. Why?

A. FTX did not have enough to cover client holdings. That was the sense in which it was not fine.

Q. At or before the time the defendant tweeted this, had you discussed the state of FTX assets with him?

A. Yes.

Q. Had you discussed the issues that you've testified about relating to customer funds?

A. By that——I discussed with him the existence of a hole, and he——he quantified it by putting together these balance sheets.

Q. What, if anything, did you understand the purpose of the tweets were based on your involvement in the conversation you

testified about?

A. I'd overheard in the conversation opinions that these tweets should be really strong, which I understood to be a euphemism for particularly misleading in such a way that will quell fears definitively.

MR. COHEN: Objection.

THE COURT: Mr. Roos.

MR. ROOS: His understanding is relevant as a co-conspirator.

THE COURT: Yes. Overruled.

A. I understood "strong" to mean making a very confident and therefore misleading statement, or false statement, about FTX's financial condition.

Q. Was the defendant in that conversation?

A. Yes.

MR. ROOS: We can take this down.

So Judge, I'm very close to the end, but I don't think I'm going to make it by 8:30——by 4:30.

THE COURT: I was worried about 8:30.

MR. ROOS: Certainly we'll make it by 8:30.

Would you like me to continue——I think I've got about two minutes left——or I can stop here. I'm about to switch topics.

THE COURT: Well, you've got two minutes left.

MR. ROOS: Okay. Thank you.

BY MR. ROOS:

Q. During the next week in November, the week in November that we've been discussing, did you have any conversations with the defendant about possible explanations for Alameda's borrowing?

A. Yes.

Q. What did you discuss?

A. He asked me to determine the total amounts that had flown through the spot margin system historically, the largest amounts that had ever been lent and borrowed.

Q. What is the spot margin system?

A. FTX supported a peer-to-peer borrowing system such that customers could explicitly lend their funds for others to borrow.

Q. And are customers automatically involved in the spot margin system?

A. No. They have to opt in.

Q. What specifically did the defendant ask you when he raised the possibility of the spot margin system?

A. He asked me to run a database query to fetch the largest——the most that had been borrowed or lent at any point in time for each coin through the spot margin system.

Q. And was it the case that the hole that you've testified about was the result of borrowing through the spot margin system?

A. No.

Q. Why do you say no?

A. Funds were taken from bank accounts, which had nothing to do with the spot margin system, and negative amounts in the main Alameda account did not have spot margin enabled. It borrowed——and were able to because of the "Allow Negative" flag.

Q. What do you mean that the main account didn't have spot margin enabled?

A. Customers had to opt in to borrowing and participating in the borrow/lending system. This would, you know——opting in was a——is tantamount to enabling spot margin. Alameda's main account, though it was really negative at times and was borrowing, wasn't doing so through this system.

Q. Now changing dates and directing your attention to November 8, 2022, did you speak to an attorney on that day named Dan Friedberg?

A. I did.

Q. And did you tell the defendant about that conversation?

A. I did.

MR. ROOS: Your Honor, the government offers Exhibit 480C, which is a message exchange between the defendant and the witness on November 8th, pursuant to stipulation S2003.

THE COURT: 480C is received.

(Government's Exhibit 480C received in evidence)

MR. ROOS: May we publish it?

THE COURT: You may.

BY MR. ROOS:

Q. Who is this Signal chat between?

A. Also between me and Sam.

Q. What's the date on it?

A. Tuesday, November 8th.

Q. You write to the defendant, "when you briefly called Dan he was very upset with us and blamed basically the three of us and said it was super [f'd] up, etc." Who is the Dan in this sentence?

A. Dan Friedberg.

Q. You wrote that when he called, he blamed the three of you. What were you referring to? Who were you referring to?

A. In the call, Dan blamed me, Sam, and Gary. That's what I meant, although I don't know that my meaning was clear in the message.

MR. ROOS: Now can we zoom out of this.

Q. And how did the defendant respond?

A. He said that that matched his understanding, that Dan was really upset at us, and that it lined up with what Joe——Joe Bankman——had told him.

Q. Just to be clear, who is Dan F?

A. Dan Friedberg.

Q. And so to close the loop on this, you say that Dan F was very upset, and his message in response to that is, "yup, makes

sense"?

A. I said a few things. I said Dan is upset and that Ryan is likely to resign if we don't proceed correctly. Sam is saying, "yup, makes sense" maybe to part or all of that.

Q. Okay. And then do you see where the defendant says, "fwiw"? What is that?

A. "For what it's worth."

Q. "For what it's worth, I don't hate the idea of them being pissed at me--I don't know, there are pros and cons, and probably mostly cons, but it might help them."

And so do you see that there?

A. Yes.

Q. And you wrote--can we zoom out of this--"this is wildly selfish of me, but they may need to know that it wasn't a ton of people orchestrating it. I think it makes them more likely to want to be here to help save the situation and the others at least."

What were you referring to here?

A. I really wanted Sam to clarify what everyone's role in this fraud was, that it's selfish, my request, because I wanted him to clarify that I wasn't orchestrating it and that I learned about it really late. I wanted Sam to clarify that he was orchestrating it.

MR. ROOS: Judge, do you want me to keep going or stop here?

THE COURT: Well, you told me you'd be done in two minutes.

MR. ROOS: Sorry. I did say I have two minutes. I have probably three more minutes of testimony.

THE COURT: This time I'm holding you to it.

MR. ROOS: Thank you, your Honor.

BY MR. ROOS:

Q. So why were you asking for him to clarify that he was orchestrating it?

A. Two reasons. I was under severe emotional distress from people like Dan Friedberg calling me and blaming me for the entirety of this, and I was certainly guilty for participating in it since September, but I don't feel that I made the hole. And secondly——and I sort of wanted my——the state of my relationship with these people I loved and tried to do right by to remain intact and for them not to hate me.

Secondly, there was a crazy blame game going on and people weren't being productive. Now more than ever, to salvage whatever we could, FTX employees needed to be productive, and resolving the blame game quickly and definitively seemed like it would be a path towards that.

Q. What do you mean resolving the blame game?

A. Sam making clear that he was responsible, that I was responsible in another capacity, that everyone responsible was responsible, and then moving past it so we could just maybe

sell to Binance or do whatever we could to save what we could.
Q. You mentioned Dan Friedberg a few times now. What was his role at FTX?
A. He was the——he went by a couple titles, but fundamentally he was the lead——lead lawyer. He was sort of chief legal decision-maker on everything.
Q. And just for context, what was your mental state at this point when you were asking the defendant to do these things?
A. I'd been suicidal for some days.
Q. And why did you want him to come clean?
THE COURT: Hasn't that been asked and answered?
Q. Well, let me ask you this question this way.
MR. ROOS: Well, actually, let's just zoom out.
And can we go further down.
Last message, can we zoom in on it.
Q. Can you just read what he wrote in response to you.
A. Sam said, "yup, for what it's worth, I don't think that's super selfish. I think that's probably correct."
MR. ROOS: No further questions.
THE COURT: All right. Thank you.
Ladies and gentlemen, 9:30 tomorrow morning.
Counsel remain.
(Continued on next page)

(Jury not present)

THE COURT: Be seated, folks.

Not that I'm going to hold you to it, Mr. Cohen, because you have a lot of work to do, I guess, but what do you think in terms of how long we're going to be with the witness tomorrow?

MR. COHEN: Again, somewhat depends on the answers, your Honor, but I think——

THE COURT: Oh, yes, of course. I'm sorry.

MR. COHEN: Yeah. I think somewhere between four to five hours, max. I'm hoping it will be shorter than Ms. Ellison.

THE COURT: Thank you.

What follows?

Were you through, Mr. Cohen?

MR. COHEN: No. I——we've had a conversation with the government, but we can wait till your Honor's ready to hear it, hear about it, or I can tell you now.

THE COURT: Well, no. I'll come back to you in a minute.

Mr. Roos, what will follow this witness?

MS. SASSOON: Richard Busick.

THE COURT: Sorry. Give me the name again.

MR. ROOS: Richard Busick.

THE COURT: And after that?

MR. ROOS: We have a Chanel Medrano.

And just to give your Honor a sense, I mean, we have to see what the cross is like, but I think we're moving at like a fairly quick clip such that I think most, with the exception of maybe like one or two short witnesses, would be done this week for the government's case. And the witnesses I'm flagging are actually witnesses who are out of town and were unable right now to get here, but otherwise we're planning to put it all in this week, with those exceptions.

THE COURT: Okay. All right. Mr. Cohen?

MR. COHEN: Yes, your Honor. Just circling back to the letter we sent to the Court about our client's access to Adderall, which we spoke about this morning as well at the sidebar, I'll let Mr. Roos speak for the government for himself, but I think we have an agreement on how to proceed, subject, of course, to the Court's approval. In order to see if we can get this straightened out so that my client can in fact receive the dose during the middle of the day and not have to continue, for all the reasons I said in our letter, we're proposing that we sit a half-day tomorrow, from——I think it was 9:30 to 1:00, and see if we can use the rest of the time productively to sort out the medical issues so that we can resolve them.

THE COURT: I'm told, within the last 40 minutes, that the extended-release medication is not going to be available

till Thursday.

MR. COHEN: Oh, okay.

THE COURT: And with all due respect to everybody's good faith, I have not observed a problem with the defendant in this period of time. Not that I'm medically competent, but I just make that note. And I'm inclined to push ahead.

MR. COHEN: Well, then we have to return to our position in our letter, your Honor. I don't think——we had asked for a one-day adjournment——if it's going to be Thursday, we ask for an adjournment until then——in order to allow our client to meaningfully participate as we go to the defense case.

THE COURT: Look, the bottom line here is that I have no competent medical evidence that is short of months old. I don't remember the date, but I had it earlier this morning. And what I have is lawyers who I'm sure in good faith believe what they're saying, but the last I heard from a physician was dated August 12th, and not only is that true, but I don't even have a medical opinion that he needs it now, or what the effect of not taking it is, and we're going to proceed.

MS. SASSOON: Just for the record, your Honor——

THE COURT: And it's not like there's been a shortage of time to put that together.

MR. COHEN: Obviously, for record purposes, we object.

THE COURT: I understand.

MS. SASSOON: And for record purposes, the government would also note that subsequent to receipt of that physician's letter, BOP conducted their own evaluation and determined that a lower dose was medically appropriate.

THE COURT: Well, I'd like to see some evidence of that too.

MS. SASSOON: Yes, your Honor. And if your Honor's interested, we also noted in a prior letter to the Court that the physician who wrote this letter has engaged in some suspect practices that we've learned about in the course of our investigations.

THE COURT: What does that mean?

MS. SASSOON: For example, witnesses testify——witnesses have informed the government that he was liberally prescribing Adderall to people who told us that they did not need Adderall at all or at that level.

THE COURT: Okay.

MR. COHEN: That——well, I hope the Court does not consider that latest proffer one way or another in reaching the Court's decision.

THE COURT: Look it, understand my point of view, all right? I've explained a good deal of it, maybe all of it, but just to be sure everybody understands, I am not professionally competent to make a decision as to what's appropriate for the defendant, if anything, with respect to the administration of

this drug. He is in the custody of the United States Bureau of Prisons. Whatever people may think of it, they have physicians. Physicians are entrusted with his care. I can't write the prescription, I can't authorize the Marshals to give him pills brought in here by counsel, whom I trust entirely, but it's not up to me. I can't have lawyers coming in and giving drugs to people on trial because somebody says they need it. I just can't do it.

Okay. Anything else?

MR. COHEN: Not from us, your Honor.

THE COURT: Okay. Have a good evening.

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(Adjourned to October 17, 2023, at 9:30 a.m.)

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